Maine Digital Summit

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SAP®

Agenda

Introduction

Definition of Cloud Computing

Public Sector Cloud Computing Trends
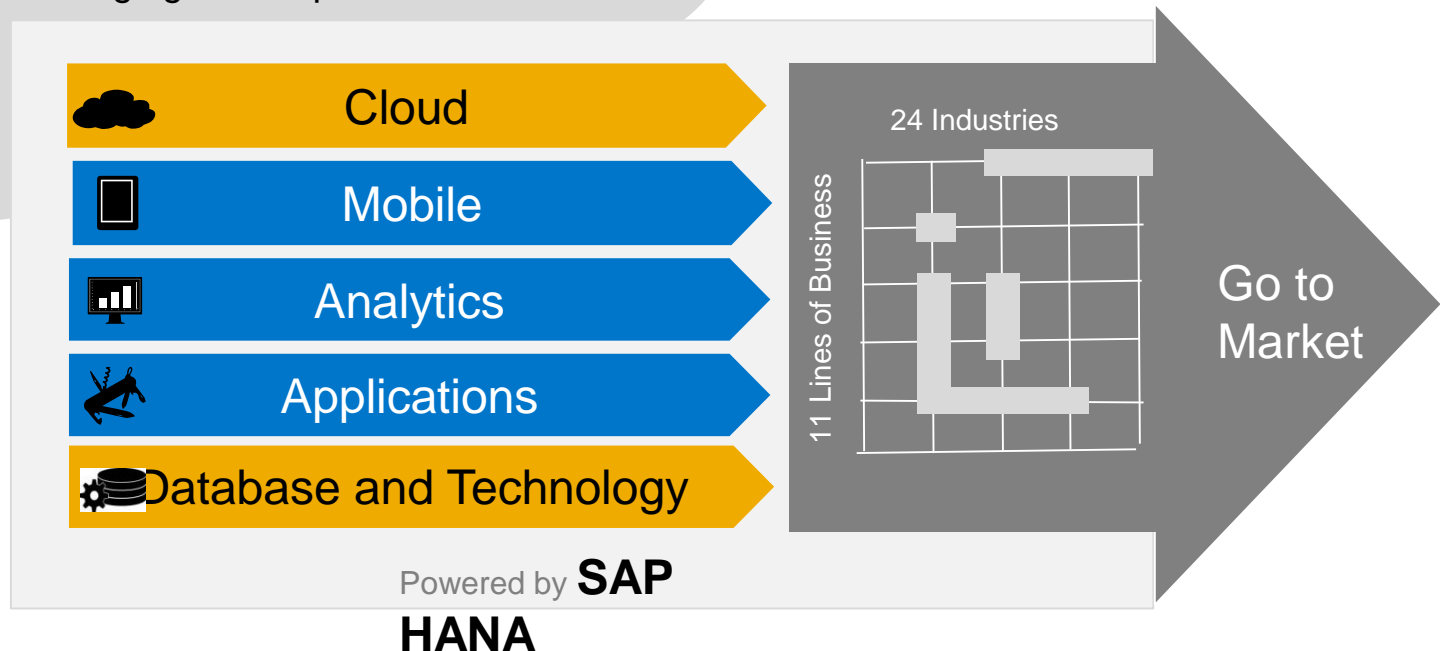
Myths, Challenges, and Success Stories

