



Federal Cloud Computing Initiative

**Sanjeev “Sonny” Bhagowalia
Deputy Associate Administrator,
Office Of Citizen Services and Innovative Technologies
GSA**

**NIST Cloud Computing Forum & Workshop II
November 15, 2010**

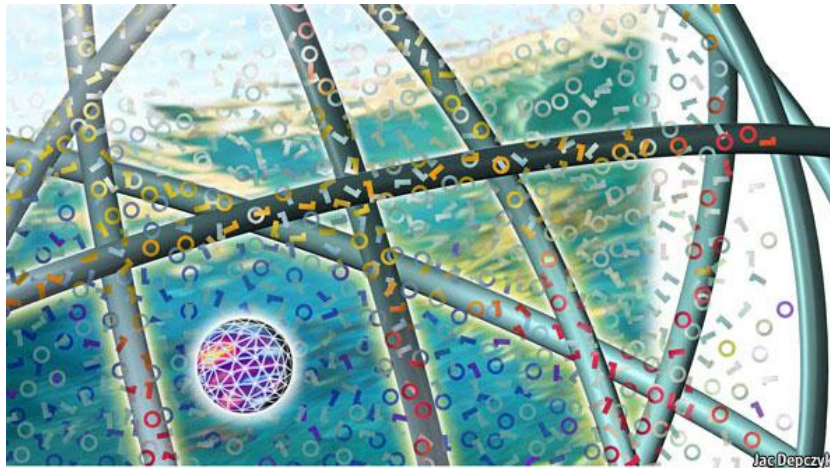
*“Data is the flint for
for the next 25 years.”*

Ray Ozzie
Chief Software Architect
Microsoft

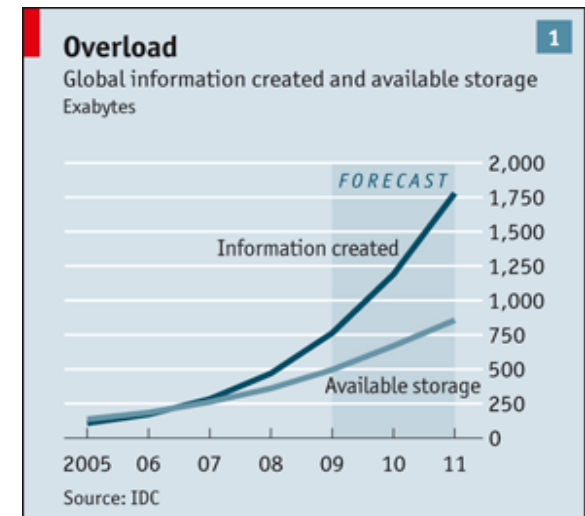


actual affiliates alternatives application behaviors business common conditions data date
decision **design** development etc experience fail failure fast features
g00171161 gartner id important improvement inc interaction invest lack measure mistake needs number
organizations page process project proven publication real requirements
research reserved rights root scenarios selection solution speed **system**
technology tools usability **user** user-centered user-friendly validation view visual
web website

