

Joint Legislative Audit and Review Commission



**Review of  
Information Technology Services  
in Virginia**

Commission Briefing

October 13, 2009

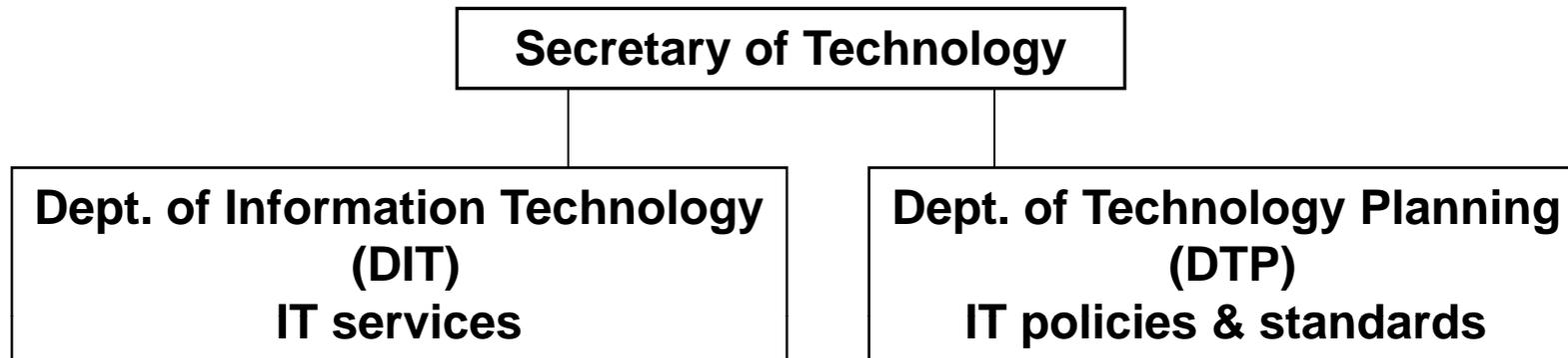
# Study Mandate

- Senate Joint Resolution 129 (2008) & Item 29 E of the 2008 Appropriation Act direct JLARC to examine the Virginia Information Technologies Agency (VITA)
  - Quality, cost, & value of its services
  - Impact on agencies from partnership with Northrop Grumman (NG)
  - Relationship between VITA & its oversight body
  - VITA's exercise of its statutory procurement authority
  - Management of IT systems development projects by VITA's Project Management Division
  - Potential for VITA to play a greater role governing expenditures & functions now performed by agencies

# In This Presentation

- Background
- NG's Services Have Provided Some Initial Benefits
- Inadequate Planning by NG Largely Led to Delays
- Changes Are Needed to NG's Services
- VITA's Contract Oversight Unable to Prevent Delays
- Contractual Issues Need to Be Addressed
- Current IT Governance Hinders Agency Operations
- Modernization & Integration of IT May Benefit State in Long Run if Certain Changes Are Made

## State Had Two Primary IT Agencies in 2002



- 1998 JLARC report recommended professional Chief Information Officer (CIO)
  - 1999 General Assembly codified Sec. of Technology

## 2002 JLARC Report Recommended Reforms to Oversight of IT Projects

- JLARC review found \$103 million in wasted funds from 1991-2002
- Recommended Information Technology Investment Board (ITIB) to approve projects & standards
  - Comprised mainly of State government representatives
  - Intended to insulate project decisions from politics
- CIO, hired by ITIB, needed because Secretary of Technology was not fulfilling role of professional CIO
  - Focus on economic development distracted from other statutory duties, leading to wasted State funds
- JLARC didn't recommend any changes to IT services

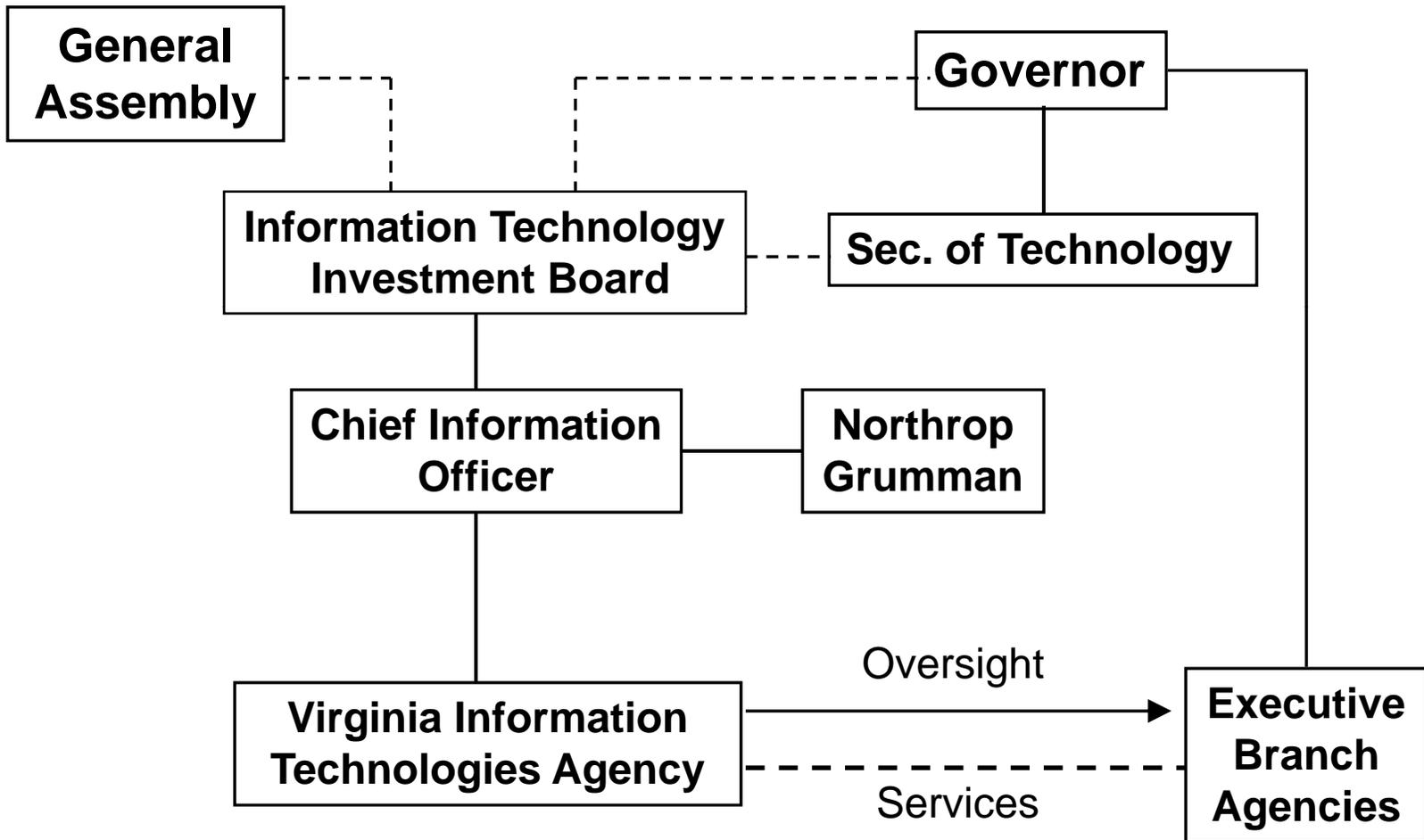
# Secretary of Technology's 2002 Report Recommended Creating VITA

- Secretary recommended creating VITA to improve IT services & reduce cost
  - Part of effort to save \$100 million annually on IT across State agencies, local government & higher ed.
- Consultant's report recommended merging DIT & DTP, then consolidating IT staff from State agencies
  - Would benefit small- & some medium-sized agencies
  - Larger agencies had "all the funding & resources to provide adequate levels of service"
- Savings would come from efficiencies & staff reductions but required redistribution of funds

## 2003 Legislation Enacted Aspects of JLARC's & Secretary of Technology's Recommendations

- Created ITIB as a citizen board to supervise VITA
  - Statute places ITIB “in the executive branch”
- Full-time CIO hired by ITIB to administer VITA
- DIT & DTP combined to create VITA
- IT staff & some IT functions from “in-scope” State agencies consolidated into VITA
  - In-scope includes most executive branch agencies
  - Out-of-scope includes higher ed. & ind. agencies

# State's Current IT Governance Structure



# ITIB Supervises Information Technology

- Statutorily responsible for “planning, budgeting, acquiring, using, disposing, managing, & administering” IT
- Has 9 voting members
  - Secretary of Technology (vice chair)
  - Secretary of Finance
  - 3 citizens appointed by the Governor
  - 4 citizens appointed by the General Assembly
  - Auditor of Public Accounts (non-voting)

# VITA & CIO Have Defined Statutory Responsibilities for Oversight

- CIO is responsible for unified approach to IT
  - Promulgates IT policies, guidelines, & standards
  - Reviews systems development projects
  - Provides for IT security by developing policies, procedures & standards
- VITA has additional oversight responsibilities
  - New Project Management Division must review proposals for & then oversee IT projects
  - VITA inherited DIT's statutory authority to review & procure all IT goods & services and sign all IT contracts

# Only Infrastructure Was Consolidated, Not Applications

- Some IT was consolidated into VITA
  - **Enterprise** infrastructure (hardware) such as personal computers & servers. Support staff also consolidated
- Operation of all other IT remains with State agencies
  - **Agency-specific** infrastructure such as traffic-light management or point-of-sale systems
  - **Agency-specific** applications such as systems for managing Medicaid or incarcerated offenders
  - **Enterprise** applications (software) such as CARS (financial) & CIPPS (payroll)

