

Joint Legislative Audit and Review Commission



**Review of
Information Technology Services
in Virginia:
Final Report**

House Appropriations Committee

January 18, 2010

In This Presentation

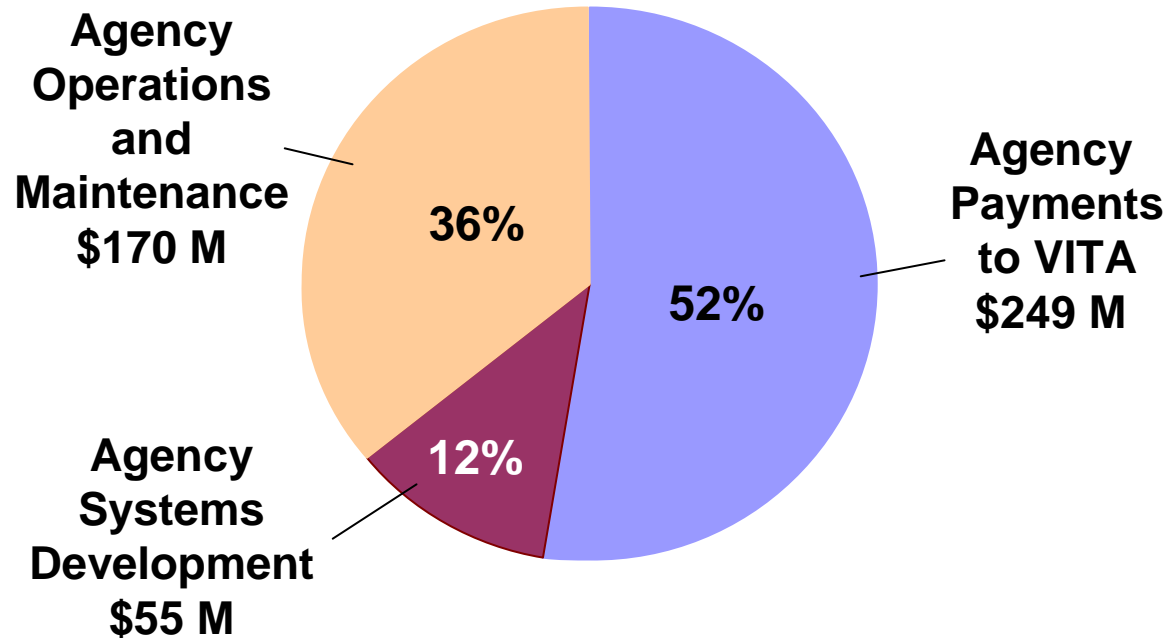
- Background
- Contract Is Not Fully Meeting State's Needs & NG Expresses Dissatisfaction
- Centralized Procurement Has Not Produced Expected Benefits
- New Enterprise Applications Needed But Development Has Been Delayed
- IT Oversight & Planning Need to Improve
- Governance Changes Are Needed
- Conclusion

Virginia Adopted New Approach to IT Services & Oversight in 2003

- Central oversight & service provision intended to reduce cost & improve services
- VITA created from merger of two IT agencies & transfer of IT staff from State agencies
 - IT oversight from Dept. of Technology Planning (DTP)
 - IT services, plus procurement oversight, from Dept. of Information Technology (DIT)
- VITA also given additional responsibilities
 - Oversight over IT systems development projects
 - Codification of pre-existing planning duties

Half of Executive Branch & Quarter of Statewide IT Spending Are Payments to VITA (FY 09)

**FY 2009 Executive Branch
IT Spending = \$474 M**



FY 09 Statewide IT Spending = \$918 M

New Approach to IT Services & Oversight Based On Certain Assumptions and Dependencies

- Centralization assumed to create efficiency & improve services through standardization
 - Use of standard IT equipment assumed to create economies of scale & purchasing
 - Use of standard processes assumed to reduce staffing needs

- Ability to achieve this goal depended upon
 - Extent to which **agency** operations could be met with **enterprise** standards (“one size fits all”)
 - VITA’s knowledge of agency operations & IT usage

VITA's Initial Ability to Achieve Standardization Limited by Lack of Knowledge & Decentralization

- Planning & oversight by VITA's predecessors had been relatively ineffective
 - Inventory of IT used by agencies was limited & depended upon cooperation by agencies
 - IT planning had limited success in identifying needs of State agencies as an "enterprise"
 - Many standards for IT (equipment, data, processes) were out-of-date or non-existent
 - Data on IT spending, and source of funds, was limited
 - IT governance had historically been poor

VITA Took Specific Steps to Create Efficiencies

- To achieve savings, VITA & Dept. of General Services renegotiated State contracts
 - Appear to have achieved \$72 M savings in 2003-06
- Longer-term savings or efficiencies depends upon modernizing both infrastructure & applications
- Because needed funds & resources were lacking, the State entered into two public-private partnerships
 - 10-year, \$2 B infrastructure contract with Northrop Grumman (NG)
 - 7-year, \$300 M applications agreement with CGI

Outsourcing Largely Depends Upon Assumption That Contract Can Adequately Meet Needs

- Contract followed lengthy review that included input from some State agencies & advice of consultants
 - Although project is largest effort yet undertaken, contract itself is based on previous, smaller efforts
- Contract's ability to meet State & NG's needs assumes
 - VITA & NG performed reasonable due diligence
 - Contract's services & terms meet agency needs
 - VITA & NG can meet their responsibilities
 - Rights & responsibilities are clear & enforceable
 - Lack of clarity or needed changes can be addressed through amendments that satisfy all stakeholders

State's Benefits From NG Contract Depend Upon Certain Assumptions

- State's benefit from NG's upfront capital investment assumes State is not required to repay these funds
 - But if State cancels contract for convenience before 10-year term ends, NG may be entitled to repayment
- State's benefit from NG's services assumes NG can meet agency needs
 - Assumption that evaluation via competitive procurement ensures that NG has sufficient expertise
- Benefit also depends on assumption that VITA understands agency needs & constraints
 - State also assumed ITIB could provide effective IT governance

VITA Encountered Problems That Have Hindered Previous Reform Efforts

- 1973 centralization of data centers faced similar issues
 - New IT agency inherited existing hardware problems
 - Insufficient attention given to financial effects on agencies
- In 1974, House Appropriations Committee found “serious credibility gap” between State agencies & new IT agency
 - Savings were falling short of projections
 - Business needs of agencies were not understood
- Secretary of Administration & Finance later noted problems stemmed from
 - “lack of communication, confidence & reaction [of agencies] to sweeping & rapid change, such as that embodied in the relatively swift consolidation & centralization”

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Contract Is Not Fully Meeting State's Needs & NG Expresses Dissatisfaction: Key Findings

- NG's transformation of infrastructure, contractually required to be complete by July 2009, may not be complete by new deadline of July 2010
- Although NG's services have benefited the State, many agencies report some **enterprise** services are not meeting their **agency-specific** needs
- VITA & NG have disputed several sections of the contract, suggesting rights & responsibilities are unclear. Ongoing negotiations may increase costs, which may not satisfy all stakeholders

Finding

- Transformation, as originally defined, may not be complete by the new, informal deadline of July 2010

Contractual Transformation Deadline of July 2009 May Have Been Unrealistic

- Until transformation is complete, State is not receiving full benefits of modernization
 - Example: IT security measures are not fully in place
- Three-year timetable may have been unrealistic
 - ITIB chair believed it was unrealistic but remained silent to ensure policymakers approved the project
 - VITA & NG lacked knowledge of agency constraints
- In August 2009 NG proposed corrective action plan with new transformation deadline of July 2010
 - VITA formally rejected plan on Oct. 22, but has no objections to NG working to new deadline

