

DSE-2 Cloud Computing



SOUMYA DAS
Roll No : 707

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Vultr

by Soumya Das

What to expect from Vultr?

- Vultr provides [high-performance SSD cloud servers](#) that boast a global footprint. It aims to create the most reliable and efficient service for launching a blazing fast SSD cloud server.
- Vultr offers [100% solid-state drives \(SSD\)](#) using the [latest generation Intel CPUs](#) on a feature-rich control panel. You can choose between [17 low latency locations](#) around the world and you get your cloud server instance spun up in [60 seconds](#).
- Suitable for Developers – and Beginners
 - Cloud servers tend to be a little more tricky than regular servers because you can often find yourself in unfamiliar territory. On top of that, with regular shared, VPS (Virtual Private Server) or dedicated hosting, the web host will set it all up for you. With Vultr, you'll need to configure and deploy the instances yourself. Due to the one-click installers and the clean user-experience, this isn't as daunting (for newbies) as it might sound.
- What sets Vultr apart, however, is its focus on flexible options at a [lower price level](#). These options are appealing to even small-scale users like individual entrepreneurs and small businesses.

Our Mission

- Vultr, founded in 2014, is on a mission to empower developers and businesses by simplifying the deployment of infrastructure via its advanced cloud platform. Vultr is strategically located in 17 datacenters around the globe and provides frictionless provisioning of public cloud, storage and single-tenant bare metal.
- Vultr has made it our priority to offer a standardized highly reliable high performance cloud compute environment in all of the cities we serve. Launching a cloud server environment in 17 cities around the globe has never been easier!



Our Team

Meet the team behind our high performance cloud platform!

- [Founder/CEO](#), David Aninowsky
 - David founded Vultr in 2014 with a mission to simplify the cloud. David has worked in the managed infrastructure business since 1996, and was one of the first employees at Datapipe.
- [Chief Operating Officer](#), David Gucker
 - David Gucker has over 20 years of experience in the telecom and IaaS industries. David manages our technical team and provides expert insight into meeting customer needs.
- Other key executives are:
 - [Chief Information Officer](#), Anthony Quon
 - [Chief Technology Officer](#), Mike Marinescu



The Infrastructure Cloud™

Easily deploy cloud servers, bare metal, and storage worldwide!

 Email Address PasswordCreate account

Cloud Compute

Powerful compute instances with Intel CPUs and 100% SSD storage.

Starting at \$2.50/mo



Bare Metal

Fully automated dedicated servers with zero virtualization layer.

Starting at \$120.00/mo



Block Storage

Fast SSD-backed scalable and redundant storage with up to 10TB volumes.

Starting at \$1.00/mo



Dedicated Cloud

Dedicated cloud compute instances without the noisy neighbors.

Starting at \$60.00/mo

Products

Cloud Compute

- Powerful Compute Instances
 - Our high performance compute instances are perfect for your web application or development environment.
- High performance architecture
 - Vultr compute features 100% local SSD and high performance Intel CPUs.
- High Frequency Compute
 - Instances are powered by high clock speed CPU's and NVMe local storage to power your most demanding applications.



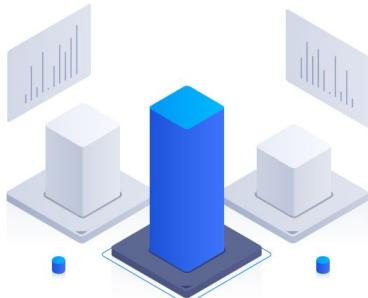


Fast 3GHz+ CPUs

High frequency compute is powered by the fastest architecture available in the Vultr product lineup. All plans include 3+ GHz processors designed to power applications that require the fastest possible single-core performance.

NVMe Solid State Local Storage

NVMe increases throughput over traditional SSD's. With local NVMe storage you can get the most out of your high clock speed instances by matching local storage performance with the increased throughput of higher clock speed cores.



Blazing fast benchmarks

Geekbench testing reveals up to a 40% gain per vCPU over our current standard compute plans. CPU processing, memory speed, and storage throughput deliver significant increases across the board.

