

Cloud terminology

Advertising-based pricing model

A pricing model whereby services are offered to customers at low or no cost, with the service provider being compensated by advertisers whose ads are delivered to the consumer along with the service.

Amazon EC2

Amazon's Elastic Compute Cloud Web service, which provides resizable computing capacity in the cloud so developers can enjoy great scalability for building applications.

Amazon S3

Amazon Simple Storage Services — Amazon's cloud storage service.

CDN

Content delivery network — A system consisting of multiple computers that contain copies of data, which are located in different places on the network so clients can access the copy closest to them.

Cloud

A metaphor for a global network, first used in reference to the telephone network and now commonly used to represent the Internet.

Cloud broker

An entity that creates and maintains relationships with multiple cloud service providers. It acts as a liaison between cloud services customers and cloud service providers, selecting the best provider for each customer and monitoring the services.

Cloud operating system

A computer operating system that is specially designed to run in a provider's datacenter and be delivered to the user over the Internet or another network. Windows Azure is an example of a cloud operating system or "cloud layer" that runs on Windows Server 2008. The term is also sometimes used to refer to cloud-based client operating systems such as Google's Chrome OS.

Cloud Oriented Architecture

A term coined by Jeff Barr at Amazon Web Services to describe an architecture where applications act as services in the cloud and serve other applications in the cloud environment.

Cloud portability

The ability to move applications and data from one cloud provider to another. See also *Vendor lock-in*.

Cloud provider

A company that provides cloud-based platform, infrastructure, application, or storage services to other organizations and/or individuals, usually for a fee.

Cloud storage

A service that allows customers to save data by transferring it over the Internet or another network to an offsite storage system maintained by a third party.

Cloudsourcing

Replacing traditional IT services with cloud services.

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Cloudstorming

Connecting multiple cloud computing environments.

Cloudware

Software that enables creating, deploying, running, or managing applications in the cloud.

Cluster

A group of linked computers that work together as if they were a single computer, for high availability and/or load balancing.

Consumption-based pricing model

A pricing model whereby the service provider charges its customers based on the amount of the service the customer consumes, rather than a time-based fee. For example, a cloud storage provider might charge per gigabyte of information stored. See also *Subscription-based pricing model*.

Customer self-service

A feature that allows customers to provision, manage, and terminate services themselves, without involving the service provider, via a Web interface or programmatic calls to service APIs.

Disruptive technology

A term used in the business world to describe innovations that improve products or services in unexpected ways and change both the way things are done and the market. Cloud computing is often referred to as a disruptive technology because it has the potential to completely change the way IT services are procured, deployed, and maintained.

Elastic computing

The ability to dynamically provision and de-provision processing, memory, and storage resources to meet demands of peak usage without worrying about capacity planning and engineering for peak usage.

External cloud

Public or private cloud services that are provided by a third party outside the organization.

Google App Engine

A service that enables developers to create and run Web applications on Google's infrastructure and share their applications via a pay-as-you-go, consumption-based plan with no setup costs or recurring fees.

Google Apps

Google's SaaS offering that includes an office productivity suite, email, and document sharing, as well as Gmail, Google Talk for instant messaging, Google Calendar and Google Docs, spreadsheets, and presentations.

HaaS

Hardware as a service; see *IaaS*.

Hosted application

An Internet-based or Web-based application software program that runs on a remote server and can be accessed via an Internet-connected PC or thin client. See also *SaaS*.

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Hybrid cloud

A networking environment that includes multiple integrated internal and/or external providers.

IaaS

Infrastructure as a service — Cloud infrastructure services, whereby a virtualized environment is delivered as a service over the Internet by the provider. The infrastructure can include servers, network equipment, and software.

IBM Smart Business

IBM's cloud solutions, which include IBM Smart Business Test Cloud, IBM Smart Analytics Cloud, IBM Smart Business Storage Cloud, IBM Information Archive, IBM Lotus Live, and IBM LotusLive iNotes.

Internal cloud

A type of private cloud whose services are provided by an IT department to those in its own organization.

Mashup

A Web-based application that combines data and/or functionality from multiple sources.

Microsoft Azure

Microsoft cloud services that provide the platform as a service (see PaaS), allowing developers to create cloud applications and services.

Middleware

Software that sits between applications and operating systems, consisting of a set of services that enable interoperability in support of distributed architectures by passing data between applications. So, for example, the data in one database can be accessed through another database.

On-demand service

A model by which a customer can purchase cloud services as needed; for instance, if customers need to utilize additional servers for the duration of a project, they can do so and then drop back to the previous level after the project is completed.

PaaS

Platform as a service — Cloud platform services, whereby the computing platform (operating system and associated services) is delivered as a service over the Internet by the provider.

Pay as you go

A cost model for cloud services that encompasses both subscription-based and consumption-based models, in contrast to traditional IT cost model that requires up-front capital expenditures for hardware and software.

Platform Lab

Non-profit organization offering commercial use of private cloud optimized for load/stress testing, primarily a testing and project resource

Private cloud

Services offered over the Internet or over a private internal network to only select users, not available to the general public.

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Public cloud

Services offered over the public Internet and available to anyone who wants to purchase the service.

SaaS

Software as a service — Cloud application services, whereby applications are delivered over the Internet by the provider, so that the applications don't have to be purchased, installed, and run on the customer's computers. SaaS providers were previously referred to as ASP (application service providers).

Salesforce.com

An online SaaS company that is best known for delivering customer relationship management (CRM) software to companies over the Internet.

Service migration

The act of moving from one cloud service or vendor to another.

Service provider

The company or organization that provides a public or private cloud service.

SLA

Service level agreement — A contractual agreement by which a service provider defines the level of service, responsibilities, priorities, and guarantees regarding availability, performance, and other aspects of the service.

Subscription-based pricing model

A pricing model that lets customers pay a fee to use the service for a particular time period, often used for SaaS services. See also *Consumption-based pricing model*.

Utility computing

Online computing or storage sold as a metered commercial service in a way similar to a public utility

Vendor lock-in

Dependency on the particular cloud vendor and difficulty moving from one cloud vendor to another due to lack of standardized protocols, APIs, data structures (schema), and service models.

Vertical cloud

A cloud computing environment that is optimized for use in a particular industry, such as health care or financial services.

Virtual private data center

Resources grouped according to specific business objectives.

VPC

Virtual private cloud — A private cloud that exists within a shared or public cloud, e.g., the Amazon VPC that allows Amazon EC2 to connect to legacy infrastructure on an IPsec VPN.