



Benefits of the IT Infrastructure Transformation

October 2008



NORTHROP GRUMMAN

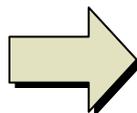
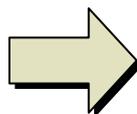
The partnership's vision to modernize the Commonwealth's IT infrastructure is based on ensuring all agencies are able to provide better support to their constituents

It's not just good for the state ...

Secure data with 24/7 monitoring and reduced exposure

Improved continuity of operations

Latest technology at 2005 prices



It's good for agencies

Improved ability to deliver citizen services without additional cost

Improved security of Commonwealth assets with better incident response

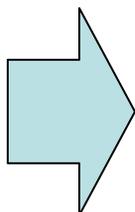
All agencies will have reliable and consistent IT hardware and support

The peace of mind knowing that disaster recovery resources protect mission critical information

Staff with specialized skills ready to be deployed across the state

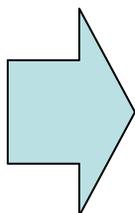
The case for change is rooted in an enterprise perspective, which we've made great strides in addressing

The Commonwealth wants to adopt a more business-like approach to managing IT



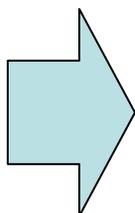
We've made significant private investments and will maintain costs at 2005 levels; we're also now working to SLAs

State government lacked the IT infrastructure to operate effectively with low risk



We've improved IT security by building a robust network and upgrading PCs and servers too old to run current virus software

The service model needed to change



We've standardized the service approach and can now refine it so that agencies can focus more on their core business

We've also accomplished a great deal of the technical upgrades necessary to reach the fully transformed state

- ▶ Constructed and opened **two secure, custom-built data centers** that centralize IT support and securely house Commonwealth data
- ▶ Successfully launched comprehensive **disaster recovery capabilities** and tested them to ensure mission critical agency data can be restored
- ▶ **Consolidated and relocated 806 servers** and components to a more secure, central location where they are more closely monitored
- ▶ Established a **central Service Desk** that is now providing 24x7 support to nearly all (80+) Commonwealth agencies
- ▶ Improved overall **IT security** by opening an enterprise security operations center and implementing new security measures
- ▶ **Intercepted over 1 million SPAM messages per day** as a result of new Ironport software installed across the Commonwealth
- ▶ **Replaced thousands of antiquated laptops, desktops** and peripheral equipment, bringing agencies into the 21st Century and improving inter-agency operability

We've begun to fully leverage the new tools with refined processes

Agencies now have seven service offerings that include full maintenance and technical support

