

Compare Cloud based file services (all you can find or know) in terms of functionality that they provide. Create a compact comparison sheet.

	Mega.nz	SpiderOak	AmazonCloud	Box (Business)
Free Storage	50GB	2GB	5GB	10GB
Costs Cheapest	99.99€	~80€	8€	~4€
Max. Storage Cheapest	500GB	30GB	20GB	100GB
Costs most Expensive (non Business)	299.99€	~273€	400€	~12€
Max. Storage for most Expensive	4TB	5TB	1TB	unlimited
Max. Filesize	no limits	no limits	no limits	no limits
max. Upload / Download Stream	96TB Datatransfer	no limits	no limits	no limits
Encryption	AES-128	AES-256 in CFB mode and HMAC-SHA256	EBS is based on AES-256 standard	AES-256
Devices	- Mobile - Desktop - Browser	-Mobile -Desktop -Browser -Command	- Mobile (iOS, Android) - Browser	- Mobile (iOS, Android, Blackberry) - Desktop - Browser

Do a fictional estimation whether or not to host a service in the cloud. How could you estimate when it would be cheaper to run your own service or use a cloud platform. Which factors should be taken into account?

- number of requests
- costs per request
- costs for the cloud service
- costs for servers, programmers, etc.
- ease of outlay (installation, deployment etc.)
- expandability
- scalability
- security requirements

If you take these factors into account you can easily estimate when it would be cheaper to run your own service or use a cloud platform.

Research on different forms of integration of Cloud Solutions into the users environment. Give examples of good and bad practice.

Dropbox:

Good practice:

- dynamic foto-share option
- dynamic data-share option
- option to embed media to external websites
- good support or documentation on Service and API

Bad practice:

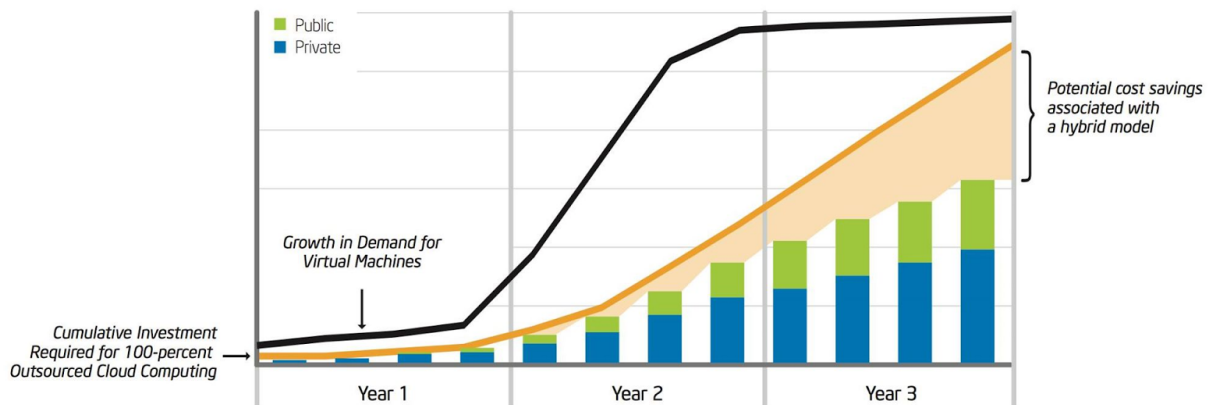
- security issues in case of Data Security
- expensive

Try to find examples for the use of public, private or hybrid clouds. Summarize benefits and risks of each approach based on the cases. Create a compact comparison sheet. Using the Eucalyptus Whitepaper might be helpful.

Public Cloud:	Private Cloud:	Hybrid Cloud:
A Public Cloud is one that's based on the standard cloud computing model where services, applications and storage are made available to users over the Internet 'as a service' – typically on a Pay Per Use model.	Private Clouds consist of cloud infrastructure that is deployed solely for a single organization, whether managed internally or hosted by a third-party externally. They require a significant level of engagement from both management and IT departments to virtualize the business environment, and also mean evaluating how existing resources should be reallocated in the cloud.	As the name suggests, a hybrid cloud comprises both private (internal) and public (external) cloud services. Typically a business might run an application primarily on a private cloud

	Public	Private	Hybrid
Agility	efficient in shared resources	knowhow stays private	external knowhow (like Application) on internal resources
Costs	short Term Costs	internal costs	costs for finished application and internal costs
Security	usually bad	could be very good	depending on application and/or provider
Development/ Code testing	community	company-internal	community

Projected Costs for Cumulative Public and Private Hybrid Cloud Hosting (by quarter)



<http://www.intel.com/content/dam/www/public/us/en/documents/best-practices/cloud-computing-cost-saving-with-a-hybrid-model-brief.pdf>
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Read on TXTEAGLE as an example that used the concept of the cloud to dispatch and collect (aka MechanicalTurk). Is this also a cloud application?
<http://www.brandeins.de/magazin/foerdern/sms-adler.html>

Yes kind of, but the user isn't interacting with it in the usual way (internet). Txteagle workers use their mobile phones to receive their job tasks via SMS messages from the cloud application. After they're finished with their task, they respond with an SMS. The whole communication process is done by the short message service and the workers are not able to access any information besides the one they get via SMS (job tasks and payment).

Read the Mercadolibre case study for Ubuntu cloud and extract the reasons to use a cloud, the challenges that were addressed and the results of this case.

Reasons to use a cloud:

“While it previously took days or weeks to provision new compute and storage resources, developers and managers can now auto-provision the infrastructure they need in real time. Ensuring that IT is constantly aligned to the needs of the business, the Openstack / Ubuntu Cloud also provides virtually unlimited scalability with no increase in licensing costs.”

Challenges:

“

- Making it fast and simple to provision IT
- Minimising manual admin
- Enhancing IT service for business divisions
- Delivering Infrastructure-as-a-Service “

Results:

“

- Real-time, self-service provisioning
- Highly stable infrastructure
- Infrastructure-as-a-Service
- Visibility of customer behaviour
- Enterprise support from Canonical
- Simple management
- Compatibility with public clouds “

Source:

https://insights.ubuntu.com/wp-content/uploads/2014/02/Mercadolibre_CS_WEB.pdf