

OIT All Hands

State of Ohio's IT Optimization

July 2014

DAS Mission – to Provide:

- **Service,**
- **Support and**
- **Solutions**

that improve state government in Ohio

DAS OIT Culture – building an environment around:

- **Accountability and responsibility**
- **Customer service orientation**
- **Business engagement and business relationship management**
- **Business requirements and business level objectives**

- Federated, decentralized IT environment is not sustainable
 - 26 Cabinet Agencies and over 70 Boards and Commissions
 - FY13 IT spend of more than \$930 million
- More than ~~5,000~~...9,000 servers in more than 30 data centers
- More than ~~1,600~~...2,300 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, \$54M 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

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
- Approach
 - Application based IT Planning
 - Infrastructure Consolidation
 - OHT/HHS Partnership
 - Infrastructure Consolidation
 - OAKS Adoption
 - OBG Modernization

December 2012 IT Transformation Plan

- Transition to Enterprise IT – A to D

- 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
- December 2012 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:

| | | |
|-----------------|-------------------|---------------------|
| • Network Ops | • Data Center Ops | • UC and Infra Apps |
| • Security | • Enterprise Apps | • Plan/Procurement |
| • Cost Recovery | • BRM | • Workforce |

- Build multi-agency functional work teams to plan future work

December 2013 IT Implementation Plan

- Transition to Enterprise IT – E to Z

A lot of great ideas submitted to the Core Team for review....

Detailed Review of Transformation Plans

30+ Projects Proposed, 40+ Services Proposed

BRM Proposed Projects:

- Establish BRM Office
- Service Request Models for Catalog
- Service Level Targets & Performance Metrics

DCO Proposed Projects/Services:

- Migrate agency services to new service
- Move agency equipment to center
- Mainframe Consolidation
- Storage Consolidation
- VMware Cluster Consolidation
- DR Second Site
- Virtual Server, Cloud, Mainframe, Storage & DR Services

EAP Proposed Projects/Services:

- Enterprise Application Organization Build
- SOA/Enterprise Service Bus
- Portal
- ERP, BI & HHS

EPSVM Proposed Projects:

- Entp. IT Strategic Planning
- Entp. IT Smart Sourcing
- Entp. IT Service Portfolio Mgt.

FM Proposed Projects:

- IT Cost Recovery Model
- IT Asset Mgt. Plan
- IT Expenditure Model
- IT Reinvestment Model

NOP Proposed Projects/Services:

- WAN Core Implementation
- Data Center/LAN Implementation
- One Network

UCIA Proposed Projects/Services:

- Identity Management
- VDI
- SharePoint & Mobile Strategy
- DODD Imagine Initiative

SEC Proposed Projects/Services:

- Intrusion Protection System
- Web Application Firewall
- Internet Filtering
- End Point Protection
- SEIM
- Data Loss Prevention (DLP)
- Vulnerability & Threat Management
- Security Program Management
- IR & Forensics
- Privacy Management & Consulting
- Privacy & Architecture
- Security & Privacy Training & Awareness

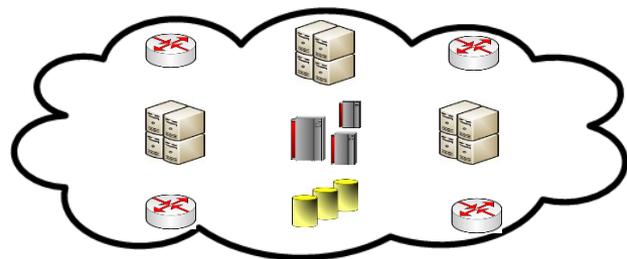
WT Projects:

- Project Employee Agreement
- Staffing Plan Template & Instructions
- Staffing Plan Instructions OWA Addendum
- Quick Win Training Letter
- Technology List