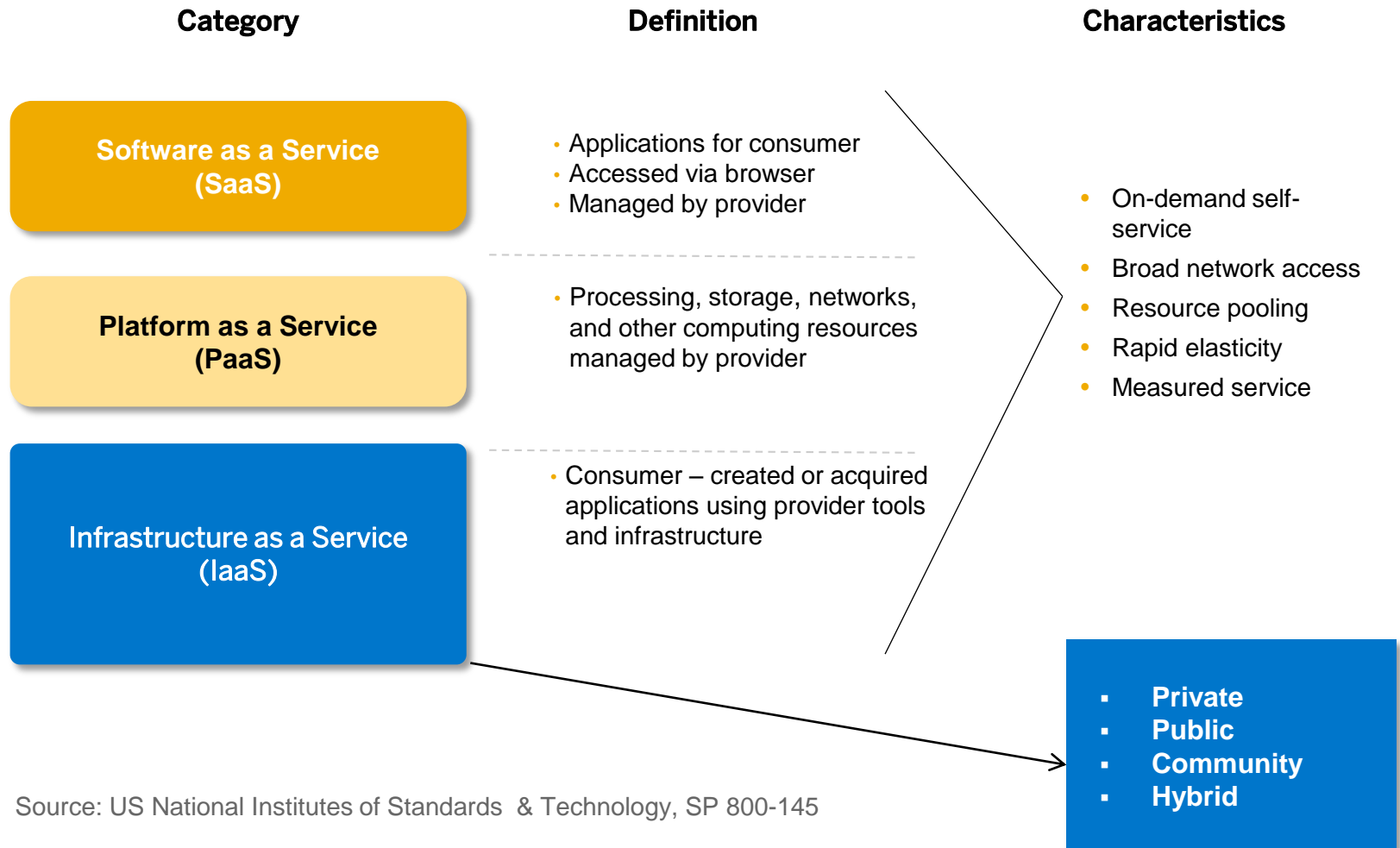Where does SAP play in Cloud?

Who is SAP?

SAP Cloud Solutions
Choose from a leading portfolio of cloud-based solutions designed to work the way people do: **collaborative, mobile and insightful**.

Built with one **consistent architecture, social and scalable** – leveraging the full power of SAP HANA

Cloud
Mobile
Analytics
Applications
Database and Technology

24 Industries

11 Lines of Business

Go to Market

Powered by **SAP HANA**

What is cloud?

Category	Definition	Characteristics
Software as a Service (SaaS)	• Applications for consumer • Accessed via browser • Managed by provider	• On-demand self-service • Broad network access • Resource pooling • Rapid elasticity • Measured service
Platform as a Service (PaaS)	• Processing, storage, networks, and other computing resources managed by provider	
Infrastructure as a Service (IaaS)	• Consumer – created or acquired applications using provider tools and infrastructure	▪ **Private** ▪ **Public** ▪ **Community** ▪ **Hybrid**

