

IT Optimization

Stu Davis, State Chief Information Officer

Tom Croyle, Chief Technology Officer

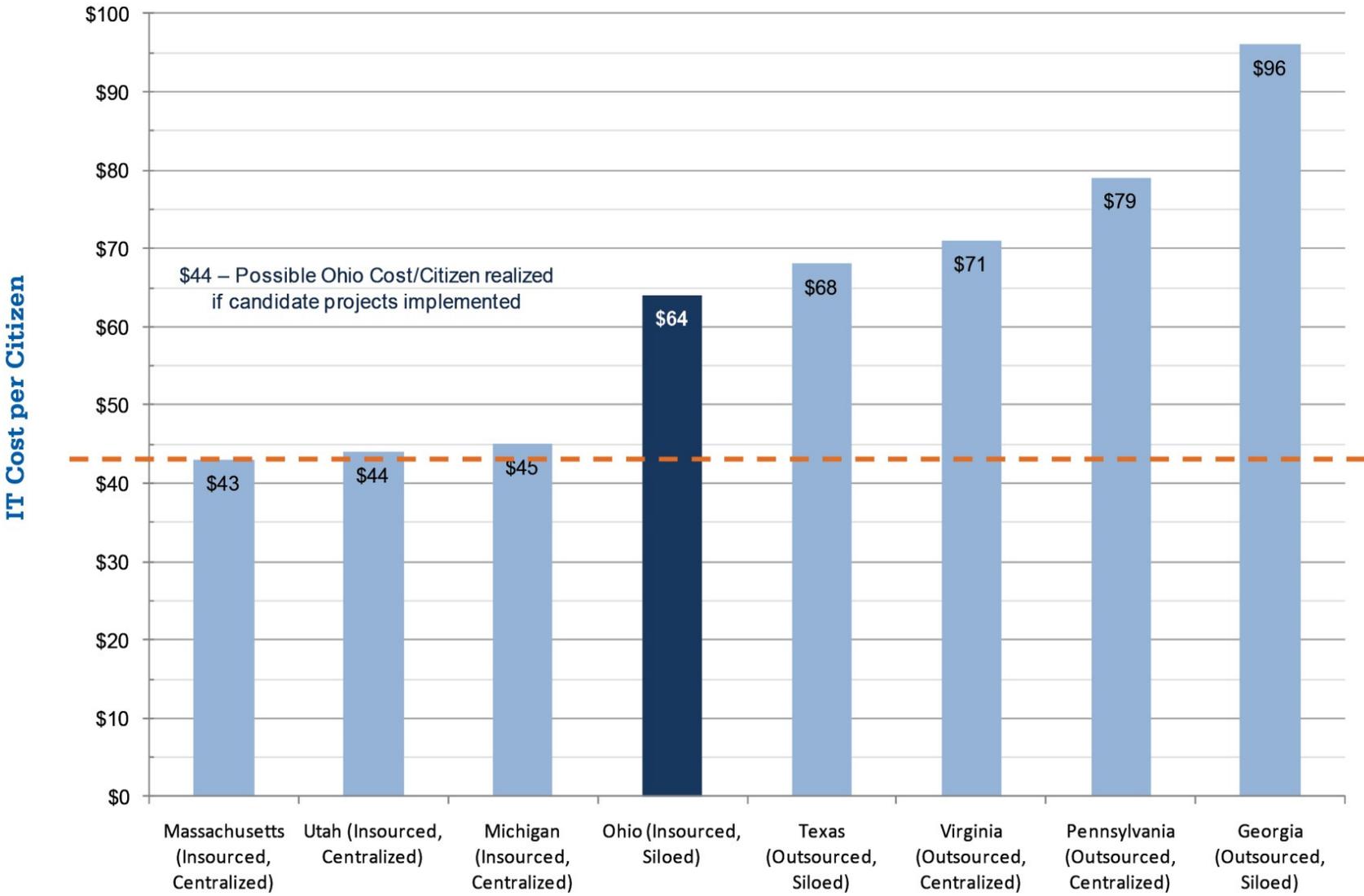
Katrina Flory, Chief Administrator

Spencer Wood, Chief Operating Officer

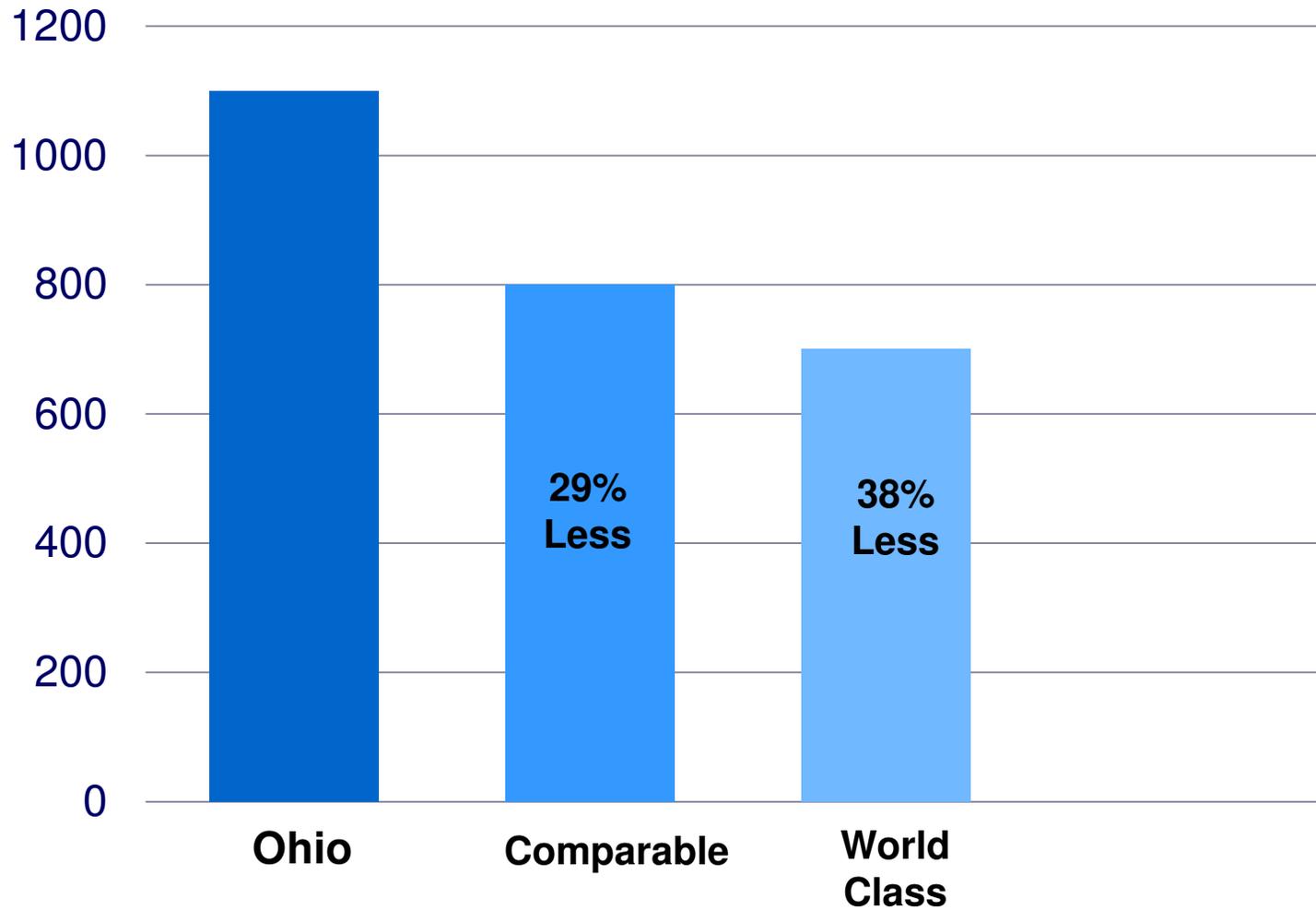
May 2013

- Federated, decentralized IT environment is not sustainable
- FY12 IT spend of more than \$830 million
- More than 5,000 servers in more than 30 data centers
- More than 1,600 applications
 - 20% more than 10 years old
 - 54% more than 5 years old
- Aging legacy systems (10-20yrs) are more expensive to maintain
- 14 separate statewide networks, \$53M annual contract spend
- 2,500 IT professionals supporting duplicative IT functions
- 32% of IT workforce eligible for retirement
- Competing projects distracting Agency focus and resources supporting infrastructure