Key Ways IT Transformation will Bring Value to Ohio

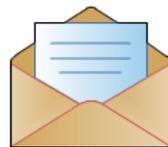
| | |
|-------------------------------|---|
| Cost Reduction/Cost Avoidance | <ul style="list-style-type: none"> • IT Cost Reductions - 15 to 25% • Workforce Reduction - approximately 400+ FTE through attrition/retirement • Cost Avoidance by leveraging existing resources, assets and past investments |
| Value Add Focus | <ul style="list-style-type: none"> • Focus on proprietary business applications that support employees & constituents |
| Quality & Process | <ul style="list-style-type: none"> • Adoption of standard policies, practices & procedures • Result - fewer disruptions in service, faster resolution times & better internal controls |
| Security | <ul style="list-style-type: none"> • Reduce # of devices, facilities, systems to patch & external access points • Build confidence that state is a trusted custodian of confidential & business data |
| Scalability | <ul style="list-style-type: none"> • Private cloud environment ensures scalability & flexibility through peaks & troughs of computing resource demand |
| Enterprise Automation Tools | <ul style="list-style-type: none"> • Leverage enterprise automation tools • Greater efficiency in IT operation, reduces manual error rates & enhances system availability |
| Skill Development | <ul style="list-style-type: none"> • Pulling IT expertise from across the state will result in cross training opportunities & skill development • Allow the state to replace long-term, high cost contractors with existing staff |
| Best Practices | <ul style="list-style-type: none"> • Adopt a standard set of industry best practices • Allows comprehensive market analysis & improves IT business decision making |
| Vendor Management | <ul style="list-style-type: none"> • Consolidation of contracts & technologies allows Ohio to leverage economies of scale |

Ohio's Private Cloud



- Consolidate, standardize & integrate State's technical infrastructure
- Re-focus resources on applications that directly serve Ohio's citizens and businesses
- Work well underway...
 - SOCC Remediation
 - Ohio One Network
 - Storage & Server Virtualization
 - Storage & Server Consolidation
 - Mainframe Consolidation

Enterprise IT Shared Solutions



- Address common technology needs
- Provide tools & application platforms for collaboration, communication & data analysis
- Provide a platform for consumer specific application development
- Work well underway...
 - OAKS
 - Ohio Shared Services
 - MARCS
 - E-mail Consolidation
 - VoIP
 - E-Licensing /E-Payment Platform
 - BI Platform
 - SharePoint /Mobile App Platform

Online Services



- Provide easy to use, accessible & secure online services
- Deliver reliable and cost effective solutions
- Expand the scope of online services
- Work well underway...
 - OBG
 - Ohio Benefits
 - MyOhio

Technology Board – Lines of Business

Restructure around Lines of Business (LoBs) – Agency CIOs report to LoB Lead and Directors

LoB Leads would report to the State CIO

Runs through Enterprise Architecture and Governance Process

| Line of Business Lead | Line of Business Lead | Line of Business Lead | Line of Business Lead | Line of Business Lead |
|--|--|--|--|---|
| Health and Human Services | Business and Industry | Administration and Finance | Public Safety and Criminal Justice | Infrastructure and Environment |
| <ul style="list-style-type: none"> • Aging • DODD • MHAS • JFS • Health • MCD • OOD • DVS | <ul style="list-style-type: none"> • BWC • Commerce • DSA • PUCO • IC • Insurance • Taxation | <ul style="list-style-type: none"> • BOR • DAS • OBM • ODE • Lottery | <ul style="list-style-type: none"> • Adjutant General • DPS/EMA • DRC • DYS • Inspector General | <ul style="list-style-type: none"> • Agriculture • DNR • DOT • EPA • OFCC • Ohio Turnpike* |
| * Voluntary Participation | • Secretary of State* | <ul style="list-style-type: none"> • State Auditor* • HR/Senate/LIS* • Treasurer* | <ul style="list-style-type: none"> • Attorney General* • Public Defender* • Supreme Court* | |

Goals of the Technology Board are to:

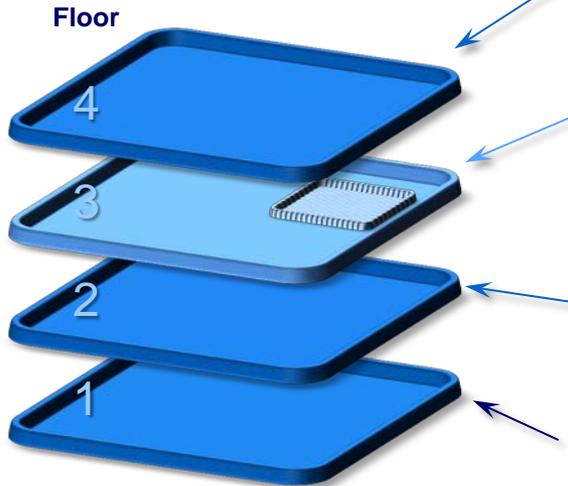
- Increase the level of adoption for enterprise shared solutions and services
- Identify new enterprise shared solution opportunities across common agencies that share business and technical components
- Manage enterprise shared solutions across LoB and work with the agency CIOs to leverage initiatives, resources, tools, infrastructure and solutions