## CIO Entered Into Contract With Northrop Grumman (NG) to Modernize IT

- In 2003, VITA found cost savings needed uniform enterprise IT infrastructure, but lacked capital
  - Savings were to come from enterprise applications
- In 2003-04, VITA received 5 unsolicited proposals to modernize both enterprise infrastructure and applications
  - Decision was made to split infrastructure & applications into two separate projects
- ITIB formed committee to evaluate infrastructure proposals, & vendors were narrowed to NG & IBM
- In 2005, CIO signed 10-year, \$2 billion NG contract

## Low Priority Given to Vendor's Prior Experience & Understanding of State's Needs

<b>Factor</b>	<b>Weight</b>
Impact on State employees, financing, technical viability	20
Economic development	10
Understanding of State needs	5
Experience providing comparable services	2
Change management process	2
<b>Vendor</b>	<b>Final Points (480 max)</b>
NG	<b>344</b>
IBM	<b>314</b>

- Selection committee had 2 ITIB members, CIO, 4 VITA staff and 9 State agency representatives

# Vendors Had Different Characteristics, But Each Proposal Carried Risk

- NG awarded contract based on
  - Economic development
  - Understanding of State's needs
  - Support for State employees hired by NG
- IBM performed better on experience & finances
- Committee members noted risk
  - Former CIO said NG was “better value” but “carries more risk”
  - State Comptroller said both proposals entailed “significant risk to the Commonwealth”

## NG's Proposal Emphasized its Skills & Experience Managing IT Consolidations

- NG noted technical complexity of the State's current IT environment
  - Geographically dispersed offices
  - Varying business requirements & IT systems
- NG highlighted its ability to provide industry best-practice project planning
- NG cited 30 years of experience managing IT consolidations for cities, counties & states
  - However, complexity & scale of Virginia's effort had never been tried before by any state or vendor

# Comprehensive Infrastructure Agreement Between VITA & NG Governs Relationship

- Novel approach to modernizing IT
  - NG is responsible for all upfront capital investments
  - IT will now be centrally managed & regularly funded
- Rights & obligations of each party are detailed in Comprehensive Infrastructure Agreement (contract)
- Contract consists of 151-page agreement, 51 amendments, 29 schedules, 17 appendices, 17 addendums, & 6 attachments
  - Several supplemental documents are being developed to finalize contractual outlines of requirements

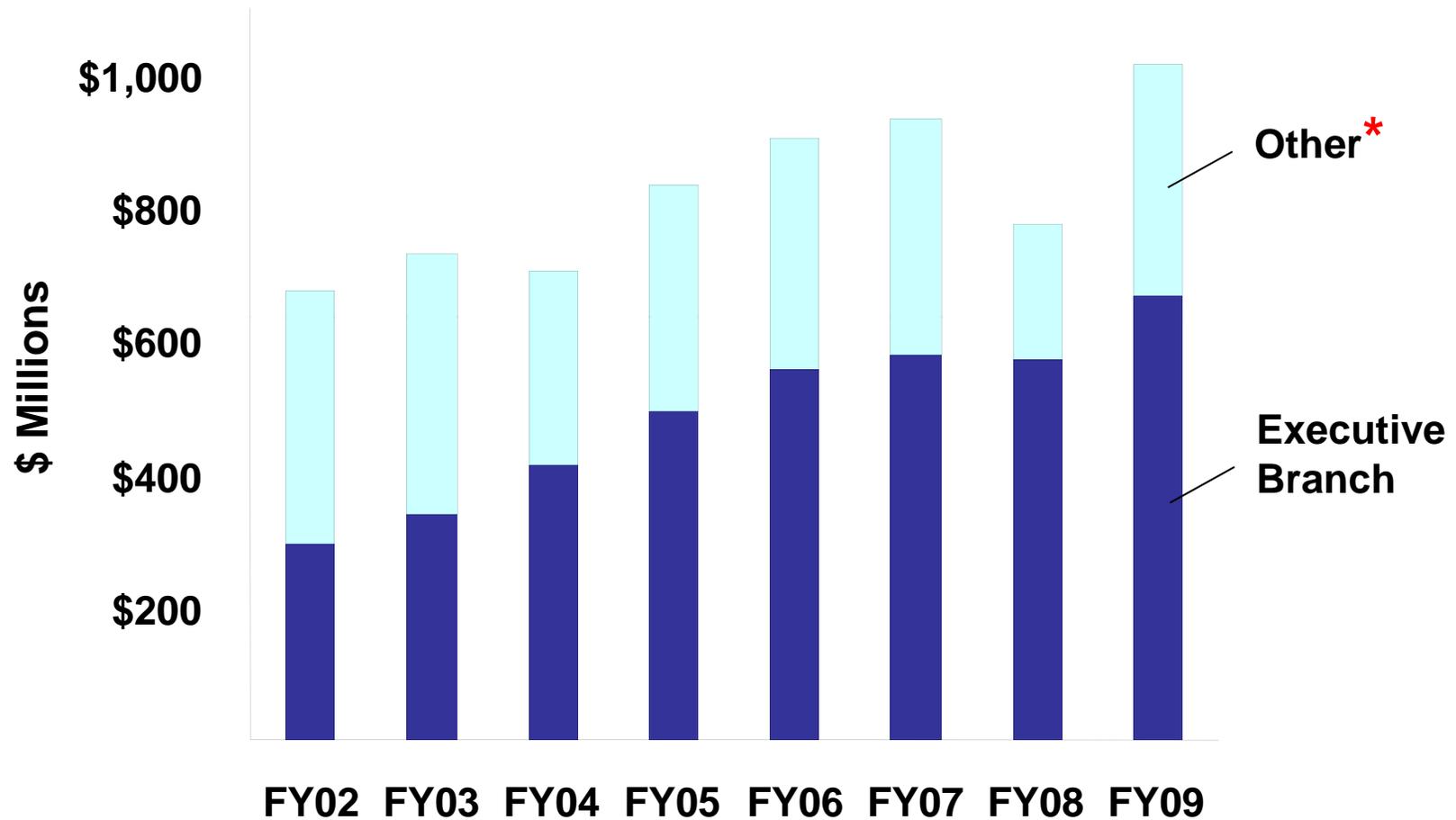
# NG & VITA Share Provision of IT Services

Service	NG	VITA
New enterprise infrastructure		
---Computers	✓	
---Email	✓	
---Data network & telecommunications	✓	
---Help desk	✓	
Security	✓	✓
Procurement	✓	✓
GIS & E-911 Support		✓

# Today's Briefing Focuses on Services Provided Under NG Contract

- At request of legislature, some topics have been advanced to today's briefing
- Today's briefing focuses on the contract with NG & IT governance
- December presentation will complete review of VITA
  - Quality & impact of VITA & NG's services
  - Enterprise applications & data standards
  - Oversight of IT projects
  - IT procurement
  - Rates & billing issues
  - IT expenditures

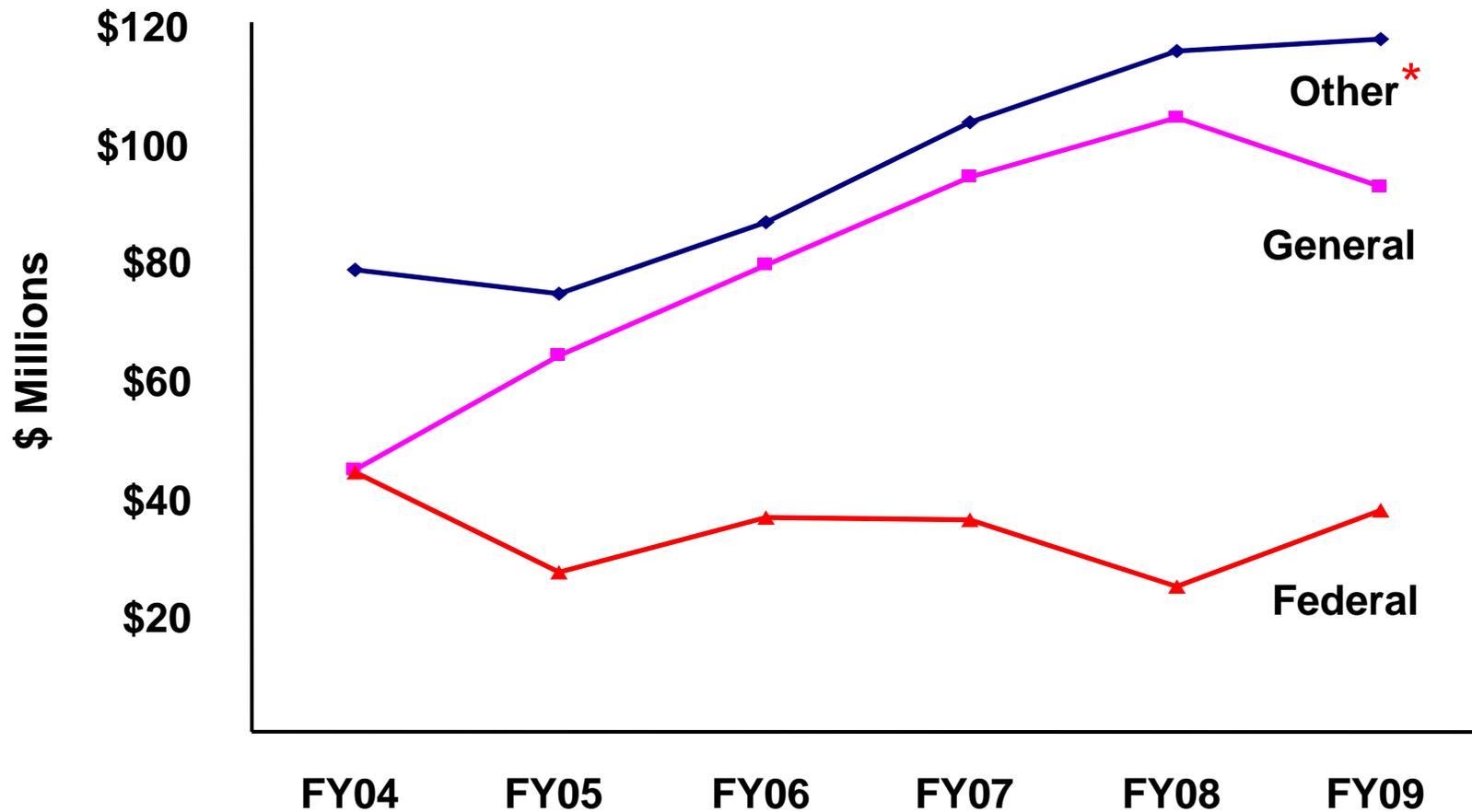
# Executive Branch Agencies Are Driving State IT Spending (13% Annual Increase Since FY02)