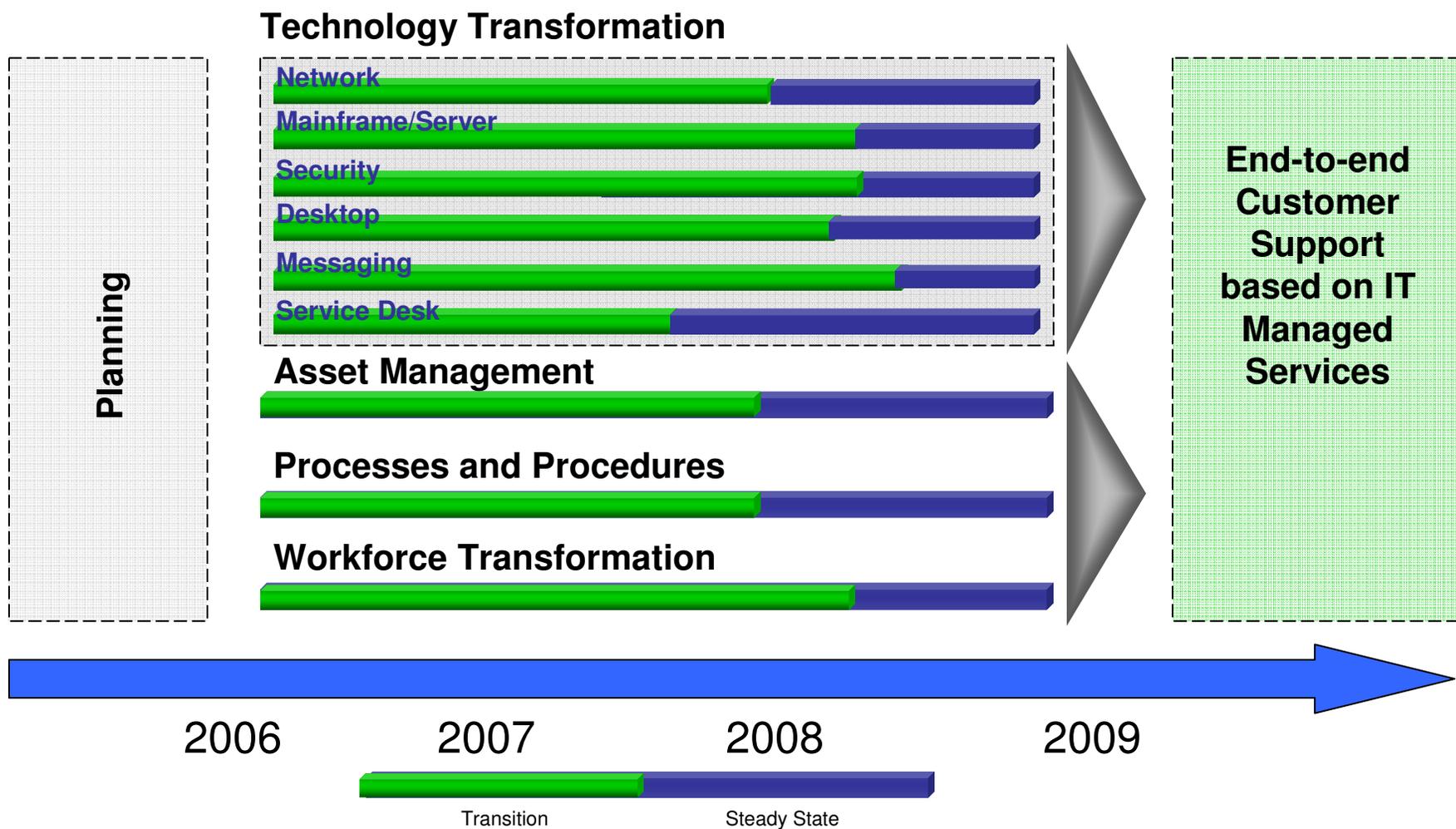
Service Offerings	From	To
Network	Fragmented	One centralized multi-service network that is more robust, reliable and secure
Mainframes/Servers	Numerous locations, excess capacity (3,000+)	New mainframes, and most servers, in a single, secure location monitored around-the-clock and more easily maintained
Security	Inadequate in many areas	Enterprise Security Operations, Security Incident Response and a Secure Internet Gateway
Voice and Video	Hi-cost PBX and Centrex systems	New VoIP-enabled network allows for next generation voice and video applications
PCs	Incompatible, often outdated	Refreshed PCs with fewer service needs, and a standard platform for consistent trouble-shooting
Service Desk support	40+ help desks	Single point of contact for all state employees, with self-help & end user account support
Messaging	Variety of incompatible systems	Standard e-mail service , global address list, virus checker and firewall security

To better manage projects and involve agencies, we've recently improved the new agency support model

In the Old model...	In the New model...
<ul style="list-style-type: none"> ▶ Transformation Points of Contact (TPOCs) coordinate deployments, but have no management authority 	<ul style="list-style-type: none"> ▶ Agency Deployment Managers (ADM) will drive Transformation scheduling and will have authority to manage Transformation efforts
<ul style="list-style-type: none"> ▶ Agency reps informed of Transformation deployments but not engaged in planning 	<ul style="list-style-type: none"> ▶ Agency representatives will have opportunity to actively participate in Transformation deployment planning
<ul style="list-style-type: none"> ▶ Transformation project teams separated from Service Delivery teams 	<ul style="list-style-type: none"> ▶ Transformation and Service Delivery resources are combined into one team, improving coordination between transformation and operations to provide better customer service
<ul style="list-style-type: none"> ▶ APMs and CAMs managed the customer experience on their own ▶ SLD line managers managed technical staff, but may not have had alignment to agencies 	<ul style="list-style-type: none"> ▶ Customer Account Team structure will coordinate and communicate all agency IT activity – operations, maintenance and support, RFS implementation, transformation ▶ AOMs will provide an agency single point of contact for Service Delivery, and will set expectations, manage operations and provide an escalation path

We've made a number of changes that will help you transform

As we progress through key transitions, impacts will decrease and benefits will increase – getting to the end state takes cooperation



Technical transformation ensures that agency applications and processes are accessible, available, responsive and secure

Changes Agencies Will See

Agencies

- A predictable and a reliable infrastructure
- Increased IT and business efficiencies
- Statewide calendar and meeting tools

Agency Employees (End Users)

- Desktop with common, up-to-date, industry standard software
- New desktop tools such as Altiris and Proventia (invisible to end user)

Agency Customers (Citizens)

- Increased security processes and password protection
- Potential for enhanced services (online access to services)

Why These Changes Matter

- Improved services, which will lead to employee productivity and enhanced services for customers
- A focus on core service delivery and core business operations
- Increased collaboration and cooperation among agencies

- Improved capability to share files internally and read files received from outside
- Increased speed and reliability of desktop applications
- Remote desktop management capabilities and increased desktop security

