

# Cloud



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# Cloud Computing



Definition

**NIST**

National Institute of Standards and Technology

Cloud computing is a model for enabling **ubiquitous**, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

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# Cloud Computing

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graph TD; A[Cloud Computing] --- B[Broad Network Access]; A --- C[Resource Pooling]; A --- D[Rapid Elasticity]; A --- E[Measured Service]; A --- F[On-Demand Self-Service];
```

Broad  
Network  
Access

Resource  
Pooling

Rapid  
Elasticity

Measured  
Service

On-Demand  
Self-Service

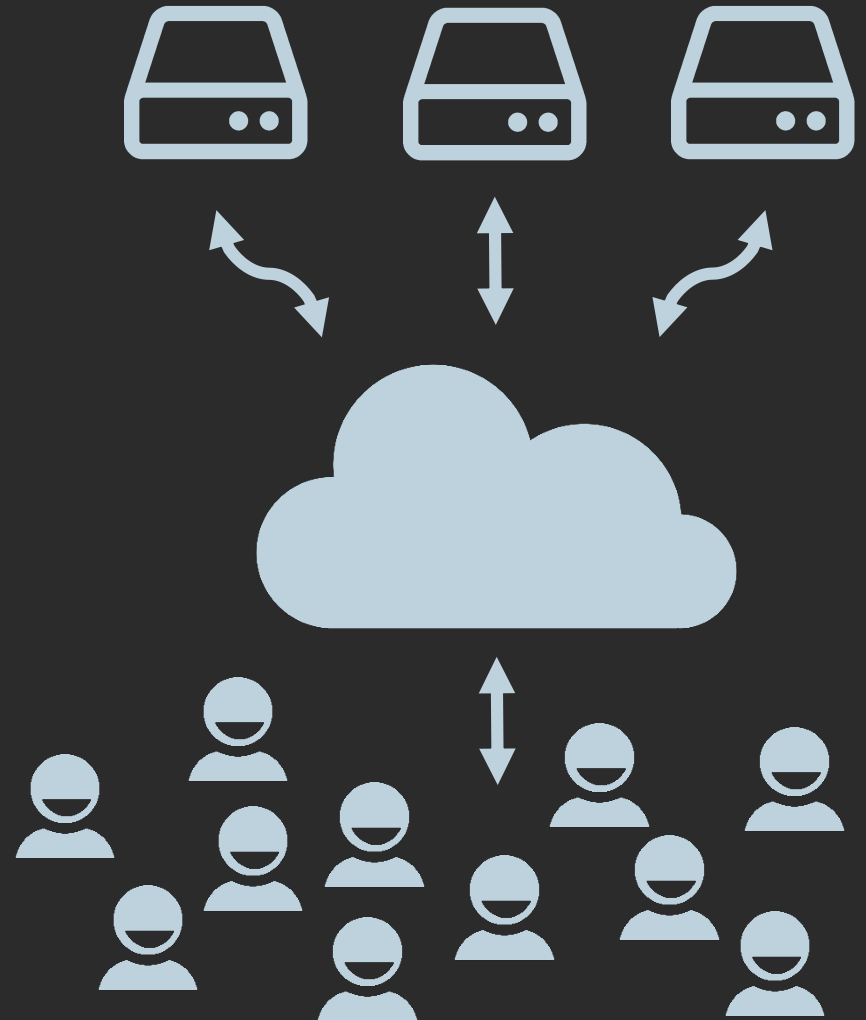