Purpose and objectives of the Technology Board will be to:

- Ensure alignment with State strategies, enterprise architecture and major expenditures and purchases
- Provide guidance on the direction and development of strategies for future enterprise shared solutions
- Ensure adoption of current enterprise shared solutions
- Support prioritization of agency initiatives and projects
- Ensure budget controls are in place across agencies
- Facilitate resource alignment based upon business needs
- Create opportunities to share resources within/across LoB

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

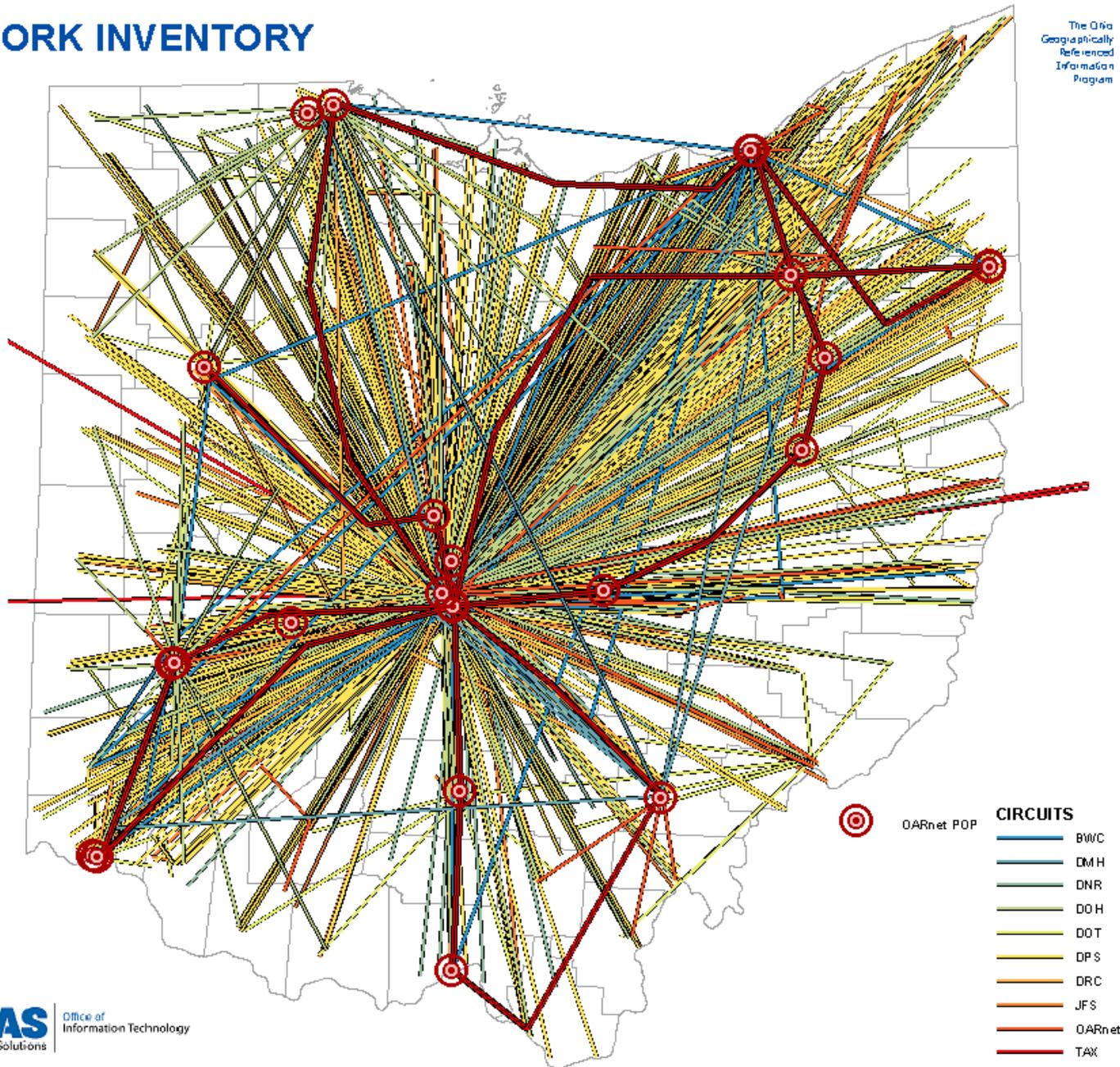
1. General and Mixed Use

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

NETWORK INVENTORY



- SOCC Remediation - Complete
 - Cleared out all “office” storage on 1st floor
 - Completed migration of State Staff and remediated 2nd floor
 - Increased the power capacity for the building
 - Removed walls and repositioned CRACs and PDUs
 - Migrated Ohio SuperComputer Center to separate power source (freeing up 25% of power)
 - Added an additional protected power system
 - Increased emergency power capacity
 - Added three new diesel generators to infrastructure support system
 - Constructed a new generator building to house up to five generators
 - Created a way to add fuel during an emergency situation without shutting down the generators
 - Repurposed 3rd floor to provide co-location services for higher ed and local government

- Private Cloud
 - Server Administration
 - Providing Windows and Unix (AIX/Linux) Server Services
 - Storage Management
 - Providing Storage and Backup Service Management
 - Mainframe
 - Management of the Mainframe Environment
 - Network
 - IP Address Resolution
 - WAN Consolidation
- We will be managing the following services inside the Private Cloud:
 - Hardware Management
 - Operating Systems & Components
- We will NOT be managing agency applications running in the Private Cloud.

- **Server Migrations**
 - added over 1,500 physical environments