Pricing Information (Compute)

Geekbench Score	Storage	CPU	Memory	Bandwidth	Price			
	N/A	10 GB SSD	1 CPU	512 MB	0.50 TB <small>IPv6</small>	\$2.50/mo	\$0.004/hr	
	N/A	10 GB SSD	1 CPU	512 MB	0.50 TB	\$3.50/mo	\$0.005/hr	
	2413	25 GB SSD	1 CPU	1024 MB	1 TB	\$5/mo	\$0.007/hr	
	3880	55 GB SSD	1 CPU	2 GB	2 TB	\$10/mo	\$0.015/hr	
	7435	80 GB SSD	2 CPU	4 GB	3 TB	\$20/mo	\$0.030/hr	
	13831	160 GB SSD	4 CPU	8 GB	4 TB	\$40/mo	\$0.060/hr	
	19389	320 GB SSD	6 CPU	16 GB	5 TB	\$80/mo	\$0.119/hr	
	25217	640 GB SSD	8 CPU	32 GB	6 TB	\$160/mo	\$0.238/hr	
	29329	1280 GB SSD	16 CPU	64 GB	10 TB	\$320/mo	\$0.476/hr	
	41675	1600 GB SSD	24 CPU	96 GB	15 TB	\$640/mo	\$0.952/hr	

Pricing Information (High Frequency Compute)

Geekbench Score	Storage	CPU	Memory	Bandwidth	Price		
4883	32 GB SSD	1 CPU	1024 MB	1 TB	\$6/mo	\$0.009/hr	
4995	64 GB SSD	1 CPU	2 GB	2 TB	\$12/mo	\$0.018/hr	
8924	128 GB SSD	2 CPU	4 GB	3 TB	\$24/mo	\$0.036/hr	
12460	256 GB SSD	3 CPU	8 GB	4 TB	\$48/mo	\$0.071/hr	
16335	384 GB SSD	4 CPU	16 GB	5 TB	\$96/mo	\$0.143/hr	
17920	448 GB SSD	6 CPU	24 GB	6 TB	\$144/mo	\$0.214/hr	
19340	512 GB SSD	8 CPU	32 GB	7 TB	\$192/mo	\$0.286/hr	
24869	768 GB SSD	12 CPU	48 GB	8 TB	\$256/mo	\$0.381/hr	

[Click to view accessible pricing list in the FAQs](#)

Bare Metal

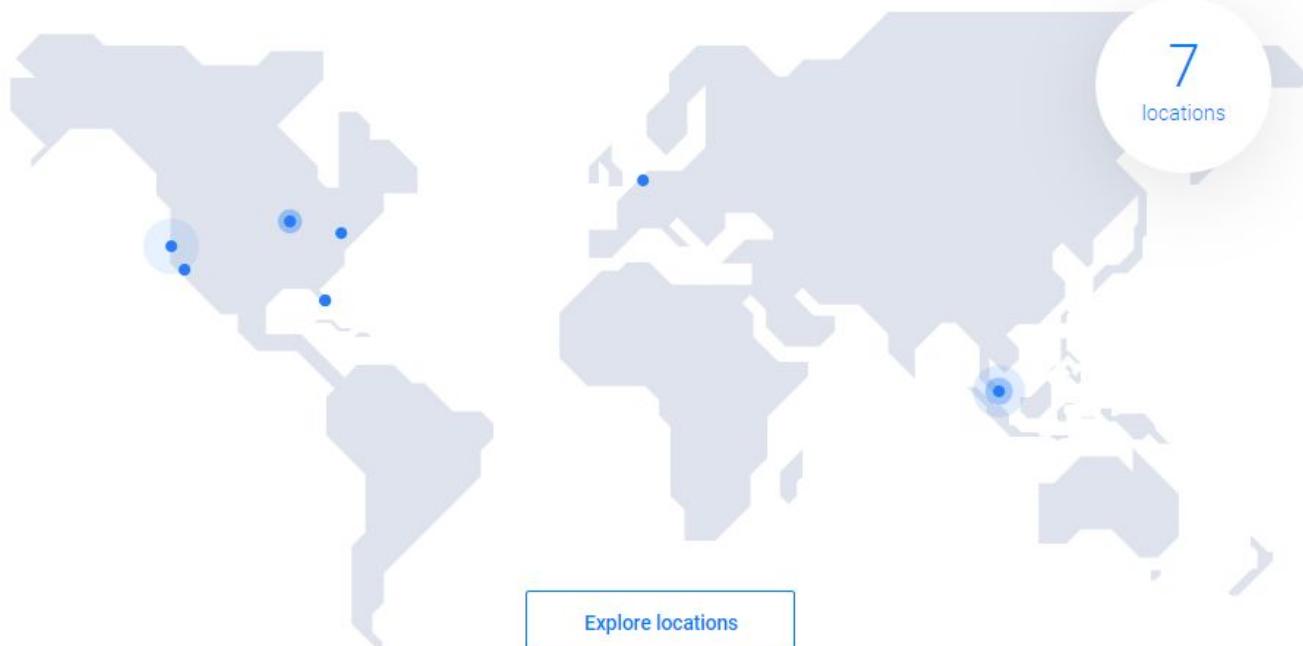
- Bare Metal Simplified™
 - Stay in full control of your environment with high performance single-tenant dedicated servers.
- Bare Metal has never been easier
 - Mobilize the power of single-tenant non-virtualized hardware with the elegance of Vultr's cloud orchestration platform.
- Direct access to hardware
 - Bare Metal grants you access to the underlying physical servers. Featuring no virtualization layer and a single-tenant environment, these servers can power even the most resource intensive workloads.



