



Prepare and Publish the Commonwealth of Virginia Strategic Plan for Information Technology for FY 2014-2020

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Information Technology Advisory Council

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Agenda

- Approach and schedule
- Progress to date
- Plan components
- Review ITAC business initiatives
- Review IT priorities
- Review proposed strategic directives
- Proposed plan outline and format
- Discussion and requested ITAC guidance
- Contact information
- Appendices



Approach

- Timeframe: Six years: FY 2014 – 2020
- Use ITAC Technology Business Plan initiatives as starting point
- Identify IT priorities that support the ITAC initiatives
- Develop IT strategic directives to guide and govern deployment of IT priorities
- Review with business leadership (focus group, ITAC)
- Post on ORCA for comment
- Update annually



Schedule

Task	Schedule
Identify strategic IT directions and emerging IT priorities: dialogue with VITA	November - December 2012
Identify strategic IT directions and emerging IT priorities: dialogue with agency stakeholders	December 2012 – January 2013
Develop initial draft	February 2013
Circulate initial draft for comment and incorporate changes	March 2013
Post final draft for review on ORCA	April 2013
Incorporate comments, obtain approval and post plan	May 2013



Progress to Date

- Nov. 9, Dec. 7, 2012, Jan. 14, 2013 - Conducted facilitated sessions with VITA Executive Team
 - Reviewed ITAC Business Plan initiatives
 - Gathered input on proposed IT priorities and strategic directives
 - Shared comments from initial focus group discussion
- Jan. 3 and 14, 2013 – Held meetings with focus group of ITAC members and other agency representatives
 - Reviewed proposed IT priorities
 - Reviewed list of proposed strategic directives
- Feb. 4, 2013 – Present proposed plan framework and contents to ITAC