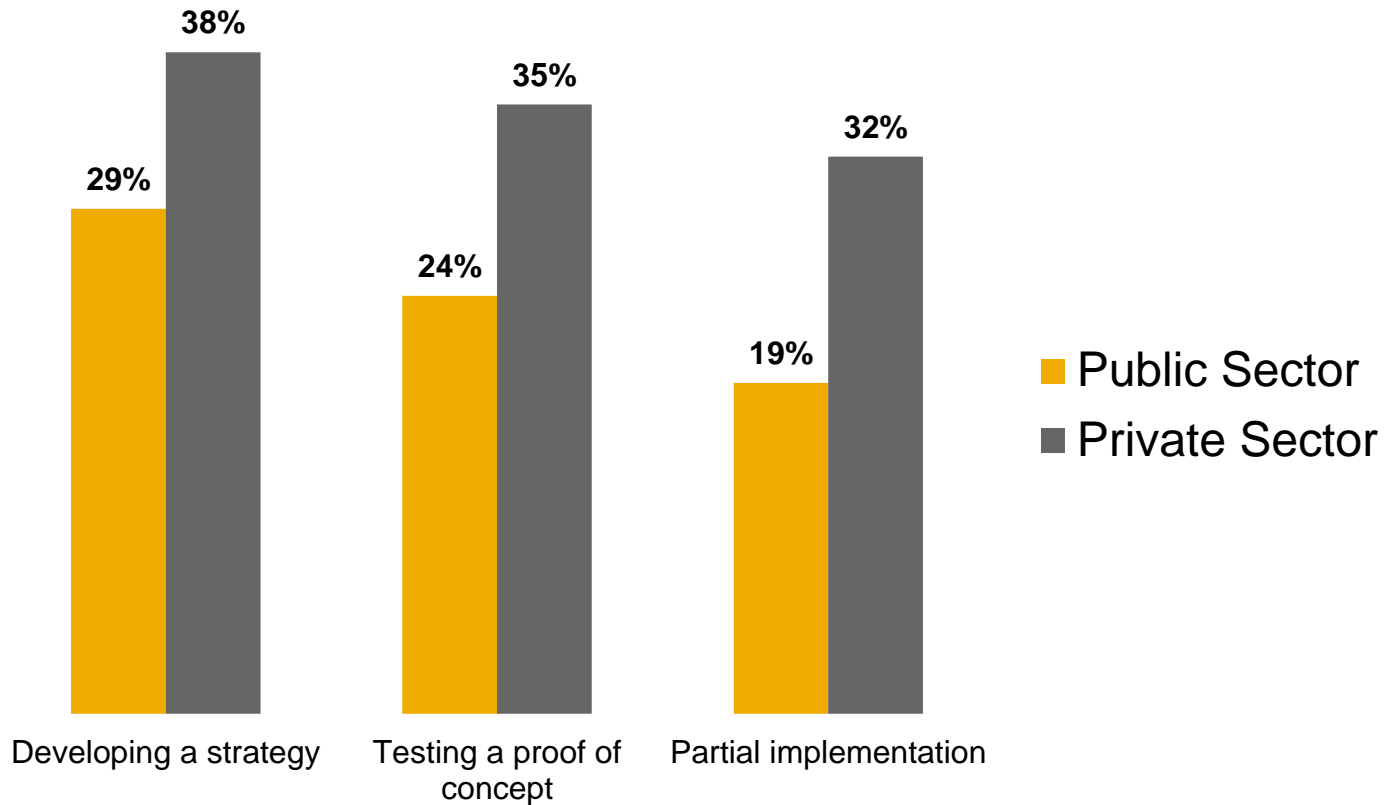Source: US National Institutes of Standards & Technology, SP 800-145