Comparative State IT Costs per Citizen



IT Infrastructure & Network Staffing Comparison



Ohio's Approach

- Status Quo must go!
- Smart IT consolidation estimated to save \$150 million a year in IT expenditures
- Must be Creative and Adaptive:
 - New Ideas and New Thinking
 - Requires the Support of all Agencies
 - Coalesce Agency Resources into a State IT team
- Change is hard, but it is clear
 - Pursuing IT consolidation as an enterprise is the right thing to do for the State and for Ohio's taxpayers.

Ohio's Approach

Strategic, targeted and phased approach best chance for success.

Shared service model enabling the mission and business of the agencies through standardized, secured, and stable IT environment.

- Strong central planning and procurement -insight into the business needs of the agencies and provides a holistic view of the enterprise.

Shared infrastructure supports shared services and provides mechanisms for State to interact with citizens and businesses.

- Simplifying the infrastructure reduces costs and provides a foundation for common, enterprise applications and solutions.
- Expanding the use of enterprise applications
- This integration of data will greatly improve State services, service delivery and enhance policy making.

December 2010 IT Statement of Direction

- State IT Landscape
- Opportunities for Smart Consolidation
- Challenges (legacy systems, culture, aging workforce, etc.)

January 2012 IT Strategic Plan

- Goals for IT Optimization
 - Increase Efficiency
 - Improve Service
 - Reduce Complexity
 - Realize Savings

December 2012 IT Transformation Plan

- Transition to Enterprise IT

Transforming IT for Ohio

- Outsourcing is not always the answer
- Strong IT resources, but currently focused on Agency
- Bring IT workforce together to focus on the enterprise
- Support the business and mission of the Agency
- Plan lays out A to D ... not A to Z
- Know what we know but don't have all the answers...
- Working together (State Agencies) we can discover the answers
- Concentrate on 9 distinct functional areas:

<ul style="list-style-type: none">• Network Ops• Security• Cost Recovery	<ul style="list-style-type: none">• Data Center Ops• Enterprise Apps• BRM	<ul style="list-style-type: none">• UC and Infra Apps• Plan/Procurement• Workforce
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- Build multi-agency functional work teams to plan future work

- **Increase Efficiency**
 - Leverage economies of scale and eliminate duplicative activities
 - Improve IT business decision-making process
 - Improve security of mission critical systems & constituent information
 - Effective use of IT professionals
 - Align enterprise applications with business goals
- **Improve Service**
 - Leverage savings to innovate, modernize and continually upgrade
 - Provide enhanced solutions delivery internal and external
- **Reduce Complexity**
 - Standardize technology use, procurement and contracting
- **Realize Savings**
 - Reduce consultant spend
 - Leverage economies of scale and eliminate duplicative activities

Targeted Cost Savings

Target areas for cost reduction through IT Optimization

Target Area	Annual Cost	Conservative Savings Estimate			
		Conservative Savings Estimate		Optimistic Savings Estimate	
		%	Amount	%	Amount
Internal Labor**	\$277,800,000	15	\$41,670,000	25	\$69,450,000
Contract/Consultant	\$178,700,000	20	\$35,740,000	30	\$53,610,000
OIT billed Excluding Labor	\$74,600,000		\$0		\$0
Maintenance/Lease/Rent/repair	\$70,500,000	15	\$10,575,000	25	\$17,625,000
Hardware/Software Cost Avoidance*	\$70,400,000	15	\$6,315,000	25	\$10,525,000
Misclassified	\$64,500,000		\$0		\$0
Network	\$46,100,000	20	\$9,220,000	30	\$13,830,000
Exempt Agency Direct	\$15,500,000		\$0		\$0
Desktop Related	\$14,000,000		\$0		\$0
Mainframe Exp	\$12,100,000		\$0		\$0
Telecommunications	\$7,900,000		\$0		\$0
misc	\$5,600,000		\$0		\$0
Total***	\$837,700,000		\$103,520,000		\$165,040,000