July 2010 Deadline May be Missed Due to Schedule Conflicts & Disagreements

- NG's corrective action plan excludes some agencies from transformation (VSP, VDEM, DFS, DMAS)
 - NG asserts unique agency needs prevent transformation by July 2010, & it may seek new funds to address any unique requirements of these agencies
 - Some of these agencies have resisted transformation
- At another 8 agencies, parts of transformation require agency work that may not be finished by July
 - DFP, DHP, DMA, DMME, DMV, TAX, VDOT, VEC
- Transformation plans not accepted by 1/3 of agencies due to disagreement over scheduling of agency work

Completion of Transformation Depends on How It's Measured

- NG asserts that it has completed 95% of all transformation project tasks as of Jan 8th
- However, percentage excludes
 - Work agencies must perform as part of transformation
 - Work at VSP, VDEM, DFS, DMAS
 - Other work such as implementation of some performance targets (Service Level Agreements)
- Accounting for these factors, NG has completed 76% of all work

Transformation-Related Responsibilities Were Not Clearly Defined in the Contract

- Current delay appears to result from many factors
 - Largest appears to be inadequate planning by NG, which NG asserts has improved with new plan
 - Magnified by ITIB's failure to coordinate VITA & agencies, and ensure agencies agree to new schedule
- No clear penalty if transformation incomplete in July
 - July 2010 deadline is not in the contract
 - Because State's options appear limited, delay could result in returning invoice (as suggested in June 2009)
- VITA & NG are discussing changes in transformation schedule that may allow new deadline to be met

Finding

- Although NG's services have benefited the State, many agencies report some enterprise services & other contractual terms are not meeting their agency-specific needs

Contract With NG Has Provided Benefits for Agencies

- NG has replaced aging personal computers (PC) and network equipment at many agencies
 - Many agencies were hindered by aging equipment
- Agencies will have access to improved security services not previously available statewide
 - Regular software patching & anti-virus updates
 - Security Operations Center providing 24/7 monitoring
 - Data encryption, backup, & disaster recovery
- New data centers provide improved security & more robust options for future service growth

Many Agencies Report Ongoing Dissatisfaction With Some NG Services

- Agencies report some NG services do not meet business needs
 - Network outages are frequent & prolonged
 - Service requests to helpdesk are misrouted or given low priority
 - Security patches for servers and PCs are not regularly applied
- Service disruptions can have a significant impact on agency operations
 - Network outages can prevent agency staff from accessing files, applications, or the Internet
 - Helpdesk delays prolong service disruptions

2009 Audits Show NG Security Improved But Some Basic Security Functions Not Performed

- Conducted by Deloitte & Touche (Feb-Aug 2009)
- 63% drop in number of new or repeat issues since 2008
 - Suggests resolution of issues existing before NG contract
- Despite decrease in findings, new issues identified
 - Most are “medium” risk, limiting protection but not causing immediate vulnerability
- Audit found other concerns about NG’s ability to restore backed-up data & conduct disaster recovery
 - Agencies report examples of these issues since October
 - NG states recent steps have addressed these concerns

TAX & DOC State Repeated Service Disruptions Have Hindered Agency Operations

- Problems at TAX impacted agency's ability to process returns & issue refunds
 - Recent outage (Oct. 13, 15, 19, 21) forced TAX to send up to 100 wage employees home
 - Same problems occurred 3 other times but TAX states they were not addressed
- Outages at DOC (Nov. 2-4, 16) prevented staff from accessing files
 - During most recent outage as many as 1,300 agency staff could not perform daily functions

Finding

- VITA and NG have disputed certain provisions of the contract & new amendments are under consideration to address these issues

NG & VITA May Have Resolved Disputes Regarding 2005 Due Diligence & New Services

- NG says difference between 2005 & current inventories requires payments in addition to cap
 - State not required to pay more if 2005 due diligence was inaccurate or current inventory is higher than 2005 “baseline”
- State has also requested new services since 2005
 - Encryption, new network services
- Amendment being drafted suggests NG & VITA have resolved these disputes
 - VITA & NG report agreement on business terms
 - AG is reviewing legal language

Amendment Now Being Prepared Would Raise Annual Fees by \$23-36 M Above Cap

- VITA & NG anticipate State would bear \$23 M of \$36 M increase, from general & non-general funds
 - Assumes \$9 M annually in federal funding
 - Also assumes \$3-6 M in annual savings from reduced use of services by agencies
- NG & VITA discussed amendment with Secretary of Finance last week
 - ITIB meeting scheduled for this week may be postponed because cannot obtain a quorum

Findings

- Larger concerns about contractual relationship remain
- Execution of new contract amendments would increase costs & this may not satisfy all stakeholders

Ongoing Disputes Show Limitations in Contract's Terms & Their Enforcement

- Number of disputes reflects contract's shortcomings
 - Enterprise services & processes don't meet all needs
 - Contract is unclear or silent on some key issues
 - Disputes haven't been addressed in timely manner
- Contract's Alternative Dispute Resolution never used
 - Contract lists persons with mediation & legal experience
 - Would allow for impartial, objective review of disputes
- Instead, VITA & NG escalated concerns to ITIB, Governor's Office, & NG corporate officers
 - These escalations are not contemplated by contract

Some Decision-makers Say Amendments Needed to Prevent Disruption to Services

- Use of new payments, to avoid \$100-\$200 M in possible claims by NG, suggests contract's terms & enforcement are unclear
- Payments for new services, even if needed by agencies, suggests contract cost was underestimated
- Payments above \$236 M cap, even if due to growth, show cap has limited effectiveness
 - NG asserts that a \$236 M cap on its payments would necessitate a new contract

Concerns About NG Contract May Not Be Resolved by New Amendment

- Disputes about contract's terms & conditions, and their enforcement, may continue
 - VITA has statutory authority to independently execute amendment
- General Assembly's ability to exercise appropriations authority appears limited by sum sufficient clause
 - Unclear how to trigger contract's limitation on payments to NG
- Failure to amend contract could have several effects
 - Completion of Transformation could be hindered
 - Federal audit findings & possible repayment
 - Lack of price incentive for agencies to reduce usage

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Centralized Procurement Has Not Produced Expected Benefits: Key Findings

- Use of VITA & NG to procure goods & services has increased costs & length of time to complete an order
- VITA and NG are not accountable to agencies for procurement delays
- Other benefits of central procurement oversight are limited because VITA does not review all procurements, nor does VITA require agencies use standard items

Oversight of IT Procurements Increased When VITA Was Created

- Procurement oversight assigned to DIT in 2002
 - Agencies cannot procure any IT infrastructure goods & services without VITA's approval
 - VITA has delegated some IT procurement authority; however, delegation is more limited than extent used by Dept. of General Services for non-IT
- VITA says central procurement oversight should:
 - **Reduce cost** by using State IT contracts
 - **Improve service** through efficient & timely processes
 - **Standardize** by reviewing procurements

IT Infrastructure Goods & Services Are Now Provided to Agencies in Three Ways

- NG provides much of the standard IT goods & services used by agencies
 - Provided per the contract & are **not** procured
- But agencies still need to procure goods & services
 - Commodities not part of NG contract provided through Procure to Pay (**P2P**) orders
 - Unique or non-standard needs provided by NG through Request for Service (**RFS**) orders
- VITA oversees agency requests for P2P & RFS orders
 - Depending on item, NG, VITA, or agency fills order

Findings

- Use of NG to fulfill P2P orders appears to increase cost for agencies without adding demonstrable value
- Immediate cost savings are possible if VITA and agencies conduct P2P procurements, for assets not included in the contract, instead of NG

VITA & NG Markups May Exceed Savings from Use of NG

- NG may be unable to procure items more cheaply
 - NG cannot use State contracts
 - State may have greater purchasing power than NG
- State lacks contractual ability to ensure NG's costs are comparable to prices State could obtain
 - Oct. 09 briefing noted lack of effective "benchmarking"
 - No unit in VITA reviews reasonableness of costs
- VITA's review of NG's charges is limited to ensuring
 - NG uses contractually-allowed markups
 - NG doesn't charge for services already recovered through rates