Volume of digital information
increases tenfold every 5 years



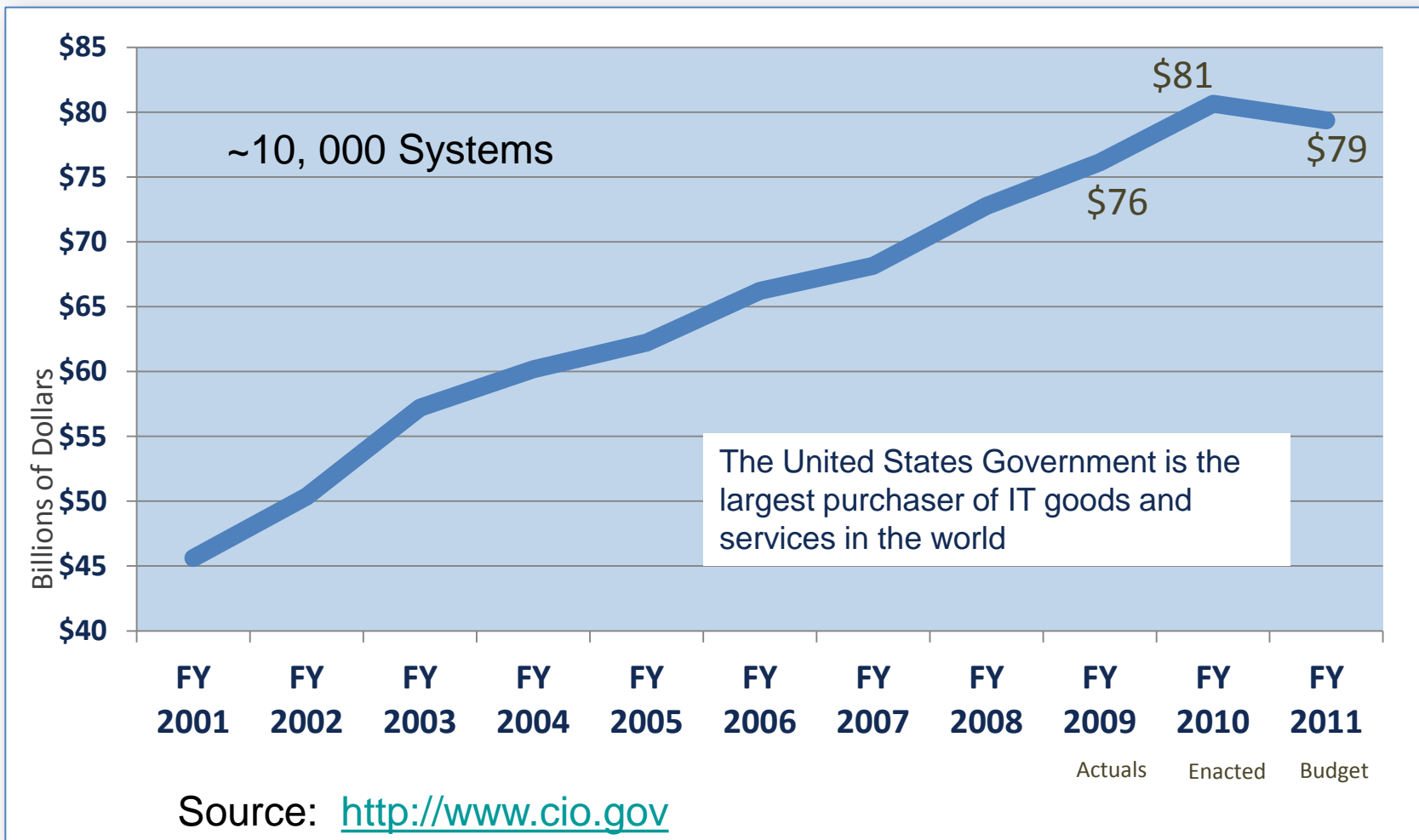
Plus: the data is replicated many times over!





Government Has Invested Billions in IT

GSA



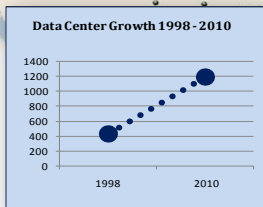
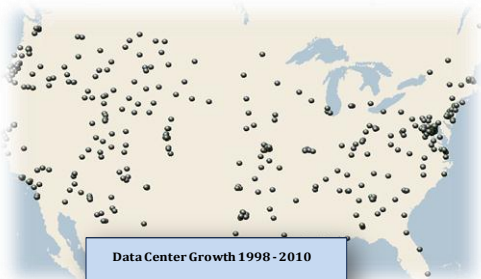


Improve Performance & Deliver Better Service

GSA

RATIONALIZE SERVICE DELIVERY MODELS

- Private sector is consolidating data centers while government data centers are growing
- Government needs to reverse this trend and consolidate



SHIFT SERVICES TO THE CLOUD

- Leverage shared services through the cloud
- Launched Apps.gov to simplify procurement of cloud services



flickr

amazon.com

salesforce.com
Success On Demand.

