Where in the cloud journey is your agency?

CLOUD ROADMAP

Set Goals Based on Mission Needs!

- **Initial Planning:** Establish foundational governance and scope; identify members of acquisition, business, and technical teams
- **Rationalize Applications:** Identify applications; determine dependencies and technical fit; identify duplication
- **Initiate and Plan:** Create roadmap and define time frames
- **Define and Analyze:** Develop service delivery and business process strategy; assess total cost of ownership; conduct skills gap analysis
- **Cloud Services Selection:** Identify desired service and deployment models; develop technical requirements; conduct market research; research government cloud acquisition vehicles; assess vendor demos; evaluate solutions and select
- **System Configuration:** Configure, build and test system
- **System Integration and User Testing:** Connect to required systems and coordinate system performance
- **Training:** Create business process maps; build and deliver end user testing; implement reskilling strategy to address skills gap
- **Go Live!**

The Federal Cloud Landscape

Nearly half of government agencies are actively using cloud services. More than 22 percent of national government IT budgets is spent on cloud.[1] Whether your agency is starting the cloud journey or looking to continue it, GSA will educate, evaluate, and help every step of the way. GSA is here to answer questions and provide solutions for all of your agency's cloud challenges.

In the past five years, **more than $1.5 billion worth of federal cloud acquisitions went through GSA.**[2] Trust GSA to carry out cloud procurement in an efficient, secure, and informed manner.

Next Steps:

- Visit the Cloud Information Center (CIC) online for additional guidance, information, and acquisition resources.

  www.gsa.gov/cic

- Contact the Cloud Acquisition Team by phone or email for a no-cost cloud evaluation and answers to your questions.

  (202) 969-7113 cloudinfo@gsa.gov

[1] https://www.gartner.com/smarterwithgartner/understanding-cloud-adoption-in-government/

[2] Internal GSA analysis based on FPDS data

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View, download, and order publications via www.gsa.gov/cmls.

GSA

U.S. General Services Administration

Cloud Computing with GSA

What Can GSA Do for You?

For cloud customers, GSA provides:

- **Free market research publication service performed** on the agency's behalf
- **Free scope reviews and templates** on the GSA Cloud Information Center (CIC), **www.gsa.gov/cic**
- **Best practices** and information forums via the GSA CIC
- **Direct agency support** by email and phone

Other benefits:

- Find **FedRAMP-authorized cloud service providers** on the GSA CIC, cutting through IT-Security red tape
- Build a stronger, more maintainable solution by leveraging the **GSA CIC**
- **Purchase cloud products and professional cloud labor in a single place:** EX: IT Schedule 70's SIN 132-40

#BeCloudConfident

What is Cloud Computing?

Cloud computing is the sharing of resources, software, and information through the Internet. Information and data are stored on physical and virtual servers, which are maintained and controlled by a cloud service provider (CSP). Users access stored information on the cloud via the Internet.

The government uses the NIST SP 800-145 definition of cloud:

- **On-Demand Self Service** → Management via a self-service portal
- **Broad Access Network** → Available from any device or location
- **Resource Pooling** → Multi-tenant shared resources
- **Rapid Elasticity** → Scale everything up or down on demand
- **Measured Service** → Pay for only what you use

Advantages of cloud computing:

- ✓ **Increased resource flexibility** (technology, personnel, and budget)
- ✓ **Increased efficiency** via shared computing resources and ability to scale up or down instantly
- ✓ **Enhanced reliability and security** through FedRAMP-certified CSPs
- ✓ **Reduced on-premises footprint** reducing facility costs
- ✓ **Compliance** with federal mandates

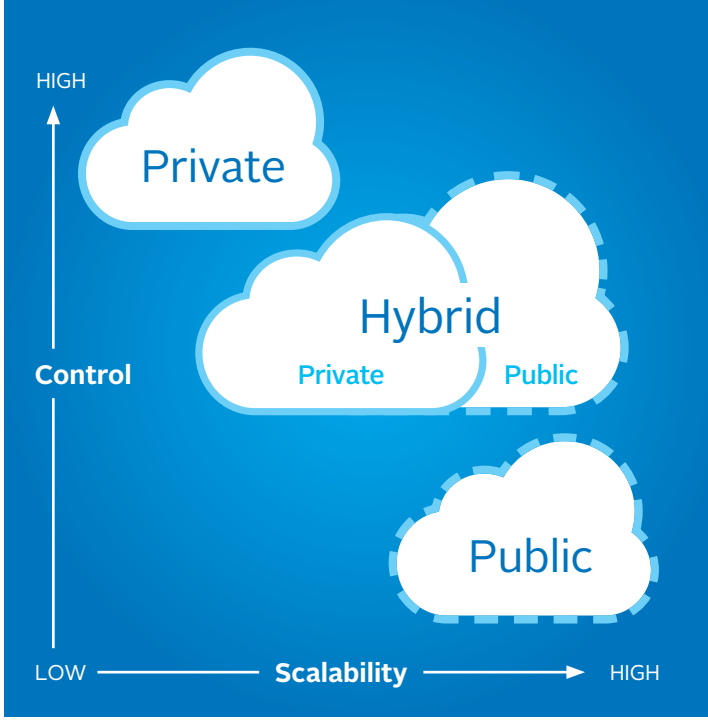
Shared Responsibility

With on-premises computing, agencies shoulder all of the responsibility. Cloud enables the sharing of responsibility, determined by the chosen service model.

	SaaS	PaaS	IaaS	On-Premises
Data governance and rights management	●	●	●	●
Client endpoints	●	●	●	●
Account and access management	●	●	●	●
Identity and directory infrastructure	◐	◐	●	●
Applications	●	◐	●	●
Network security controls	●	◐	●	●
Operating system patches and versions	●	●	●	●
Hosting infrastructure	●	●	●	●
Network infrastructure	●	●	●	●
Physical date center	●	●	●	●

● Agency ● Cloud Service Provider

Service Models	
Infrastructure as a Service (Iaas): Host	Upload your environment and run proprietary software on it. Also known as Hardware as a Service (HaaS).
Platform as a Service (PaaS): Build	Rent pre-built application environments with an operating system, languages, libraries, etc.
Software as a Service (SaaS): Consume	Software applications for end users come with guaranteed maintenance, support, and available software.



Deployment Models

Public cloud:
- Open for use by general public
- Provider owns, manages, and operates
- Hosted off-premises at provider facility
- No capital expenditure to start or maintain

Private cloud:
- Provisioned for single-agency use
- Shared ownership, management, and operation between agency and CSP
- Hosted on-premises or off-premises
- Initial capital expenditure for infrastructure

Community cloud:
- Provisioned for exclusive use by specific community
- Shared ownership, management, and operation between agencies and CSP
- Hosted off-premises

Hybrid cloud:
- Combination of previous cloud models
- Agency responsibility determined by requirements