Savings Could be Achieved if VITA & Agencies Handled Some Procurements Instead of NG

- VITA or agencies could fulfill some orders instead of NG
 - Removing NG would reduce delays, taxes, & markups
 - VITA indicates 3 FTEs required
- NG supports use of VITA or agencies for some orders
 - VITA states would reduce NG's contractual costs
- VITA could delegate authority but keep oversight by
 - Expanding list of "consumables" not subject to review
 - Providing IT procurement training to agencies
 - Auditing eVA data to review agency orders

Recommendation

- VITA should discontinue the use of Northrop Grumman for Procure-to-Pay orders, and then develop a formal policy that supports fulfillment of these orders either by VITA or by State agencies. As part of this policy, VITA should consider expanding the consumables list, and increase IT procurement training for State agencies as needed. VITA should also increase its use of eVA data to conduct post-procurement reviews of State agency orders as necessary

Finding

- Required use of NG to fulfill RFS orders, in cases where use of 3rd party vendors may be preferable, appears to have increased costs to agencies
- VITA should develop a policy and defined process, reviewable by Secretary of Technology, for use of 3rd party vendors

Agencies Prohibited From Using Marketplace to Find Competitive Prices for RFS Orders

- VITA has required agencies to use NG for RFS orders despite potentially lower costs quoted by 3rd parties
 - Contract (Sec. 3.18) allows use of 3rd party vendors
- VITA's security standard currently prohibits use of 3rd party vendors if "sensitive" data are involved
 - Strictly applied, would not allow current eVA system
 - Agencies perceive VITA to have conflict of duties
- VITA concerned use of 3rd party vendors could limit NG's attainment of performance targets
 - Temporary use allowed if RFS deadlines are missed or permanent use if NG suspends services

Case Study: DSS Denied Use of 3rd Party Vendor

- Department of Social Services (DSS) sanctioned by USDA for excessive error rates in Food Stamp applications
 - Instead of paying sanction, USDA allowed DSS to buy software from approved 3rd party vendor
- 3rd party vendor also offered to “host” software for lower annual cost (\$5k) than NG (\$17k)
 - Vendors often bundle costs of software & hosting
 - Same approach DGS uses whereby CGI hosts eVA
- In Dec. 2008, VITA denied DSS request for 3rd party hosting
 - CIO noted unidentified security concerns & mandate to consolidate IT

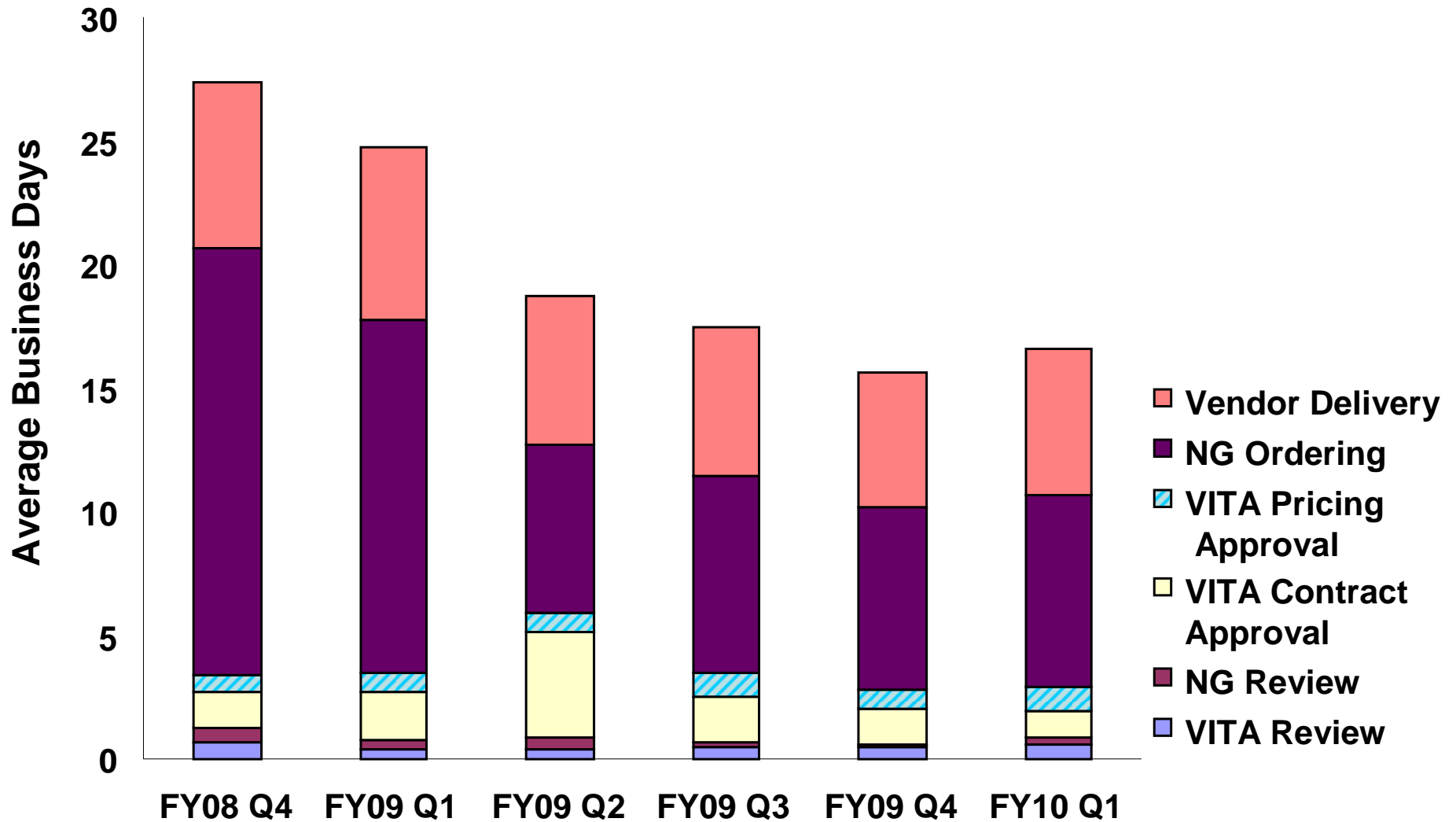
Recommendation

- VITA should develop a formal policy concerning the use of third party vendors for custom IT solutions (Request For Services). As a part of this policy, VITA should develop a formal, documented process for reviewing agencies' requests to use third party vendors that includes analysis of the financial impact to the requesting agency and the Commonwealth, compliance with specific requirements of the Comprehensive Infrastructure Agreement, and conformity to specific State IT policies, standards, and guidelines. This analysis should be subject to external review by the Secretary of Technology

