

## Glossary: Introduction to Cloud Computing

Welcome! This alphabetized glossary contains many of the terms in this course. This comprehensive glossary also includes additional industry-recognized terms not used in course videos. These terms are essential for you to recognize when working in the industry, participating in user groups, and in other professional certificate programs.

Estimated reading time: 10 minutes

Term	Definition
Access group	A group of users and service IDs is created so that the same access can be assigned to all entities within the group with one or more access policies.
ACL	Access Control Lists
Administrative users	Create, update, and delete application and service instances, and need insight into their team members' activities.
AI	Artificial intelligence
API keys	Unique identifiers are passed into an API to identify calling application or user.
API	Application Programming Interface
Application modernization	Helps organizations accelerate their digital transformation, take advantage of new technologies and services, and become more responsive to changing market dynamics
Application Performance Monitoring (APM)	Measures application availability and performance, providing tools needed to troubleshoot issues in an application's environment.
Application users	Users of the cloud-hosted applications.
AppSec	Application Security
Audit and compliance	A critical service within identity and access framework used to validate implemented controls against policies.
Authentication	Also known as identity service, it enables applications deployed to the cloud to authenticate users at an application level.
AZ	Availability Zones are distinct Data Centers with their own power, cooling and networking resources. These Zones can have names like DAL-09 or us-east-1.
Bare-metal hypervisor	Installed directly on top of the physical server. They're more secure, have lower latency, and are usually the ones you see in the market the most.
Block storage	Is presented to compute nodes using high-speed fiber connections, which means that read and write speeds are typically much faster and reliable than with file storage.
Blockchain	An immutable network allowing members to view only those transactions that are relevant to them.
BPM	Business Process Management
Broad Network Access	Cloud computing resources can be accessed through the network.
BYOK	Bring Your Own Keys
CDNs	Content Delivery Networks is a distributed server network that delivers temporarily stored, or cached, copies of website content to users based on the user's geographic location.
Client-side encryption	Occurs before data is sent to cloud storage.
Cloud computing	A model for enabling convenient, on-demand network access to a shared pool of configurable computing resources that can be rapidly provisioned and released with minimal management effort or service provider interaction.
Cloud directory services	Used to securely manage user profiles and associated credentials inside a cloud environment.
Cloud encryption	Also known as the last line of defense, it encrypts data and provides robust data access control, key management, and certificate management.
Cloud monitoring solutions	Assess data, application, and infrastructure behaviors for performance, resource allocation, network availability, compliance, and security risks and threats.
Cloud native application	An application developed from the outset to work only in the cloud environment, or an existing app that has been refactored and reconfigured with cloud native principles
Cloud Region	A geographic area or location where a Cloud provider's infrastructure is clustered, and may have names like NA South or US East.
Cloud security	Policies, technological procedures, services, and solutions designed to secure the enterprise applications and data on the cloud against insider threats, data breaches, compliance issues, and organized security threats.
Composite multicloud	A variant of hybrid multicloud, distributes single applications across multiple providers, allowing you to move application components across cloud services and vendors as needed.
Containers	Are an executable unit of software in which application code is packaged, along with its libraries and dependencies, in common ways so that it can be run anywhere, whether it be on desktop, traditional IT, or the cloud.
Continuous delivery	Delivering small, well-designed, high-quality increments of software to customers
Continuous deployment	Progressing each new packaged build through the deployment lifecycle as rapidly as possible
Continuous integration	Creating packaged builds of the code changes released as immutable images
Continuous monitoring	Monitoring with tools that help developers understand the performance and availability of their applications, even before they're deployed to production
CRM	Customer Relationship Management
Data center	A huge room or a warehouse containing cloud infrastructure.
Database monitoring tools	Help track processes, queries, and availability of services to ensure the accuracy and reliability of database management systems.
Decryption key	Defines how the encrypted data will be transformed back to legible data.
Dedicated hosts	Offer single-tenant isolation.
Delivery pipeline	An automated sequence of steps that involves the stages of Ideation, Coding, Building, Deploying, Managing, and Continuous Improvement
Developer users	Authorized to read sensitive information and to create, update, and delete applications.