 - Environmental Protection Agency (relocated all systems)
 - EPA for Identity Consumption (1,300 desktops)
 - Facility Construction Commission (33 servers)
 - Department of Health (273 servers)
 - Department of Natural Resources (103 servers)
 - Office of Budget and Management (88 servers)
 - Mental Health and Addiction Services (225 servers)
 - Development Services Agency (4 servers)
 - Department of Education (217 servers)
 - Department of Youth Services (94 servers)
 - Department of Transportation (389 servers)
 - Department of Rehabilitation and Corrections (94 servers)
 - Quadrupled VM images from 579 to 2,127 images

- **Storage Migration and Management**
 - Grown from 1 PB to 2 PB over last year
 - Anticipating growth to 4 PB over the next 3 years
- **IT Service Management tools deployment**
 - ServiceNow
 - Service Automation and Management tools
- **Disaster Recovery Services**
 - SOCC as a 2nd Site
 - Agency DR Requirements gathered
 - DR as a Service coming soon

- **Ohio Administrative Knowledge System (OAKS)**
 - HCM upgrade completed
 - FIN upgrade under evaluation
 - Managed Service under evaluation
 - Infrastructure refresh
- **Ohio Benefits (Integrated Eligibility) launched**
 - Supports almost 20,000 caseworkers in Ohio's 88 counties;
 - Has received more than 586,000 applications; and
 - Has processed approximately 60,000 applications without worker intervention as of June 1, 2014
- **Medicaid Elevation**
 - Established Ohio Department of Medicaid (ODM) in July 2013 to consolidate all Medicaid activity under a single agency
 - Migrating applications to ODM
 - Consolidating and migrating infrastructure to SOCC

- **Business Intelligence Platform**
 - OAKS
 - Integrated Eligibility
 - Early Childhood
- **Hosted VoIP**
 - Contract established for \$13 for basic service – potential annual savings of \$3.2M as users migrate from Centrex
 - 16,000+ lines migrated to date
- **Email – single platform**
 - 87 of 88 agencies migrated (62,000+ accounts)
 - JFS migrate late CY14
 - Migrating to Office 365 in the near future