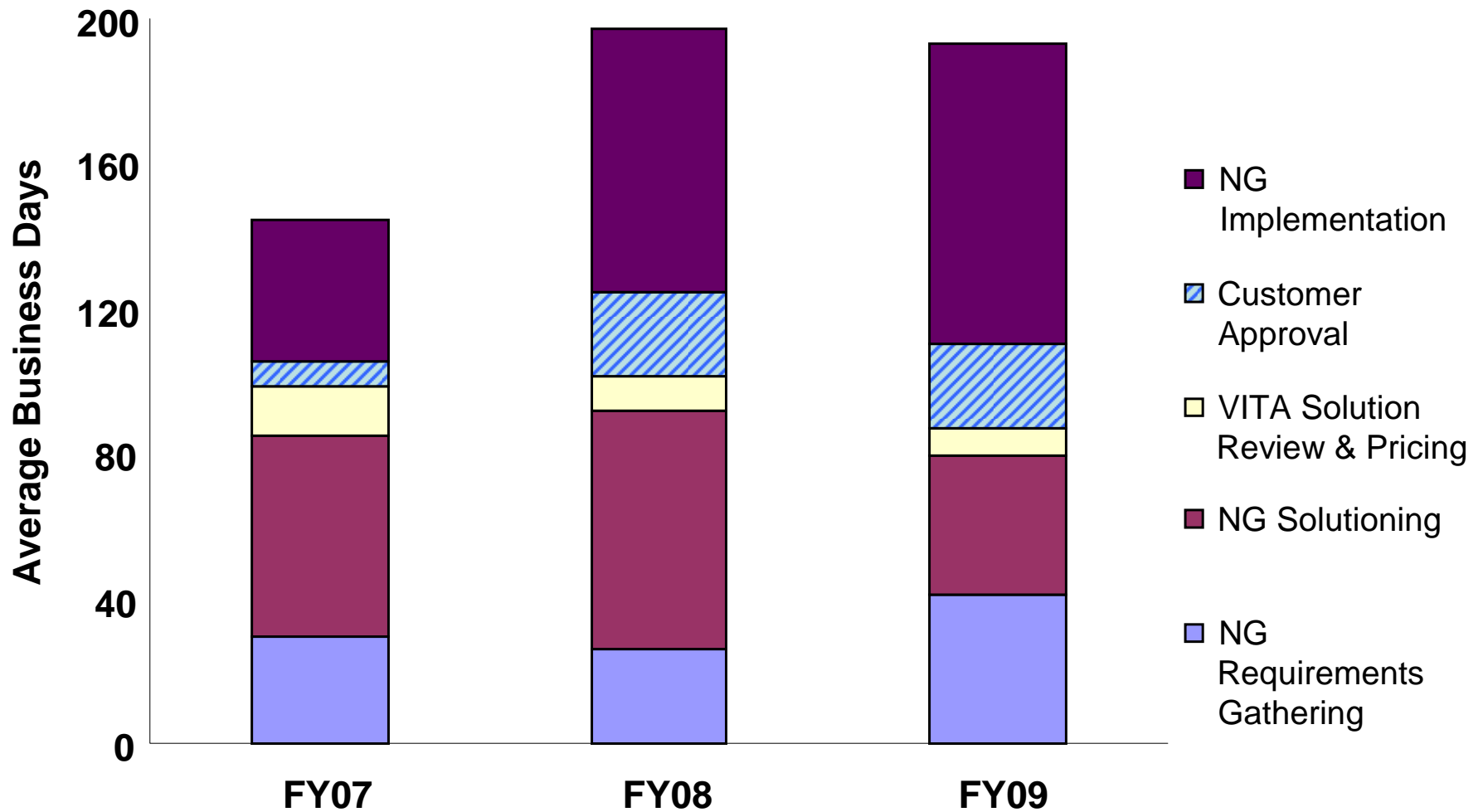
Findings

- Agencies have experienced delays in procuring goods & services, and the delays have hindered operations
- Efforts to reduce RFS & P2P delays have had mixed results
- Contract disputes have halted some procurements, impacting agencies & delaying transformation

Average P2P Delays Have Decreased 35-40% But Still Lengthy for Some Items



Efforts To Streamline RFS Process Have Not Reduced Typical Nine-Month Length



Finding

- VITA and NG are not accountable to agencies for procurement delays

Agencies Are Unable to Hold VITA & NG Accountable for Slow Processes

- Contract places no clear time limit on NG for fulfilling procurement orders
 - Delays in RFS or P2P orders do not carry penalties
- No formal process exists for agencies to expedite urgent or emergency procurements
 - NG's internal procedures require such a process
- Agencies assert VITA is not honoring procurement deadlines set in 2006 MOU with agencies
 - VITA reports replacement MOU in development
- Delays led to agency resistance to transformation

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New Enterprise Applications Needed But Development Has Been Delayed: Key Findings

- State's current enterprise applications limit ability of policymakers to analyze State spending or performance, are functionally obsolete, and need to be replaced
- Modernization of enterprise applications and development of critical data standards has been delayed by lack of funding, but initial projects are now underway
- Formal plan for modernizing enterprise applications & data standards is needed to reduce risks to projects

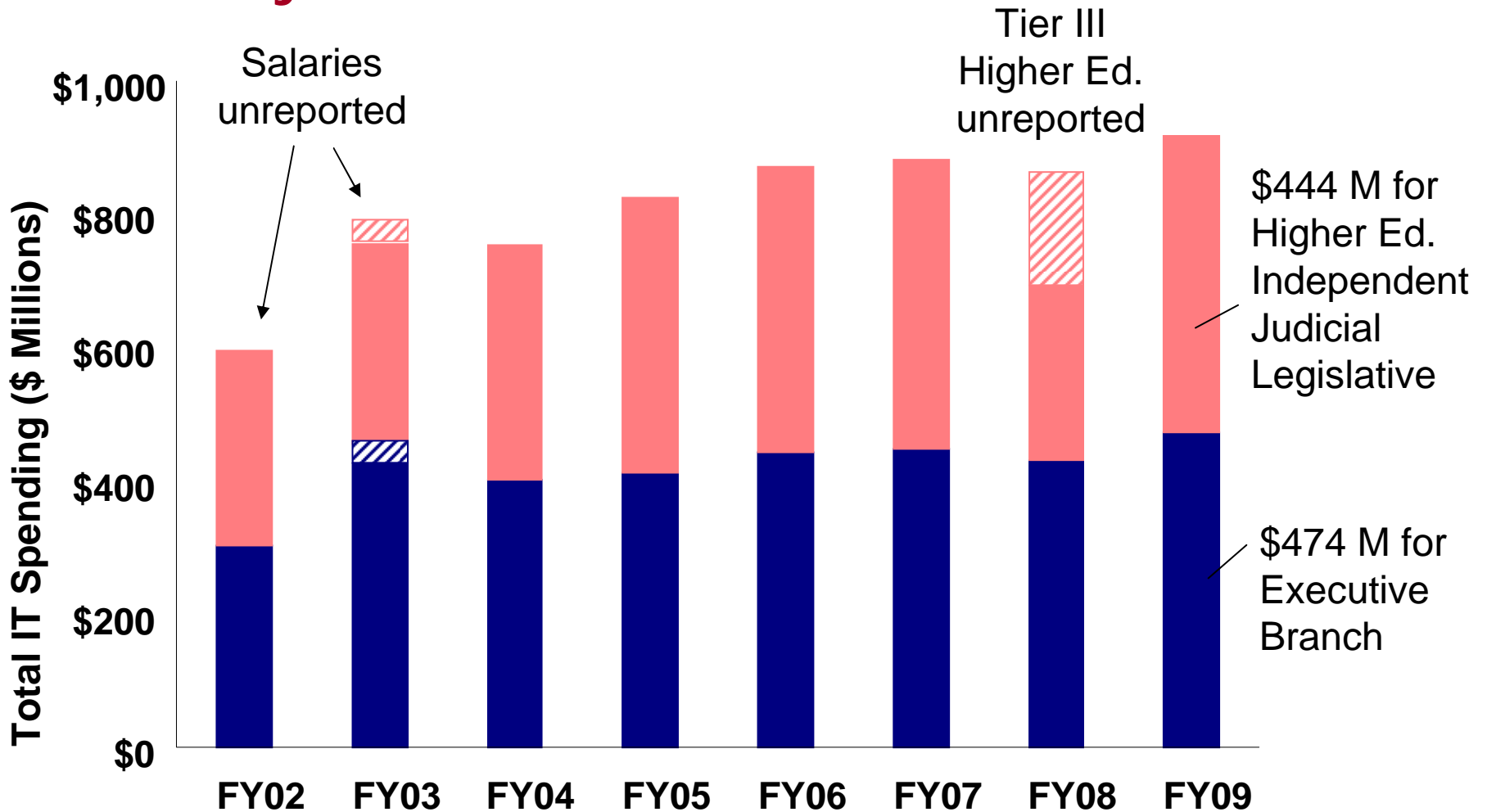
Finding

- State's current enterprise applications limit ability of policymakers to analyze State spending or performance

