

OpenStack: An Overview

What is OpenStack?

OpenStack® is an open source cloud platform. OpenStack software controls large pools of compute, storage, and networking resources throughout a datacenter, all managed by a dashboard that gives administrators control while empowering their users to provision resources through a web interface.

OpenStack for the Enterprise

Integrate IT Infrastructure

OpenStack boosts speed and agility as an integration engine with single plane of glass management. It supports virtual machines, containers and bare metal servers, offering the best environment for each application. Established capabilities such as virtualization and directory services, and newer technologies like PaaS and network functions virtualization are integrated, yet optional in the modular design. Enterprises often contribute features they need, growing OpenStack value for all. And, your existing technology partners support OpenStack providing more leverage and choice in the market.

Accelerate Innovation


OpenStack accelerates your time-to-market by giving your business units a self-service resource portal and an API driven platform for developing cloud-aware apps. Enterprises dramatically reduce the time to provision resources with OpenStack - boosting organizational agility and competitive advantage.

Achieve Cloud Economics


OpenStack offers vendor choice and interoperability allowing you to make the best financial decisions and lower licensing costs. With the choice of over 60 public or hosted private cloud datacenters worldwide, you can elect to move applications dynamically to leverage the best pricing available. In the Total Economic Impact™ of OpenStack, a July 2015 commissioned study conducted by Forrester Consulting on behalf of OpenStack, a global user was shown achieving 101% ROI over 3 years and initial cost payback in 15.5 months.

“Notable Fortune 100 enterprises like BMW, Disney, and Walmart have irrefutably proven that OpenStack is viable for production environments.”
– Lauren E. Nelson, Forrester Research¹


OpenStack is open source software to build private and public clouds. There are three main components:



OpenStack Compute: Provision and manage large networks of virtual machines, containers and bare metal




OpenStack Networking: Pluggable, scalable, API-driven network and IP management



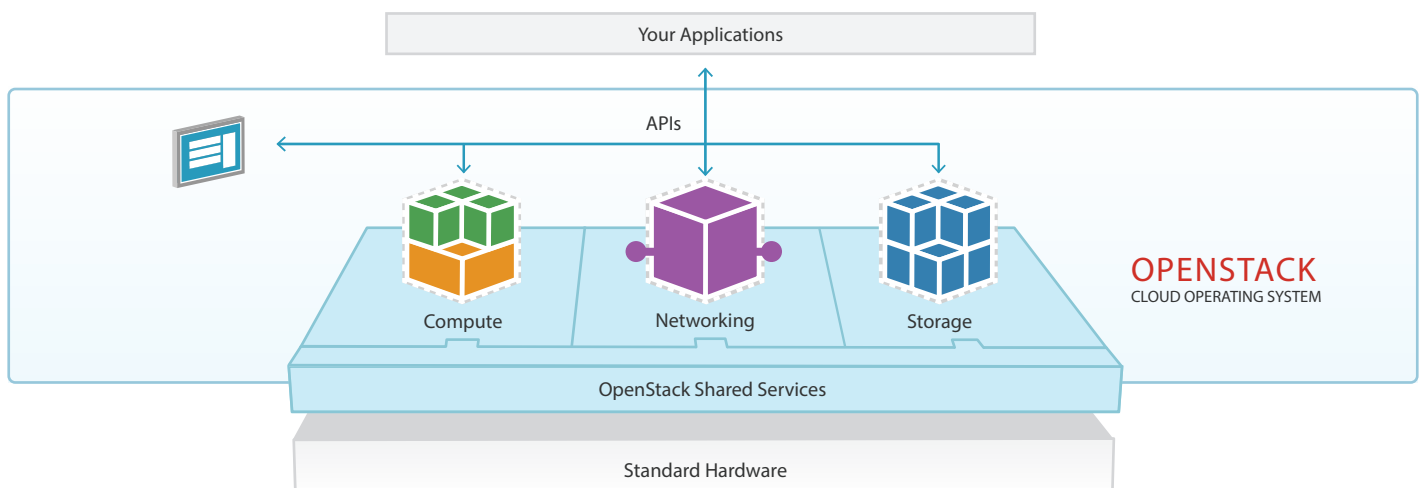
OpenStack Storage: Object and block storage for use with servers and applications

OpenStack components are tied together with **OpenStack Shared Services** and accessible both via the **OpenStack Dashboard** and programmatically via the API.