Develop locally, deploy globally®

Bare Metal Instances are available in 7 locations worldwide.

- Amsterdam
- Chicago, Illinois
- New Jersey
- Miami, Florida
- Silicon Valley,
California
- Los Angeles,
California
- Singapore





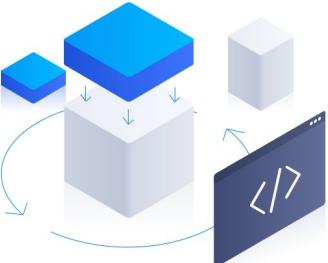
High-speed networking

Every dedicated server instance includes a burstable 10GbE network connection. Bring low latency and high-speed throughput closer to your end users.

Full server control

With Vultr Bare Metal, you have direct access to all server resources without any virtualization layer.

Perfect for resource-intensive applications or workloads that require single tenant or non-virtualized environments.



Dedicated performance

The server hardware is 100% all yours - zero noisy neighbors, zero shared resources, and no metered CPU and IOPS (Input/Output Operations Per Second) resource limits to worry about. A true single-tenant environment without the management overhead of traditional dedicated servers.

Bare Metal Pricing

E3-1270v6

\$120/mo

\$0.179/h

2 x 240GB SSD

E3-1270v6 Processor

4 Cores - 8 Threads @ 3.8Ghz

32768MB Memory

5000GB Bandwidth

10GbE Ethernet

Object Storage

- Vultr Object Storage gives you the flexibility to add scalable storage on demand and manage it through S3 API.
- Simple and predictable pricing
 - Pay only for the data you store or transfer out of your buckets.
- Flexible integration via S3
 - Vultr Object Storage supports the S3 API, enabling easy integration with S3-enabled applications and third party tools.
- Scalable, durable architecture
 - Object storage scales on demand, provides high data reliability, and reduces management complexity.
- Infinite use cases
 - Leverage object storage to provide inexpensive, reliable, and hugely scalable storage for your application's data.





Reliability

Your application data is automatically cloned 3 times to ensure high availability and data durability.



Scalability

Easily expand and shrink your storage requirement by adding or removing objects, and pay only for what you use.



High Performance

An NVMe caching layer turbocharges performance to ensure frequently-accessed data is readily available.



Media storage

Easily store static media assets for your applications, such as images, audio, and video. Increase or reduce usage as needed, without maintaining complicated storage clusters.

Automatic Backups

Leverage the S3-API or utilize object storage backup solutions from popular platforms like cPanel, Wordpress, and more.



Custom solutions

Create CDN (Content Delivery Network) origin points, store cloud-native application data, archive large data sets, save historical logs, set up disaster recovery, and more - the possibilities are endless.

Object Storage Pricing

Flexible pricing

Storage



250

250GB

1000+



Bandwidth



1000

1000GB

10000+



Object storage

\$5.00/mo**250 GB of storage****1000 GB of bandwidth**

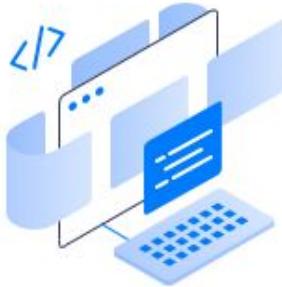
\$0.02 per additional GB stored

\$0.01 per additional GB transferred

Block Storage

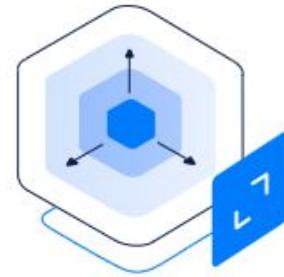
- Create expandable storage volumes and mount them directly from your compute instances.
- Large reliable cloud storage
 - Fast SSD-backed scalable and redundant storage with up to 10TB volumes and 1200MB/sec IO
- Easily attach to your Cloud Instance
 - Mount high performance, scalable storage to your instance, making space management significantly more flexible. This storage is highly available, redundant, and SSD backed for superior performance.