Attempts to Measure State IT Spending Are Hindered by Current Enterprise Applications

- Ability to accurately measure State IT spending is hindered by two primary factors
 - Functional limitations in current enterprise applications, such as State accounting system (CARS)
 - Inconsistent collection & reporting of data
- Additional analysis of IT spending indicates adjustments to initial estimate are required
 - Preliminary data in Oct. showed 18% growth
 - Adjustments reveal average nominal growth of 5%
 - Accounting for inflation & population, average annual growth equals 3% since 2002 (-1% since 2003)

Total Statewide IT Spending Has Grown 3% Annually Since FY03



Finding

- To address functional limitations, State's current enterprise applications need to be replaced

Enterprise Applications No Longer Meet State's Needs & Should be Replaced

- Most 20-30 years old, face maintenance concerns, & lack needed functions like time & attendance
- Limited ability to store data & inflexible design limits review of base budgets
 - Evaluation of outcomes also limited by inability to fully link performance information to agency budgets
- Lack of adequate enterprise applications has led agencies to develop agency-specific applications
 - Agencies need to track detailed expenditures for grant reporting that current systems were not designed for
 - May result in higher aggregate costs & increased risk of errors because data are entered in several places

Modern Enterprise Applications Would Improve Policymaking

- New enterprise applications would greatly improve ability to analyze State spending
 - Would allow funds to be tracked from appropriations to matching expenditures & individual purchase orders
- Would allow more flexible analysis of spending, such as expenditures on IT contractors
 - Current systems lack flexibility to analyze spending areas not included in original design

Finding

- Modernization of enterprise applications and development of critical data standards have been delayed by lack of funding, but initial projects are now underway

State Formed Special Program & Partnership to Modernize Enterprise Applications

- Partnership with CGI established January 2006 based on a 7-year, \$300 M modernization proposal
 - Goal was integrated financial & HR system by 2012
 - Majority of \$300 M to be from general fund
 - CGI would help generate new revenues to offset costs
- Virginia Enterprise Application Program (VEAP) established to coordinate modernization
 - Merged into VITA in 2009 as Enterprise Application Division

Lack of Funding Led to New Approach

- New approach will gradually build HR application & finish financial application as funds are available
- Combination of agency resources & \$30 M working capital advance will be used
 - VDOT, DPB & DOA committing staff
 - \$12 M of working capital adv. planned through FY 10
- Advance intended to be repaid through CGI revenue generation
 - CGI has not generated revenues for applications
 - First revenues anticipated for next year

Replacement of Budget System Moving Forward Through Partnership With DPB

- New budget system is one part of financial application
 - Scheduled for initial deployment in August 2010
- Provides policymakers & agencies with new analysis tools
 - Links program outcomes to the resources they use
 - Connects actual & targeted results to spending
- VEAP teamed with DPB to develop new system
 - Estimated project cost of \$12 M (paid through working capital advance)
- Full benefits cannot be realized until new accounting system is fully implemented (2013 or later)

Replacement of Accounting System Moving Forward by Using VDOT Resources

- New accounting system is one part of financial application
 - Scheduled for completion by March 2013
- Provides improved visibility into State spending
 - Data collection & analysis CARS does not have
- VEAP partnered with VDOT to develop new \$63 M system
 - VDOT had resources to replace its accounting system
 - \$51 M from VDOT and \$12 M from working capital adv.
- Unlike budget system, additional time & funding needed to deploy new accounting system to agencies
 - New system will replace CARS, but not agency-specific systems used by other agencies (Oracle, PeopleSoft)

Data Standardization Efforts Supporting Modernization Are Underway

- Enterprise applications use common data
 - Chart of Accounts, addresses, & State employee information
- Data standards needed to benefit from new applications
 - Improve analysis & information sharing
 - Can reduce future system development costs
- APA notes VEAP missed Oct 2008 deadline for standards
 - Has not impacted schedules or costs, but plan is required
- Some delays appear outside of VEAP's control
 - ITIB never provided needed staff resources
 - Delay in RFP for accounting system delayed finalization

Steps Are Needed to Ensure Modernization Projects Do Not Repeat Past Failures

- Risks to current projects led to previous failures
- In 1967, State began integrated HR & financial system
 - After two attempts, this effort failed by 1972
- In 1985, legislature directed integration of payroll & HR
 - Commonwealth Integrated Payroll & Personnel System (CIPPS) created, but wasn't integrated with HR
- In 1990, legislature endorsed new effort to integrate HR, budgeting, accounting, & procurement systems
 - Integrated payroll & HR system (IHRIS) failed by 1999

Recommendations

- VITA should develop a plan for modernizing enterprise applications. The plan should include (a) goals & objectives, including benefits to the State; (b) the overall approach, including current & anticipated projects, data standardization efforts, research activities, funding models, and partnership models; (c) plans for coordinating projects & data standardization efforts and managing their dependencies (integration, communication, budget, schedule, resource, & risk management plans); and (d) a structure for managing, operating & maintaining new systems & data resources delivered through modernization

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IT Oversight & Planning Need to Improve: Key Findings

- VITA inherited planning & oversight duties from DIT & DTP, which were expanded in statute in 2003
- Because of focus on NG contract, VITA & the ITIB have not fulfilled other oversight & planning duties
 - Several problems exist with VITA's rate structure and forecasting & trend analysis is limited
 - IT oversight & management process has not been fully implemented
 - Project management process appears to be effective but changes are needed
 - VITA has no clear role in ensuring IT security

Findings

- Several problems exist with current rates
- Pending contractual changes to NG's fees, and other concerns, point to need for complete revision of VITA's rate structure

Current Review of VITA's Rates Is Limited

- ITIB is responsible for ensuring rates are current & accurate but assigned responsibility to CIO in 2004
 - Review of rates by CIO creates conflict of interest
- JLARC's review of VITA's rates is intentionally limited
 - No "benchmarking" of rates to other providers
 - JLARC only reviews rates if VITA makes request, and some rates not reviewed by JLARC in 15 years
- Despite limited review, agencies perceive JLARC is comprehensively assessing reasonableness of rates
 - VITA has actively promoted this viewpoint, stating that JLARC conducts benchmarking

Present Review Has Found Several Concerns With VITA's Rates & Planning

- VITA has used unpublished “factors” to adjust rates for mainframe computers without JLARC review
 - VITA said they did not know additional reviews required
- VITA's rates for NG services include 30% overhead charge, based on 2005 estimates, not current overhead cost
 - 10% for VITA's overhead, plus 20% for NG's overhead
- Forecasting & trend analysis is limited, and need exists to examine use of services
 - Comparison of costs to marketplace
 - Relative use of individual services (mainframe vs. server, desktop vs. laptop)
 - Relative use of services by differing agencies

Revisions to VITA's Rate Structure & Review Are Needed

- Once rebaselining occurs, many of VITA's rates will be driven by NG's contractual overhead & fees
 - Use of contract reduces JLARC's & legislature's role
- Nature & extent of JLARC's review need to be reconsidered
 - Effectively limited to evaluating VITA's overhead charges
- Rates must be revised to update overhead costs & review process needs more transparency
 - VITA should also obtain feedback from customers & adjust rates before fiscal year begins

Finding

- VITA has not yet fully implemented tools & practices that could improve IT management, planning, & investment

VITA Has Not Fully Implemented an IT Oversight & Planning Process

- Incomplete process limits effectiveness of VITA's review of agency spending & new IT projects
 - Standards for properly selecting assets & replacing them ("lifecycle management") aren't fully implemented
 - Documents listing agency functions & supporting IT assets ("enterprise architecture"), begun in 1999, are still incomplete
 - Commonwealth's strategic plan doesn't identify common needs of agencies
 - Data standards, statutorily assigned to VITA in 2003, are incomplete

Findings

- Project management oversight appears to have effectively managed risks associated with IT projects
- VITA's management of State's IT investment portfolio needs improvement
- Statutorily-defined project thresholds lack flexibility, resulting in inefficient allocation of oversight resources