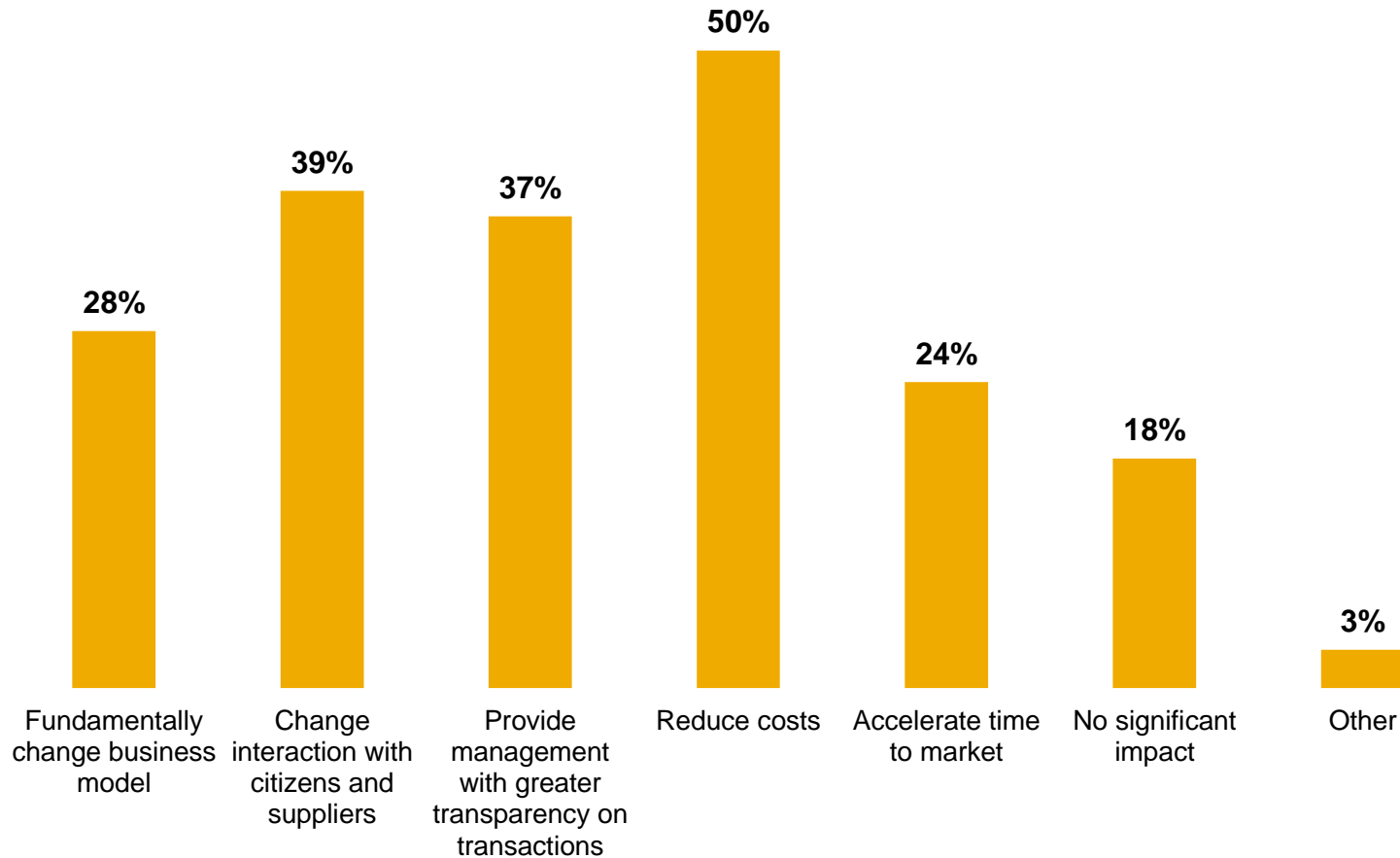# Cloud Computing in Public Sector? Yes!

- **Budget & cost pressures**
- Declining tax revenues
- Citizen demands
- Workforce pressures
- **Government mandates**
    - US Federal Cloud First and Shared First
    - UK G-Cloud
    - Australia Open Government
    - … others?
- Need greater **agility** and **flexibility**

Public sector cloud adoption lags private sector

Source: KPMG "Exploring the Cloud: A Global Study of Governments' Adoption of Cloud, February 2012.

Expected impact of cloud in public sector - globally

Source: KPMG "Exploring the Cloud: A Global Study of Governments' Adoption of Cloud, February 2012.