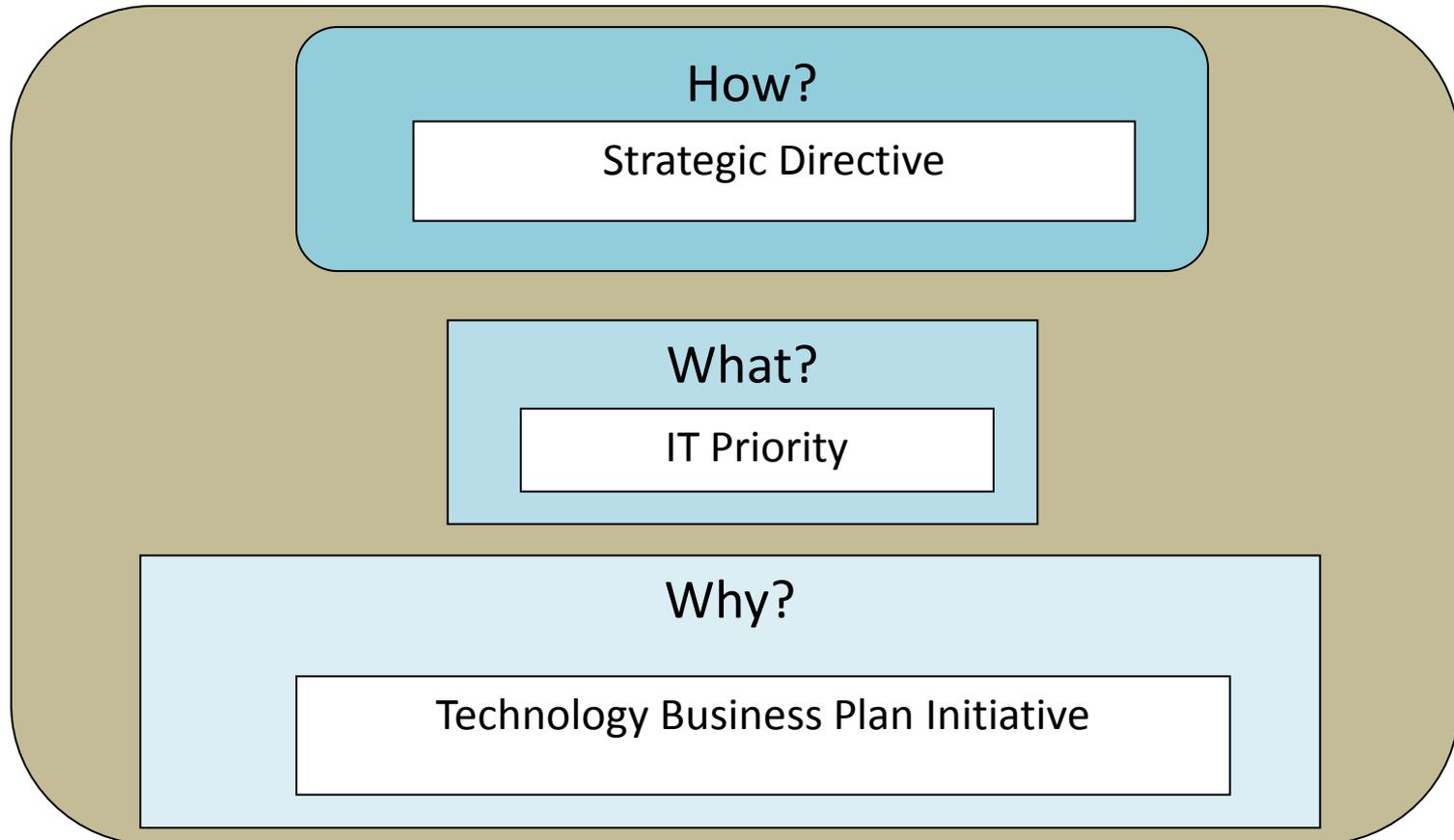


Three Plan Components

- Technology Business Plan Initiatives (five)
 - Link between the commonwealth's business priorities and technology strategies
- IT Priorities (seven)
 - Events or emerging technologies that likely will have a significant impact on the initiatives
- Strategic Directives (43)
 - Specific activities that leverage the IT priorities to fulfill the initiatives



Relationship between Initiatives, IT Priorities and Strategic Directives





Technology Business Plan Initiatives (Edited)

- Initiative 1 – Enable all citizens to interact with government 24x7
- Initiative 2 – Improve information sharing
- Initiative 3 – Leverage technology to improve worker productivity
- Initiative 4 – Support educational attainment
- Initiative 5 – Expand and support back-office platforms and productivity tools



IT Priority 1 - Mobility

- BYOD - Bring your own device for employees
- Mobile apps are a key way to interact with citizens
- CIO should set policies, standards and guidelines
- Security is a major concern
- Most popular apps with citizens are:
 - Traffic and road conditions
 - Parks and recreation activities
 - Professional licensing renewals
 - Public safety/emergencies
 - Government benefits/public assistance



IT Priority 2 – Cloud Computing and Services

- Provides computing infrastructure and/or services
- Barrier is government need to control data location, security, reliability and discovery
- Google, Microsoft, IBM and Amazon have deployed government public clouds
- The Northrop Grumman program currently provides a private infrastructure cloud”
- Potential cloud services:
 - Email and collaboration
 - Storage
 - Disaster recovery
 - Business applications
 - Electronic records
 - Citizen relationship management



IT Priority 3 – Enterprise Information Architecture (EIA)

- Framework for guiding an organization toward data management and governance
- EIA strategy covers:
 - Data governance
 - Data standardization
 - Data asset management
 - Enterprise data sharing
- EIA and related governance activities will position the commonwealth to maximize management and analysis of big data



IT Priority 4- Social Media

- Use of social media includes:
 - Collaboration platforms inside government
 - Web 2.0 technology on government websites (blogs, podcasts, webcasts)
 - consumer social media for institutional communication
- Social media can support:
 - Knowledge sharing among government workforce
 - Help achieve process improvements
 - Lay the foundation for improving transparency
 - Triggering constituent engagement
- What role should the commonwealth and agency CIOs have in social media policy and dedicated resources