\* Higher Education, Ind. Agencies, Judicial, Legislative



# Federal Funds to VITA Have Not Matched Growth in State Funds



\*All other non-general or federal funds



# Research Methods Used in Study

- Structured interviews with VITA, NG, & 14 agencies
  - Several factors used to select representative agencies
- Surveyed 69 of 72 in-scope agencies receiving VITA & NG services
  - 91% response rate (63 agencies)
- Analyzed data from VITA, NG, Dept. of Accounts
- Extensive document review
  - Comprehensive Infrastructure Agreement (contract)
  - VITA published policies & other documentation
  - NG documentation

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# Finding

- Contract with NG has provided some benefits for the Commonwealth

## NG Contract Envisions Several Improvements to Provision of IT Services

- NG providing modern, standardized IT infrastructure through process known as “Transformation”
  - Replacement of assets scheduled from July 2006 to July 2009
  - NG retains title to new equipment
- More cost-effective provision of IT services through central management & bulk procurements by NG
- Defined service levels at FY 2005 spending
  - 193 performance measures for NG’s services
  - Contractual cap of \$236 M for certain expenditures

# NG Invested Substantially in the State's IT & Has Generated Economic Benefits

- NG provided \$270 million upfront investment for IT infrastructure services
  - NG states total investment is substantially higher
- NG has constructed data centers in Chesterfield & Russell Counties that State can use
- NG must create 490 new jobs, including 295 in SW Va.
  - NG has created 177 new jobs (79 are in Russell Co.)
  - Salary payments of \$10.6 M
- NG has 180 total staff in SW Va.
  - Many support other NG activities
  - NG reports salaries paid in SW Va. total \$6.5 M

## Contract with NG Also Helped State Achieve Workforce Reductions

- 566 of 800 VITA employees accepted employment offers from Northrop Grumman
  - Many of these staff transferred to VITA from State agencies in 2003-04
  - Two-thirds of eligible employees accepted NG offer, rest remained as VITA employees
- NG provided competitive compensation, advancement opportunities, & job security for 1 year

# New Personal Computers (PC) Have Benefitted Many Agencies that Lacked Modern Equipment

- New PCs have replaced aging PCs at many agencies
  - 45,200 of 57,500 PCs replaced
  - PCs will be “refreshed” every 4-5 years
- 75% of agencies responding to JLARC survey indicate satisfaction with PCs
  - Most benefit went to small agencies & those that had underfunded IT
- One large agency noted new PCs let some staff use applications that previously were unavailable
  - Email, financial management, & many web-based applications

# New Security Services Will Help State Respond to Emergencies & Potential Threats

- 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
- Some previously available services can be expanded more readily
  - Data backup (creating extra copies)
  - Disaster recovery (offsite computers for emergencies)

# New Network Services Promise Benefits

- Agencies are in process of using single network managed by NG instead of multiple networks managed by agencies
  - Aging circuits, routers, & switches are being replaced
- Internet traffic is being routed through secure “gateway” instead of 100s of individual connections
- Proactive monitoring is being implemented to maintain network reliability & performance
  - Network is in process of being continually monitored by NG to identify outages & performance problems
  - NG help desk is in process of being alerted to the most severe outages



# New Email Services Are to Promote Inter-Agency Collaboration

- Single, statewide system is replacing 40+ email & calendar systems
  - 26,200 of 63,500 email accounts have been replaced
- Enhancements are designed to improve productivity
  - Single email address list will exist for all users
  - Shared calendar for all agencies & instant messaging tools
- Messaging system will be more secure
  - Email traffic will be monitored for viruses and spam
  - Use of State network instead of Internet will enhance security

## New Help Desk Services Intended to Increase Efficiency

- 40 agency help desks consolidated into a single NG help desk
- Agency technical problems are intended to be resolved faster through automated tools
  - Website is being developed to allow users to reset passwords & resolve other simple issues without calling the help desk
- Use of best practices is required to address service issues
  - Help desk uses “knowledge base” for common issues
  - Services are in process of being integrated with network & security operations centers



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## Inadequate Planning by NG Largely Led to Delays in Completing Transformation

- NG was responsible for completing transformation within the contractually-defined timeframe (July 2006-July 2009)
- Largest single reason for delay appears to be inadequate planning by NG
- NG also appears to have performed inadequate due diligence
- Some of the delays, however, appear to result from VITA's inadequate understanding of agency needs and the resulting inadequacies in NG's services

# Transformation Is Highly Complex Undertaking

- Transformation involves 59 projects to transform the IT infrastructure of 72 agencies at over 2,000 sites
- Projects include replacing PCs, servers, mainframes, email, network, security, help desk, & telecom
  - Success requires high degree of coordination among agencies, VITA, NG, & subcontractors (Verizon)
  - Projects are interdependent & delays with one project can have a cascading effect on other projects
- Includes developing oversight tools for VITA
  - Reconciled asset inventory, performance measures, management procedures, billing process

# Transformation Missed Contractual Deadline & Key Tasks Remain Unfinished

- NG required to complete transformation by July 2009
  - Submitted corrective action plan in August 2009
- According to NG, as of September 2009
  - 32 of 59 projects complete (54%)
  - 26 of 68 agencies complete or almost complete (38%)
- NG's new plan proposes new completion date of June 2010, but does not include 4 agencies
  - Dept. Forensic Science
  - Dept. Medical Assistance Services
  - Va. Dept. Emergency Management
  - Va. State Police

# Finding

- Transformation delayed because agency needs have not been fully addressed or fully understood

## Agencies Have Identified Federal Issues Which VITA & ITIB Should Have Resolved Earlier

- Federal rules on access to secure federal data may limit extent of transformation at some agencies
- Federal security standards may also affect how NG is allowed to provide services
- Several agencies concerned federal audits may determine that some VITA costs are unallowable
  - Could require repaying federal funds with general funds

# Transformation Projects Delayed Because New Services Do Not Meet Some Agency Needs

- Contract envisions efficiency through standard IT environment
  - Some agencies have needs not met by NG's services
- No service catalog with options & prices exists
- Under the contract
  - VITA must define State's business requirements & standards
  - NG must recommend services that comply
- VITA & NG disagree over who should identify unmet needs
  - NG also asserts State has not assured timely security clearances
- Responsibility to address other agency concerns (security clearances & federal issues) rests with VITA & ITIB

# Finding

- Transformation delayed because NG's due diligence was inadequate

# Complexity of State's IT Environment Was Not Understood by NG

- Information collected by NG, IBM & VITA during the 2005 due diligence period appears to be incomplete & did not adequately capture complexities
  - 100s of sites & 1000s of assets unaccounted for
  - Dependencies between agency applications & infrastructure not understood
- Transformation will create standard IT environment, but must first address unique agency environments
  - 100s of applications must be modified to work with new infrastructure
  - Significant commitment of agency time & resources
  - Magnifies difficulty of transformation

## VITA & NG Disagree Over Who is at Fault for Poor Due Diligence Prior to Contract Award

- NG reports VITA did not provide needed information or access during 2005 due diligence
  - NG states VITA's inventory was grossly inaccurate & NG's visits to agencies were limited
- VITA reports NG had appropriate time & access during due diligence, noting
  - NG required to complete inventory in first year because of known inaccuracies
  - Number of data center site visits was agreed upon by VITA, NG, & IBM
  - NG & IBM interviewed 20 agencies representing 80% of State employees

# Contract Assigns NG Responsibility for Obtaining Due Diligence Information

- In section 21 of the contract
  - NG affirmed it received “**sufficient access**” & had performed “**sufficient due diligence**”
- NG further agreed to
  - “covenant that it shall not seek any judicial ...modification of this Agreement...nor any adjustment in the fees” based on limitations of due diligence
- Only exception is if State “willfully withheld or intentionally misrepresented” information

# Finding

- Transformation delayed because NG did not adequately plan for transformation or account for the continuity of agency business operations