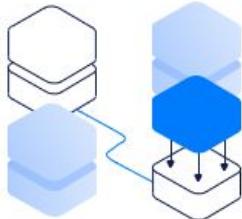
Control via API

Spin up and spin down with ease and pay only for the hours you use our platform.



Flexible and Scalable

Expand your block storage volumes without modifying your cloud instance local disk.



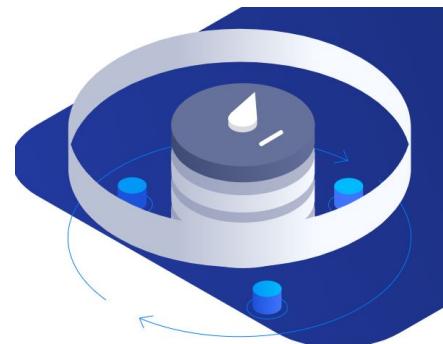
Distributed Design

Redundant architecture protects your data and delivers high IO performance.



Highly available design

Vultr Block Storage is designed for data durability and 99.99999% availability. Each VBS is stored and replicated across a highly available cluster.



SSD-accelerated performance

Vultr Block Storage is backed by high speed NVMe enterprise SSD providing up to 1200MB/sec of data throughput to your instance.

Block Storage Pricing



Price:

\$1.00/mo

Storage:

- 10GB +

[Create a free account](#)

Dedicated Cloud

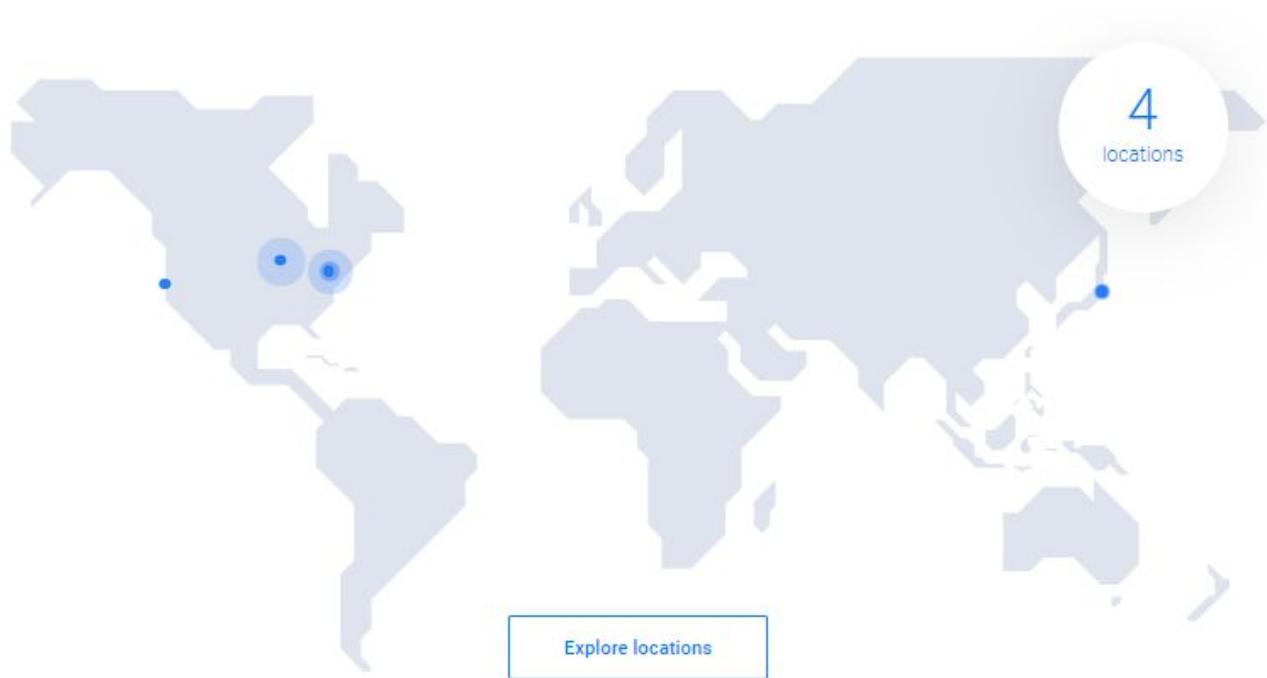
- Say goodbye, noisy neighbors. Deploy cloud instances with dedicated CPU, SSD drives, and RAM just for you.
- Dedicated resources
 - Rent 25%, 50%, 75%, or an entire dedicated server with the advantages of the Vultr platform - including hourly billing and fast provisioning.
- No noisy neighbors
 - With our dedicated product line, you'll never share resources again.



