



Infrastructure Consolidation Program

April 21, 2010



Infrastructure Consolidation Program

E-Mail Directory and Collaboration Services

Executive Sponsors:
Andrew Armani and Chris Cruz

Workgroup Goals

■ Mail Hygiene and Encryption

- E-Hub (Microsoft Forefront Online Protection for Exchange)

■ Active Directory Standardization

- E-GAL is first component (pilot underway and then full implementation by June 30, 2010)
- Federated employee directory services

■ Two alternatives for E-Mail

- OTech CA.Mail
 - Optional services including archive and e-discovery
- Hosted E-Mail and Collaboration Service
 - Optional services including archive, e-discovery, collaboration tools for file sharing, blogs and/or wiki's instant messaging, presence, and web/audio conferencing

Goal Action Items

- Workgroup meetings held bi-weekly
- E-Hub Scorecard Progress Report
- Active Directory EGAL Pilot in progress – Customer Forums to be scheduled to focus on active directory sync
- Hosted E-Mail Service bid released to vendor community. Award date is July 2, 2010.
- Workgroup focused on sharing project plans and developing a “cookie cutter” approach for e-mail migrations

Why Were Doing This (Purpose)



- Considered industry Best Practice at both Public and Private sector level
- Creates standardization across shared e-mail and email security platform
- Establishes base level e-mail security settings to protect all state e-mail systems
- Consistent security practices that will improve incident response
- Compliance with regulations such as HIPPA, FTI, and PCI-DSS
- Formulates a cost containment strategy to reduce and control future costs

Impacts on Training and Career Development



- Builds new skills sets and competencies within technical staff
- Expand staff horizons and exposes them to Statewide enterprise solutions
- Re-purpose staff to work on other critical IT functions that support the needs of the business

What Does It Mean To You (Departments)



- Consistent system for e-mail and e-mail hygiene
- Statewide Employee Directory
- Reduces the number of Active Directory domains
- Inter-departmental e-mail will no longer traverse the public Internet in clear text
- E-mail content filtering capability
- Outbound e-mail encryption service as an option

Quarterly Reporting to Governor's Office



Sample E-Hub Scorecard

EHUB Migration Status by Agency

Agency	Mailboxes	Migrated	Migrating	At Risk	Migration Progress
BTH	36,891	623	620	35,648	3%
CDCR	33,648	22,923	10,125	600	98%
CDFA	1,288	1,285	3	0	100%
DVA	1,500	0	1,500	0	100%
EPA	6,001	0	5,833	168	97%
HHS	30,830	9,336	8,042	13,452	56%
LWDA	14,867	3,262	10,605	1,000	93%
OCIO	2,000	1,500	0	500	75%
Resources	19,504	6,198	6,782	6,524	67%
SCSA	13,810	504	13,306	0	100%
Other	7,581	288	906	6,387	16%
State Total	167,920	45,919	57,722	64,279	62%

IT Consolidation

IT Facilities

Executive Sponsors:

Crystal Cooper/Mike Nguyen

Joe Panora/Jamie Mangrum

Workgroup Goals

- **Design a Federated State Data Center model that will provide for robust hosting in the future.**
 - **Phase I-Key Stakeholder involvement, agreement on consolidation end-states, approach, standards, and the implementation framework.**
 - **Phase II-Initial implementations, creating a critical mass.**
 - **Phase III-Consolidation and general implementation across all executive branch departments.**

Goal Action Items

- **Procurements completed for initial occupancy**
- **Developing initial operational model**
- **Initial occupants are DHCS, CDCR and CPHCS**
- **Developing scorecard to meet reporting inline with EO objectives**

Why Were Doing This (Purpose)



- All mission critical and public facing applications are required to be hosted at a Tier III data center by September 2010.
- The strategic goal is to reduce the State's data center square footage by 50% by July 2011.
- Close all existing server rooms by June 2013.
- Opportunity for consolidation and improved governance.
- Centralize IT services statewide.
- Standardized roles and responsibilities statewide.

Why Were Doing This (Purpose)



- Offer agencies more redundancy, efficiency and high availability for public facing and mission critical applications.
- Provide agencies more opportunities to share resources (e.g., staff, network, storage, etc.).
- Create a critical mass of expertise (data center specialists) that will strengthen the state IT workforce.
- Provide expanded training opportunities for staff.

Impacts on Training and Career Development



■ Remote Management of Hardware

What Does It Mean To You (Departments)



- **Start planning your move to the FDC, Managed Services in the following three areas:**
 - **People**
 - What new skills will they need to do their new roles?
 - **Process**
 - What will be done differently?
 - **Technology**
 - How will you move your servers and mission critical and public facing applications?

