Office of Enterprise Technology Agency Overview

House State Government

Finance Committee

February 2, 2011

Agenda

- Introduction
- Agency Overview
- Governance and Oversight
  - Security
- Technology Services
  - Data Center Co-location
  - Enterprise Utility Communications and Collaboration
- Closing Comments and Questions

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Agency Overview

OET's Mission

OET's mission is to provide the leadership and services that improve government through the effective use of information technology.

Our vision is to be the trusted leader in enterprise information technology for the State of Minnesota…and the *provider of choice* for IT services, direction, investments and standards for government IT.

What Do We Do?

- Office of Enterprise Technology's responsibility and activity fall into two broad categories

Governance and Oversight

Leadership: IT policy, enterprise planning and governance

Enterprise Security: policies, standards and tools

Compliance and standards: IT architecture, products and standards; contracts and vendor management; portfolio management; and project/investment oversight

Technology Services

Utility Services: IT services that are common to all and for which agencies are required to participate

Market Services: Shared IT services offered to agencies and other governments on a competitive and optional basis

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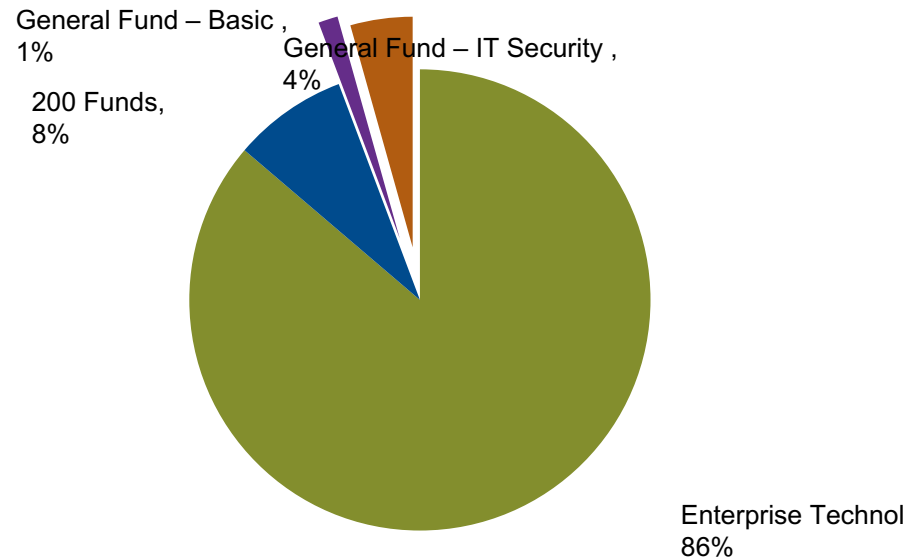ENTERPRISE**TECHNOLOGY**
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Scope of Our Activities

The scope of OET's activities is illustrated in the distribution of the agency's budget

6% of OET's budget is general fund dollars for governance, oversight and security

94% of OET's budget comes from customer rates for technical services, based on usage