Develop locally, deploy globally®

Dedicated Instances available in 4 locations worldwide.

- Tokyo
- Chicago, Illinois
- New Jersey
- Silicon Valley,
California



Dedicated Cloud Pricing

120 GB

\$60/mo

\$0.089/h

2 X 120 GB

\$120/mo

\$0.179/h

3 X 120 GB

\$180/mo

\$0.268/h

4 X 120 GB

\$240/mo

\$0.357/h

120 GB SSD

2 vCPU

8192MB Memory

10TB Bandwidth

2 X 120 GB SSD

4 vCPU

16384MB Memory

20TB Bandwidth

3 X 120 GB SSD

6 vCPU

24576MB Memory

30TB Bandwidth

4 X 120 GB SSD

8 vCPU

32768MB Memory

40TB Bandwidth

Load Balancers

- Enable horizontal scaling and increase reliability on applications in seconds.
- Simple to manage and deploy
 - Deploy fully configured cloud based load balancers from our user-friendly customer portal - you can be up and running in seconds. Or, automate your load balancers using our flexible API.
- Highly available
 - Add durability to your infrastructure by deploying our one click load balancers in front of your production clusters. Each load balancer includes built-in health monitoring and automatic failover.





Secure

Vultr Load Balancers make it easy to secure your traffic with SSL (Secure Sockets Layer) configuration options by allowing you to bring your own SSL certificates, ensuring secure traffic for your load balancer and application.



Powerful API

Our flexible API (Application Programming Interface) makes it easy to fully automate deployment and management of all your load balancer clusters. You can also visit our GitHub Portal for a suite of API tools and SDKs (Software Development Kits).