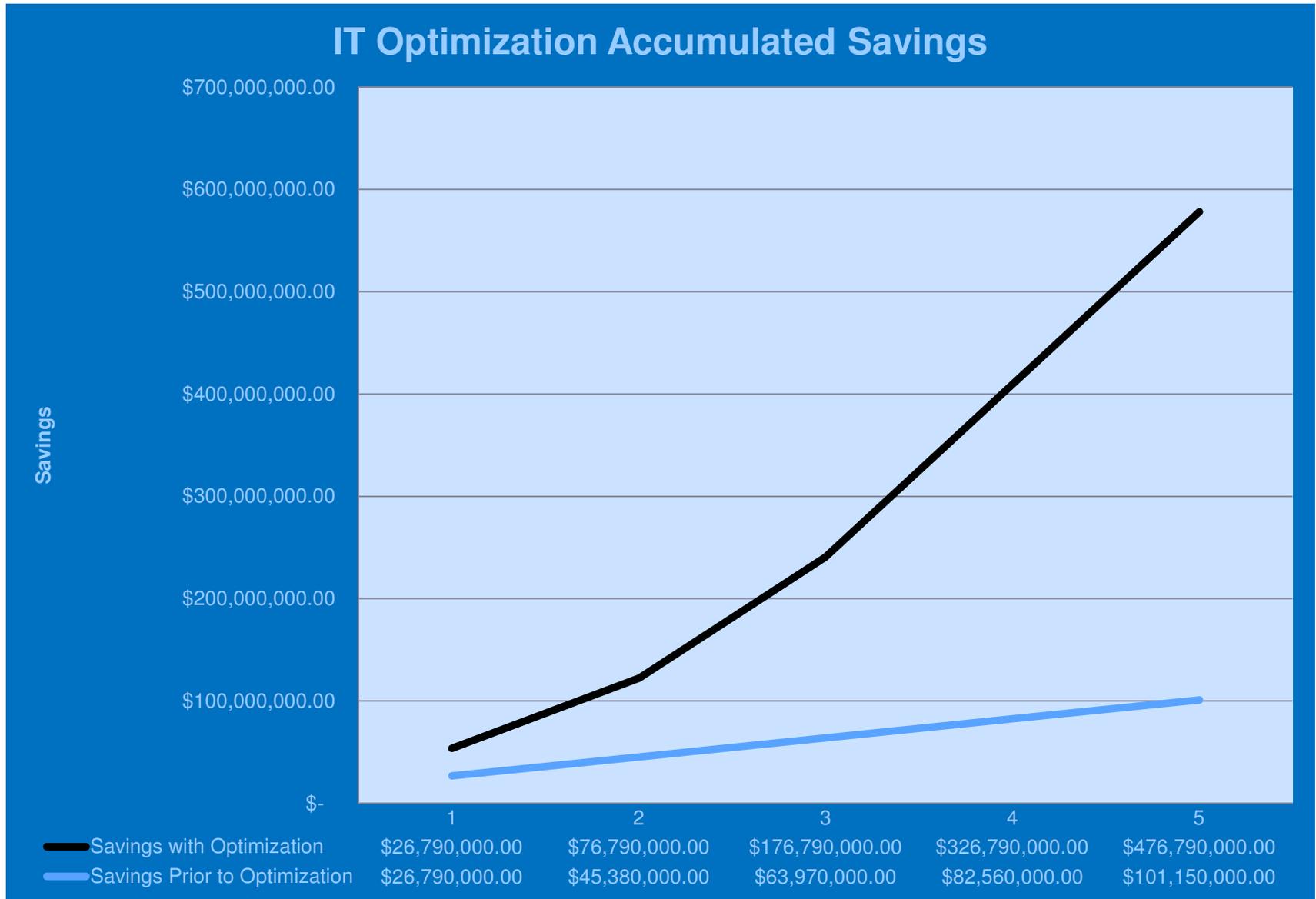
* Assumes that 60 Percent of hardware and software can be optimized