FY2010 & FY2011 Expense Budget by Fund

General Fund – Basic, 1%

General Fund – IT Security, 4%

200 Funds, 8%

Enterprise Technol 86%

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Our Customers

Governance and Oversight

- **State of Minnesota executive branch, required**
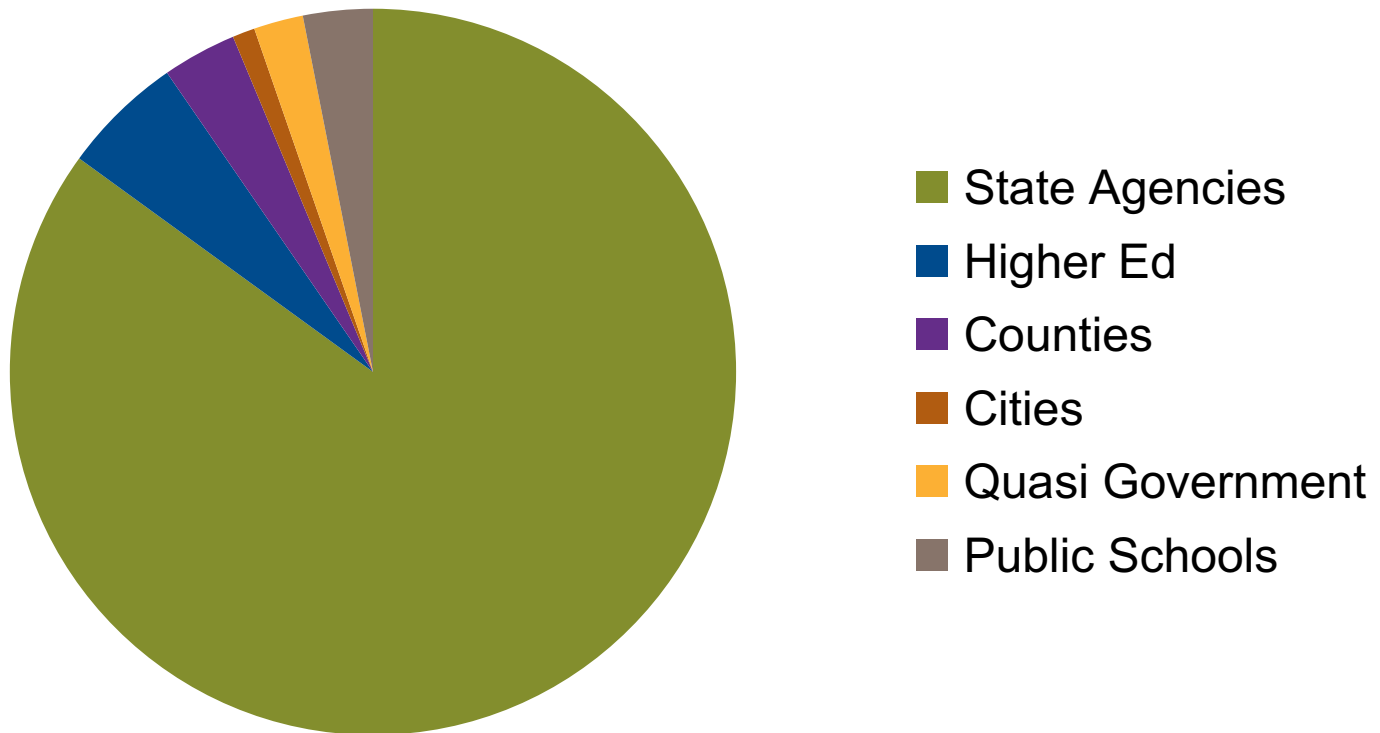- **Other Minnesota governments, optional**

Technology Services

- **Executive branch**
- **Counties**
- **Minnesota State Colleges and Universities**
- **University of Minnesota**
- **Cities**
- **K12 schools / districts / consortia**
- **Other**

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Customer Breakdown – Technology Services