Microsoft

Google
Apps



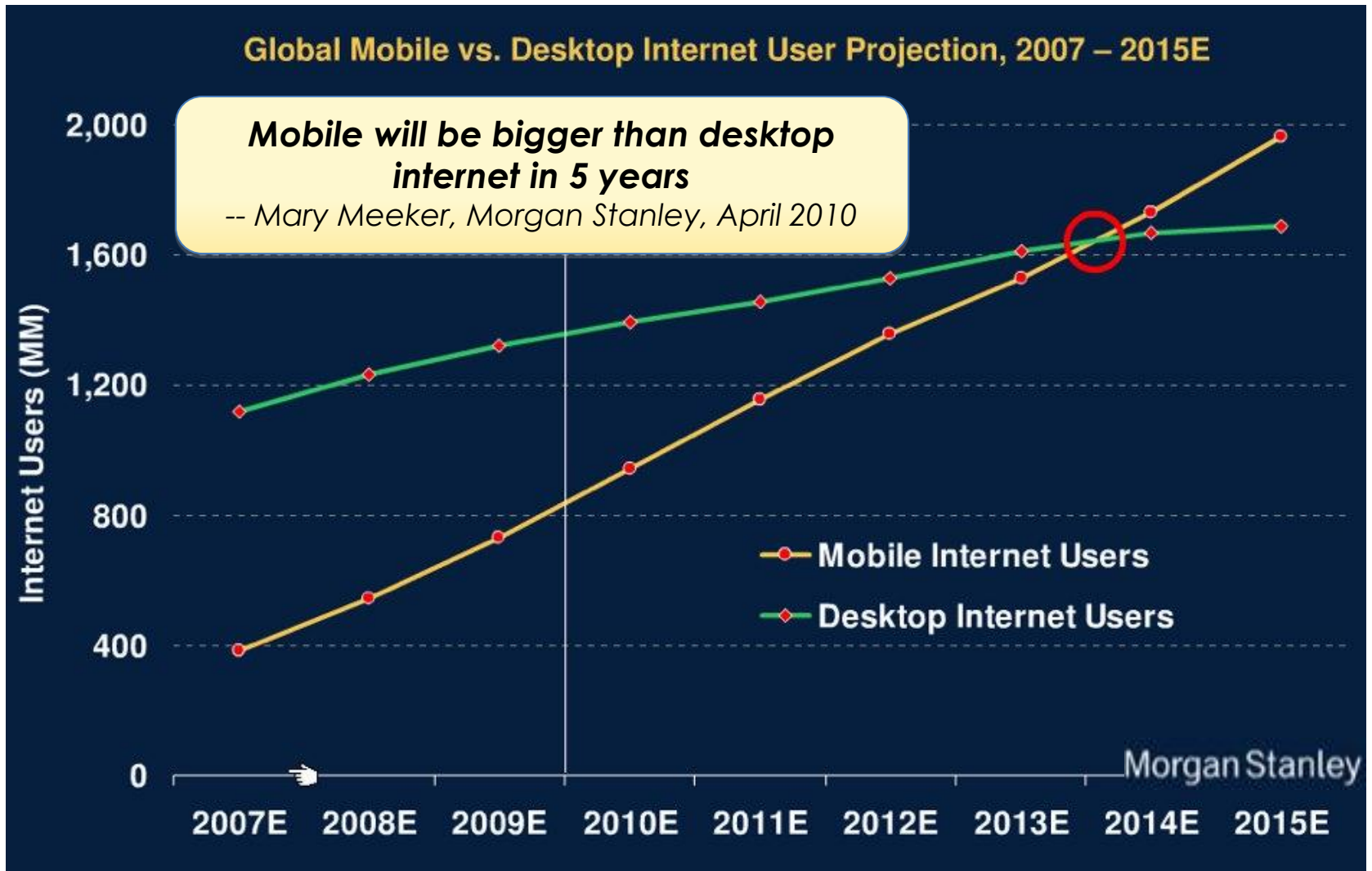
SIMPLIFY ACCESS TO SERVICES

- End-to-end digital service platforms
- New platforms for delivery – e.g., Mobile Computing

<http://www.cio.gov>



How Big is Mobile?