# VITA & NG Disagree Over Who is at Fault for Poor Planning Following Contract Award

- NG states VITA has not provided needed access to agencies since contract was signed
  - NG says its staff barred from directly contacting agencies
  - NG says VITA has not provided current list of agency sites
- VITA states NG had appropriate agency access, noting
  - NG slow to assume role as primary transformation contact
  - NG knows current agency sites because NG services all locations, including service connection or disconnection
- No documented restriction on NG is apparent
  - Contract requires NG to “take ownership of day-to-day operational relationships to ensure delivery of services” (Schedule 6.3)

# Drive to Meet Contractual Deadlines Led to Loss of Knowledge of Agency Needs

- Transformation of State's IT services required transferring knowledge to NG of agency IT systems & business needs
  - NG's 2005 proposal noted risk: "transition to new contract & contractor may result in loss of key skills & knowledge"
- To reduce risk & lower ongoing costs, NG appeared to base approach on quick replacement of IT systems
- Senior NG staff report the drive to meet contractual deadlines required workforce reorganization
  - This broke the connection between agencies & their former staff (now at NG or VITA)
- Result was loss of knowledge of agency needs

## NG's Lack of Understanding Led to Incomplete Planning & Unrealistic Schedules

- Transformation did not adequately account for continuity of agency operations
  - Transformation activities, such as changing to a new network, can disrupt agency business operations
  - Agency “blackout” dates & times not accounted for in transformation schedule
- NG's 2005 proposal noted “it is natural for people to resist change” & therefore a “formal risk management and mitigation process is essential”
  - Senior NG staff informed JLARC staff that NG was not aware of complexity of IT at agencies & did not manage risks of cultural change

# Review of NG's Project Management by Hewlett Packard Identified Several Planning Concerns

- Review was in July 2007, one year after NG began
- Planning rated "fair to poor"
  - "Awkward & uncoordinated patchwork" of transformation plans led to improvisation
  - Transformation schedule "almost incomprehensible"
- Communications & teamwork rated "poor" & "very poor"
  - Ineffective internal & external communications
  - Plans not shared or coordinated with stakeholders
- Risk management rated "poor"
  - Lack of ongoing risk management program left outside risks unaccounted for, like subcontractor delays

## Other Independent Reviews Found NG's Project Management Was Not Sufficiently Mature

- Four independent reviews of VITA & NG conducted by CACI (July 2006 - Feb 2008) found
  - NG's project schedules driven more by contractual deadlines than actual calculations of work
  - Project plans lacked sufficient detail & were not maturing
  - Transformation schedule incomplete, not accurately updated, & too complex for managerial use
- NG states that organizational changes were made in mid-2007, and again in Fall 2008, to resolve issues
  - Agencies uniformly report that NG increased contact in Fall 2008, which has improved planning

## Security Audits by Deloitte & Touche Indicate NG Did Not Resolve Issues in a Timely Manner

- Security audits (2007 & 2008) indicated NG had not resolved all “high risk” issues
  - High risk issues include those which “could reasonably be expected to allow unauthorized access to occur”
  - Resolution delayed because NG did not have a process to ensure audit findings were corrected
- Preliminary 2009 audit findings noted several recurring high risk issues from prior audits
  - NG reports many repeat findings in 2009 were resolved by addressing outstanding issues from 2008
- Delays in transformation prolong existing security vulnerabilities

# Agencies Report Transformation Has Disrupted Business Operations

- Problems occurred immediately after NG switched DMV to the new help desk in May 2009
  - Help desk unable to assist DMV customer service staff, resulting in DMV's inability to serve customers
  - Former CIO noted it was clear that appropriate project management did not occur
- Agencies reported problems with network during & after transformation
  - Public safety agency reported transformation-related outages compromised communications
  - Several agencies reported NG subcontractor (Verizon) attempted to work on network during business hours without advance notice

# Contract Gives NG Responsibility for Ensuring Transformation Does Not Affect Agencies

- More recent drive to complete network transformation by deadline illustrates disruption
  - VITA & NG presented accelerated network transformation targets to ITIB in January 2009
  - NG proposed increasing pace by 400%, acknowledging this could disrupt agency operations
  - ITIB expressed concern but took no other action
- Section 3 gives NG responsibility to complete transformation
  - “In a timely, seamless manner, so as to have **no material adverse effect** upon the Commonwealth or... the quality of IT services...that would not have occurred had transformation not taken place”

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# Finding

- Although improvements have been made, agencies indicate several areas of concern regarding services that need to be addressed

## Agencies Cite Benefits from Personal Computers But Some Needs Are Not Met

Service	Agency Response		
	Poor	Fair	Good
Personal computers	36%	38%	25%

- State agencies indicate more than 2 choices (standard & premium) are needed for PCs
  - Don't provide needed computing power for some uses
- Agencies can pay for upgrades or buy other items
  - Costs aren't covered by contractual cap on spending
- PCs are replaced every 4-5 years
  - Newer PCs needed to meet some customer demands

# Agencies Report Problems With IT Security, Data Backup & Disaster Recovery Services

Service	Agency Response		
	Poor	Fair	Good
Security	26%	48%	26%
Disaster Recovery & Backup	44%	39%	18%

- Some agencies report
  - Unable to acquire or expand disaster recovery services
  - NG has not adequately ensured data are regularly & successfully backed up

# Agencies Cite Poor Performance of NG Network as Hindrance to Operations

Service	Agency Response		
	Poor	Fair	Good
Network	41%	37%	23%

- In 2009, NG missed some contractual performance measures
  - Network availability missed at 5-7% of agency sites
  - Network speed missed at 7% of agency sites

## Agencies Report Limited Size of Email Inbox Creates Need to Reliably Save Email

Service	Agency Response		
	Poor	Fair	Good
Email	33%	42%	24%

- VITA agreed to limit based costs, not agency needs
  - Case management files & other archives must be stored
  - Storage incurs new (uncapped) cost
- No reliable method exists for long-term email storage
  - NG & VITA disagree over viability of existing method
  - Both agree that a better solution is needed, but this will incur new (uncapped) costs

## New Help Desk May Not Produce Intended Efficiencies

Service	Agency Response		
	Poor	Fair	Good
Help desk	48%	38%	14%

- Many agencies retain internal help desks to support applications & non-State users (local govt. & contractors)
- Agencies indicate some service requests are misrouted to wrong technician, creating delays
- Agencies report requests are assigned low severity level
  - Lower severity levels give NG more time to resolve issues

# NG's Help Desk Prioritized Response to Prison Based on Number of Employees Not Risk

- Correctional facility lost inbound phone service in September 2009
  - Help desk contacted at 4am, severity level 3 assigned (18 hours to respond)
- Severity level apparently based on number of employees (30-40)
  - Officers require reliable phone service because facility houses 1,000 inmates
- Facility inquires about resolution at 10:30am
  - NG raises severity level from 3 to 2, problem fixed in 1 hour
- Contractual incentives create an inherent tension between NG & agencies

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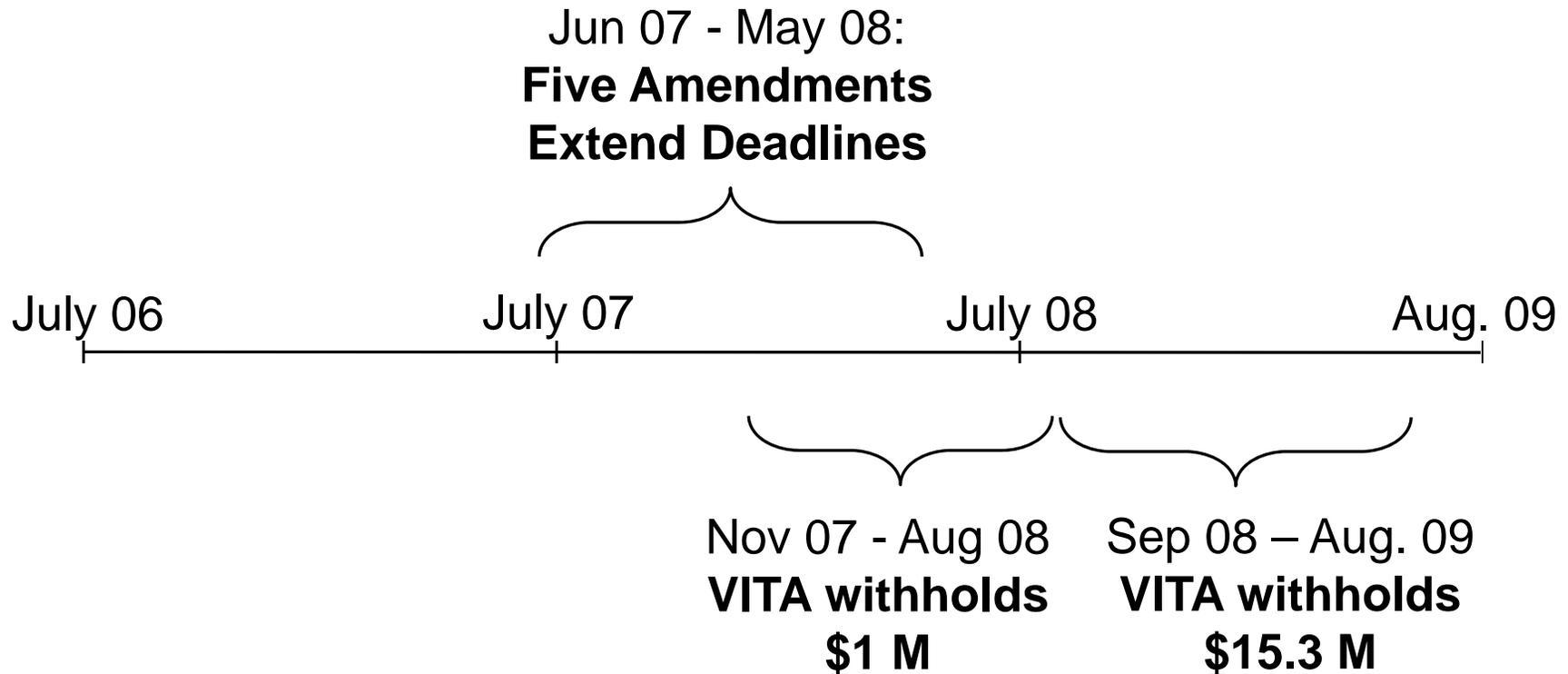
# VITA's Contract Oversight Unable to Prevent Delays