VITA's Project Management Process Appears to be Effective But Improvements Are Needed

- Projects must be formally reviewed & approved through VITA, which then monitors ongoing project status
- Appears no projects have failed, but overruns have occurred
- VITA has not analyzed causes or extent of overruns
 - JLARC analysis suggests VITA's data on project schedules & costs are incomplete
- Statutory description of project approval process may need updating to reflect industry practices
 - VITA is developing new process that adjusts extent of oversight as risk changes

Findings

- VITA's oversight has improved IT security, but VITA policies place all responsibility on agencies despite their lack of control over the infrastructure
- IT infrastructure security responsibilities of CIO are not adequately defined

VITA Places All Security Responsibility on Agencies But Agencies Do Not Control Infrastructure

- **CIO** has statutory responsibility to develop security policy & standards
 - Appears that IT security has improved
 - But VITA's policies have assigned **agencies** all responsibility for IT security
- Agencies cannot effectively ensure security of infrastructure because they do not control it
- No direct responsibility for infrastructure security is assigned to CIO or VITA
 - Result is potential IT security gaps

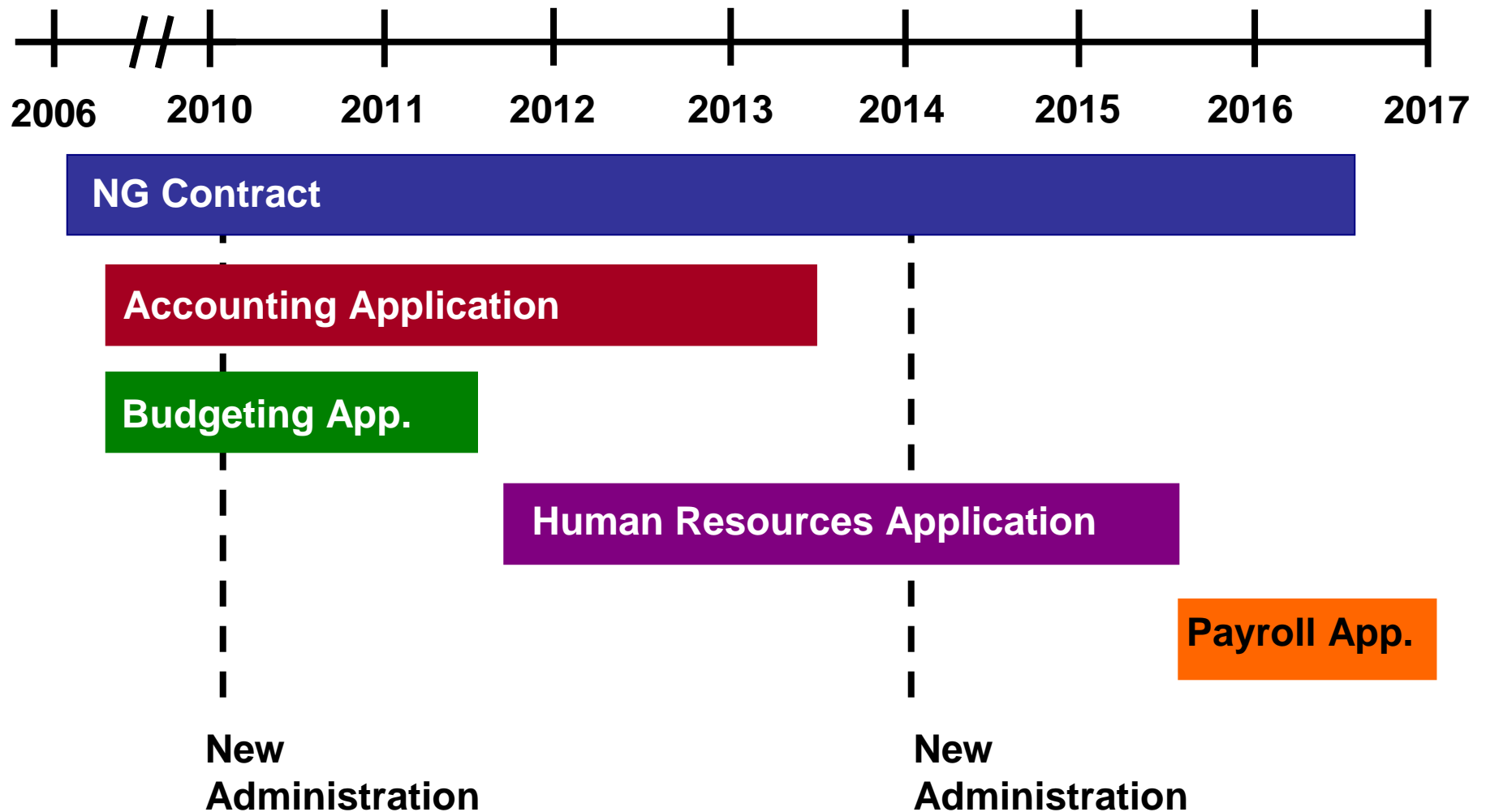
Findings

- Improvements to overall management of IT are needed, including increased focus on long-term goals and enterprise needs

Improvements to Overall IT Oversight & Planning Are Needed

- VITA has not fully implemented its mandate to improve IT oversight & planning
 - VITA states staffing resources have been inadequate because general funds not provided for these activities
 - VITA may also lack information & cooperation needed from agencies
- Full implementation would improve management
 - Enterprise architecture would identify duplication in agency spending & opportunities for collaboration
 - Data standards would improve statewide analysis
 - Overall strategic plan would analyze common needs
 - Analysis of overruns would limit waste
 - Trend forecasting for rates would assist budgeting

Improved Long-Term Planning Needed to Ensure Success of Multiple Long-Term Efforts



Increased Focus on State as an Enterprise Would Help Achieve Long-Term Goals

- Oversight & planning have primarily focused on actions of individual agencies
 - Funding & strategic planning are agency-based
 - Management of existing enterprise applications has not involved customer agencies
- State government, however, is an enterprise
 - All agencies use enterprise applications
 - Many agencies serve same clients and citizens, and interact with the same local or private organizations
 - Many agencies have similar functions, like document management

Enterprise-level Decision-making & Planning May Increase Efficiency of Government

- Potential to fund new applications out of existing expenditures
 - Spending on applications could be pooled
 - Per user rate could pay for development & maintenance
- Also, overlaps or gaps in services could be addressed if an enterprise view was taken
- Ability to achieve these ends depends upon
 - Fully addressing the identified IT planning issues
 - New enterprise applications & data standards, including new approach to oversight & management
 - Ability to ensure use of new applications by agencies

