



# Benefits of the IT Infrastructure Transformation

October 2008



***NORTHROP GRUMMAN***

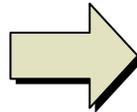
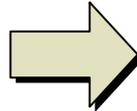
## The partnership's vision to modernize the Commonwealth's IT infrastructure is based on ensuring all agencies are able to provide better support to their constituents

### 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

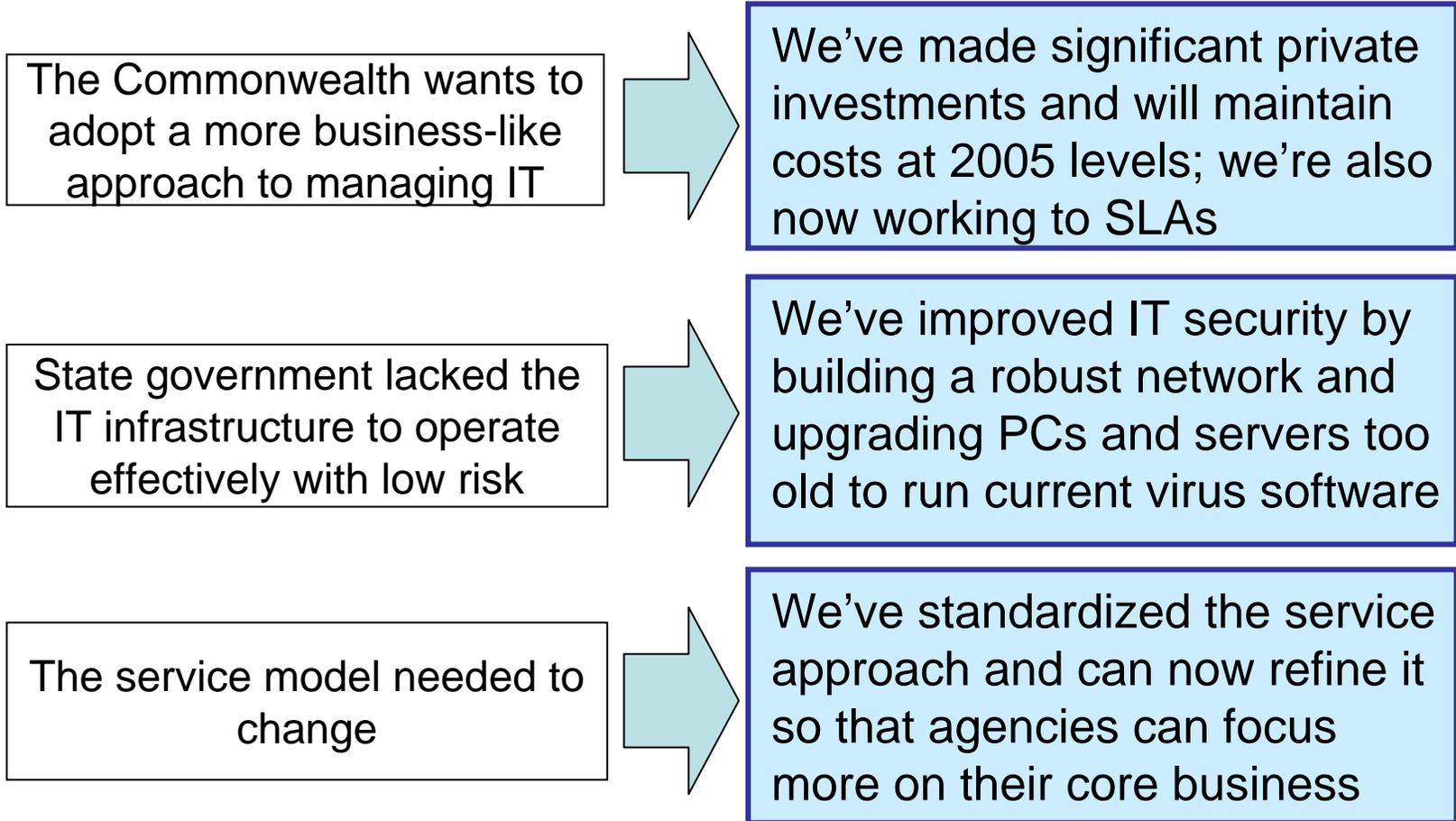
Improved security of Commonwealth assets with better incident response