- VITA staff made a reasonable attempt to ensure NG met contractual deadlines
  - First approach relied upon contract amendments
  - VITA then began using financial penalties of increasing severity
- Escalation to certain ITIB members resulted in discussions with NG not envisioned by contract
- VITA's options limited by realization that contractual remedies were inadequate
- VITA staff & CIO ultimately unable to agree with key ITIB members on how to address NG concerns

# Finding

- VITA took steps to avoid transformation delays through contract oversight but limitations in contractual tools limited effectiveness

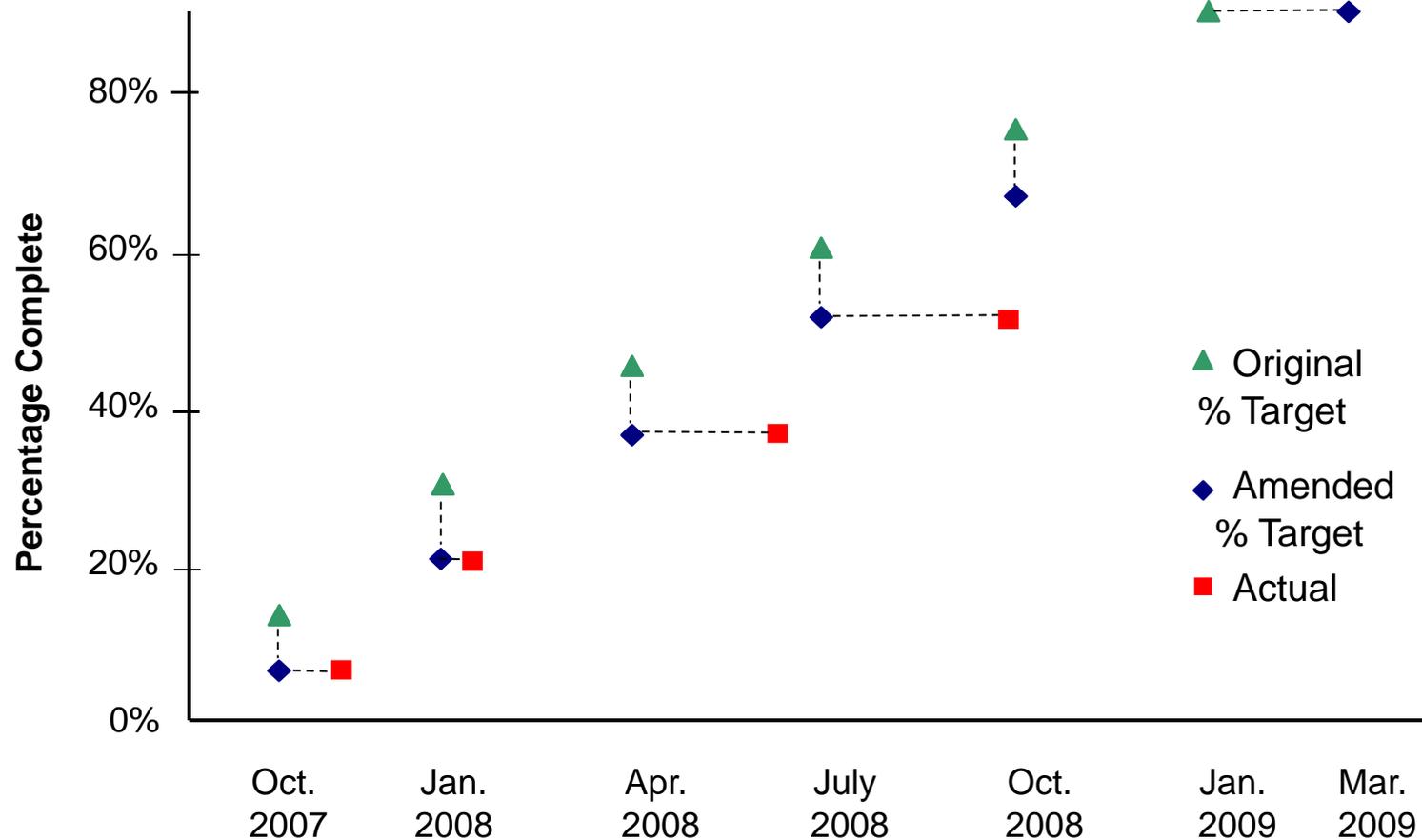
# VITA Used Deadline Extensions & Withheld Payments to Address Delays & Performance Issues



## VITA Initially Accommodated NG's Delays Through Contract Amendments

- VITA & NG executed contract amendments to give NG more time
  - 5 amendments extended milestone deadlines
- As a result, 31 of 74 milestone deadlines extended
  - Included data centers, network, & help desk
- 38 of 74 milestones were not met on time
  - 16 milestones were late, despite deadline extensions
  - Overall transformation deadline was never extended

# New Network Did Not Meet Completion Targets Despite Amendments Reducing Requirements



## VITA Responded to Missed Deadlines With Financial Penalties But Contract Proved Weak

- Per contract, VITA assessed \$1.4 M in financial penalties because of delays in completing milestones
- If other milestones are early, contract allows NG to earn financial credits. These credits offset penalties
  - For 3 milestones, NG earned credits because contract amendments extended the deadlines
- Weaknesses in contract became apparent
  - Only 14 of 74 milestones carried penalties, thus NG could receive full payment even if milestone was delivered late
  - Not all deliverables were directly tied to individual payments, limiting ability to use financial penalties

## Beginning in Fall of 2008, VITA Began to Withhold Funds from NG's Payments

- To date, VITA has withheld \$16.3 M for billing & inventory errors and other performance issues
  - \$6.3 M was permanently withheld
  - \$3.4 M has been temporarily withheld
  - \$6.7 M was subsequently paid
- VITA has withheld funds every month since November 2007
  - Largest amount occurred in September 2008 (\$6.6 M)
- As part of contract talks, NG has asked that these funds be paid

# Disagreements Between ITIB Members & VITA Staff Curtailed Further Financial Penalties

- VITA staff regularly consulted with current ITIB Chair & Vice Chair on use of penalties
  - Staff met with these 2 ITIB members in June & October 2008, & February 2009, to discuss withholding payments
- Apparent strategic disagreement occurred in February & March 2009
  - These 2 ITIB members rejected VITA's recommendation to withhold \$2.6 M from each of NG's \$14 M monthly invoices
  - These 2 ITIB members held talks with NG without clearly informing other members
- In April 2009, closed session of ITIB discussed NG's recommendations for contractual changes

## CIO Proposed Returning Invoice in May & Was Fired in June

- Following legal analysis from Office of Attorney General, VITA staff determined invoice return was most defensible financial penalty
  - Continued withholding of funds required estimating damages
- Disagreement over strategy was apparent
  - VITA concerned NG might miss new deadline of Dec. 2009
  - ITIB Chair informed CIO that cash flow is key concern of NG
  - But return might also address VITA's cash flow problems
- ITIB appeared to reject invoice return at June meeting
  - Some members expressed concern that other options had not been presented to the ITIB earlier

# Following Decision to Curtail Financial Penalties, VITA Resumed Negotiations

- After June ITIB meeting, VITA informed NG of contract breach & requested corrective action plan
  - Action needed to protect State’s contractual rights
- NG’s plan disputed breach, noting agency resistance & need to implement transformation within a
  - “complex web of agency specific cultural & business practice needs far beyond the level of customization contemplated in the contract”
- Contract negotiations have been ongoing, led by Office of Secretary of Technology
  - Continuation by interim CIO of meetings begun in May

# Finding

- Key contractual oversight measures are not fully in place

## Two Key Tools to Ensure Contractual Compliance Are Not Being Used

- Some contractually required audits of NG have not been performed
  - NG states VITA expanded the scope of audits
  - VITA maintains scope is reasonable & necessary
- Use of some performance measures has been delayed
  - NG believes performance measures should only apply once transformation is complete
  - VITA states the contract requires measurements be used for un-transformed (“legacy”) services

# Performance Measures Not Fully Implemented Which Limits Contract Oversight

- VITA & NG have not agreed on use of many performance measures
  - NG still drafting documentation describing how to calculate 30% of performance measures
- As of Sept. 2009, on average only 69% of services are measured (because of transformation delays)
  - 100% of mainframe computer services are measured
  - 12% of security patch & anti-virus updates are measured
- VITA noted errors in NG's performance measure data
  - NG self-reports its performance measures
  - Errors appear to be corrected, but with delay of several months after publicly reported to ITIB