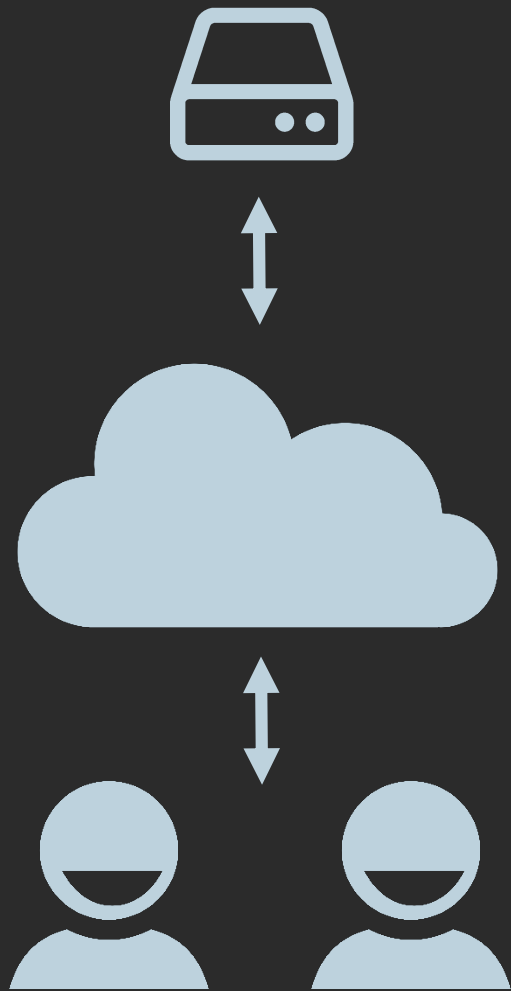
# Broad Network Access



# Resource Pooling



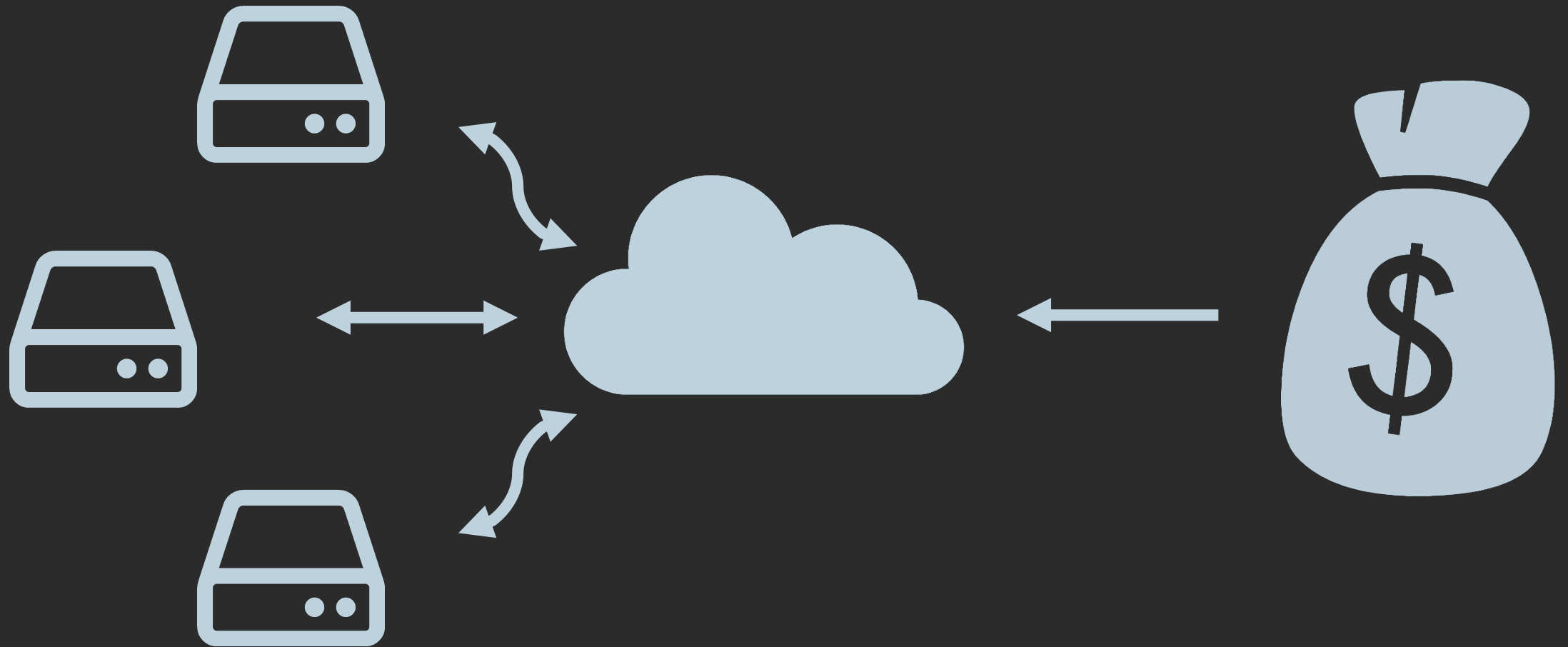
# Rapid Elasticity



# Measured Service



# On-Demand Self-Service



# Popular Applications

# E-Mail



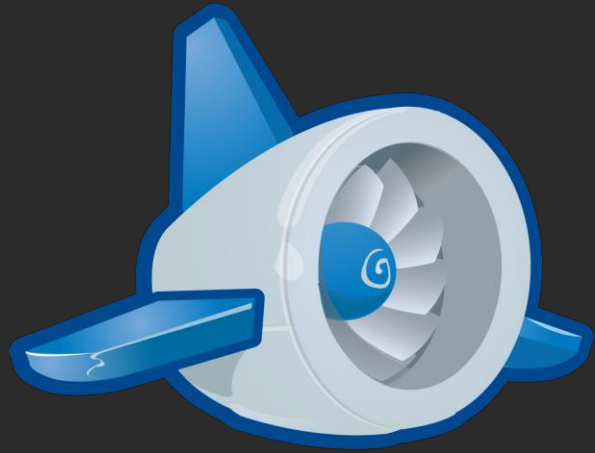
**WEB.DE**



# Storage



# Computing Power



**amazon**  
web services™

# Office Tools



Office 365



# Music



Photo



flickr

Why is the phrase so popular?

**“The Cloud”**

“The popularity of the term can be attributed to its use in **marketing** to sell hosted services in the sense of application service provisioning that run client server software on a remote location.”

Why is cloud computing so popular?

**“The Cloud”**



# Advantages



- Accessible from everywhere