Cloud is one of the top State CIO Priorities for 2013

Priority Strategies, Management Processes and Solutions

1. Consolidation / optimization
2. **Cloud services**
3. Security
4. Mobile Services / Mobility
5. Budget and cost control
6. Shared services
7. Health care
8. Legacy Modernization
9. Interoperable nationwide public safety broadband network
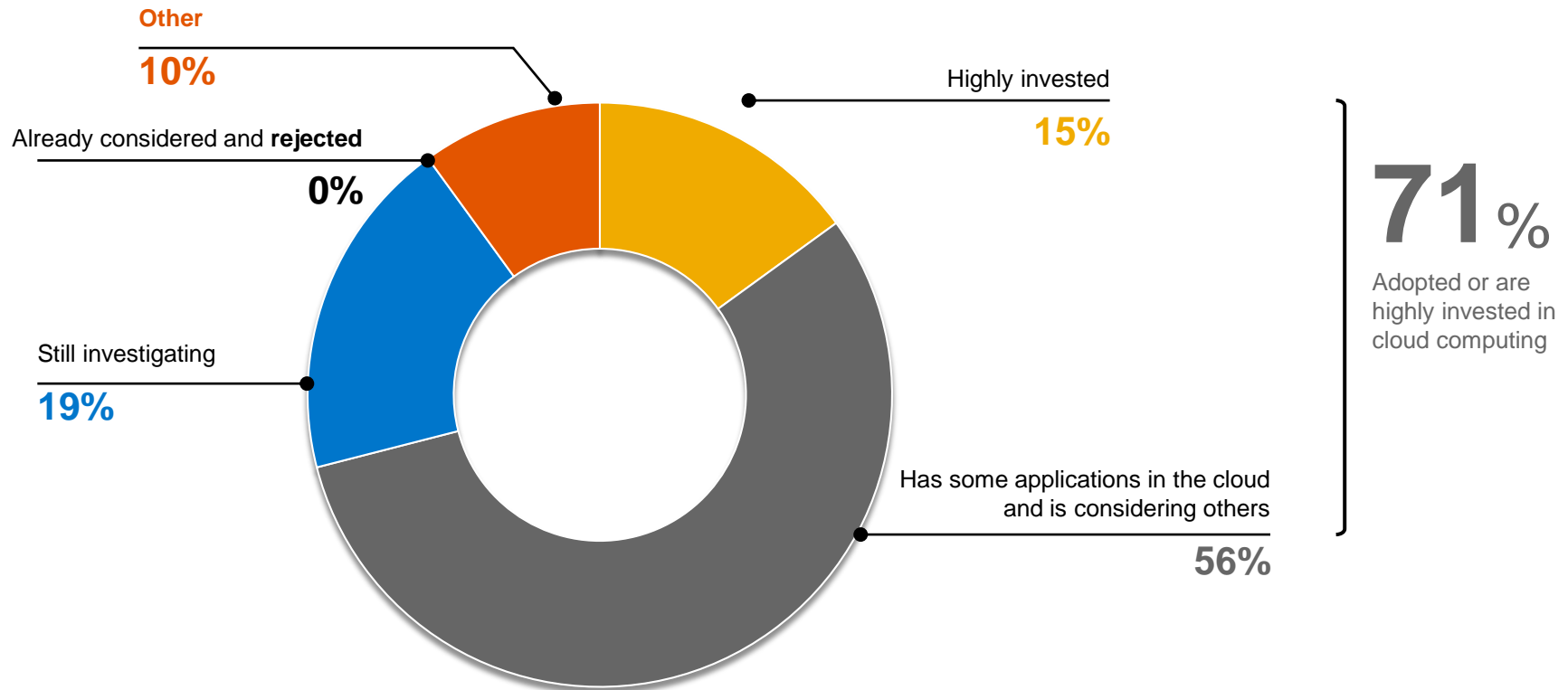10. Disaster recovery / business continuity

Priority Technologies, Applications and Tools

1. **Cloud computing**
2. Mobile workforce technologies
3. Virtualization
4. Legacy application modernization
5. Identity and access management
6. Enterprise resource planning
7. Security enhancement tools
8. Networking
9. Business intelligence (BI) and business analytics (BA), Big Data
10. Document/content/records/e-mail management