OpenStack in the Enterprise







Best Buy, Bloomberg and TD Bank and hundreds of other companies use OpenStack. Watch their videos, see what analysts are saying, and read white papers about popular use cases at openstack.org/enterprise.





"OpenStack is not a cloud. It is not a project or a product. It is not a virtualization system or an API or a user interface or a set of standards. OpenStack is all of these things and more: it is a framework for doing IT infrastructure - all IT infrastructure - in as interchangeable and interoperable a way as we are ever likely to know how." – Trevor Pott, *The Register*²

Business Runs Faster on OpenStack

Use Case	User Story	Business Benefits of OpenStack
 Agile platform for enterprise apps	Comcast powers customer-facing and internal applications and services for both production and development environments with OpenStack.	<ul style="list-style-type: none"> • Enable business agility • Enable faster pace of innovation • Improve customer confidence in moving line-of-business applications to production
 Big data	Top 10 automaker turns big data into smart insights using an OpenStack car cloud, Hadoop, map reduce, and analytics.	<ul style="list-style-type: none"> • 1/10th the cost of the company's legacy appliance • Test case ran in 40 minutes; the legacy appliance was unable to complete the same job • \$125K OpenStack POC scaled to 10-rack system in 6 months, easily handling complex data analysis
 Multi-company and unpredictable workloads	DigitalFilm Tree uses interoperable OpenStack private and public clouds to process thousands of hours of raw footage into a one hour TV show.	<ul style="list-style-type: none"> • Instant-on capacity for intensive workloads and seasonal peaks • Cost control via granular utilization • Lower latency with geographic proximity of compute and storage • Resiliency with multiple copies of replicated data • Secure identity federation for single point of user access control
 eCommerce	In 2014, Walmart moved their global eCommerce platform to OpenStack, powering desktop, mobile, tablet and kiosk users.	<ul style="list-style-type: none"> • Developer self-service for rapid new application • Ensure IT cost per transaction goes down with scale • Improved reliability and resiliency • No vendor lock-in, open APIs, ability to influence, vibrant community
 Developer productivity	Adobe® Digital Marketing uses OpenStack to convert their existing virtualization environment into self-service IT.	<ul style="list-style-type: none"> • Concurrent traditional and cloud-aware capabilities • Infrastructure provisioning time slashed to minutes enhancing app delivery • Cost reduction through improved efficiencies • Avoid vendor lock-in through open source technologies
 Web services	Time Warner Cable uses OpenStack to deliver web and video services across multiple platforms such as iOS, Android, Roku, Chrome and more.	<ul style="list-style-type: none"> • Fast and agile infrastructure reduces deployment time • Lower costs • Software defined networking helps enable DevOps practices • Open source benefits

Join the Movement

Enterprises are betting on OpenStack for building and accessing private, public and hybrid clouds. With thousands of contributing developers from over 150 companies, support for Microsoft® Windows® Server, every Linux distribution and popular hypervisor, and plugins from all major networking and storage vendors, OpenStack users benefit from lightning fast innovation and multiple support channels.

Become a part of the OpenStack community at openstack.org/join. Individual membership is free. Start here at openstack.org/community to join mailing lists, attend local meetups and more.

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¹ "OpenStack Is Ready - Are You?" Lauren E. Nelson, Forrester Research, May 2015, <http://www.openstack.org/enterprise/forrester-report/>; ² "Everything you know about OpenStack is wrong: The future of IT infrastructure delivery?", Trevor Pott writing for The Register, July 2015, http://www.theregister.co.uk/2015/07/09/openstack_overview/

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Need an Enterprise Solution?

The **OpenStack Marketplace** will help you make an informed decision, whether you're building a cloud, looking to use one by the hour, or pursuing a hybrid model.



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