** This would require a workforce reduction of between 380 and 650 respectively

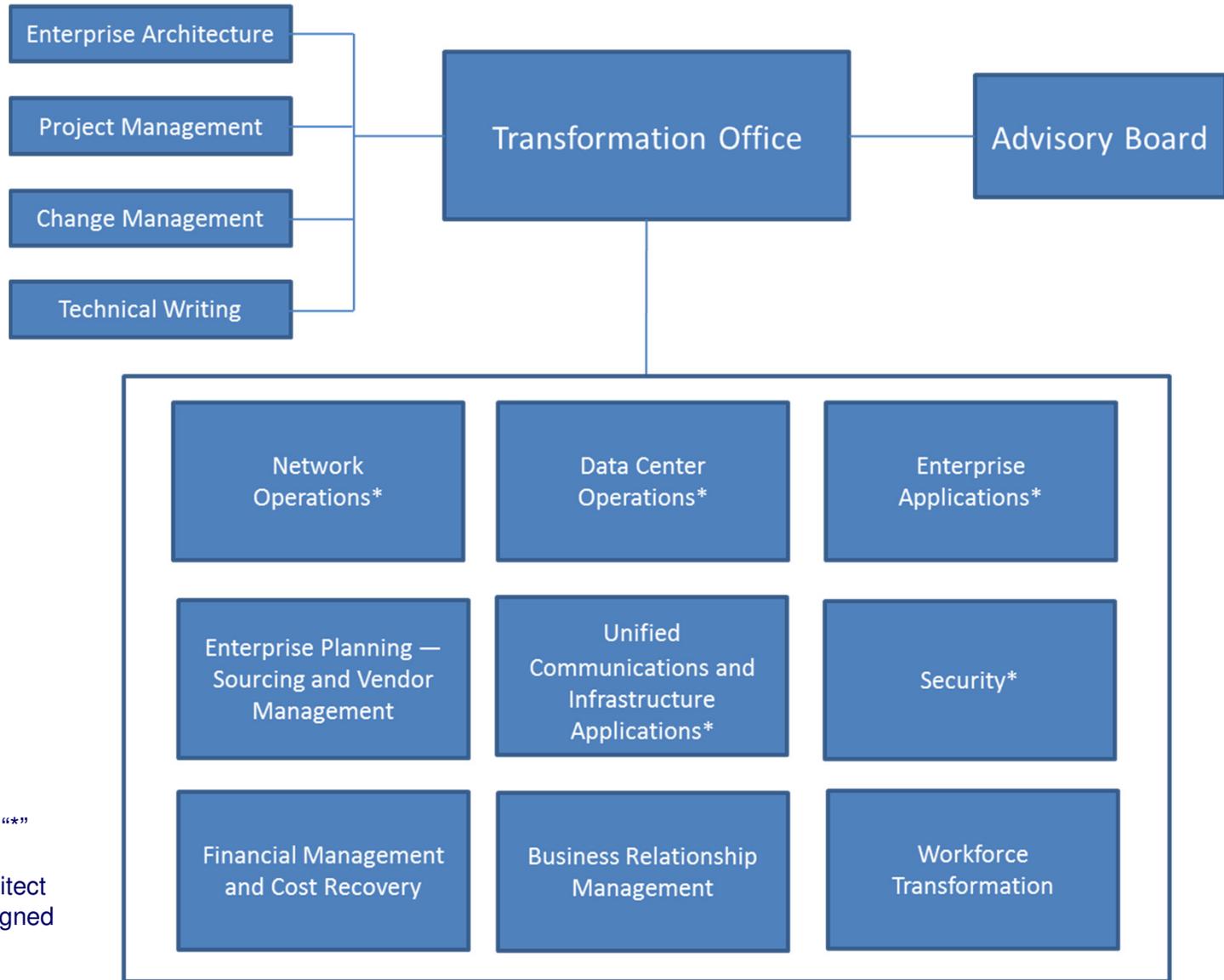
*** Total does not include COPS

IT Optimization Savings

INCREASE EFFICIENCY . IMPROVE SERVICE
REDUCE COMPLEXITY . REALIZE SAVINGS



Executive Governance Committee



Boxes with an “*” indicate that a Solutions Architect should be assigned to the team.

Transformation Team

IT Transformation Office

- Stu Davis (DAS)
- Tom Croyle (DAS)
- Kyle Schafer (DAS)
- Katrina Flory (DAS)
- Lynne Niederkorn (BWC)
- Brooke Speert (DAS)

Advisory Board

- MaryBeth Parisi (EPA)
- Spencer Wood (DAS)
- Bruce Hotte (DOH)
- John Conomy (DPS)
- Michelle Burk (AGO)
- David Shuster (IGO)

Centralized Functions

- Organizational Change Management
- Communications
- Value Management Office – Betsy Bashore (OBM)
- Project Management - Mark Shell (DAS)
- Enterprise Architecture – Doug Alt (DAS); Jim Cunningham (BWC);
Eric Schmidt (DAS)

Transformation Team (cont'd)

Enterprise Planning/Sourcing/Vendor Management Lead – Darlene Wells (DAS)

- Develop a process to identify opportunities to consolidate and optimize the state's buying power to achieve economies of scale
- Define and implement an enterprise IT service portfolio
- Define and implement an improved lifecycle for multi-sourcing and vendor management including procurement

Network Operations

Lead – John Conley (BOR)

- Define technical standards and direction for WAN, MAN, LAN, and Wireless communications
- Define and architect solutions for WAN, MAN, LAN, and Wireless networks based on requirements and defined standards of the future enterprise One Network (the “to-be” network)
- Determine the gaps between the current and future networking environments and define implementation and migration plans

Data Center Operations (Server & Storage)

Lead – Spencer Wood (DAS)

- Design a support structure for Data Center Operations (short-term and long-term)
- Define technical standards for the server and storage environments
- Develop a technical roadmap and optimization and integration plan