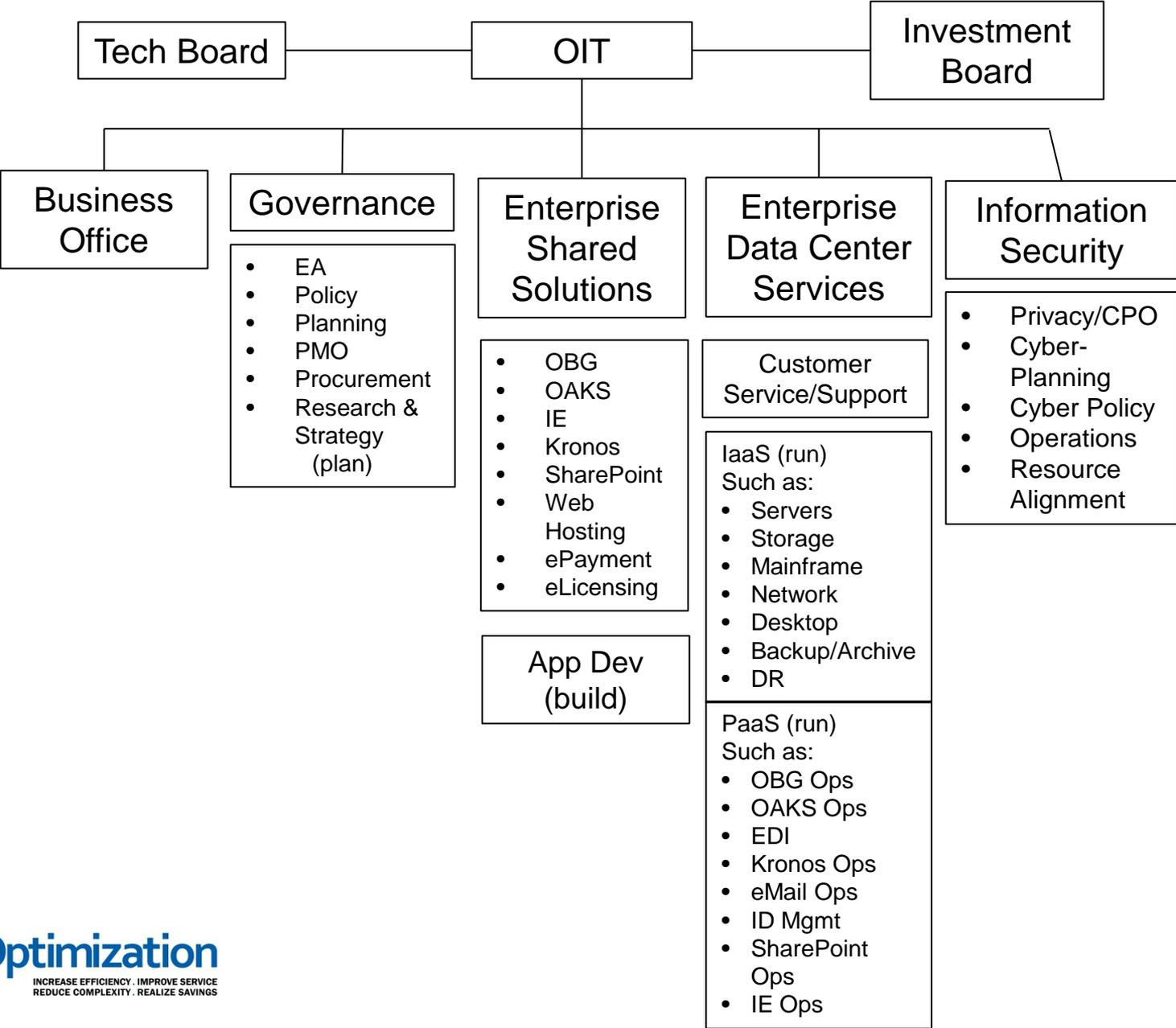
- **ePayment Platform Engine**
 - Accepts electronic credit card and Automated Clearing House (ACH) payments from customers
 - FY13 over 2.3M transactions for nine state agencies and multiple municipal income tax administrators
- **eLicensing Platform**
 - update current system to address professional licensing requirements of Ohio's boards and commissions
 - includes licensee administration, enforcement management, examination tracking and scheduling, reporting and automated renewal processing as well as enhanced security safeguards
- **Multi-Agency Radio Communication System (MARCS)**
 - Emergency responders radio and data platform
 - MARCS in Schools

