



Open-source Virtualization Management Platform

A turnkey solution, eliminating vendor dependencies and ensuring long-term reliability





Apache CloudStack is a highly scalable IaaS cloud computing and virtualization management platform that provides an orchestration layer, automating the creation, provisioning and configuration of IaaS components. **It turns existing virtual infrastructure into a cloud-based Infrastructure as a Service (IaaS) platform.** Because CloudStack leverages existing infrastructure, the costs and time for an organization to build a multi-tenant IaaS platform are greatly reduced.

CloudStack is a turnkey solution for MSPs, cloud providers, telcos and enterprises. It includes the entire "stack" of features you need: compute orchestration, Network-as-a-Service, user and account management, a full, open and stable native API, resource accounting, and a first-class User Interface.

CloudStack Use Cases

Public Cloud Providers

Private Cloud Management

Telecom Cloud Services Provisioning

Enterprises

GPU/AI

Retailers

Managed Service Providers

Test and Dev Environments

Disaster Recovery

High-Performance Computing

Data Storage and Big Data Analysis

CI/CD pipelines

Hybrid Clouds

Sovereign clouds

Key Benefits of Using Apache CloudStack

- **Open-source solution** - it is free and always will be
- **Simple to deploy** and manage
- **Scales seamlessly** to 100K Hosts and Millions of Instances
- **Ensures** your vendor **independence**
- Guaranteed **long-term reliability**
- **Lowers** your cloud **TCO**
- Led by a **user-driven, vibrant community**

CloudStack Architecture

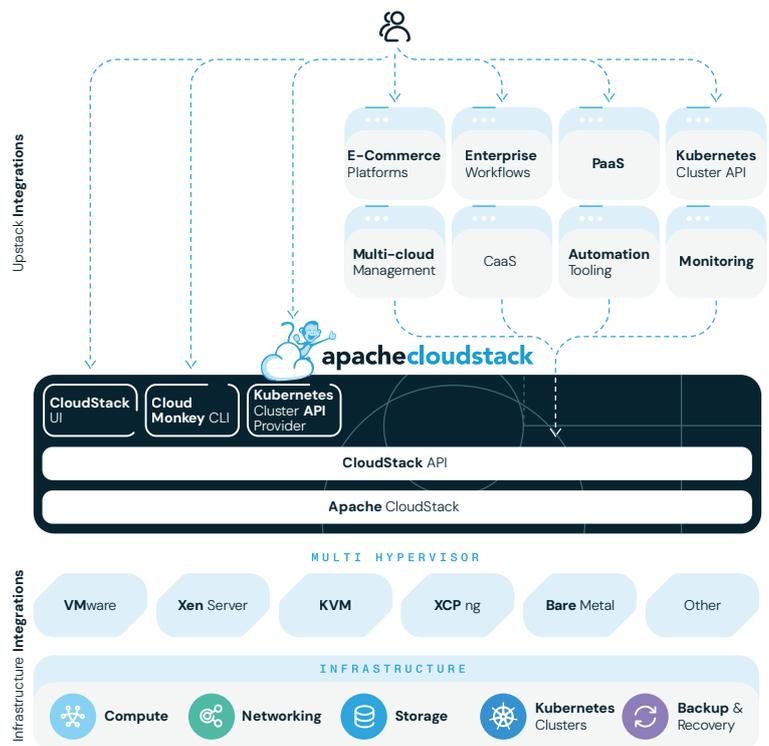
CloudStack pools computing resources to build public, private and hybrid Infrastructure as a Service (IaaS) clouds. CloudStack manages end-to-end the network, storage, and compute nodes that make up a cloud infrastructure.

A CloudStack cloud has a hierarchical structure that enables it to scale and manage tens of thousands of physical servers, all from a single management interface.

A Zone is the largest organisational unit within a CloudStack deployment. Typically, a datacenter (DC) implementation will contain a single Zone, but there are no hard and fast rules, and a DC can contain multiple Zones. A Pod relates to a rack in a datacenter. Pods contain one or more Clusters and a Layer 2 switch architecture which is shared by all Clusters in that Pod. **End users are not aware of and have no visibility of Pods.**

A Cluster is a group of identical Hosts running a common Hypervisor. CloudStack supports a **Primary Storage** (usually unique to each Cluster and used to Host the Virtual Machine Instance) and a **Secondary Storage** (stores Instance Templates, ISO images and Volume Snapshots, available to all PODs in a Zone).

CloudStack is designed to work with all standards-compliant iSCSI and NFS Servers supported by the underlying Hypervisor, but it also supports many other storage solutions (SDS like Ceph, StorPool, and LINBIT).



Hypervisor Support

CloudStack is hypervisor agnostic, supporting VMware, KVM, XenServer and XCP-ng. This gives CloudStack a unique position in the market: **it is not proprietary technology and is not tied to any specific infrastructure.**

User Interface

CloudStack offers an administrator's web interface used for provisioning and managing the cloud, as well as an end-user's Web interface used for running Instances and managing Instance Templates. **The UI can be customised to reflect the desired service provider or enterprise look and feel and is decoupled from the CloudStack core. It relies on the API to manage CloudStack resources.**

Restful API & CLI

Users can manage their cloud with an **easy-to-use web interface, command line tools, and/or a full-featured RESTful API.** The CloudStack API can be used to provision, view, and manage the cloud infrastructure, Domains, User Accounts, Projects, and configuration settings.

<https://cloudstack.apache.org>

Test Drive Apache CloudStack on a Public Demo Cloud

Dive into the world of efficient, scalable, and highly customisable cloud management with a completely open-source solution. Whether you are building a public cloud or are an enterprise looking to streamline your cloud operations, **Apache CloudStack offers the tools and flexibility you need.**



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Leading public cloud providers, MSPs, telcos and global enterprises trust Apache CloudStack



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