



Examples



amazon
iCloud
Adobe
Office in the Cloud
at&t
verizon

CDSE

Cloud Computing Characteristics



VIDEO ON DEMAND
time for execution
CDSE

Types of Cloud Services

SAAS Software as a Service For End Users Examples: Google Docs Gmail GoToMeeting Cisco WebEx SalesForce MS Office 365 Adobe Connect	PAAS Platform as a Service For Developers Examples: App Engine Apprenda Azure Heroku	IAAS Infrastructure as a Service For SysAdmins Examples: AWS Metapod GCE
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Public Cloud Provider



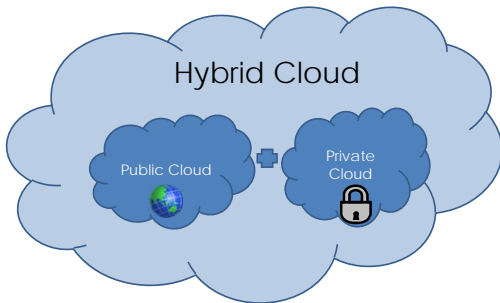
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Private Cloud Provider



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Hybrid Cloud Provider



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Community Cloud Provider



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Cloud Computing

Pros	Cons
Cost	Security / Privacy
Time	Bandwidth
Access	Reliability
Scalable	Ongoing costs
Updates	Limited control
Disaster recovery	

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DoD Considerations

DoD RMF

- Implemented by DoD 8510.01
- Consistent with NIST SP 800-37

FedRAMP (fedramp.gov)

- Standardized approach for cloud acquisitions
- Uses NIST SP 800-53 security controls
- OMB Policy memo requires federal agencies to use approved service providers and share ATOs
- Mandatory for federal agencies and service models at the low and moderate risk impact level
- Private cloud deployments for single organizations and only within federal facilities are the only exception

FedRAMP+

- Adds specific security controls for defense systems

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Security Requirements


Department of Defense Cloud Computing Security Requirements Guide v1r2 March 18, 2016


- FedRAMP baseline security controls must be applied
- Tailored security controls are developed in accordance with FedRAMP+
- Additional security controls may apply
 - CNSSI 1253 Privacy Overlay
 - PII / PHI Overlay

FedRAMP will serve as the minimum security baseline for all DoD cloud services.

Components may host Unclassified DoD information that has been publicly released on FedRAMP approved cloud services

- Updated Guidance on the Acquisition and Use of Commercial Cloud Computing Services (15 December 2014)





QUESTIONS / COMMENTS:

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