Source: *NASCIO State CIO Priorities for 2013*, November 13, 2012.
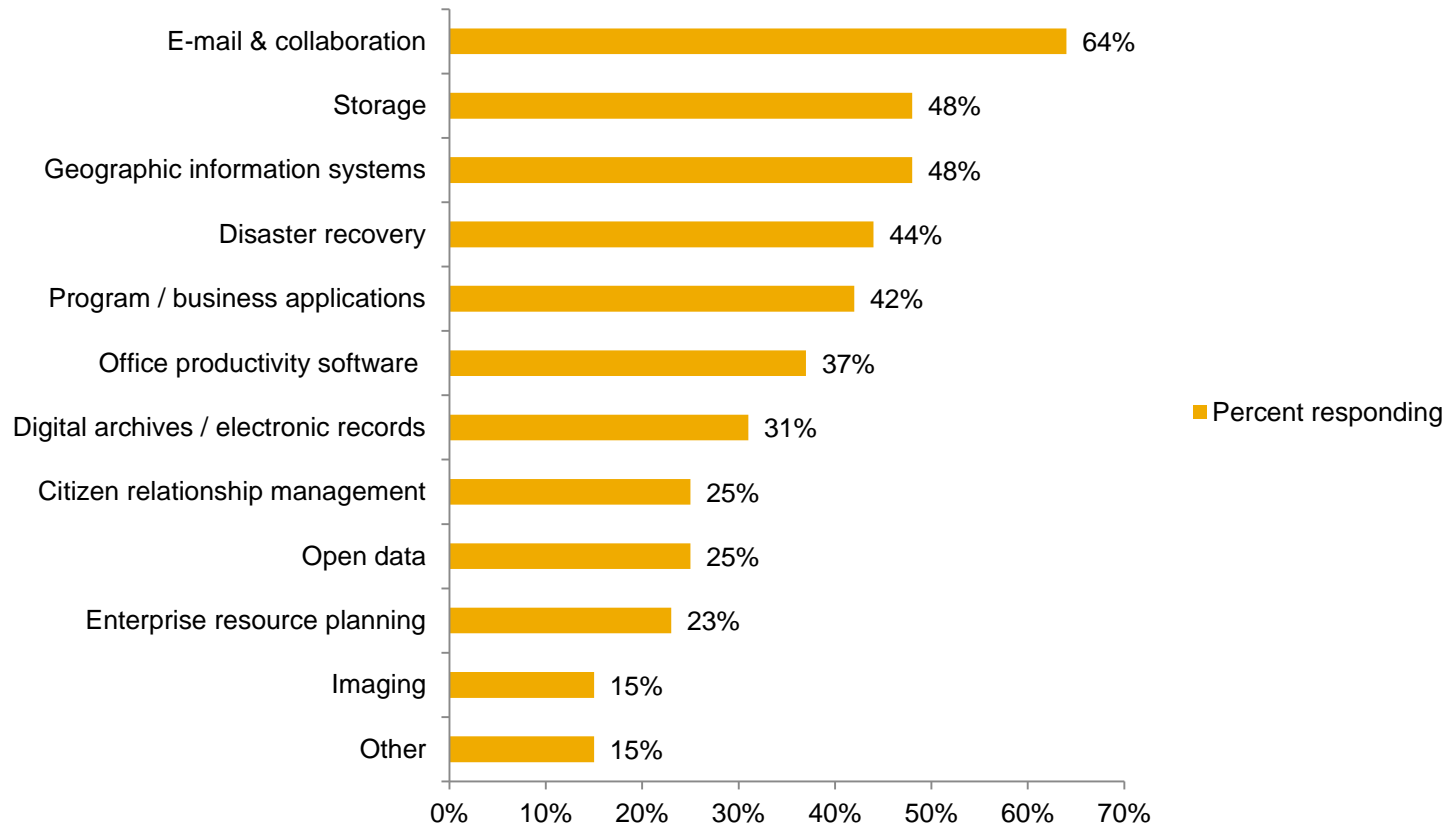
Cloud computing is gaining traction

What is your state's status regarding cloud computing in 2012?

Other
10%

Already considered and **rejected**
0%

Still investigating
19%

Highly invested
15%

71%
Adopted or are
highly invested in
cloud computing

Has some applications in the cloud
and is considering others
56%

Source: The 2012 State CIO Survey by the National Association of State CIOs (NASCIO), TechAmerica and Grant Thornton

Cloud adoption covers many types of services

What categories of services have you migrated or do you plan to migrate to the cloud?