Customer by Volume: FY11 YTD

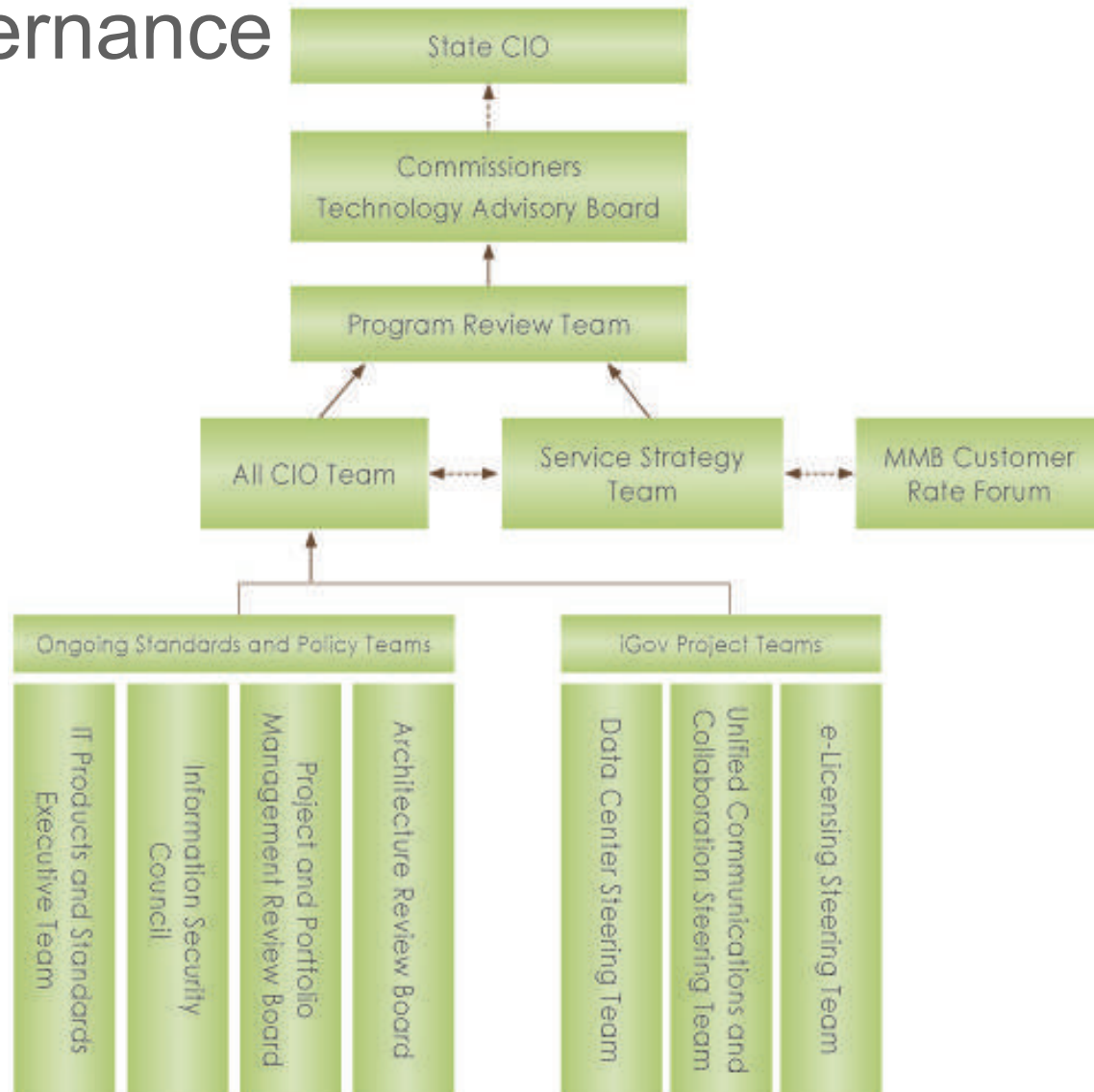- State Agencies
- Higher Ed
- Counties
- Cities
- Quasi Government
- Public Schools

Governance

Enterprise IT Governance

Enterprise Security– Protecting the State

- We are a part of the national security fabric that links federal, state and local governments

Federal Government
(Homeland Security & US-CERT)

↕ **Threat Advisories**

State Government
(Executive, Legislative, Judicial, & Higher Education)

↕ **Threat Advisories**
Incident Assistance

Local Government
(Cities, Counties, & School Districts)

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Security Risks

- Cyber attacks on government systems
  - Deny access to or disable critical services
  - Sabotage by hate groups or others with political agendas

- Loss of sensitive data
  - Thefts for financial or political gain
  - Employee errors

- Disasters that impact critical government systems

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Conceptual Roles

- *Provide planning and policy direction*

- *Investigate security breaches*

- *Support shared security tools*

- *Serve as security information broker*

- *Architect security controls in new systems and applications*

- *Ensure recoverability of state systems in times of crisis*

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Enterprise Security Activities