IT Consolidation



California Enterprise Government Network (CGEN)

Executive Sponsors:

Ann Barsotti and

Nancy Johnson

Workgroup Goals

- **Standardize California State government network resources**
- **Improve network security**
- **Provide departmental privacy/security**
- **Enhance network performance**
- **Support interdepartmental shared services**
- **Eliminate duplication of effort**
- **Reduce costs**

Goal Action Items

■ CGEN Governance

- Develop policies/incentives for departments to migrate to CGEN
- Migration plan/timetable

■ Design sub workgroups

- Small and remote office connectivity
- Emergency Services and Law Enforcement
- I-Hubs
- Operations (Support, Network Monitoring and SLAs)

Why Were Doing This (Purpose)



- Improve our network operational model
- Enable more consistent network refresh through managed services
- Provide a consistent level of service
- Cost savings
- Ability to focus
 - Network Design
 - Capacity Planning
 - Implementation and capacity planning required for departmental applications

Impacts on Training and Career Development



- Develop consistent processes across the executive branch

What Does It Mean To You (Departments)



- **Start planning your move to the California Government Network:**
 - **Establish network migration planning in conjunction with Executive Order**
 - **No later than July 2010**

IT Consolidation



Green IT (Power Management)

Executive Sponsors:

Andrea Wallin-Rohmann and
Chris Cruz

Workgroup Goals

- Developing a standard power management process to reduce the carbon footprint
- Defining metrics and data elements
- Developing a power management scorecard – modeling after the E-Hub scorecard – to ensure quarterly reporting of power savings and progress of implementation

Goal Action Items

- **Develop a power management matrix that recognizes two priorities for component power management with industry recognized metrics**
- ***Phase II/III – Desktop/Laptop Standardization***
- ***Phase IV – Faxing Capabilities/Alternatives***

Why Were Doing This (Purpose)



- The State conducted an assessment last year with BDNA to estimate power consumption related to networked equipment
- Assessment identified a capacity for savings through the implementation of 'power saving' software for networked equipment
- The State's objective was to reduce power consumption by 10% (July 1, 2010), 20% (July 1, 2011) and 30% (July 1, 2012)

Impacts on Training and Career Development



- Savings identified through power management are related to utilities and not personal services
- Provide IT staff tools to allow for more effective power management – will require staff to be trained on these tools
- Increase span of operational responsibility to include monitoring power usage of networked equipment
- Provide opportunities for Departments to expand core IT competencies to include power management monitoring/support

What Does It Mean To You (Departments)



By December 31, 2010, agencies shall:

- Implement power management software;
- Implement power management practices for all networked devices
- Determine baseline metrics

On going, agencies shall:

- Report quarterly on power management savings based on defined metrics
- Provide training to users on power management practices

IT Consolidation



Security Workgroup:

Executive Sponsors:
Mark Weatherford and
Eric Jarvis

Workgroup Goals

- The Enterprise Security Risk Assessment project will develop a statewide risk assessment program that allows agencies/departments to view and rate their information security stature according to a defined set of practices and standardized security metrics.
- Secure I-Hub will provide perimeter level protection from external entities attempting compromise of state agency systems and applications



Workgroup Goals

- **DNSSEC** provides security controls that offer origin authentication of DNS data, DNS data integrity, authenticated denial of existence. A secure ca.gov DNS system will provide California with trustworthy and reliable e-government communications and operations.
- **Governance, Risk, and Compliance (GRC)** will monitor the health of IT systems and ensure they remain in compliance laws, policies, industry mandates, and security standards while providing executive and technical dashboard views to aid in the maintenance of security.

Impacts on Training and Career Development



- There will be technical training requirements to efficiently utilize the Risk Assessment application, DNSSEC within the agencies, and the GRC platform.
- Secure I-Hub training requirements will be vendor platform specific and localized in OTech

Impacts on Training and Career Development



- The information security field continues to change in response to the threat environment. Continued requirements for advanced knowledge provides unlimited professional growth and career development opportunities.

What Does It Mean To You (Departments)



- Better understand and address security incidents and critical cyber security threats to the state

IT Consolidation



Server, Virtualization, Storage and Backup Workgroup:

Executive Sponsors:

Tim Garza and

Richard Gillihan

Workgroup Goals

- To the extent possible, virtualized servers will be used for test, development, and production
- Components of this end state include:
 - Develop configuration practice for virtual environments including servers, network, storage and security zoning
 - Define standard management tools for virtual environments
 - Define server standards for virtualization
- Virtualization environments
 - VMware
 - Microsoft HyperV



Workgroup Goals

- **Establish configuration practices for products, tools and processes**
- **Develop common backup practices and approaches**
- **Move to shared storage consistent with other infrastructure consolidation areas**

Why Were Doing This (Purpose)



- Maximize current hardware investments
- Reduce onetime and ongoing hardware costs
- Reduction in physical servers reduces power utilization and maximizes the use of data center space
- Reduce the time to provision servers and storage in support of programmatic needs
- Enhance OR/DR capabilities
- Provides the foundation for utility computing model

What Does It Mean To You (Departments)



- **Standardized Tools and Documented Practices**
 - Backup Technology
 - Virtualization using Hyper-V and VMWare
- **Migration towards virtualized environments**

Impacts on Training and Career Development



- **Standardized tools and practices facilitates:**
 - **Opportunities to leverage training resources across departments and maximize training funds**
 - **Career development/advancement opportunities as standardized skills and abilities are needed across state agencies**