IT Priority 5 - Cybersecurity

- Real-time cybersecurity refers to the integrated technologies and practices used to protect digital networks and resources from attack, damage or unauthorized use
- The digital world makes us more vulnerable
- Personally identifiable information (PII) and personal health information (PHI) are major concerns of commonwealth and agencies
- Gartner emphasizes a state-level cybersecurity plan and early cybersecurity planning for new projects
- Some agencies may need to establish security measures beyond commonwealth-wide requirements



IT Priority 6 - Consolidation

- Significant strategic planning initiative for the Commonwealth Comprehensive Infrastructure Agreement (CIA)
- IT infrastructure contract expires in 2019; January 2013 marked the mid-way point of contract
- Examples of questions to be answered:
 - How to continue the benefits of transformation while providing an adaptive IT environment
 - Procurement vehicle
- VITA developed prospective timeline for legislative leaders
- Preliminary planning underway with several steps planned for this year and next
- Outside expert engagement will begin in calendar year 2014



IT Priority 7 – Enterprise Shared Services (ESS)

- ESS is a delivery model in which a shared-service center acts as a centralized provider of a defined business function
- Shared services typically involve standardizing and streamlining data, processes and infrastructure
- The eHHR effort is an early adopter of this IT priority (SOA and EDM)
- Designating an ESS may include the following criteria:
 - Where services support business functions and data that cross departmental boundaries
 - Where a shared service is more cost effective
 - Where the shared service facilitates the transfer of information or worker knowledge



Proposed Strategic Directives – Initiative 1

No.	IT Priority	Strategic Directive
1	Mobility	Establish standard for mobile apps development
2	Mobility	Develop usage policy for mobile technology enabled applications
3	Mobility	Develop infrastructure technology roadmap that supports expansion of online services/mobility
4	Mobility	Provision infrastructure to support expansion of online/mobility services
5	Cloud	Develop strategy and PSGs for public cloud computing
6	Cloud	Incorporate public cloud computing into the technology roadmap
7	Cloud	Formally establish and brand the COV government cloud
8	EIA	Develop an enterprise information architecture (EIA) strategy and roadmap



Proposed Strategic Directives – Initiative 1 (cont.)

No.	IT Priority	Strategic Directive
9	Social	Establish social policy for information needs of citizens
10	Social	Create a COV presence on social media and dedicate resources to monitoring and maintenance
11	Security	Enhance COV's cybersecurity posture
12	Security	Develop security governance requirements for COV identity management
13	Security	Deploy a single identity management system (CAS) for all public-facing state government apps
14	Consolidation	Support re-engineering and local consolidation of E-911 centers
15	Consolidation	Develop a roadmap to implement single point of entry for citizen services
16	ESS	Implement a COV payment portal



Proposed Strategic Directives – Initiative 2

No.	IT Priority	Strategic Directive
1	EIA	Implement PSGs for publishing public datasets
2	EIA	Establish a trust agreement to support COV-wide information exchange
3	EIA	Adopt/implement information exchange and vocabulary
4	EIA	Develop an enterprise approach to data management
5	Security	Establish framework to ensure compliance with security PSGs
6	Consolidation	Procure/promote collaborative use of applications development lifecycle toolset
7	EIA	Establish a COV data governance stewardship body with established roles /responsibilities
8	ESS	Expand use of the central SOA shared infrastructure



Proposed Strategic Directives – Initiative 3

No.	IT Priority	Strategic Directive
1	Mobility	Develop strategy and establish governance to enable a mobile workforce
2	Mobility	Expand technology offerings to enhance the mobile employee experience
3	Cloud	Develop an agile provisioning model for launching new services
4	Social	Establish a social media environment for state government employees
5	Consolidation	Develop training plans and programs to ensure COV's workforce has the knowledge and skills to utilize and support emerging information technology
6	Consolidation	Establish a group to identify and promote innovative uses of technology