Load Balancers Pricing

Load Balancers

\$10.00/mo

\$0.015/hr

Deploy now

Features

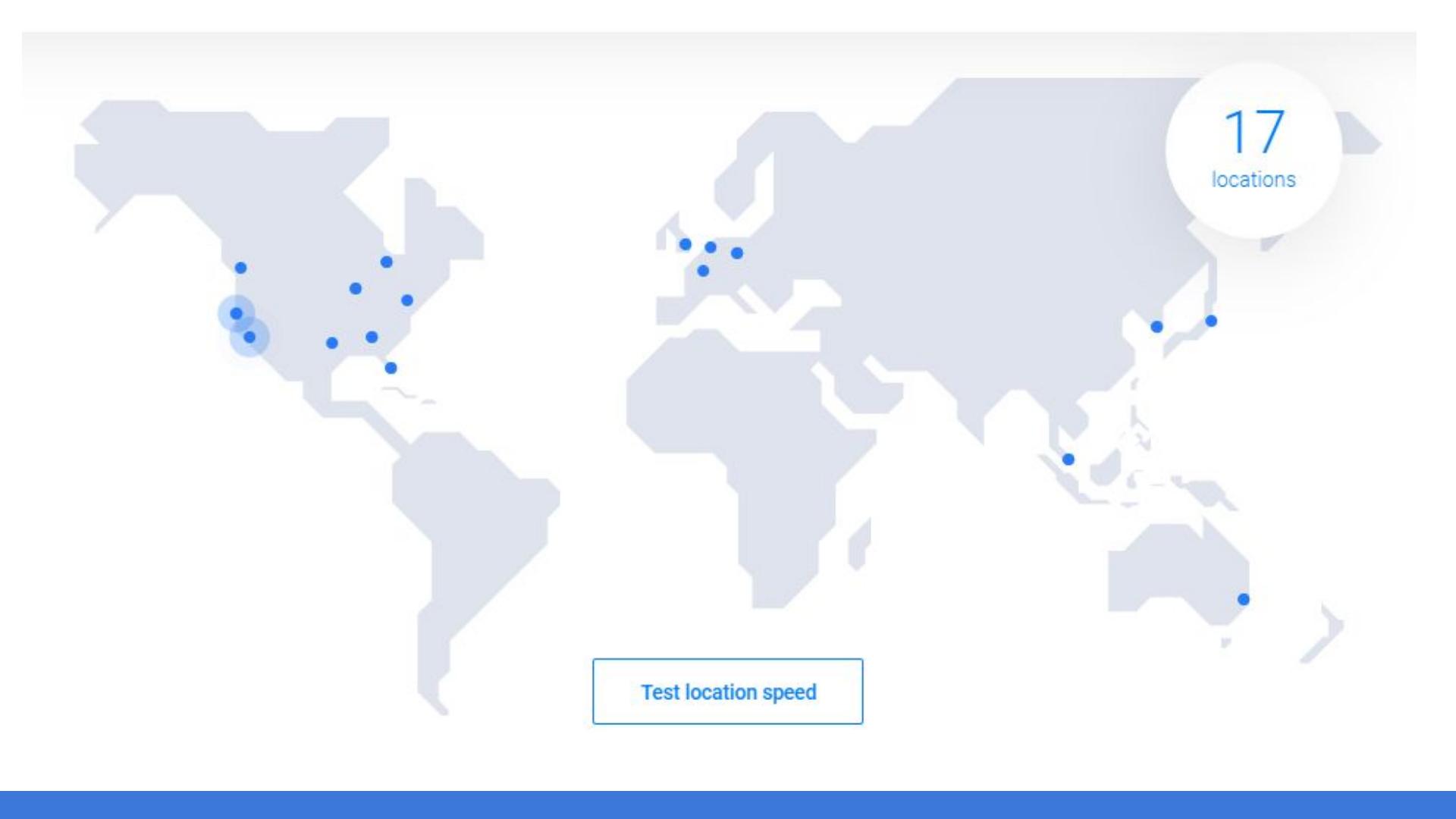
Data Center Locations

- 17 Server Locations Worldwide
 - Launch a SSD VPS on our worldwide KVM-based (Kernel-based Virtual Machine) platform and experience the same great performance globally, in Tokyo or in London.
- Scale worldwide with a few clicks
 - Vultr's easy-to-use interface allows you to deploy high performance servers worldwide using our intuitive control panel available for any kind of device - mobile, tablet, and desktop.

Develop locally, deploy globally®

Vultr offers the largest worldwide network, enabling you to spin up and easily scale a low latency infrastructure solution no matter where you or your customers may be.

- Chicago
- Amsterdam
- Dallas
- Tokyo
- Los Angeles
- Singapore
- London
- Sydney
- Seoul
- Miami
- New Jersey
- Paris
- Seattle
- Silicon Valley
- Atlanta
- Frankfurt
- Toronto



17

locations

Test location speed

Desktop Tablet Mobile

Deploy New Instance

Choose Server



Server Location

All Locations America Europe Australia Asia



Server Type

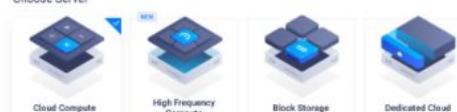
64bit OS 32bit OS Application Upload ISO ISO Library Backup Snapshot



Desktop Tablet Mobile

Deploy New Instance

Choose Server



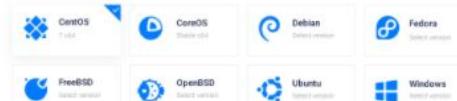
Server Location

All Locations America Europe Australia Asia



Server Type

64bit OS 32bit OS Application Upload ISO ISO Library Backup Snapshot



Desktop Tablet Mobile

Deploy New Instance

Choose Server



Server Location

All Locations America Europe Australia Asia



Server Type

64bit OS 32bit OS Application Upload ISO ISO Library Backup



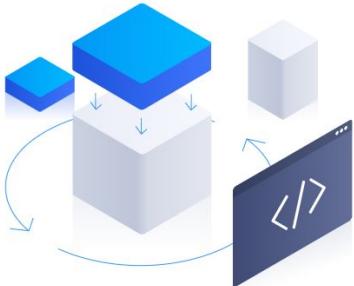


Localized peering

The Vultr network team continuously optimizes our routing and peering agreements in all of our regions in order to ensure your VMs experience a low latency and high performance network, regardless of where they are deployed.