- Improved security of information
- Easier access, less wait time, alternatives to standing in line
- Faster turnaround times for online service requests

Much of the value of this program will be realized only when we reach the final, transformed state

**Common interface,
information & transactions**

**CITIZENS,
PARTNERS &
PUBLIC ENTITIES**

One Commonwealth, One Network

Service Area Slides

The fundamental piece of the future state is already in place for more than half of all sites

Network Transformation



- Commonwealth-wide network backbone
- Upgrades to MPLS standard
- Consolidated addresses

Improvements To Date

- Nearly all sites (~2000) sites have been added onto the new network
- Two Internet access points (versus 400) on state-wide high speed Internet data network

Strategic Benefits

- Greatly improved security
- Increased redundancy
- 24X7 central monitoring with no downtime for maintenance

Pathway Forward

- Network Infrastructure & Services
- Enterprise – wide SLA standards
- ITIL – compliant process / procedures

One network for all agencies

Redundant data centers now protect information from natural disasters or other disruptions

Mainframe / Server Transformation



- New IBM and Unisys mainframes
- Consolidation and refresh of servers
- Server virtualization

Improvements To Date

- New mainframes with DR in place
- RPB servers moved to secure CESC
- From 25% server capacity used to high-capacity, “hosted” services

Strategic Benefits

- Robust disaster recovery capability
- Reduced assets, processes and energy consumption
- Simplified infrastructure ensures continued innovation

Pathway Forward

- Directory Service Infrastructure & Services
- Enterprise – wide SLA standards
- ITIL – compliant process / procedures

One platform enables critical communication

Networks, data centers and desktops are protected 24x7 with central monitoring and response

Security Transformation

	<ul style="list-style-type: none">• Enterprise Security Operations Center• Security Incident Response Center• Secure Internet Gateway	<p><i>Improvements To Date</i></p> <ul style="list-style-type: none">• From 80% of agencies reporting inadequate security to enterprise – wide security coverage
<p><i>Strategic Benefits</i></p> <ul style="list-style-type: none">• Addresses audit findings for state agency IT security gaps• Ensures ongoing security upgrades that prevent vulnerabilities	<p><i>Pathway Forward</i></p> <ul style="list-style-type: none">• Enterprise – wide SLA standards• ITIL – compliant process / procedures	

Managing and protecting critical information

Upgraded networks will enable the convergence of voice, video and data

Voice and Video Transformation



- Network optimized for voice and video traffic
- Video and data conferencing
- COV-wide dialing for long distance savings

Improvements To Date

- Network established for VOIP and other communications
- Simplified conference call set up that includes Webex
- Voice over IP Network pilot at CESC

Strategic Benefits

- Eliminates high-cost and inconsistent telephone systems across the state
- Creates a common platform for current and future voice and video applications

Pathway Forward

- Network Infrastructure & Services
- Enterprise – wide SLA standards
- ITIL – compliant process / procedures

A new generation of voice and video

Outdated equipment is now being replaced and refreshed on a regular basis for all agencies

Desktop Transformation



- Mass Desktop Refresh Projects
- Enterprise Desktop Management
- Common equipment across Virginia

Improvements To Date

- New PCs or laptops (35,000) w/ Office '03, SharePoint and Adobe Reader
- Wireless Internet capable
- Asset management system built in

Strategic Benefits

- Reduces support calls and supports work at home
- Enables inter-agency communications and collaboration
- Energy saving equipment

Pathway Forward

- Enterprise – wide SLA standards
- ITIL – compliant process / procedures

Common operating environment

A consistent platform will soon exist for collaboration and communication across the Commonwealth

Messaging Transformation



- Enterprise Exchange / Outlook Email
- Enterprise Collaboration Tools
- Active Directory, DNS

Improvements To Date

- Standard e-mail service, virus checker and firewall security (5K end-users)
- Global address list (GAL) moves all COV employees to common e-mail address list

Strategic Benefits

- Improved e-mail functionalities
- Automatic anti-virus updates and security patches
- Blocks spam at higher rates

Pathway Forward

- Directory Service Infrastructure & Services
- Enterprise – wide SLA standards
- ITIL – compliant process / procedures

One platform enables critical communication

A central helpdesk now supports agencies on a broad array of problems and issues

Service Desk Transformation



- Web enabled self-help support & end user account support
- Toll free number that won't go to voicemail
- Desktop remote control capability

Improvements To Date

- Nearly all (80+) agencies have completed the rollout of Service Desk software
- More than 20,000 tickets are being closed every month

Strategic Benefits

- Greater first call resolution
- eSupport enables quicker resolution of simple issues (ie, password reset) and leads to end-user knowledge and improved computing

Pathway Forward

- Enterprise – wide SLA standards
- ITIL – compliant process / procedures

A single point of contact 24x7