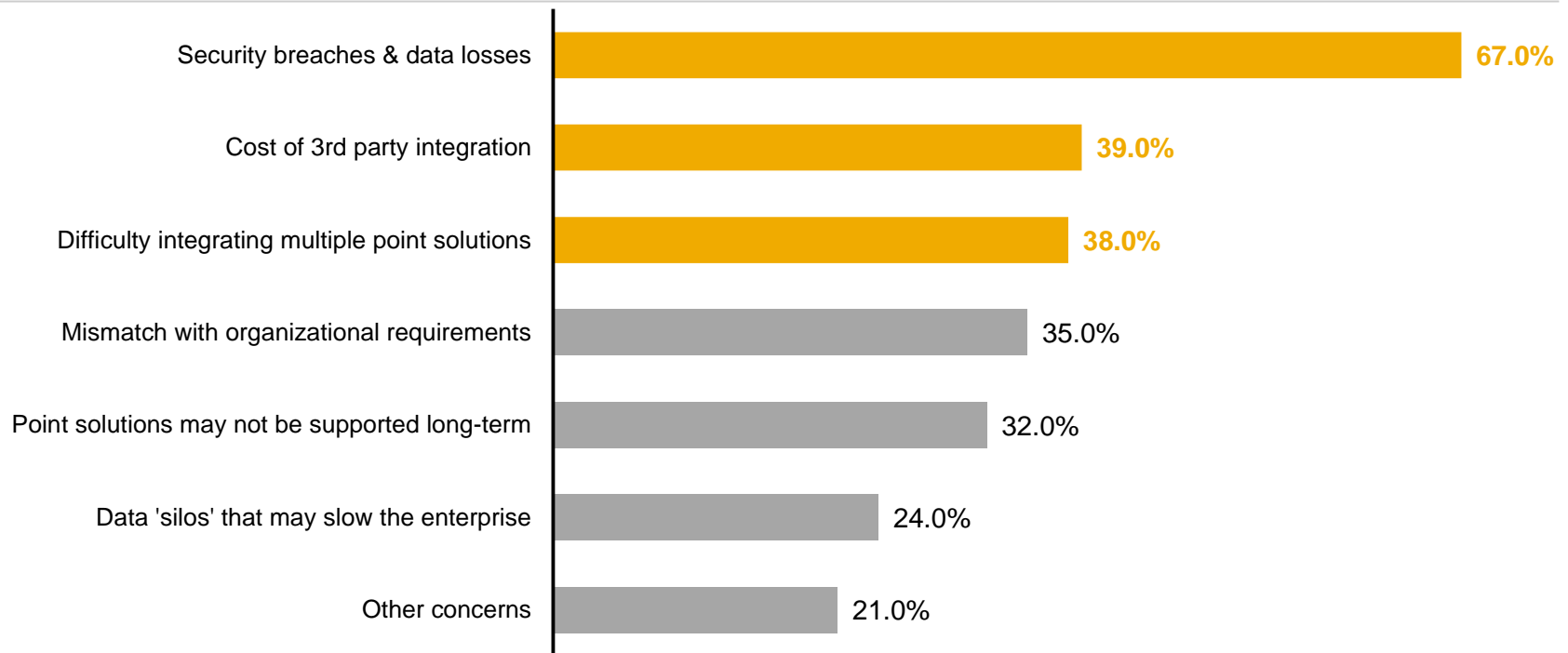| Category	Percent responding
E-mail & collaboration	64%
Storage	48%
Geographic information systems	48%
Disaster recovery	44%
Program / business applications	42%
Office productivity software	37%
Digital archives / electronic records	31%
Citizen relationship management	25%
Open data	25%
Enterprise resource planning	23%
Imaging	15%
Other	15%

■ Percent responding

Source: The 2012 State CIO Survey by the National Association of State CIOs (NASCIO), TechAmerica and Grant Thornton

Security & Integration Remain the Biggest Concerns

Key Takeaway: Security remains by far the biggest concern for many organizations, with issues around the integration with other solutions and with existing IT landscapes next

Q: "What are your main concerns with cloud computing?"

Concern	Percentage
Security breaches & data losses	67.0%
Cost of 3rd party integration	39.0%
Difficulty integrating multiple point solutions	38.0%
Mismatch with organizational requirements	35.0%
Point solutions may not be supported long-term	32.0%
Data 'silos' that may slow the enterprise	24.0%
Other concerns	21.0%

Source: SAP Performance Benchmarking (https://valuemanagement.sap.com)

Debunking myths - managing barriers to cloud adoption

Security

- Compliance with standards
  - ISO 27001
  - SSAE-16 Attestation – successor to SAS-70
  - Payment Card Industry compliance
  - FISMA – Compliance with NIST SP 800-53
  - Federal Risk Management Authorization Program (FedRAMP)

- Risk management
  - Identity and access management
  - "Living plans"

- Continuous monitoring

Other potential pitfalls with cloud computing

Learn from early adopters

- Cloud costs – More? Less? The debate rages on
  - Capital vs operating expense – depends on the time period
  - Falling computing costs plus increased automation
  - Cost comparisons are not apples to apples – even the offerings vary!

