



AWS vs OpenStack

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Cloud computing

the practice of using a network of remote servers hosted on the Internet to store, manage, and process data, rather than a local server or a personal computer.

Oxford Dictionary

Cloud computing

- Software-as-a-Service (SaaS)
- Platform-as-a-Service (PaaS)
- Infrastructure-as-a-Service (IaaS)

2017 Cloud Revenue

| | |
|----------------|---|
| Microsoft | \$18.6B |
| Amazon | \$17.5B |
| IBM | \$17.0B |
| Salesforce.com | \$9.92B <small>(12 mos. ending Oct. 31)</small> |
| Oracle | \$5.6B <small>(12 mos. ending Nov. 30)</small> |
| SAP | \$4.71B |
| Google | \$3B <small>(est.)</small> |

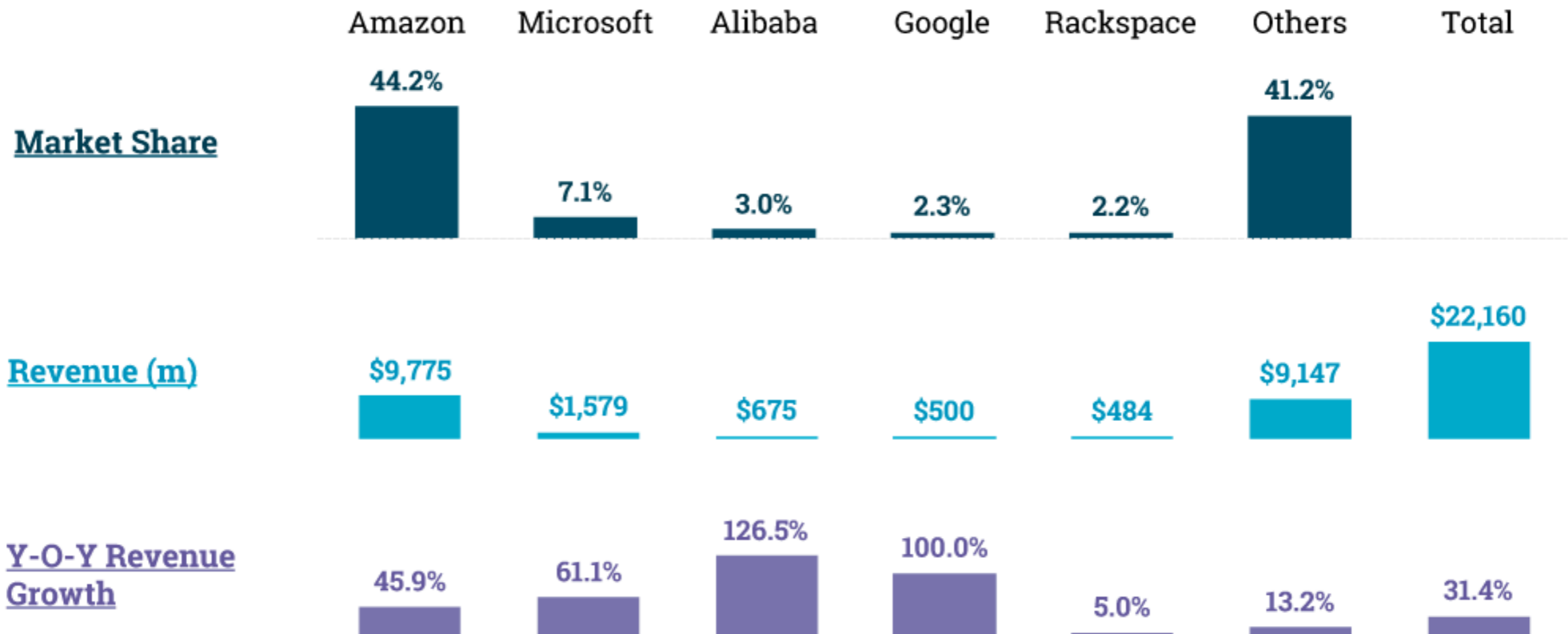
Source: [Forbes](#)



Infrastructure-as-a-Service

a form of cloud computing that provides virtualized computing resources over the internet.

IaaS Public Cloud Services Market, in 2016



Published on MarketingCharts.com in October 2017 | Data Source: Gartner

Infrastructure-as-a-Service (IaaS) market data is based on Gartner estimates



2006

Amazon.com, Inc.

Service

Commercial

Public cloud



2010

Rackspace Hosting
and NASA
(OpenStack Foundation)

Software

Open Source

Private cloud



Billing by the minute/hour –
potentially unpredictable costs
as usage is billed as used.



Use a managed service offering
OR
Buy hardware to run an OpenStack
cloud and freely
download OpenStack software and
employ engineers to install, maintain,
enhance, upgrade etc.
OR
License a distribution from a vendor.
This involves an upfront license cost,
annual support costs and a
subsequent license renewal.
OR
Purchase a predictable subscription
from Red Hat and receive support,
maintenance, consulting, upgrades....



Easy to set up and use

No need to purchase expensive hardware

Pay for actual use

Geographically distributed grid

Amazon ensures safety of your data and reliability

Less flexibility

Implications of public clouds

No control over hardware

Not cheap



Great flexibility

Ability to tweak both software and hardware

Features introduced faster because of community contributions

You can choose how you want your grid to be distributed

Installation and setting up are not trivial tasks

Need of purchasing hardware

You take care of your grid

Not cheap



Fast development

Short-term development,
Small projects

Small companies or individuals
Testing



Long-term development

Academic, scientific projects

Enterprises

High-Performance computing