- Gather DR requirements for open systems

Unified Communications & Infrastructure Applications

Lead - Bryant Young (DODD)

- Review current in-flight and drawing board initiatives including: eMail, VoIP, VDI, Instant Messaging & Presence, SharePoint, Mobile Strategy, Identity Management Directory Services & AirWatch, eConferencing to identify gaps or confirm current approach
- Develop a vision and go-forward statewide strategy

Enterprise Applications

Lead - Deven Mehta (DAS)

- Develop plans to identify and consolidate, migrate, or retire disparate applications to improve quality of service delivery and business value
 - Proprietary business application development and support will not be consolidated
- Transition the application portfolio to more modern languages, architectures, and runtime environment
- Leverage existing applications, competencies, and governance structures to maximize value in the shortest possible timeframe

Security

Lead - Dave Brown, State CISO (DAS)

- Define Enterprise Security Plan including Incident Response, Security Tracking and Monitoring and Enterprise Vulnerability/Patch Management to protect critical networks, servers, and apps
- Establish enterprise security policies

Financial Management and Cost Recovery

Lead - Steve Boudinot (DAS)

- Design a new cost recovery model
- Develop IT Reinvestment Model
- Develop Enterprise IT Asset Management Plan

Workforce Transformation

Lead - Jason Barnett (OBM)

- Identify training opportunities
- Identify strategies to support transition of IT staff to the central support organization
 - permanent and temporary capacities
- Joint IT Committee

Business Relationship Management

Lead – JP McInnes (DMH) and Brigitte Sollie (DPS)

- Define the vision and role of Business Relationship Management
- Develop approach to business/IT alignment in collaboration with stakeholders
- Develop relationships with partners (meeting, discussing, and reviewing) service alignment to the business
- Develop dashboard to provide a true measure of the service experience