Low latency in a location near you

With Vultr, you can spin up a high performance SSD VPS in 17 cities around the globe. You can develop on the one closest to you and deploy on the ones closest to your customers. With 17 locations, our high performance VPS servers are great for gaming too.



Redundant network design

Vultr.com leverages multiple transit providers and is designed from the ground up with a multi-homed architecture for maximum reliability.

Advanced Network

Reliability you can count on, backed by 100% SLA
(Service-Level Agreement)

- Advanced networking options
 - Powerful networking feature enable enterprises to deploy highly customizable and scalable cloud infrastructure.
- Accelerate your application
 - Vultr compute features 100% SSD and latest generation Intel CPUs.





Bring Your Own IP Space

Deploy platform-agnostic and highly available infrastructure on the high performance Vultr platform utilizing BGP (Border Gateway Protocol) and your own IP space.

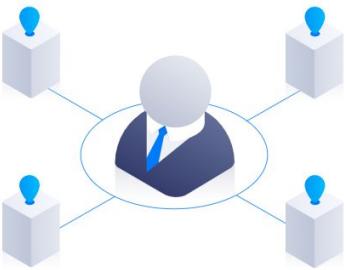
Direct Connect

Extend your existing corporate network to the Vultr cloud using Vultr Direct Connect. Suitable for both low and high bandwidth workloads.



Native DDoS Mitigation

Add an additional layer of protection to keep your hosting infrastructure online and operating optimally even when they are the target of attacks.



High Performance IP Network

The Vultr network team continuously optimizes our routing and peering agreements in all of our regions in order to ensure you experience low latency for IPv4 and IPv6 traffic worldwide.

Secure Private Networking

Powerful private network flexibility allows you to segment instances in one or more separate private networks in each regional point of presence.



Reserved IPs

Add the predictability of permanent IPs by reserving IPv4 and IPv6 address space on your account. With this feature, you can attach any IPs from your reserved pool to any of your cloud or bare metal servers or move them to new instances as you create and destroy resources.

Control Panel

Spend less time managing your infrastructure with our powerful control panel.

- Securely manage and share access
 - As soon as you click deploy, the Vultr cloud orchestration takes over and spins up your instance in your desired data center.
- Take control of your infrastructure
 - Using a single portal, you can access servers, settings management, support, and much more.
- Easy account management
 - Designed for teams of all sizes.



Products

NEWS: Vultr Cloud Compute Boosts SSD Storage!

Vultr Account

Products

Quick search

Instances Snapshots ISOs Scripts DNS Block Storage Objects Firewall Network Load Balancers +

<input type="checkbox"/> Server	OS	Location	Charges	Status
<input type="checkbox"/> Bare Metal 32768 MB Bare Metal - 192.0.2.42		New Jersey	\$4.28	
<input type="checkbox"/> Cloud Database 512 MB Server - 192.0.2.1		Frankfurt	\$2.98	
<input type="checkbox"/> Cloud Instance 512 MB Server - 2001:0db8:85a3:0000:0000:8a2e:0370:7334		Amsterdam	\$0.16	
<input type="checkbox"/> Cloud Instance 1024 MB Server - 192.0.2.3		London	\$1.67	
<input type="checkbox"/> Cloud Instance 2048 MB Server - 192.0.2.4		Seoul	\$1.00	
<input type="checkbox"/> Cloud Instance 4096 MB Server - 192.0.2.5		Silicon Valley	\$1.18	
<input type="checkbox"/> Cloud Instance 8192 MB Server - 192.0.2.6		Seattle	\$2.50	
<input type="checkbox"/> Bare Metal 32768 MB Bare Metal - 172.20.0.82		Singapore	\$2.56	

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Current Charges
\$9.21

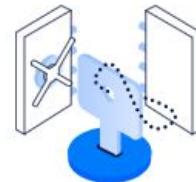
CPU Usage
28%

Google Auth
My Vultr Account Auth



Team Management

Manage a team of sub users with restricted access to your account. Toggle an array of specific privileges such as billing, systems access, API access and server creation.