Security Activity	Status/Accomplishments
Planning and Governance	Enterprise strategic and tactical plans in place. Coordinate ongoing meetings with Information Security Council members and agency IT leaders
Policies and Standards	Published 4 overarching security policies and numerous implementing standards to secure the State's physical environment and information assets
Incident Response and Computer Forensics	Assist state and local government entities with numerous security incidents each month. Provide forensic services to determine root cause and damage assessments of serious incidents
Vulnerability and Threat Management	Provide tools for continuous assessments of all computers in the Executive Branch and MnSCU. Provide timely security threat advisories and mitigation advice to all state and local government stakeholders
Security Monitoring	Monitor state systems for signs of attack

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Enterprise Security Activities

Security Activity	Status/Accomplishments
Identity and Access Management	Developing enterprise-wide service to provide more effective and secure access to Executive Branch computer systems. Initial agencies will include the Department of Human Services, the Department of Health, and the Office of Enterprise Technology
Training & Awareness	Conduct ongoing security awareness activities. Provide targeted security training courses to state government information technology professionals
Continuity of Operations	Support agencies in developing reasonable and sustainable COOP plans. Provide assistance with exercising disaster recovery capabilities
Security Architecture	Provide assistance to incorporate security controls in major state government computer systems and technology projects
Compliance	Compile metrics to help agency leaders gauge the effectiveness of their security controls

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Technology Services

State IT Services

We provide the following technology services to Minnesota government customers

- Enterprise Applications
- Communications
- Data Center Services
- Desktop
- Network
- Professional Services
- Security
- Standard Products
- Web

Key Enterprise Service Initiatives

- Data Center Co-Location
- Enterprise Unified Communications and Collaboration

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Data Centers: The Problem

The executive branch has 36+ data centers, 70+ "type" facilities

Excessive locations based upon the number of state servers, applications and requirements

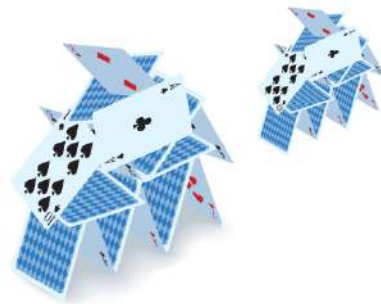**Too costly** to maintain and operate

Hard to protect against **hackers and disasters**

Three times more square footage than required

Built to **40 year old guidelines**

Current state data centers are:

- *Extremely complex*

- *Difficult to maintain*

- *High risk*

- *Increasing in cost*

Deteriorating Facilities
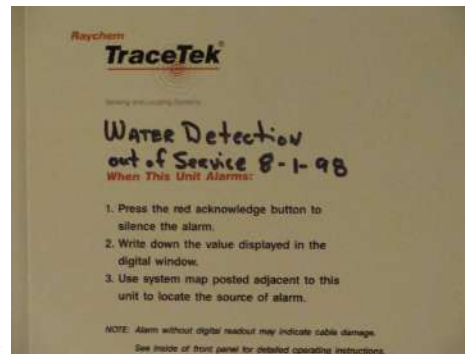
Outdated facility's equipment caused fire on 11/17/09