- Federal Cloud Computing Initiative began in March 2009 at the request of the Federal CIO, Vivek Kundra.
- Mission: Drive the government-wide adoption of cost effective, green, and sustainable Federal cloud computing solutions.
- The Cloud Computing Program Management Office (PMO) was established at GSA in April 2009.
 - PMO manages the Cloud Computing Executive Steering Committee, which reports to the Federal CIO Council.
 - 4 additional government-wide governance groups were established within the program:
 - Cloud Computing Advisory Council.
 - Cloud Computing Security Working Group.
 - Cloud Computing Standards Working Group.
 - SaaS Email Working Group.

The screenshot shows the Apps.gov website header with the GSA logo and navigation links. The main content area features a search bar, a date indicator, and several promotional banners. One banner is for 'Coming soon to Apps.gov' regarding Cloud IT Services. Another is for 'What is Cloud Computing?' with a video player. Below these are four categories: Business Apps, Cloud IT Services, Productivity Apps, and Social Media Apps, each with a brief description and a representative image. A disclaimer is located at the bottom of the main content area.

GSA Apps.Gov
A Service Provided by GSA

Welcome Register | Log In
0 Items in Cart \$0.00

Contact Us | Cloud FAQs | Vendor FAQs

Home Business Apps Productivity Apps Cloud IT Services Social Media Apps

Monday, October 18, 2010

SEARCH FOR IN All Categories

Coming soon to Apps.gov
You've got servers, developers, storage, testing, and upgrades to support your IT infrastructure. Need a better solution to reduce cost and speed implementation? Apps.gov Cloud IT Services can provide data storage, web hosting, and virtual machines all in the cloud - coming soon to Apps.gov!

What is Cloud Computing?
Want to learn more?
Watch this brief video for an overview of Cloud Computing to gain a better understanding of what it is and its benefits.

[Video transcript >](#)

What type of solution do you need?

Business Apps
Your agency or service is complex and requires state-of-the-art software to get business done.
GSA Cloud Business Apps has a solution!

Cloud IT Services
Need a better solution to reduce cost and implement projects faster?
GSA Cloud IT Services has the answer!

Productivity Apps
You need to get things done and GSA is there to help you do just that.
GSA Cloud Productivity Apps has the tools!

Social Media Apps
Social media tools make it easier to discuss the things we care about and help us get the job done.
GSA Social Media Apps can help you get the word out!

Before using/purchasing the products and services on apps.gov, please do so in accordance with your agency's policies and procedures pertaining to Procurement, Information Technology, Cyber Security, Privacy, Accessibility, Social Media, and any other applicable Federal mandates. If you have any questions about your agency's policies and procedures, please contact your agency's Office of the Chief Information Officer or [Terms of Service point of contact](#).

[Home](#) | [Register](#) | [Order History/Status](#) | [Cloud FAQs](#) | [Vendor FAQs](#) | [Contact Us](#)

First Federal storefront site to commoditize cloud services so that buyers may cross-compare products and purchase (launched September, 2009).
Currently offering SaaS and social media products.

Keeping you informed in upcoming events!