Proposed Strategic Directives – Initiative 4

No.	IT Priority	Strategic Directive
1	EIA	Expand services such as the Virginia Longitudinal Data System
2	Mobility	Promote the expansion of core curricula via an apps store concept that offers standardized curricula
3	ESS	Offer COV wide instructional software, such as Blackboard
4	ESS	Promote SOA to support the student/teacher interaction
5	EIA	Integrate/link emerging workforce skills needs and course learning objectives databases



Proposed Strategic Directives – Initiative 5

No.	IT Priority	Strategic Directive
1	Consolidation	Identify a strategy for more efficient printing services
2	Consolidation	Develop a strategy for Comprehensive Infrastructure Agreement (CIA) contract expiration
3	Consolidation	Layout groundwork for establishing new contract and transition
4	Consolidation	Implement strategy for CIA contract expiration
5	Consolidation	Develop and implement transition plan
6	Consolidation	Inventory, prioritize and develop a roadmap for replacement or elimination of legacy systems
7	ESS	Implement a central SOA service offering
8	ESS	Establish governance for the use of SOA



Proposed Plan Outline

- Message from the CIO
- ITAC Technology Business Plan initiatives
- IT Priorities
 - Strategic directives
 - IT priority business capability model (future)
 - Resource links
- Plan development process
- Related legislation
- Glossary



Proposed Plan Format

- Web site modeled on Texas 2012-2016 State Strategic Plan for Information Resources Management
- Site:
<http://www2.dir.state.tx.us/management/strategy/SSP/Pages/Home.aspx>



Discussion and Requested ITAC Guidance

- Request ITAC input
 - Plan organization
 - IT priorities
 - Strategic directives
 - Web format
 - Annual update
 - Other
- Please review this presentation and submit comments by Friday, Feb. 8, to:
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Contact Information

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Appendices

Full text of the following:

- A – ITAC Technology Business Plan Initiatives
- B – IT Priorities
- C – Strategic Directives



A - Technology Business Plan Initiatives

- Initiative 1 – Emphasize programs and tools that enable all citizens to interact with government 24x7 – safely and securely, and when, how and where they want it
- Initiative 2 – Improve information sharing to optimize current business functions and supporting systems
- Initiative 3 – Leverage technology to improve worker productivity and make state employment more attractive to the future workforce
- Initiative 4 – Support educational attainment initiatives-key to achieving state economic development and quality of life goals
- Initiative 5 – Expand and support back-office platforms and productivity tools that support Governor's Reform Commission recommendations on streamlining government operations



Appendix B – IT Priorities



IT Priority 1 - Mobility

- BYOD - Bring your own device – practice of allowing employees to use their personally owned mobile devices for state government work; typically limited to mobile phones and tablets
- Mobile apps are rapidly becoming a key way for state government to interact with citizens
- Mobile devices and apps are IT so the CIO should set policies, standards, guidelines, etc.
- Security is a big concern – requires significant technology protections
- According to NASCIO, most popular apps with citizens are:
 - Traffic and road conditions
 - Parks and recreation activities
 - Professional licensing renewals
 - Public safety/emergencies
 - Employment assistance
 - Government benefits/public assistance



IT Priority 2 – Cloud Computing and Services

- A cloud can provide computing infrastructure and/or services
- A government cloud refers to a particular type of community cloud where members are government organization, from the same jurisdictions or domains (i.e., defense, human resources)
- Barrier is government need to control where data is located and specific requirements around security, reliability and discovery
- Vendors such as Google, Microsoft, IBM and Amazon have deployed and pre-certified government public clouds
- The Northrop Grumman infrastructure program currently provides a private infrastructure cloud for the commonwealth
- Potential future Cloud Services:
 - Email and collaboration
 - Storage
 - GIS
 - Disaster recovery
 - Business applications (licensing, unemployment insurance, workers comp)
 - Office productivity software
 - Electronic records
 - Citizen relationship management



IT Priority 3 – Enterprise Information Architecture (EIA)