Program services were unavailable for nearly 24 hours

Antiquated (1960's) generator

This water detection system has not functioned for a decade

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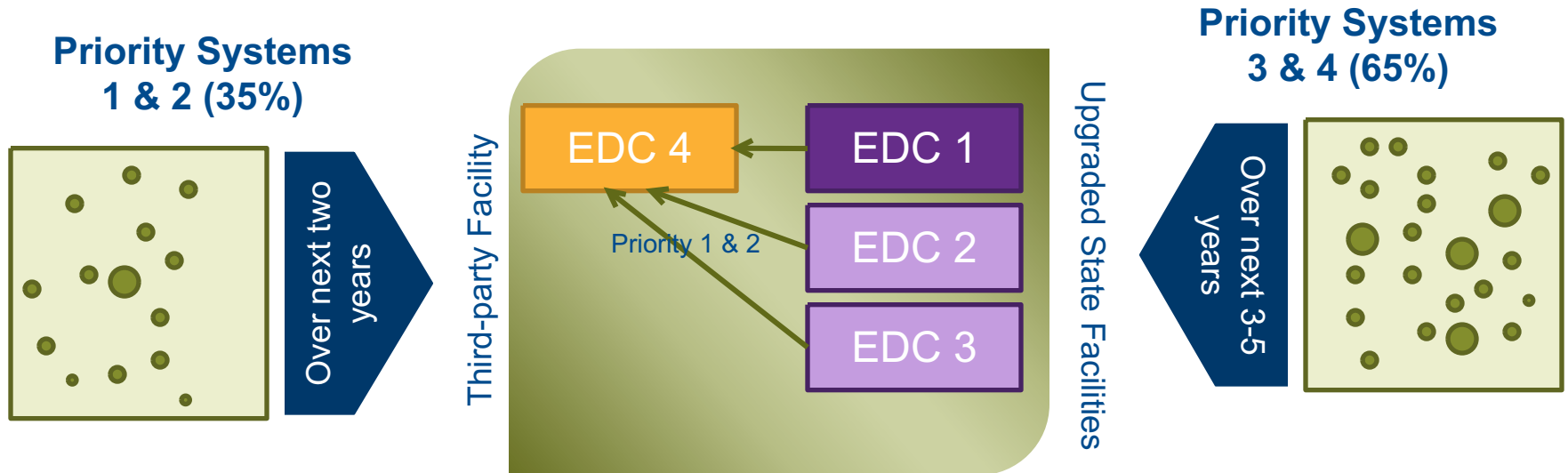ENTERPRISE**TECHNOLOGY**
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What is Co-location?

- Agencies locate their data center servers, network, and storage equipment alongside other agencies in a shared facility

- Facility's building, power, and network bandwidth is provided

- Co-location / facility is managed by OET

- Agencies manage their own equipment/systems or hire those services from OET

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The Data Center Co-Location Plan

**Priority Systems
1 & 2 (35%)**

Over next two years

Third-party Facility

EDC 4 ← EDC 1

Priority 1 & 2

EDC 2

EDC 3

Upgraded State Facilities

**Priority Systems
3 & 4 (65%)**

Over next 3-5 years

Tier III
Priority 1: Recovery time of 24 hours or less; impacts the public's safety

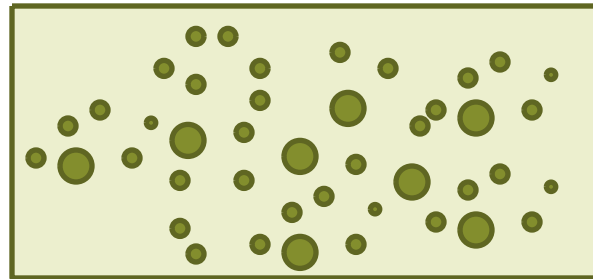Priority 2: Recovery time 24 hours -5 days; impacts the public's safety, health or trust

Tier II
Priority 3: Recovery time 6 - 30 days; impacts key business delivery

Priority 4: Recovery time 30+ days and any business delivery

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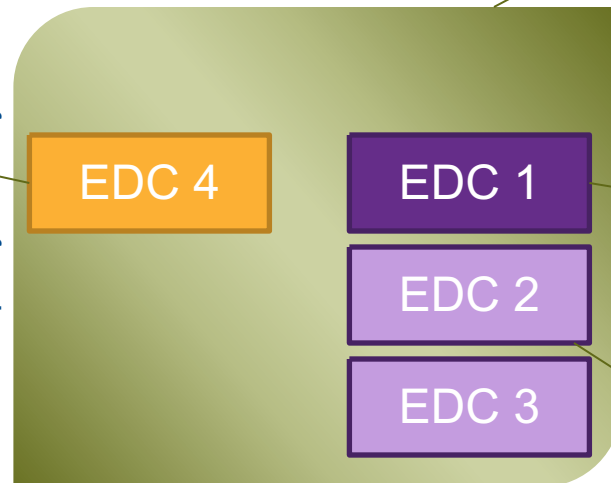
Current Project Status

Agencies
- Priority systems identified
- 1st iteration of co-location plans

Enterprise Planning (OET)
- Currently reviewing agency plans

EDC4
- RFP, November 2010
- Currently evaluating responses

Third-party Facility

Upgraded State Facilities

EDC 4

EDC 1

EDC 2

EDC 3

EDC1
- Planning the upgrade

EDC2 & EDC3
- Awaiting enterprise planning

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Co-Location Benefits

- ✓ **Clear & Consistent DC Strategy**: Significant consolidation of most vital systems, 5-year strategy in place