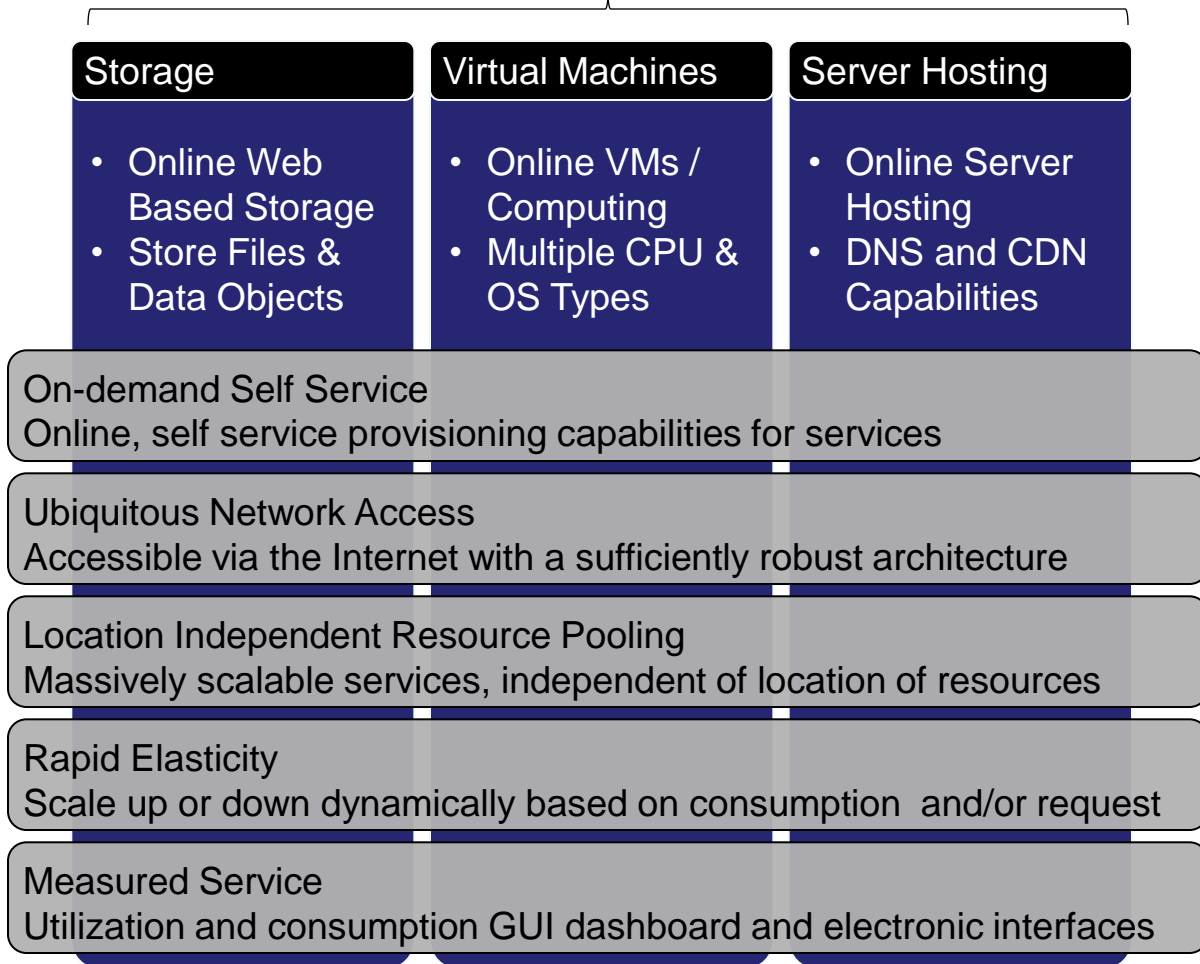
News and Information on Cloud and Data Center Topics

Reference Documents at your fingertips!

Provides tools to navigate the cloud landscape.

Launched in April 2010, Info.Apps.gov is a central Government site providing information about cloud computing and how to procure/use cloud services. It helps create sustainable, more cost-effective IT Services for the Federal Government. It is built on open source and it is hosted in the Cloud!