# Incomplete Procedures Manual Limits State's Ability to Oversee Contract & Control Risk

- Procedures manual is key oversight tool
  - Contractually required manual will detail the specific policies & procedures NG uses to provide services
  - Absence limits VITA's ability to evaluate NG's actions
- By defining how services are provided, the manual is also intended to minimize contractual risk
  - Will provide guide for State to manage services or transfer to another vendor
  - Lack of manual restricts ability to end relationship with NG even if determined to be in the State's interest
- APA found lack of manual "creates unnecessary risk"

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## Contractual Issues Need to Be Addressed to Ensure State's Needs Are Met

- State's ability to terminate contract is hindered by lack of funds needed to replace NG with another provider or resume services internally
- Contract with NG is not fully meeting needs of State & key provisions should be addressed
- New approach to partnership may lessen oversight & raises concerns that State's rights will not be fully protected

# Finding

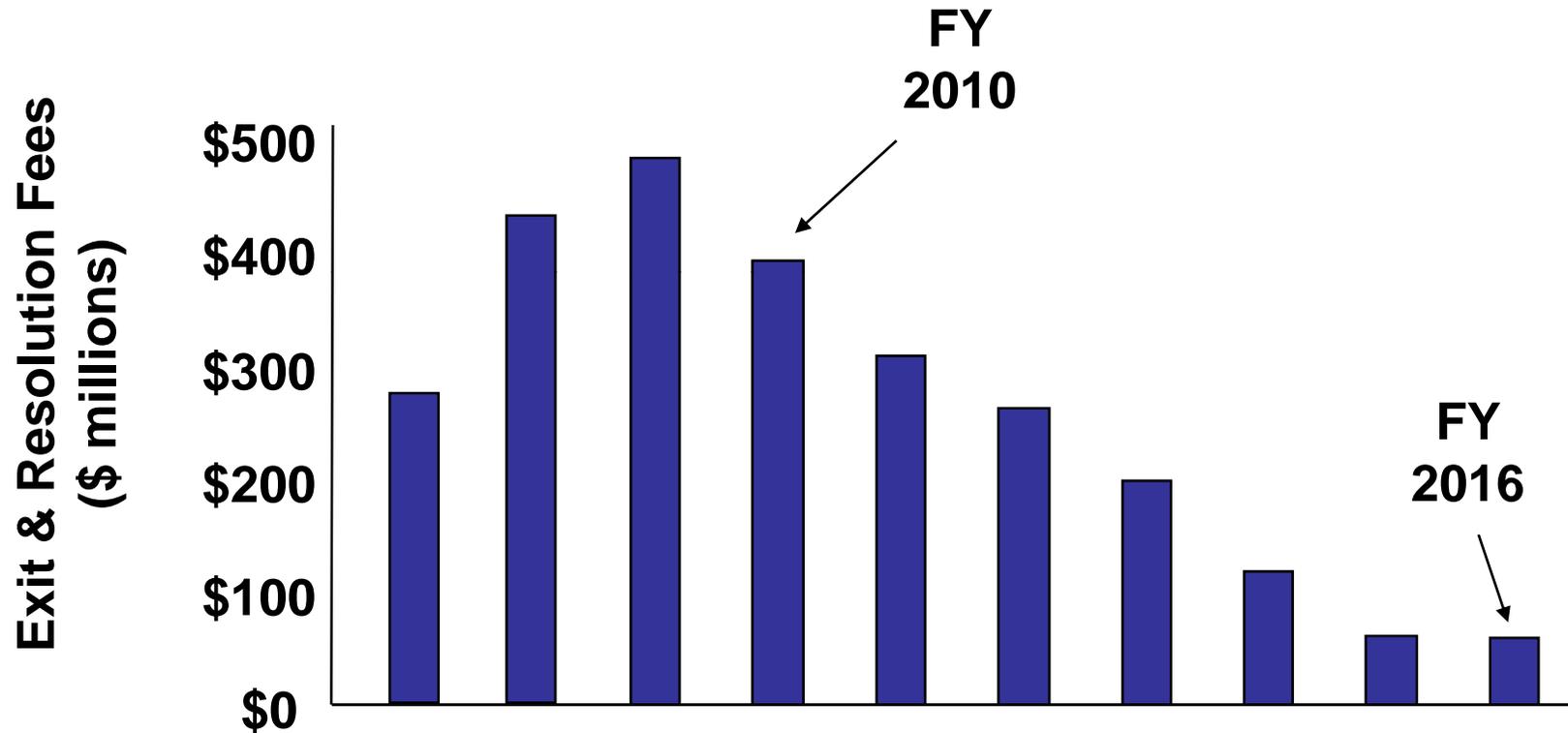
- State appears to lack the financial resources to cancel contract with NG

## State Has Six Means of Terminating Contract and Three Include Payment of Mandatory Fees

<b>Means of Termination</b>	<b>Mandatory Fee (FY 2010)</b>
Commonwealth's Lack of Funds	\$0
Default by NG	\$0
Incurred Liability of NG	\$0
Change in Control of NG	\$314-394 million
Force Majeure Events	\$318-399 million
Convenience of Commonwealth	\$318-399 million

- NG can terminate only if State owes more than \$100 million in unpaid fees not disputed in good faith

# Cost to State of Terminating Contract Declines Substantially Over Time



# State May Be Able to Terminate for Cause for Failure to Complete Transformation on Time

- Under Section 3.2.2, the State can terminate the contract “for cause without opportunity for cure” if NG fails to complete transformation by July 1, 2009
  - VITA notified NG of its failure to complete transformation on time, indicating NG was in breach of contract
  - State has 180 days (until Dec. 27, 2009) to terminate under this section
- At this or any point when the contract is terminated or expires, NG is required to ensure a
  - “complete, timely & seamless transition...without material interruption or material adverse impact” to another provider or to the State (Section 15.1)

## Terminating the Contract Would Be Costly

- If State terminates by claiming NG defaulted (section 14.5), no exit or resolution fees are owed to NG
  - NG can challenge default determination
  - If court determines NG did not default, contract requires State to pay exit & resolution fees (\$399 M)
  - Fees repay debt NG incurred for \$270 M capital investment
- Termination under any scenario would still require rehiring staff & buying assets (data center & all computers) from NG or another vendor
- State's debt capacity currently limited
  - Debt ceiling could be raised, but at risk to AAA credit rating

# Findings

- Continuation of the contract requires continued oversight
- New approach to partnership may create risk for the State

# VITA & NG Have Contractual Relationship but It Has Been Styled as Partnership

- Vendor-client & partnership traditionally represent two approaches to contractual relationships
  - Vendor-client focuses on adherence to contractual terms & conditions by both parties. Changes are made through defined process, such as contract amendments
  - Partnership is usually based upon shared risk & reward
- Contract with NG contains elements of both
  - Ex. Disagreements between vendor & client are addressed via contract's dispute resolution process
  - Ex. Shared savings clause allows both State & NG to benefit from efficiency & cost-effectiveness

## VITA's Oversight Responded to NG's Concerns but Followed Contractual Process

- Use of amendments shows needs of both parties can be accommodated through contractual procedures
  - Following defined process preserves State's rights
- Some contractual escalations in past year have not always followed strict contractual procedures
  - Contract's dispute resolution section requires joint escalation to VITA's CIO & specific NG personnel, then to nonbinding mediation
  - No contractual role for ITIB or Secretary of Technology to intervene
  - Use of extra-contractual means to resolve disputes limits transparency & increases risk

# New Approach to Partnership Should Be Viewed With Caution

- New approach to partnership, advocated by ITIB Chair, appears to downplay contract in favor of informal agreements & faster decision-making
  - Focus on relationship building may reduce tensions & improve efficiency in short term
- Gartner has warned of “partnership trap”
  - “Even in best relationships, potential for conflict between vendor’s profit motive & customer’s needs will arise”
- Failure to follow contractual terms may compromise State’s ability to enforce its rights & protections
  - All disputes & changes to obligations, for either party, need to follow defined contractual process

# Finding

- Broad areas of the contract do not appear to be meeting the State's needs and should be addressed

## Contractual Cap Does Not Include All IT Hardware Expenses Or Control Costs Over Time

- Contractual cap (\$236 M) based on cost VITA incurred to provide services in FY 2005
- Cap excludes
  - VITA's overhead costs (\$25 M annually)
  - Transformation costs incurred by agencies
  - Costs of services not provided as of 2006 (\$15 M in one-time charges plus \$11 M in recurring annual charges)
- Cap also intended to exclude
  - Required inflation adjustments
  - Growth in standard services (desktops, data storage)
  - Amendment 30 removed these items

## Costs Could Increase If Items Covered by Cap Are Changed

- New CIO's goal is to keep cap in place through FY 2010
- Changing amendment #30 would allow costs to rise by removing certain items from the cap
  - Granting NG inflation adjustments
  - Growth in consumption of standard services
- Costs could increase if other items are no longer covered by the cap
  - Tasks are moved out-of-scope (ex. transformation costs for VSP, VDEM, DFS, DMAS)
  - Existing services are moved out-of-scope
  - Definitions or quantities are changed (ex. number of assets in new or baseline inventories)

# Restrictions May Limit Usefulness of Contract's Competitiveness Reviews

- Contract gives two primary ways to ensure price competitiveness
  - Benchmarking of NG's fees (Section 10.8)
  - Most favored customer (MFC) clause (Section 10.2)
- Potential lack of comparable situations may limit use
  - Benchmarking only applies to “similarly bundled service offerings (accounting in the aggregate for the **scope, service levels, duration, & volume of business**)”
  - MFC only applies if customers purchase “substantially similar volumes of such services under substantially similar circumstances and terms & conditions”