- Cloud migration
  - Onboarding
  - Exit strategy

- Data ownership

- Service levels

- Disaster recovery

US Government benefits from Cloud
Tracking the American Recovery and Reinvestment Act 2009: Recovery.gov

"The recovery board expects to save about $750,000 over the next two years – $334,000 this year and $420,000 in 2011 – by running Recovery.gov on EC2."

Information Week

"By using cloud services, the federal government will gain access to powerful technology resources faster and at lower costs. This frees us to focus on mission-critical tasks instead of purchasing, configuring, and maintaining redundant infrastructure."

Vivek Kundra, Federal CIO

- Test/Development were procured and ready within 2 days
- 22 days from Feasibility Study to Production on April 26, 2010
- Elimination of physical hosting costs ~$750K over 3 years
- Reuse or redistribution of ~$700K of hardware and software for internal
  Recovery Accountability and Transparency Board (RATB) use
- First government-wide system to move to cloud
- Faster provisioning and ability to add capacity on demand
- Increased performance under high Web demand

amazon webservices™

Recovery.gov

Cloud Success Story

Case study: Commonwealth of Virginia's eVA

- Challenges
  - No common system for purchasing
  - Missing out on spend leverage, compliance, and visibility
  - Long processing times for orders and purchase requests

- Solution
  - eVA purchasing platform for Sourcing and Procurement based on Ariba technology in place since 2002
  - Ongoing support from CGI

- Results
  - $20B in purchases since inception
  - $280M in documented savings
  - >13k users across state government, universities, and localities
  - >80 percent of spend through platform
  - Order processing times cut by >50 percent
  - Multiple national and state awards for procurement innovation

Where does SAP play in cloud?

Focus cloud areas

Software as a Service (SaaS)	✓
Platform as a Service (PaaS)	✓
Infrastructure as a Service (IaaS)	**P**

Enabling cloud on premise

| Virtualization | ✓ |
| Hosted on premise | **P** **C** |

P = Partner   **C** = Customer

Appendix

Customer Successes and Resources

Direct Relief International Strengthens Project Collaboration with SAP® StreamWork™

Organization
Direct Relief International

Headquarters
Santa Barbara, California

Industry
Public sector – nonprofit organizations

Products and Services
Worldwide medical relief and disaster response

Employees
50

Web Site
www.directrelief.org

Objectives
- Manage project work, communication flow, and project collaboration for a distributed group
- Improve coordination of people working together on a common problem
- Record and track action items and discussion threads

Why SAP
- Software that supports the management of projects involving participants, stakeholders, and partners and tracks action items, timelines, and decisions
- Functionality for communication and collaboration management
- Successful implementation of SAP® BusinessObjects™ business intelligence solutions

Benefits
- Efficient project management, including visual overview of tickets submitted by users that are still open
- Better decision making based on visualization of relevant project metrics
- Improved communication with stakeholders based on displays of project metrics and tracking information

"When it comes to managing projects, flow of communication, and project collaboration, the SAP StreamWork application is ideal. The software is purposely built for increasing the efficiency of people working on a common problem."

Ross Comstock, Information Technology Director, Direct Relief International

Continuous
Improvement of business intelligence

Better
Decision-making support

Higher
Transparency of medicine and supplies movement

Cloud Resources - External

SAP

Cloud Computing: http://www.sap.com/solutions/technology/cloud/index.epx

Virtualization at SAP: http://scn.sap.com/community/it-management/virtualization

Adaptive Computing: http://scn.sap.com/docs/DOC-8646

SAP Certified Cloud Partners: http://www.sap.com/community/ebook/2012_Partner_Guide/index.html

       - Includes infrastructure and services partners

Rapid Deployment Solutions: http://scn.sap.com/community/rapid-deployment

SAP NetWeaver Cloud Video: http://www.youtube.com/watch?v=GOqoXO7I_lc&feature=youtu.be

SAP Cloud Blogs

ASUGNews.com:

Into the Cloud with SAP: Inside the Cloud[2] Commission

Clouds Move from Silicon Valley to DC

Forbes.com:

Will cloud computing really be as big as the internet?

What do Legally Blonde 2, cloud computing and the Federal government all have in common?

Does Cloud Create Jobs?

Thank you!

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