- Ohio Benefits Portal – Citizen Focused
 - Integrated portal for citizens to apply for HHS related benefits
- Ohio Business Gateway – Business Focused
 - Over 300,000 business leverage OBG for paying tax liabilities
 - Collected nearly \$8 Billion last year
 - Business One Stop (future)
 - Single registration to do business with the State
 - Start a business
 - Grow a business
 - Sustain a business
- MyOhio/OAKS Portal – State Employee Focused
 - Time sheet/Payroll
 - Training
 - Evaluation/Performance

- Security
 - Extended Enterprise Security Information Event Manager to AOS and Commerce. Additional capacity for IE & JFS
 - Established penetration testing service
 - McAfee Protection Services (servers to end device)
 - Centralizing staffing approach to support consistent practices
 - Security Officers: DPS, ODE, DSA, DODD and Medicaid
 - Security Architects: EPA, DNR, Health
 - current security personnel reporting to DAS in future
 - 16 positions – various security officers, interns, analysts, program administrator
 - Airwatch/Mobile Device Security

- **DAS OIT Culture – building an environment around:**
 - Accountability and responsibility
 - Customer service orientation
 - Business engagement and business relationship management
 - Business requirements and business level objectives
- **Organizational alignment**
 - OIT Functional Alignment
 - Business Office
 - Governance/Chief Technology Officer
 - Enterprise Shared Solutions
 - Enterprise Data Center Services/Chief Operating Officer
 - Information Security & Privacy/Chief Information Security Officer
 - Executive Strategy Development
 - Technology Board
 - Investment Board

DAS Office of Information Technology



- **Enterprise Initiatives for FY15**
 - Expansion of Data Center Services
 - Server and Storage Virtualization Expansions
 - External Data Center Migrations
 - Service Now Implementation
 - Disaster Recovery Services
 - Ohio One Network
 - Network Aggregation
 - Blended Learning Connectivity & PARCC Assessment
 - Enterprise Security and Compliance
 - McAfee Protection Services
 - Qualys Vulnerability Management
 - QRadar Security Information and Event Management System
 - IBM Intrusion Prevention System
 - F5 Web Application Firewalls

- **FY15 Focus Areas continued...**
 - MARCS Adoption
 - IP Upgrade
 - MARCS in Schools
 - OAKS Upgrades and Adoption
 - Hardware Platform Refresh
 - Financial Upgrade
 - Business Intelligence Upgrade
 - Managed Service Transition
 - Kronos Time and Labor Solution
 - Ohio Benefits Roll-out and CRISe Replacement
 - Ohio Enterprise Data Warehouse & Business Intelligence

- **FY15 Focus Areas continued...**
 - Office 365 Migrations and Adoption
 - Voice over IP Migrations and Adoption
 - Ohio Business Gateway Modernization

DAS Customer Service Survey

- Launched at the end of this week
- Audience – agency business partners (over 8,000)
- 36 DAS Service Areas included in survey
- Seeking agency business partner perspectives on 8 quality indicators on service delivery:
 - Expectations met
 - Level of satisfaction
 - Responsiveness
 - Timeliness
 - Customer Service
 - Quality of Service
 - Value of Service
 - Importance of Service
- Analyze results and develop action plans
- Results reported out by December

DAS Employee Survey

- Launched next week
- Independently conducted by Dr. Huber
- Audience – all DAS employees
- Anonymous responses
- Intent is to gain an understanding of:
 - Engagement,
 - Job meaning
 - Well being
 - Level of satisfaction
- Identify areas where focused improvements can be made!

Thanks for your time...

Questions?

Feel free to send any questions directly to the
DAS OIT Senior Leadership Team:

Stu Davis

stu.davis@das.ohio.gov

614-644-3923

Steve Boudinot

Stephen.P.Boudinot@das.ohio.gov

614-466-9389

David Brown

David.Allen.Brown@das.ohio.gov

614-728-2037

Tom Croyle

Thomas.Croyle@das.ohio.gov

614-644-6261

Katrina Flory

Katrina.flory@das.ohio.gov

614-995-5466

Deven Mehta

Deven.mehta@das.ohio.gov

614-387-3007

Spencer Wood

Spencer.wood@das.ohio.gov

614-644-9245

IT.Transformation@ohio.gov

<http://das.ohio.gov/ittransformation>