- An Enterprise Information Architecture (EIA) is a framework for guiding an organization towards its desired "future state" of data management and governance; EIA strategy will cover data governance, data standardization, data asset management and enterprise data sharing; EIA and related governance activities will position the commonwealth to maximize management and analysis of big data
- Common themes for big data are:
 - Volume – Terabytes to zetabytes
 - Variety – Structured to a mix of structured/unstructured
 - Velocity – Batch to streaming data
- Big data typically refers to datasets so large and complex that it is difficult to manipulate using usual database tools; requires special analytical tools and employee training



IT Priority 4- Social Media

- The enterprise use of social media includes collaboration platforms inside government; use of Web 2.0 technology on government websites (blogs, podcasts, webcasts) and the use of consumer social media for institutional communication (official Facebook pages or Twitter accounts)
- Gartner suggests that government leaders should move away from establishing external communities on government websites and should determine which consumer social sites are a valuable channel for engaging with citizens
- Social media can support knowledge sharing among government workforce, help achieve process improvements and lay the foundation for improving transparency and triggering constituent engagement
- What role should the commonwealth and agency CIOs have in social media policy and dedicated resources



IT Priority 5 - Cybersecurity

- Real time cybersecurity in government refers to the integrated technologies and practices used to protect digital networks and resources – including the internet, computers, programs and data – of government and society from attack, damage or unauthorized use
- The digital world makes us more vulnerable
- Personally identifiable information (PII) and personal health information (PHI) are major concerns of commonwealth and agencies
- Gartner emphasizes a state-level cybersecurity plan and suggests that all new IT-based projects/programs have cybersecurity planning performed in the early stages of requirements
- Some agencies may need to establish security measures beyond commonwealth-wide requirements



IT Priority 6 - Consolidation

- Significant strategic planning initiative for the Commonwealth Comprehensive Infrastructure Agreement (CIA)
- IT infrastructure contract expires in 2019; January 2013 marked the mid-way point of contract
- Examples of questions to be answered:
 - How to continue the benefits of transformation while providing an adaptive IT environment
 - Procurement vehicle
- VITA developed prospective timeline for legislative leaders
- Preliminary planning underway with several steps planned for this year and next
- Outside expert engagement will begin in calendar year 2014



IT Priority 7 – Enterprise Shared Services (ESS)

- ESS is delivery model in which a shared-service center (either physical or virtual,) supported by dedicated people, processes and technologies, acts as a centralized provider of a defined business function for use by multiple enterprise constituencies
- Shared services typically involve standardizing and streamlining data, processes, and infrastructure, as well as implementing financial disciplines around the services being delivered
- Designation of a service as an enterprise shared service may include the following criteria:
 - Where services support business functions and data that cross departmental boundaries
 - Where a shared service is more cost-effective
 - Where the shared service facilitates the transfer of information or worker knowledge
 - Where consistent qualities of service are required
 - Where a shared service is foundational to other needed shared services
 - Where a common approach is mandated by competent authority or best practices
- The eHHR effort is an early adopter of this IT priority (SOA and EDM)



Appendix C – Strategic Directives

Listed by Initiative



Proposed Strategic Directives – Initiative 1

No.	IT Priority	Strategic Directive
1	Mobility	Establish standard for mobile apps development and list of targeted applications (include security component)
2	Mobility	Develop usage policy for mobile technology enabled applications (include security component)
3	Mobility	Develop technology roadmap for infrastructure to support expansion of online services/mobility (include provisioning step)
4	Mobility	Provision infrastructure to support expansion of online/mobility services
5	Cloud	Develop strategy and PSGs for public cloud computing
6	Cloud	Incorporate public cloud computing into the technology roadmap
7	Cloud	Formally establish and brand the COVA government cloud; include SaaS and keep vendor agnostic
8	EIA	Develop an enterprise information architecture strategy and roadmap (data governance, data standardization, data asset management, enterprise data sharing)



Proposed Strategic Directives – Initiative 1 (cont.)