## Recommendation

- The Chief Information Officer should evaluate whether the Comprehensive Infrastructure Agreement's benchmarking provision (Section 10.8) provides a reliable mechanism to ensure Northrop Grumman's prices are competitive given the provision's restrictions and, if determined not to be, require a contractual amendment be executed to provide such a mechanism

## State's Ability to Exercise Contractual Right to Use Another Vendor Is Limited

- Contract allows State to take over services from NG or transfer to another vendor (section 3.18)
- Certain factors limit State's ability to use another vendor during contract's term
  - May limit NG's ability to meet performance measures
  - Minimum revenue commitment requires certain payment to NG even if another vendor is used
- Not a viable option currently because procedures manual is behind schedule & not complete

## Recommendation

- The Chief Information Officer should ensure that Northrop Grumman completes the procedures manual as soon as reasonably possible and in a manner that complies with the requirements of the Comprehensive Infrastructure Agreement

# Contractual Penalties for Poor Performance Appear Inadequate

- Penalties for transformation delays may have limited value
  - Penalties for “critical” milestones capped at 20% of payment & are offset by early delivery of other critical milestones
  - Full payment required for other milestones even if late
  - Other requirements (new inventory) not tied to payment
- Penalties for failed performance measures subject to limitations
  - Not all missed performance measures result in penalties
  - Monthly penalties cannot exceed 10% of NG’s monthly fees
  - Withholding payment requires specifying damages
- Returning NG invoice in June 2009 deemed most contractually defensible way to address general performance problems
  - Less drastic penalty options are unavailable in the contract

# State Should Consider Exercising Provision for Relationship Performance Assessment

- Contract allows State to engage a third party to conduct a “relationship performance assessment” (Section 6.9)
  - Cost of the assessment shall be paid by NG, up to \$250,000
- Assessment is required to review certain areas, including customer satisfaction
- Assessment may also include
  - Contract & relationship review to determine if management of the contract & the relationship meets the needs of the State & NG
  - Customer satisfaction survey
  - Examination of management processes & controls

# Recommendation

- The Chief Information Officer should consider requesting a relationship performance assessment as provided for in the Comprehensive Infrastructure Agreement, and include within its scope an assessment of the current performance measures (service level agreements and objectives) to ensure they are meeting the needs of all eligible customers as defined in the Comprehensive Infrastructure Agreement

## Concern Has Been Raised that Contractual Terms are Unfair

- Increasing State's payments to NG considered as part of recent contractual discussions
  - Amount of data storage & number of servers is substantially higher than in baseline inventory
- NG raised concern that strict adherence to contractual terms was unfair
  - Current data storage estimate 1200% higher than due diligence, suggesting some error in due diligence
  - Proposed amendments would split the difference
  - Result could be \$30-40 M annual increase in costs
- Policy choice exists whether to adhere to contract or accommodate NG's request

## VITA Has No Legal Requirement to Inform General Assembly Before Modifying Contract

- In July 2009, General Assembly informed the Governor that no contract modifications should occur until General Assembly reviewed JLARC's findings
- Governor's reply indicated ITIB should submit contract modifications to the Governor & General Assembly for review before any decision is reached
- No deviations from this process are apparent
- CIO has no legal obligation, however, to seek approval of contract amendments from the Governor or General Assembly

# Public-Private Partnership Advisory Comm. Does Not Review Contract Amendments

- Commission established to
  - “advise responsible public entities...on proposals received pursuant to the [PPEA]”
- 11 members, including 8 legislative:
  - Chair of Appropriations & 4 members of the House
  - Chair of Senate Finance & 2 members of the Senate
  - Secretaries of Administration, Finance, & Technology
- Commission’s statutory authority does not presently include reviewing modifications to existing contracts
- Statute could be amended to require fiscal impact statements be presented to Commission for contract amendments

## Recommendation

- The Virginia General Assembly may wish to consider amending § 30-278 et. seq. of the *Code of Virginia* to require that for all existing comprehensive agreements public entities must provide proposed contract amendments or modifications, and accompanying statements describing the fiscal impact of such proposed amendments or modifications with such an impact, to the Public-Private Partnership Advisory Commission

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# Current IT Governance Hinders Agency Operations

- As Chief Executive, the Governor is required to ensure faithful execution of the law
- IT, like other central services, is integral to the daily operations of State agencies
- Present IT governance structure limits ability of Governor to hold VITA accountable, nor can ITIB hold agencies accountable
- Lack of accountability has hindered transformation & created ongoing operational challenges for agencies

# Finding

- Lack of direct control over VITA has prevented the Governor from addressing IT service problems which have hindered the daily operations of State agencies

# Governor's Ability to Faithfully Execute Law Is Limited by Lack of Direct Authority Over VITA

- *Constitution of Virginia* requires Governor to faithfully execute State's laws
  - Administration of State government & execution of State laws is increasingly dependent upon IT services
- General Assembly gave the Governor statutory authority over agencies to
  - Establish policy, provide coordination, & resolve conflict (*Code of Virginia*, § 2.2-103)
- Oversight & operation of IT should be treated as an executive function like all other central services

# Transformation Challenges Highlight Governance Concerns

- Despite having majority of appointments to ITIB, no clear assignment of responsibility to Governor exists
  - Responsibility & authority for all central services must be combined to ensure orderly operation
  - Lack of direct responsibility also hinders ability of legislature to hold Governor accountable for IT
- Coordination of IT has been limited & issues remain difficult to resolve
  - Executive branch agencies & VITA are accountable to different authorities
  - Governor has limited ability to ensure agency needs are adequately addressed

## Lack of Oversight Over VITA Limits Governor's Ability To Ensure Key Services Are Available

- Agencies cannot perform key functions without network access
  - Virginia State Police in Newport News lost **Internet** access for 78 hours in May 2009. Staff were unable to perform daily functions
  - Dept. of Motor Vehicles in Bland lost **network** connection for 31 hours in June 2009. Public had to reschedule appointments
  - Dept. of Environmental Quality in Roanoke lost **network** connection for 31 hours in May 2009. Staff could not use telephone or access online applications
- New CIO says lack of **network** redundancy is major flaw in current system

# IT Governance Limits Ability of Agencies to Hold CIO Accountable for IT Security

- Statute assigns CIO security responsibility
  - VITA policy has assigned all responsibility to agencies
- Federal agencies hold agencies, not VITA or NG, directly accountable for security (IRS, Social Security)
  - 2008 IRS audit of TAX required certain actions within 30 days, but TAX could not ensure VITA would comply
  - DSS waited 1 year for VITA response to federal audit
- Penalties include loss of access to federal data used to file Medicaid applications, Social Security disability claims, tax returns, & unemployment benefits

# Procurement Delays Slowed Distribution of Unemployment Benefits

- Dept. of Labor gave funds to Va. Employment Commission (VEC) for 17 temporary unemployment offices
- VEC wanted offices opened quickly (1-3 months) but NG took up to 6 months
  - VEC needed to use another vendor at 3 locations for telephone & network services
- According to VITA, NG slowed procurement of PCs at other offices because temporary use would not ensure NG's full cost recovery
  - Federal rules may not allow higher costs for certain agencies if only difference in service is length of use

## ITIB's Performance Has Been Mixed

- ITIB has provided valuable oversight function
  - No major project failures
  - NG contract has improved many services
- However, ITIB has been unable to coordinate IT
  - Unresolved agency concerns about federal security, funding, & asset transfer issues slowed transformation
  - Resolution of other conflicts has repeatedly required escalation of concerns to the Chief of Staff
- ITIB has not fully addressed other responsibilities
  - Does not regularly review VITA's proposed rates

# Concerns Exist About Manner in Which ITIB Has Provided Contract Oversight

- Concern arises when some members appear to exercise authority without clearly informing other members
  - Use of “pre-briefs” for selected members to discuss contractual issues & direct VITA’s actions
  - Contract talks with NG without knowledge or approval of ITIB appear to violate legal limit on powers of Chair
  - Directing previous CIO to defer financial penalties

# Practical Realities May Limit Ability of Supervisory Board to Govern IT

- ITIB cannot provide full-time oversight
- Many ITIB members say time requirements are burdensome
- Some members attend infrequently, & overall attendance is irregular
- Many members report lacking knowledge of IT or State government

# CIO Should Have Full Responsibility Over IT Services

- In 1998, JLARC & Gartner recommended State CIO to
  - Be a single point of responsibility & accountability for information technology policy, planning, and services
  - Provide leadership in coordinating the information technology activities of State agencies and institutions.
- In 2002, JLARC recommended ITIB's role be limited to approval of new IT projects
  - ITIB would mainly consist of cabinet secretaries
- ITIB currently has all statutory authority for IT services
  - CIO is only an administrative officer of ITIB

## Recommendation

- The Virginia General Assembly may wish to consider reorganizing the information technology functions of State government by assigning responsibility for all information technology services to a Chief Information Officer (CIO) to be appointed by the Governor, subject to confirmation by the General Assembly. The CIO should report to the Secretary of Technology. Specific management & technical qualifications for the position of CIO should be established in law