IaaS Services

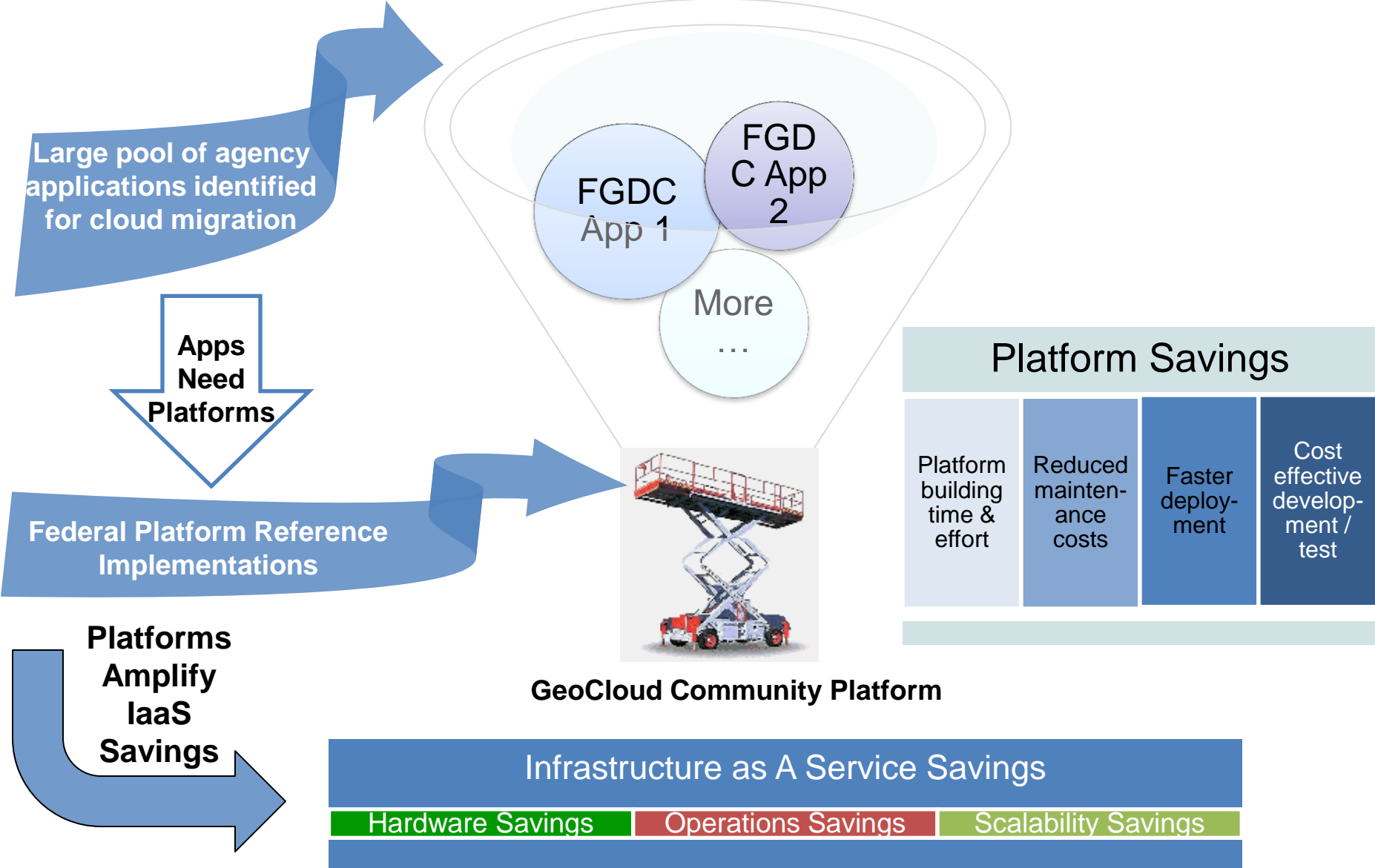


- **IaaS Awarded (October 2010)**
- **Awardees will complete security authorizations with GSA to support Moderate Level Security for Government**
- **Services will be made available through purchase on apps.gov**