No.	IT Priority	Strategic Directive
9	Social	Establish social media (Facebook, Twitter, LinkedIn, Pinterest) policy for information needs of citizens; Partner with customers and private industry to develop statewide social media policies, standards and best practices training
10	Social	Create a COVA presence on social media and dedicate resources to monitoring and maintenance
11	Security	Enhance COVA's cybersecurity posture
12	Security	Develop security governance requirements for COVA identity management
13	Security	Deploy a single identity management system (CAS) for all public-facing state government apps
14	Consolidation	Support re-engineering and local consolidation of E-911 centers to upgrade technology, reduce cost and streamline citizen access
15	Consolidation	Develop a roadmap to implement no wrong door (single point of entry) for citizen services
16	ESS	Implement a COVA payment portal



Proposed Strategic Directives – Initiative 2

No.	IT Priority	Strategic Directive
1	EIA	Implement information sharing PSGs and a data sharing framework for acceptable use of publishing public datasets
2	EIA	Establish a trust agreement framework, defined by PSGs, to support commonwealth-wide information exchange across domains and levels of government
3	EIA	Adopt and implement information exchange and vocabulary standards to provide a common basis for governmental information sharing (based on existing ITRM PSGs)
4	EIA	Develop an enterprise approach to data management to enable the effective governance of information assets aligned with industry trends, including big data, business analytics and emerging toolsets
5	Security	Establish framework to ensure compliance with security PSGs
6	Consolidation	Procure applications toolset that will support the applications development lifecycle and promote collaborative toolset use among agencies
7	EIA	Establish a COVA data governance stewardship body with established roles and responsibilities
8	ESS	Expand use of the central SOA shared infrastructure to enable better standardized exchange of information between agencies and partners



Proposed Strategic Directives – Initiative 3

No.	IT Priority	Strategic Directive
1	Mobility	Develop a mobility strategy for in scope Executive Branch agencies using ITP services; establish governance for mobility to include a policy for BYOD; develop and implement policies and technologies to enable a mobile workforce and that are both attractive to next-generation workers and cost-effective and productive for the commonwealth
2	Mobility	Expand technology offerings to enhance the mobile employee experience
3	Cloud	Develop an agile provisioning model for launching new services
4	Social	Establish a social media environment for state government employees
5	Consolidation	Develop training plans and programs to ensure COVA's information technology and administrative workforce has the knowledge and skills to support the state's information technology
6	Consolidation	Establish a group to identify and promote innovative uses of technology in the commonwealth



Proposed Strategic Directives – Initiative 4

No.	IT Priority	Strategic Directive
1	EIA	Expand services such as the Virginia Longitudinal Data System beyond education data and beyond public K-12/ public colleges and universities
2	Mobility	Promote the expansion of core curricula that meet SOLs or university core curricula via an apps store concept that offers standardized curricula; COV role could be provision of infrastructure
3	ESS	Offer COV wide instructional software, such as Blackboard
4	ESS	Promote SOA for the student/teacher interaction, both instructional and administrative
5	EIA	Integrate/link emerging workforce skills needs and course learning objectives databases statewide to better match educational opportunities to occupational titles



Proposed Strategic Directives – Initiative 5

No.	IT Priority	Strategic Directive
1	Consolidation	Identify a strategy for a more efficient solution for printing services
2	Consolidation	Develop a strategy for Comprehensive Infrastructure Agreement contract expiration
3	Consolidation	Lay out groundwork for establishing new contract and transition
4	Consolidation	Implement strategy for Comprehensive Infrastructure Agreement contract expiration
5	Consolidation	Develop and implement transition plan
6	Consolidation	Inventory, prioritize and develop a roadmap for replacement or elimination of legacy systems that are old, inefficient and unsecure, and that inhibit innovation and reform
7	ESS	Implement a central SOA service offering to enable better standardized exchange of information between agencies and partners
8	ESS	Establish governance for the use of SOA