- ✓ **Addresses Risks:** Space and move priority given to current data centers most at risk

- ✓ **Minimized Costs:** Recognize difficult financial times
  - Equipment refresh plans offset move costs
  - Infrastructure investments in limited to state facility upgrades

- ✓ **Elevates Other Opportunities**: Gradual standardization & co-location sets the State up for more efficiencies in future (virtualization, cloud computing opportunities, etc.)

Enterprise Unified Communications & Collaboration (EUCC)

What is EUCC?

- A Unified Communications and Collaboration (UCC) strategy and infrastructure promotes the effective use of various communication services and collaborative, web-based work spaces. The ability to communicate and collaborate with a broad range of interested parties is a key efficiency and productivity differentiator for state agencies.

  - Email
  - Web collaboration
  - Conferencing

Enterprise Email By the Numbers

- Minnesota is the first state to implement a single enterprise email system for the entire executive branch

    - Total email mailboxes: 38,250

    - Total BlackBerry devices: 2,400

    - Number of messages within Enterprise Email:

        - Sent: 255,000/day, 7.65M/month

        - Received: 825,000/day, 24.9M/month

    - 12 month average service availability: 99.932%

    - Number of messages per month scanned for spam and viruses: 275 million

    - Percent of mail discarded because of spam or virus: 96.5%