RFQ Required
Cloud Computing
Characteristics

- Inter-agency SaaS Email Working Group established in June 2010.
- Developing an RFQ for a government-wide BPA of SaaS email solutions.
- RFI completed.
 - 13 respondents.
 - RFI responses will be leveraged to create RFQ requirements.
 - Pre-solicitation day to be held November 1 to solicit vendor and government feedback on draft SOW.
- GSA completed security authorization of Google Apps which may be leveraged by other agencies.
 - USAID leveraged Google Apps security authorization package to greatly reduce timeline for system implementation

Platform-as-a-Service (PaaS): GeoCloud



Unified Government-wide Risk Management Program

- Provides joint security authorization and continuous monitoring
- Agencies participate by leveraging the results for covered products
- Agencies **retain their responsibility and authority** to ensure their security needs are met in the use of systems

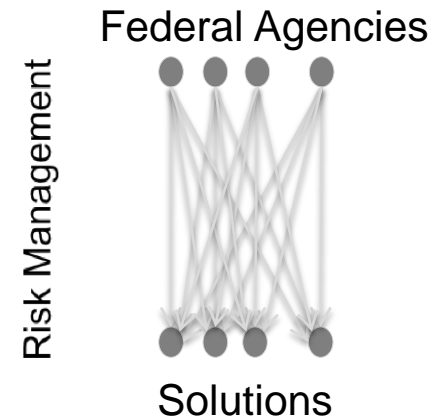
Vendor Benefits

- Government-wide authorization and security compliance cost reduction

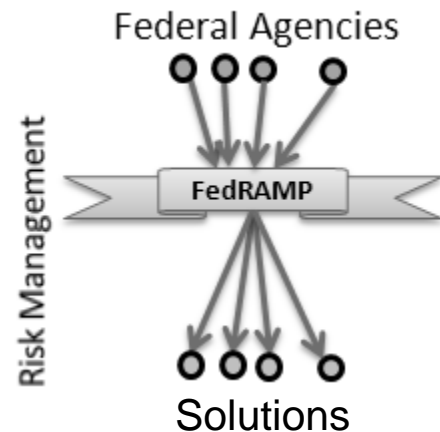
Agency Benefits

- Cost savings through reduced duplication
- Rapid acquisition
- Increased security assurance

Problem: Independent agency risk management has inefficiencies



Solution: Unified risk management eliminates inefficiencies



The Initiative's Six Key Phases



Milestones – Phase 1	Due Dates – Phase 1	Status – Phase 1
Initial Data Center Asset Inventory	April 30, 2010	Complete
Initial Data Center Consolidation Plan	June 30, 2010	Complete
Final Data Center Asset Inventory	July 30, 2010	Complete
Final Data Center Consolidation Plan	August 30, 2010	Complete
Approval of Final Data Center Consolidation Plans	December 31, 2010	OMB will work with agencies to review, adjust and approve final consolidation plans.

- The scope of the Initiative is limited to CIO Council agencies
- In February 2010, the Administration launched this Initiative
- Three agency guidance workshops were provided by the team as well as peer reviews were conducted of the agency's Initial and Final Plans
- Per the CIO Council Memo published October 1, 2010; "As of July 30, 2010, based on agency submissions, there are 2,094 Federal data centers"

Cloud Services Improves Citizen Focus and Efficiency for Government Portal, USA.gov



	Problem	Solution
	GSA wanted to reduce costs, add scalability and flexibility to USA.gov	Migrate to a cloud platform that resulted in significant lower cost, improved scalability.
	Hardware-Based Hosting	Cloud-Based Hosting
Time to upgrade	9 months including procurement	1 day maximum
Service Cost	~\$2M per year hardware and service	~\$650K per year cloud and service
Downtime	2 hour/month average	Zero

Cloud Computing Improves Flexibility and Reduces Cost at USA.GOV