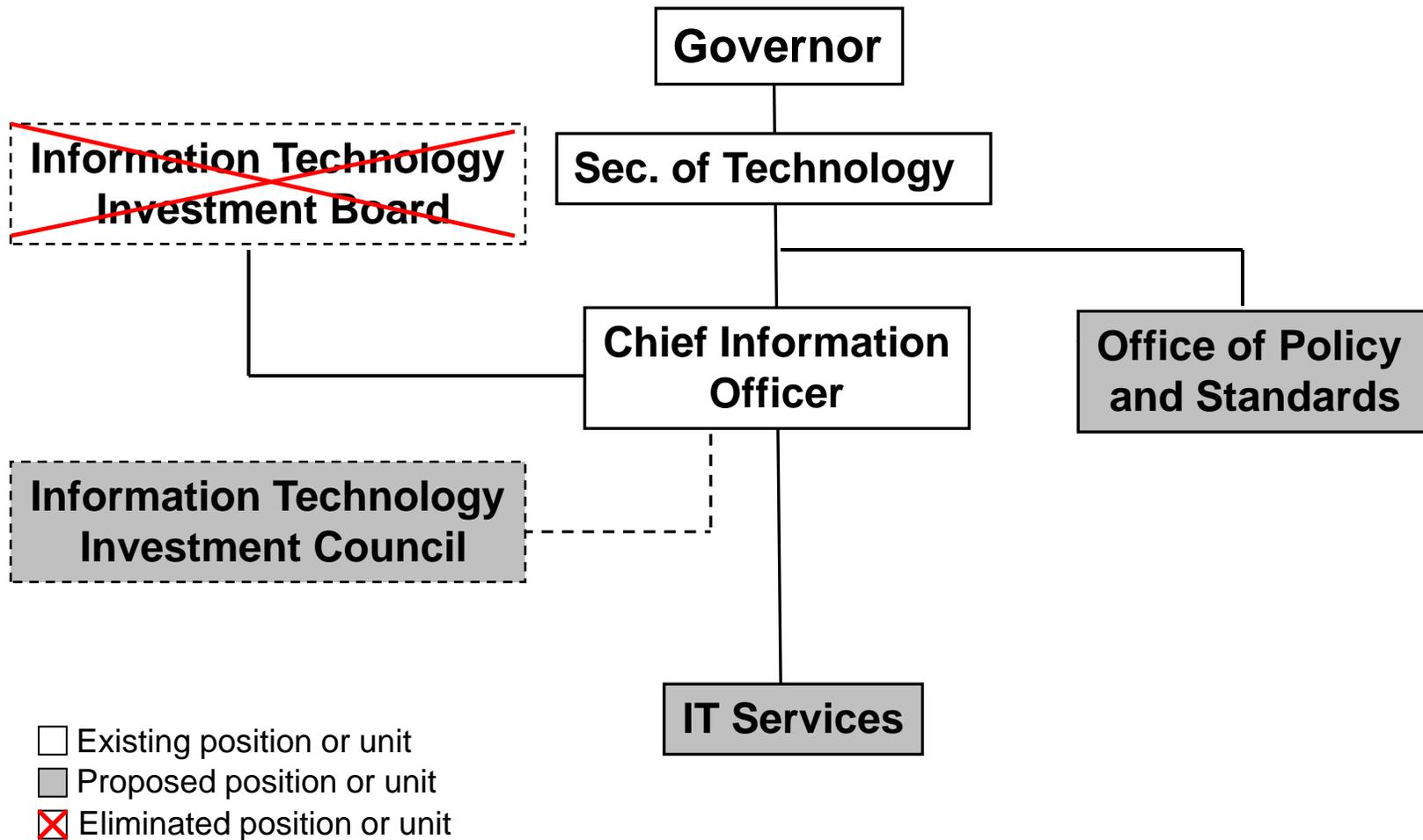
# State Needs Investment Board Focused Solely on Project Prioritization & Oversight

- ITIB should be recast as advisory council (ITIC)
  - Role should be limited to recommending prioritization of statewide IT investments in applications
  - Membership would consist of cabinet secretaries
- Recommended Technology Investments Projects (RTIP) report needs to be restructured
  - Would be based upon agency IT strategic plans
  - Would use objective criteria, including point system already developed by ITIB, in public report that clearly indicates how project prioritization was achieved

## Recommendation

- The Virginia General Assembly may wish to consider abolishing the Information Technology Investment Board and replacing it with an Information Technology Investment Council to act as an advisory board. The Information Technology Investment Council should annually recommend to the Chief Information Officer a list of information technology projects and their relative priority for approval based upon a defined, public process. Such a board should be composed of each of the cabinet secretaries

# Proposed Governance and Organization



## JLARC Staff Will Continue to Examine Organizational Concerns

- Final recommendations for changes to organization & oversight of IT will be presented in December
- December briefing will also include additional information on quality, cost & impact of VITA & NG's services

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## New IT Services May Benefit State in Long Run

- Virginia's effort to modernize IT is laying foundation for future improvements in State operations
  - Citizenry increasingly expects electronic government services
  - State's competitive advantage may be enhanced
  - Integrated IT may reduce "silos" in operations
- Virginia has tried to improve IT for many decades
  - Previous attempts never achieved present degree of modernization & integration
- Long-run success will require certain changes

## Steps Should be Taken to Limit Expenditure Growth

- Exclusion of many costs from cap means contract with NG will likely require increased IT expenditures
- Contractually-established fees will soon drive VITA's rates, potentially hindering ability to lower spending
- No savings appear likely from new IT services during original ten-year term
  - Savings may be achieved if contract is extended & State receives required discounts from NG
- Concerns about contract's competitiveness reviews need to be addressed to ensure reasonable prices

# Current Approach to Service Provision Needs to Change

- Contract with NG attempts to increase efficiency through standardization, but needs of agencies must also be met
  - Standardization can still be achieved by offering more than the 1 or 2 options available for many services
- VITA & NG must focus on needs of actual customers: State agencies & the citizens they serve
  - Present approach results in IT determining business needs of agencies, instead of the reverse

# Long-Term Success of New IT Services Largely Depends Upon Enterprise Applications

- New IT infrastructure is intended to be foundation for new enterprise applications
- Many enterprise applications are decades old & do not meet many needs of agencies or policymakers
- New data standards must be developed & enforced to ensure data can be exchanged & kept securely
- Most cost-effective approach may require use of new technology, currently disallowed by VITA
  - VITA treats NG as sole source vendor

# Accomplishment of Long-Run Goals Requires Resolution of Certain Policy Issues

- Creation of VITA combined oversight with service, & these two goals are often at odds
- Focus of State's IT oversight & service needs to be ensuring agency needs are met in a reasonable way
  - Economic development, if any, needs to be secondary
- Contractual & governance changes are needed to address short- & long-term goals
- Plans should begin to consider future options
  - Regular term of contract winds down in 6 years



# Lessons Learned from Use of Public-Private Partnerships

## Lessons Learned From Use of Partnerships Indicate that Careful Consideration Is Essential

- Vendor's experience & understanding are key elements for success
  - Success is enhanced when all parties fully understand the goals of the project & have demonstrated the ability to meet them
- Partnership still requires experienced staff in the public entity
- Partnership may not produce savings
- Full & careful evaluation of proposals is critical

# Vendor's Experience & Understanding Are Key Elements for Success

- Vendor should have experience on similar projects
  - If multiple objectives are involved, give prior experience substantial weight
- Vendor should understand public entity's business from an operational perspective
  - Vendor must truly understand the public entity's business needs, financial constraints, & concerns of their stakeholders (local, State & federal)
  - Vendor must understand the public entity's budgeting process, timetable, & constraints – including FOIA

## Partnership Still Requires Experienced Staff in the Public Entity

- Before reviewing a proposal, agency needs staff experienced in working a partnership deal
  - Legal, contractual, technical, & customer service
- After contract is signed, staff are needed with experience in contract administration & ongoing customer support
  - Staff will need access to necessary technical or engineering support
- Public entity's staff also needs to plan in advance for any required actions once the contract ends

# Partnership May Not Produce Savings

- Large public entity with excellent access to credit markets may find it more cost effective to rely on internal financial resources
- State should rigorously evaluate claimed savings to confirm they are real
- Budget flexibility may be lost if long-term financial commitment is made to private partner
  - May require continuation of services at fixed level or involve significant cost increases for service level changes

## Full & Careful Evaluation of Proposals Is Critical

- Proposal may identify a need, but public entity may be able to provide services without a partnership
  - Option of taking no action always exists
- Problems with a proposal's feasibility may not come to light until completion of agreement
- Before entering into a partnership, the public entity must fully understand its needs to properly evaluate
  - Which proposal will best meet identified needs
  - Whether any of the proposals will sufficiently meet the needs

# What Is the Proper Legislative Role?

- Implicit tension between executive branch and legislative branch over Partnership projects
  - Executive branch authorized to solicit, negotiate, and implement proposals
- No traditional role for legislature in approval process
  - Legislature is often tasked with ensuring long-term availability of funding
- How much legislative oversight is appropriate?
  - When does oversight compromise the process?
  - How “public” is the partnership? (Does FOIA apply?)

# Role Should Exist for Legislative Financial Auditing and Performance Evaluation

- Contract should include defined role for legislative auditors to evaluate & audit project periodically
  - Actual need for auditing may depend upon significance, complexity, & successfulness of project
- Certain factors may limit this form of oversight
  - Usefulness of evaluation may depend on nature of project, and quality & extent of **available** data
  - Determining whether public-private partnership is cost effective may be difficult
  - Ability to act on audit findings & recommendations may be limited by contract or other considerations

## **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