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- **Governance Changes Are Needed**
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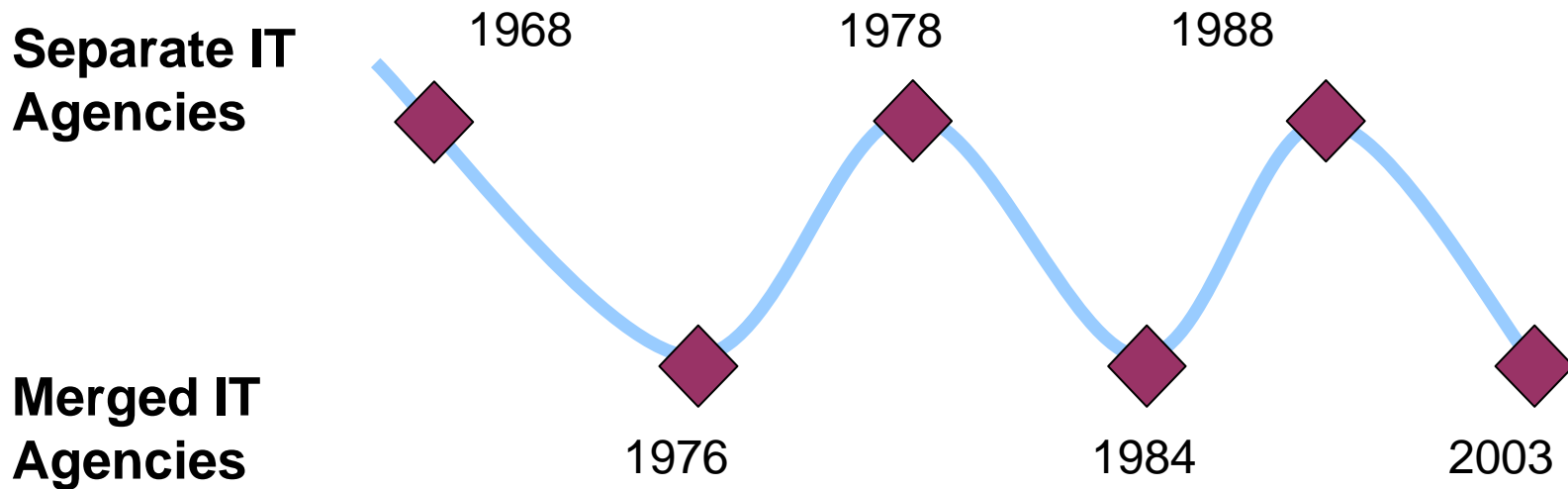
Governance Changes Are Needed: Key Findings

- IT services should be managed by the CIO, who should report to the Secretary of Technology
- New policy council should replace Information Technology Investment Board
- New IT agency needed to address potential conflicts of duties & increase focus on planning & oversight
- New approach to oversight & management of applications, under development by VITA & State agencies, may prove beneficial

Finding

- Potential conflicts of duties undermine VITA's ability to effectively oversee IT

IT Governance Has Been Modified Several Times and Follows Clear Cycle



1976 Merger of IT Agencies Created Perceived Conflict of Duties

- In 1976, General Assembly created Department of Management Analysis & Systems Development (MASD)
 - Merger of existing IT service & oversight agencies as part of larger reorganization of State government
 - MASD operated data centers, set standards, & had “first right of refusal” over all agency IT procurements
- Perceived conflict of duties created
 - As oversight agency, MASD could require agencies use its services, instead of private vendors, to ensure its internal service fund was solvent

General Assembly Addressed Conflict of Duties by Splitting IT Agency

- In 1977, Commission on State Governmental Management recommended separating oversight & service because
 - “policy & management control, when paired with the responsibility for the provision of services, are often conflicting responsibilities”
- In 1978, General Assembly split MASD into two agencies
 - Service agency operated data centers
 - Oversight agency promulgated IT policies & coordinated IT planning

1984 Merger Renewed Concerns About Conflicts Which Were Addressed by Creating New Agency

- In 1984, Dept. of Information Technology (DIT) was created
 - Goal was to improve performance & planning by consolidating service & oversight agencies
- 1987 JLARC study raised concern about combining service & oversight in DIT
 - Recommended separate IT oversight agency
- In 1988, General Assembly created separate Council on Information Management (CIM) to
 - Conduct statewide IT planning
 - Promulgate IT policies & standards

Creation of VITA Merged Separate Oversight & Service Agencies

- In 2003, Secretary of Technology recommended merger of IT agencies to increase efficiency
 - Dept. of Information Technology (services)
 - Dept. of Technology Planning (oversight)
- State agencies express concerns that merger has created potential conflicts of duties
 - CIO's review of VITA's rates is not objective
 - VITA can deny agency use of vendors other than NG
 - VITA's standards could require use of NG
- No indication that CIO or VITA acted inappropriately, but conflicts undermine VITA's oversight ability

Lessons Learned About IT Governance

- IT oversight & planning should be organizationally separate from service provision
- Oversight & planning should include certain ongoing activities
 - Long-term planning, standard setting & procurement review
- IT leadership needed to coordinate oversight & service, and resolve inter-agency conflict
 - IT oversight & economic development are separate duties
 - Defined, ongoing legislative oversight is also essential

Findings

- New IT agency needed to address conflicts and focus renewed attention on planning & oversight
- VITA should continue to manage State's IT services
- CIO should manage IT and report to the Secretary of Technology
- New policy council should replace Information Technology Investment Board
- New approach to oversight & management of applications may prove beneficial

Dept. of Technology Management (DTM) Needed to Eliminate Conflicts & Improve Planning

- Separate agency needed to oversee IT used by State agencies
 - Set IT standards & policies
 - Develop annual IT strategic plan, including RTIP
- New agency should also have role in reviewing
 - New IT projects
 - IT procurements, including VITA's
 - State agency IT spending, including VITA's
- Director would be appointed by Governor and staff the agency with positions transferred from VITA

IT Services Should be Managed by CIO Without Direction From ITIB

- Like other central services, IT is integral to the daily operations of State agencies
- CIO should have full responsibility over VITA & should be appointed by Governor
 - Responsibility & authority for all central services must be combined to ensure orderly operation
 - Lack of direct responsibility by Governor hinders ability of legislature to hold Governor accountable for IT
- ITIB cannot effectively oversee management of IT services or provide coordination between VITA & State agencies

VITA Should Focus on IT Services

- VITA would retain key service responsibilities, including
 - Managing IT infrastructure, including security
 - Assisting agencies with applications and reporting annually on agency needs
 - Directing development of enterprise projects
- VITA would also retain IT procurement responsibilities, but subject to external review
 - Administration of contracts, including NG
 - Defined process for exceptions to use of NG needs to be developed & subject to external review

ITIB Should be Replaced With IT Investment Council (ITIC)

- ITIC brings leadership & visibility to IT decisions, better integrating IT with State policy goals
 - Chaired by chief of staff
 - Includes each cabinet secretary
 - House Appropriations & Senate Finance directors
 - Private sector experts
- As policy board, ITIC would have role in approving
 - Development, maintenance, and replacement of enterprise & collaborative applications
 - Recommended Technology Investment Projects (RTIP) report on new IT projects