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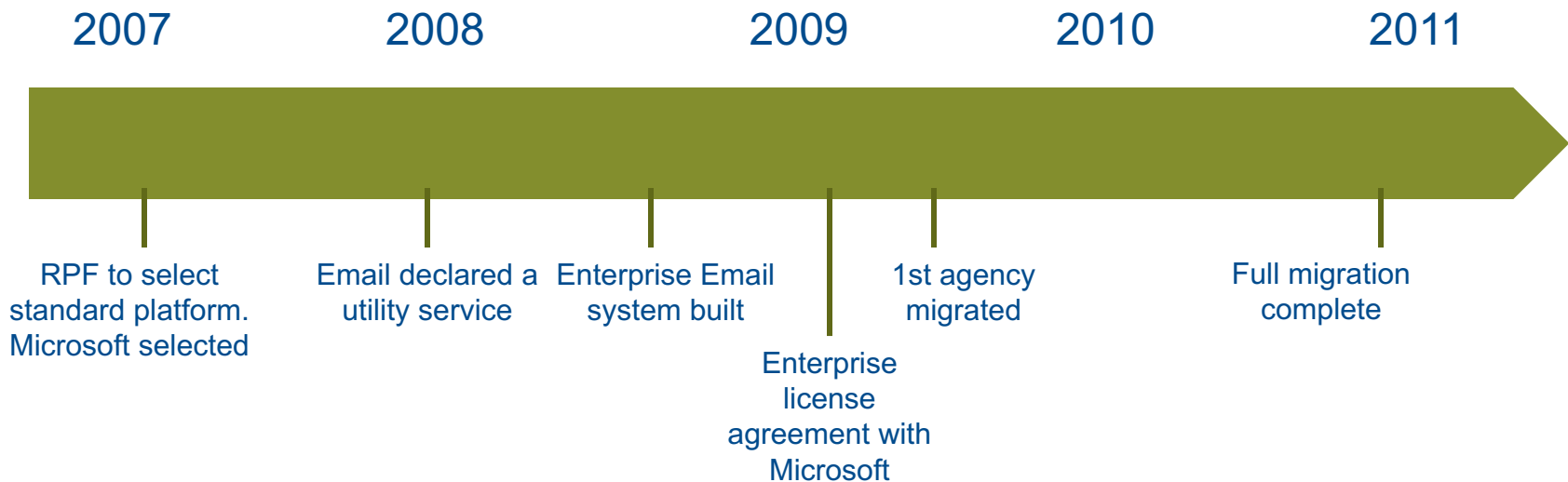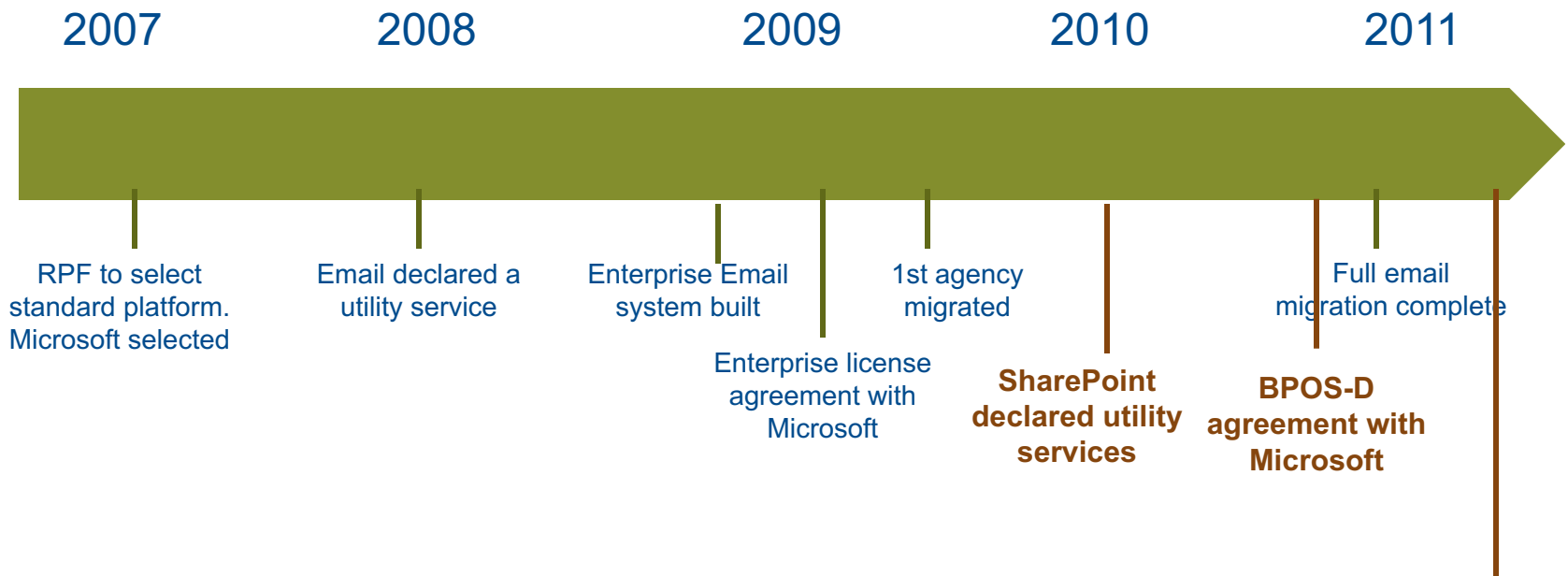# Enterprise Email Benefits

✓**Cost Avoidance**: Avoid ongoing costs of 36 email systems on 4 separate platforms; automatic upgrades with no individual investments

✓**Better Security**: Single set of security standards built in

✓**Better Communications**: Single directory and calendaring for all executive branch

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Enterprise Email Implementation

2007   2008   2009   2010   2011

RPF to select standard platform. Microsoft selected

Email declared a utility service

Enterprise Email system built

1st agency migrated

Full migration complete

Enterprise license agreement with Microsoft

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Additional EUCC Milestones

2007	2008	2009	2010	2011

RPF to select standard platform. Microsoft selected

Email declared a utility service

Enterprise Email system built

Enterprise license agreement with Microsoft

1st agency migrated

SharePoint declared utility services

BPOS-D agreement with Microsoft

Full email migration complete

Next step: Cloud management of email and other utility communications applications

EUCC Service Benefits

- ✓ **Increased efficiency** of state workers (state, county, city, etc.)

- ✓ Addresses **business needs** of state workers

- ✓ Enables **cross-organization collaboration**

- ✓ Creates a **common toolset** across State

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