More than 100 agency IT resources have received Agency Director's approvals to participate and are engaged in these 9 functional areas

- To Date:
 - Transformation Office established and functioning 1/15/13
 - Transformation Team established and functioning 1/28/13
 - Representatives of enterprise program PMOs engage in discussion and outline of framework
 - Draft roadmap plans submitted 3/31/13
 - Weekly meetings for each of the 9 functional areas

- Next Steps:
 - Final work plans and schedule in late June 2013
 - Plan the Work ... Work the Plan – start date July 2013
 - Organizational Change Management
 - Communications
 - Weekly emails & Agency Meetings

Tactical Initiatives Status

INITIATIVE	STATUS
eMail Consolidation	In progress – 80 of 88 agencies, boards & commissions migrated – complete by August - Antivirus, Antispam & eDiscovery enhancements. ODOT (\$800K) and DPS (\$1M) cost avoidance.
Mainframe Consolidation	Complete - BWC experiencing processing improvements as well as estimated \$13.6M/5 years in operations cost avoidance
Network Consolidation	In progress – 14 distinct networks with annual spend of \$53M. New ISP agreement with OARnet reduced costs. NOC consolidation opportunity with OARnet. Microwave point to point solution in development
Network Aggregation	In progress – Contract negotiations
Procurement Reform & Streamlining	In progress - Implementing process changes to integrate IT planning, project management, IT procurement and strategic sourcing opportunities

Tactical Initiatives Status

INITIATIVE	STATUS
Enterprise Planning	In progress – Launching Application/project Lifecycle Planning System (ALPS) system with application lifecycle focus
Identity Management	In progress – Id.ohio.gov enabled for DAS SharePoint, Lync and Email. Supports single sign on/shared service approach. Working on release 2.0 integration w/citizen facing enterprise initiatives
Server Virtualization/ Consolidation	In progress – Capacity available for 1,000 virtual servers. DRC established a development environment resulting in \$1.2M cost avoidance.
Storage Virtualization	In progress – Upgraded storage environment including data encryption. Taxation estimates annual savings of \$500K . Economies of scale results in rate reduction and enterprise savings of \$290K
Virtual Desktop Infrastructure	In progress – Agencies benefitting from DODD implementation experience and shared infrastructure.

Tactical Initiatives Status

INITIATIVE	STATUS
Integrated Eligibility	In progress –Streamlining Medicaid eligibility process
Medicaid Elevation	In progress – Supporting establishment of standalone agency. Specific IT functions provided by either DAS, JFS or MCD
Multi-Agency Radio Communications System	In progress - \$90M system upgrade to IP based platform and support expanded customer base - potential cost savings/avoidance of \$.7B for local government while enhancing public safety and emergency responder communications
ePayment engine migration & enhancements	Complete
eLicensing 2.0	In progress – Moving forward with Boards and Commissions
Ohio Business Gateway	In progress – Stakeholders to convene and determine future direction
Mobile Application Platform	In progress – Multi-agency team established to develop enterprise strategy.

Tactical Initiatives Status

INITIATIVE	STATUS
Mobile Device Management	In progress - Piloting service to manage contracts and onboarding/off boarding of mobile devices. Consolidating data plans and pooling of minutes for the State... not just by divisions within agencies.
Data Center Consolidation	In progress – SOCC Remediation will allow for future consolidation of the more than 30 data centers in use by State agencies. Recent relocation resulted in EPA \$500K in cost avoidance
SOCC Remediation	In progress – Increasing power/improving heating and cooling, shifting IT assets to 2 nd Floor, moving non-essential staff out, establishing co-managed approach to services and allowing for possible new tenant on 3 rd Floor
Hosted VoIP Solution	In progress –Agencies migrating under new contract. Requires front-end investment but will yield significant savings - \$1.2M/annually (current Centrex \$18-\$22/line and VoIP \$13-\$15)