Term	Definition
DevOps	Collaborative approach where business owners and the development, operations, and quality assurance teams collaborate to continuously deliver software
Direct Attached storage	Or Local storage is storage which is presented directly to a cloud-based server and is effectively either within the host server chassis or within the same rack.
Encryption algorithm	Defines the rules by which data will be transformed so that it becomes illegible.
Encryption at rest	Protecting data while it is stored.
Encryption in transit	Protecting data while it is transmitted from one location to another.
Encryption in use	Protecting data when it is in use in memory.
Encryption	Scrambling data to make it illegible.
File storage	Is typically presented to compute nodes as 'NFS Storage'. NFS stands for Network File System and means that the storage is connected to compute nodes over a standard ethernet network.
GCP	Google Cloud Platform
HCM	Human Capital Management
Hosted hypervisor	There's a layer of host OS between the physical server and the hypervisor. These hypervisors are less frequently used and mostly used for "end-user" virtualization.
HPC	High-performance computing
Hybrid cloud	A computing environment that connects an organization's on-premises private cloud and third-party public cloud into a single, flexible infrastructure for running the organization's applications and workloads.
Hybrid monocloud	A hybrid cloud with one cloud provider.
Hybrid multicloud	An open standards-based stack that can be deployed on any public cloud infrastructure
Hypervisor	A piece of software that runs above the physical server or host.
IaaS	Infrastructure as a service is a form of cloud computing that delivers fundamental compute, network, and storage resources to consumers on-demand, over the network, on a pay-as-you-go basis.
IDC	International Data Corporation
Identity and access management	Also known as access control, it helps authenticate and authorize users and provides user-specific access to cloud resources, services, and applications.
Infrastructure monitoring tools	Identify minor and large-scale hardware failures and security gaps so that developers and administrators can take corrective action before problems affect user experience.
IOPS	Input/Output Operations Per Second and refers to the speed at which the disks can write and read data.
IoT	Internet of things
Key management services	Help perform life cycle management for encryption keys that are used in cloud services or customer-build ap.ps
KYOK	Keep Your Own Keys
MDM	Master Data Management
Measured Service	You only pay for what you use or reserve as you go.
Microservices architecture	Approach in which a single application is composed of many loosely coupled and independently deployable, smaller components or services
Microservices	Break down large applications into their core functions
Monolithic architecture	Approach in which a single application is built out of one piece of software
Multifactor authentication	Adds an additional layer or authentication for application users.
NFS	Network File Storage
NIST	National Institute for Standards and Technology
Object storage	Storage not attached to a compute node, rather it is accessed via an API.
PaaS	Platform as a service
Pay-As-You-Go	Users can order cloud resources from a larger pool of available resources and pay for them on a per-use basis.
POP	Post office protocol
Private Cloud	Cloud infrastructure provisioned for exclusive use by a single organization comprising multiple consumers, such as the business units within the organization.
Public Cloud	Users get access to servers, storage, network, security, and applications as services delivered by cloud service providers over the internet.
Rapid elasticity	You can increase or decrease resources as per your demand because of the elastic property of the cloud.
Reporting	Provides a user-centric view of access to resources.
Reserved virtual server	Instances allow you to reserve capacity and guarantee resources for future deployments.
SaaS	Software as a service
SDN	Software Defined Networking
Server-side encryption	Occurs after cloud storage receives your data but before the data is written to disk and stored.
Serverless	Approach to computing that offloads responsibility for common infrastructure management tasks
Service discovery	Creates a roadmap for microservices to communicate
Shared or Public Cloud VMs	Are provider-managed, multi-tenant deployments that can be provisioned on-demand with predefined sizes.

Term	Definition
SIP	SaaS integration platforms
SSL	Secure Sockets Layer
TCO	Total cost for ownership
TLS	Transport Layer Security
Transient or Spot VMs	Take advantage of unused capacity in a cloud data center.
User and service access management capability	Enables cloud application and service owners to provision and de-provision user profiles with minimal human interaction.
Utility model of billing	You are charged after the usage and at the end of the pre-defined period.
Virtualization	Process of creating a software-based or virtual version of something whether that be compute, storage, networking, servers, or applications.
VLANs	Virtual Local Area Networks
VM	Virtual machines are software-based computers, based on virtualization technologies.
VPC	Virtual Private Cloud
VPN	Virtual Private Networks



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