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



## 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 helpdesk** that is now providing 24x7 support to 58 agencies (32,000 users)
- ▶ 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 21<sup>st</sup> 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

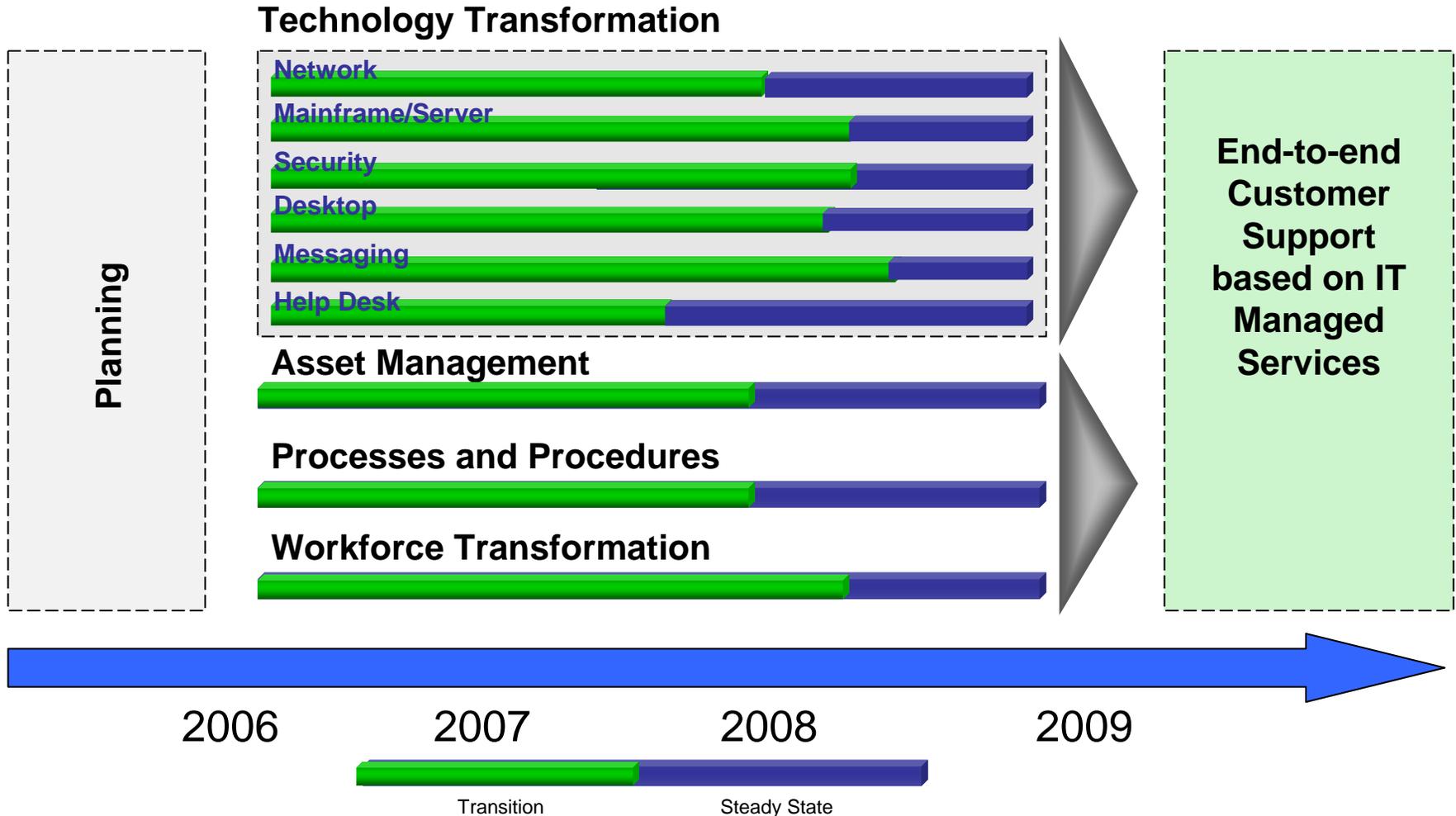
Service Offerings	From	To
<b>Network</b>	Fragmented	<b>One centralized multi-service network</b> that is more robust, reliable and secure
<b>Mainframes/Servers</b>	Numerous locations, excess capacity (3,000+)	<b>New mainframes, and most servers, in a single, secure location</b> monitored around-the-clock and more easily maintained
<b>Security</b>	Inadequate in many areas	Enterprise Security Operations, Security Incident Response and a Secure Internet Gateway
<b>Voice and Video</b>	Hi-cost PBX and Centrex systems	New VoIP-enabled network allows for <b>next generation voice and video</b> applications
<b>PCs</b>	Incompatible, often outdated	<b>Refreshed PCs</b> with fewer service needs, and a standard platform for consistent trouble-shooting
<b>Help desk support</b>	40+ help desks	<b>Single point of contact</b> for all state employees, with self-help & end user account support
<b>Messaging</b>	Variety of incompatible systems	<b>Standard e-mail service</b> , 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"> <li>▶ Transformation Points of Contact (TPOCs) coordinate deployments, but have no management authority</li> </ul>	<ul style="list-style-type: none"> <li>▶ Agency Deployment Managers (ADM) will drive Transformation scheduling and will have authority to manage Transformation efforts</li> </ul>
<ul style="list-style-type: none"> <li>▶ Agency reps informed of Transformation deployments but not engaged in planning</li> </ul>	<ul style="list-style-type: none"> <li>▶ Agency representatives will have opportunity to actively participate in Transformation deployment planning</li> </ul>
<ul style="list-style-type: none"> <li>▶ Transformation project teams separated from Service Delivery teams</li> </ul>	<ul style="list-style-type: none"> <li>▶ Transformation and Service Delivery resources are combined into one team, improving coordination between transformation and operations to provide better customer service</li> </ul>
<ul style="list-style-type: none"> <li>▶ APMs and CAMs managed the customer experience on their own</li> <li>▶ SLD line managers managed technical staff, but may not have had alignment to agencies</li> </ul>	<ul style="list-style-type: none"> <li>▶ Customer Account Team structure will coordinate and communicate all agency IT activity – operations, maintenance and support, RFS implementation, transformation</li> <li>▶ AOMs will provide an agency single point of contact for Service Delivery, and will set expectations, manage operations and provide an escalation path</li> </ul>