SOCC Remediation - Overview

- The State of Ohio Computer Center (SOCC) is a secure and reliable facility with custom-based infrastructure providing full uninterruptable power supply (UPS) for computer systems.
- The SOCC is a 358,000 square foot, four-story Tier III capable data center that was opened in December 1991. The facility was an example of a cutting edge data center at that time.
- Over the past twenty years, the SOCC's mission has been to remain continuously operational 24x7x365.
- 17 SOCC Based Agencies including DAS and the Ohio Supercomputer Center
- Approximately 3,000 distributed systems (Windows/Unix) maintained by SOCC based Agencies (~60% of State systems)
- 400+ SOCC Based State personnel
- All major telecommunication carriers terminate in the SOCC including OARnet

SOCC Remediation: Highlights

Through a competitive procurement, the State has awarded IBM a contract to address power, computing and operating model improvements at the SOCC

Power/Cooling Upgrade

- Increase protected power by 2MW (from 4MW) by adding UPS/Diesel capacity and new electrical riser
- Segment OSC to dedicated protected power source, reclaim protected power for general use
- Add computer room air conditioning units to improve cooling capabilities
- Re-use existing power distribution units to minimize cost
- Improve electrical and mechanical systems design to accommodate some future growth up to 2.7 MW

Compute Migration

- Wall-to-wall physical inventory
- Redesign/implement changes to 2nd floor computing space
- Relocate existing infrastructure within the facility via lift & shift method
- Assist with Agency communications and readiness activities
- Agencies to test and validate application functionality and related business operations
- Consolidate infrastructure management functions
- Installation of operational software (SLA, capacity, inventory etc)

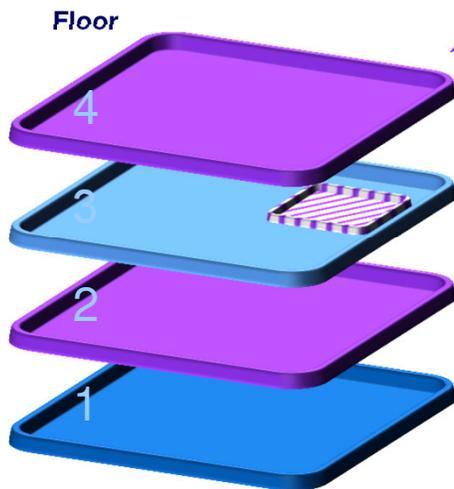
Operational Improvements

- ITIL-aligned processes Implementation
- Train-the-trainer program, & knowledge transfer
- Operations/maintenance services and Agency break / fix support
- System/Environment Administration Support
- Preventive facility maintenance
- Systems management & administration
- Problem management
- Service desk tools, Capacity planning, Continuous Improvement and IT Continuity Support Processes

SOCC Remediation: End-State

End-state of SOCC remediation process will be a consolidated computing center on the 2nd Floor with requisite power, cooling and security features

End-State SOCC Configuration



4. Mixed Use

13,500+ sq ft Ohio Supercomputer Center
 4,990+ sq ft MARCS
 39,000+ sq ft Data Center *essential* personnel

3. Available Data Center Space

- 75,000+ sq ft Data Center (57,213 sq ft raised floor) – tenancy under evaluation
- 8,000+ sq ft Unified Network (State retained)

2. State Computing Center

Computing, Storage, Mainframes, Networking Devices
 Network Operations Center

1. General and Mixed Use

Mechanical (UPS, Telecom, Controls)
 Administrative (meeting space, building management)
 Common (atrium, restrooms)

Foundational Concepts

- State use of the facility will move from current 70 ft²/computing image to less than 5 ft² (industry standard is between 0.3 and 1 server/ft²)
- The 3rd FL of the building will be vacated and made available for potential sub-lease tenants
- The current market for fully conditioned and powered data center floor space is on the order of \$24-32 ft² per month
- Personnel who, in the course of normal job functions, do not physically interact with IT infrastructure devices will be relocated to Agency locations in early FY15

Thanks for your time...

Questions?

Feel free to send any questions directly to the IT Transformation Office at:
IT.Transformation@ohio.gov.

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