- Only an Internet connection and browser are required
- Scalable
- Cheaper in short-term
- No installation and maintenance
- Easier support by the service provider
- Configurable
- Updates without interrupt
- Computers with low hardware specs supported

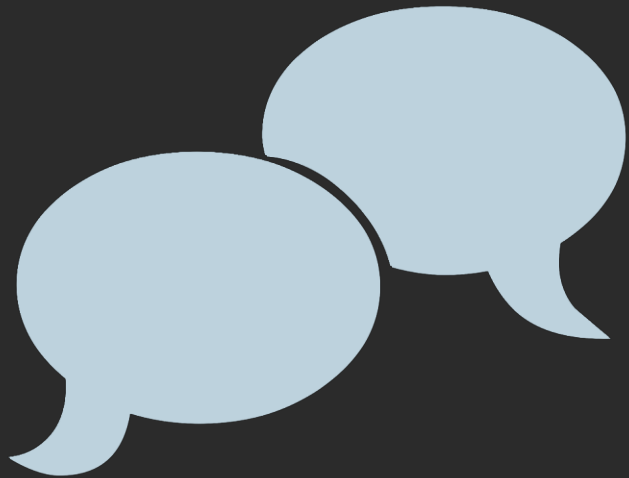
# Disadvantages



- Expensive in long-term
- User pays with money, data or privacy
- Service provider has access to data
- Single point of failure
- Who is the data's owner?
- In which country is the data stored?



# Discussion



What are your biggest concerns about cloud computing?

Do you believe, that in the future all applications run in the cloud?

Do you think the advantages dominate the disadvantages?