**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*

- 945 sites transformed with 5 new sites added weekly
- 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***



- Enterprise Security Operations Center
- Security Incident Response Center
- Secure Internet Gateway

### *Improvements To Date*

- From 80% of agencies reporting inadequate security to enterprise – wide security coverage

### *Strategic Benefits*

- Addresses audit findings for state agency IT security gaps
- Ensures ongoing security upgrades that prevent vulnerabilities

### *Pathway Forward*

- 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 (24,500) 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*

 <ul style="list-style-type: none"><li>• Enterprise Exchange / Outlook Email</li><li>• Enterprise Collaboration Tools</li><li>• Active Directory, DNS</li></ul>	<p><i>Improvements To Date</i></p> <ul style="list-style-type: none"><li>• Standard e-mail service, virus checker and firewall security (5K end-users)</li><li>• Global address list (GAL) moves all COV employees to common e-mail address list</li></ul>
<p><i>Strategic Benefits</i></p> <ul style="list-style-type: none"><li>• Improved e-mail functionalities</li><li>• Automatic anti-virus updates and security patches</li><li>• Blocks spam at higher rates</li></ul>	<p><i>Pathway Forward</i></p> <ul style="list-style-type: none"><li>• Directory Service Infrastructure &amp; Services</li><li>• Enterprise – wide SLA standards</li><li>• ITIL – compliant process / procedures</li></ul>

**One platform enables critical communication**

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

## *Help 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*

- Over 52 agencies have completed the rollout of Help Desk software
- Over 10,000 tickets 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**