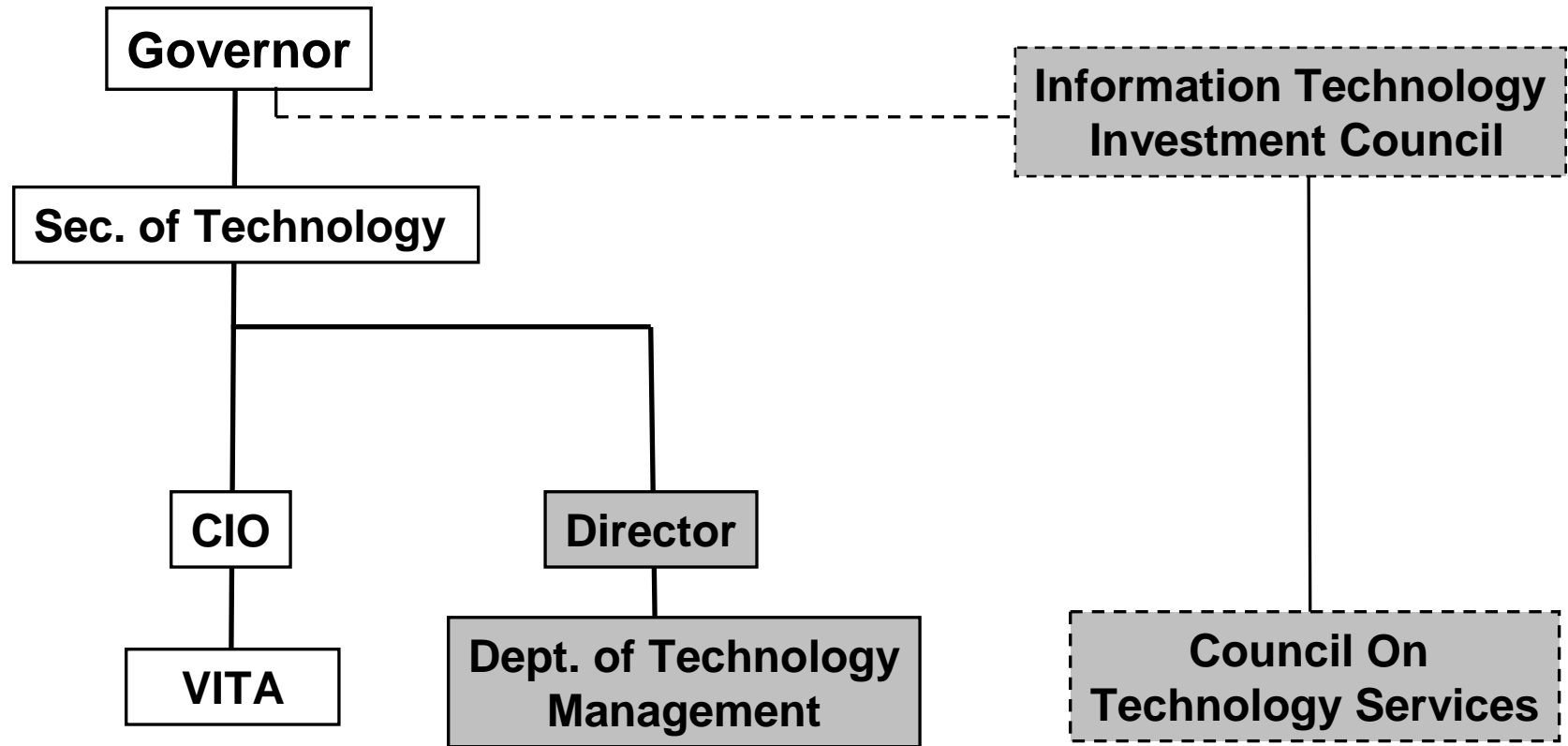
Council on Technology Services (COTS) Needed to Advise IT Agencies

- Advisory council made up of customers
 - Agency heads representing all secretariats
 - Legislative & judicial representatives
 - Local government & higher education representatives
- Ensures customers have voice in identifying needs & evaluating decisions by advising
 - Director of DTM on technology standards & plans
 - CIO on VITA's infrastructure and application services
- COTS could form multi-agency steering committees to determine features of new applications

Secretary of Technology Should Have Planning, Coordination and Approval Roles

- Secretary needs to coordinate DTM & VITA to resolve any conflicts
 - Both agency heads would report to Secretary
- Secretary's other statutory roles should include
 - Commonwealth's 2-year IT strategic plan
 - Technology-related economic development
- Secretary would also approve major IT contracts, projects, & budget requests on temporary basis

Proposed IT Governance Structure



- Existing position or unit
- Proposed position or unit

Recommendation

- The Virginia General Assembly may wish to consider establishing a Department of Technology Management, headed by a director appointed by the Governor, with responsibility for (1) setting State IT standards, policies, and guidelines; (2) providing external review of VITA's procurements; and (3) conducting IT strategic planning for State government including development of the Recommended Technology Investment Projects report

Recommendations

- The General Assembly may wish to consider establishing infrastructure services and enterprise applications divisions within VITA and establishing deputy CIO positions, to be appointed by the CIO, with responsibility for managing each division
- The General Assembly may wish to consider expressly defining the statutory responsibilities of the Secretary of Technology to include coordinating the work of the Department of Technology Management and VITA; resolving any conflicts between the two IT agencies; developing a biennial Commonwealth IT strategic plan; having temporary responsibility for approval of all major IT contracts, projects, and budget requests; and conducting technology-related economic development

Recommendation

- The General Assembly may wish to consider establishing an Information Technology Investment Council chaired by the chief of staff and including each cabinet secretary, the directors of House Appropriations and Senate Finance staffs, and private sector experts, with responsibility to (1) develop and approve a plan for the oversight and management of applications by October 2010; (2) approve the development, maintenance, and replacement of applications; and (3) approve the Recommended Technology Investment Projects report

Recommendation

- The General Assembly may wish to consider establishing a Council on Technology Services (COTS) consisting of the directors of each central agency and at least one agency in each secretariat; the director of one independent agency; representatives of the Supreme Court, two local governments, and two public institutions of higher education; the director of the Division of Legislative Automated Systems; and private sector experts. The Council would (1) advise the Director of the Department of Technology Management on technology standards and policies, and the Recommended Technology Investment Projects report; and (2) advise the CIO on infrastructure and application services provided by VITA

In This Presentation

- Background
- Contract Is Not Fully Meeting State's Needs & NG Expresses Dissatisfaction
- Centralized Procurement Has Not Produced Expected Benefits
- New Enterprise Applications Needed But Development Has Been Delayed
- IT Oversight & Planning Need to Improve
- Governance Changes Are Needed
- **Conclusion**

Benefits of IT Centralization Have Been Mixed

- VITA has made improvements to IT services & oversight
 - Contract with NG has improved infrastructure services, although several concerns remain
 - Oversight of IT security & IT projects has improved
 - Some aspects of IT planning have improved
- In contrast, savings are less than anticipated
 - New enterprise applications & data standards, needed to fully achieve savings, are incomplete & at risk
 - Procurement reviews are not designed to examine costs or require use of standard goods & services

Standardization Has Not Achieved Anticipated Savings or Service Improvements

- Use of standard IT services has increased since VITA was created & transformation began
- Not all IT needs can be met with standard services (“one size does not fit all”)
 - Although some State agencies were on vendor review committee in 2005, not all needs were identified
- To determine appropriate standard, VITA needs documentation of use of IT by agencies
 - Enterprise architecture was incomplete when NG contract signed, & is not yet fully implemented
 - VITA asserts resources have been inadequate

Several Factors Have Prevented Full Achievement of Goals From Outsourcing

- NG & VITA appear to have misunderstood key issues
 - NG underestimated inventory amounts, uniqueness of State agencies, & limits on State funding
 - VITA did not fully appreciate agency constraints
- Some key contractual rights & responsibilities are unclear and appear difficult to enforce
- Contract's \$236 M cap on IT spending has been unable to prevent increases in IT spending
- IT governance has been ineffective
 - Transformation delayed in part because ITIB was unable to coordinate VITA & agencies

Several Concerns Remain About NG's Services and VITA's Contract Oversight

- NG is not meeting all contractual deadlines & performance targets
 - Schedule conflicts with agencies may cause delays
 - Other concerns, such as helpdesk delays or misrouted tickets, appear to partly result from staff reductions
- External audits found concerns with NG's security services, including data backup & disaster recovery
- Procurement delays hinder agency operations
- Changes in rates, delays in billing, & inability of agencies to fully control use of services have hindered budgeting

Challenges Associated With Path-breaking Endeavour Were Underestimated

- No other State had undertaken a project of similar scale & complexity
 - Only two qualified vendors bid on project, & both had limited experience in this area
- VITA had only recently been created & key challenges were underestimated
 - Difficulty of centralizing IT into VITA
 - Extent of State agency resistance to VITA & NG
 - Need for key components, such as statewide IT inventory, which had never been achieved
 - Impact of federal concerns about VITA's rates

Key Policy Issues Need to Be Addressed

- Integration of business operations & IT should be improved to ensure business drives IT decisions
 - New approach to applications oversight may be useful
 - Business needs should drive IT decisions, but IT should enforce IT standards
- Extent & type of oversight over agencies should be reconsidered as circumstances change
 - Procurement & project reviews should vary with risk
 - But agencies must adopt new standards & applications and enforcement action taken if necessary
- IT planning should consider long-term horizons & enterprise-wide needs

JLARC Staff for This Report

Hal Greer, Division Chief

Ashley Colvin, Project Leader

Jamie Bitz

Mark Gribbin

Massey Whorley

For More Information

<http://jlarc.virginia.gov>

(804) 786-1258