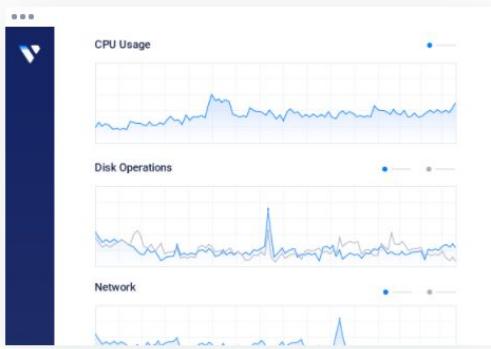
Enable Single Sign-On

Simplify management of large teams by enabling federated identity management through on premise and cloud solutions such as Okta and OneLogin.



Manage API Access

The control panel enables the creation of API keys under your main account and sub accounts and enables an additional layer of security by supporting configurable IP access lists.

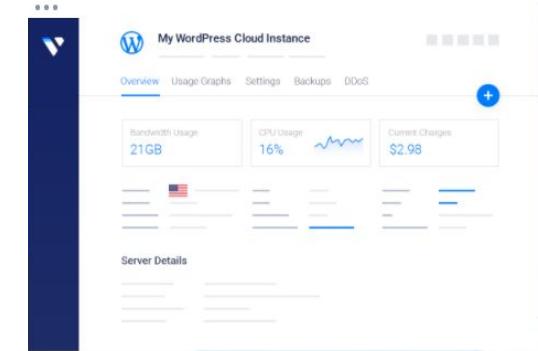
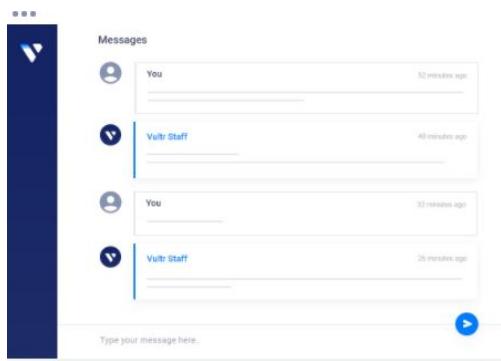


Track server health

Determine when peak activity happens on your application. Our server health graphs provide insight from the moment your server is created.

Flexible settings management

Many of our services offer additional configuration to help meet your needs. Inside of the control panel, you'll find simple, intuitive management panels.



Support you can count on

Get rapid response from our 24/7/365 technical support team using our intuitive ticketing system.



Real-time billing information

Keep a close eye on your usage charges from one central place and pay only for what you use



Many payment methods

Flexible payment options include major credit cards, PayPal, Alipay, Bitcoin, and more.



Secured with MFA

Gain peace of mind by integrating your account with SSO (Single Sign-On) or enabling multi-factor authentication

Operating System

- Flexible Operating System Choices
 - Spin up a new instance with your preferred operating system in just seconds.
- Upload Custom ISO
 - Create unlimited operating system combinations in any of our 17 worldwide locations!



Centos



Debian



Fedora



Fedora CoreOS



FreeBSD



OpenBSD



Ubuntu



Windows

One-Click Apps

- Deploy Apps in One-Click
 - Deploy popular applications and game servers on our high performance servers with a single click.



CentOS Web
Panel



cPanel



Docker



Drupal



GitLab



Jitsi



Pritunl



Joomla



LAMP



LEMP



Magento



MediaWiki



Minecraft



Nextcloud



OpenLiteSpeed



OpenVPN



ownCloud



Plesk



PrestaShop



Webmin



WordPress

Upload ISO

- Upload Custom ISO
 - Create unlimited operating system combinations in any of our 17 worldwide locations!
- Available in 17 Cities
 - Upload your own ISO is available in every location the Vultr platform is available! Spanning 4 continents, your custom ISO upload can be mounted in any of our 17 cities in Australia, Asia, Europe, and North America.
- ISO Library
 - In addition to uploading your own, you will also have full access to our ISO library. The selection is curated by our experienced team of system administrators and includes popular server operating systems.

NEWS: Vultr Cloud Compute Boosts SSD Storage!

Vultr Account

Products

Quick search

Instances Snapshots ISOs Scripts DNS Block Storage Objects Firewall Network Load Balancer

	Server	OS	Location	Charges
<input type="checkbox"/>	Bare Metal 32768 MB Bare Metal - 192.0.2.42		New Jersey	\$4.28
<input type="checkbox"/>	Cloud Database 512 MB Server - 192.0.2.1		Frankfurt	\$2.98
<input type="checkbox"/>	Cloud Instance 512 MB Server - 2001:db8:85a0:0000:0000:8a2e:0370:7334		Amsterdam	\$0.16
<input type="checkbox"/>	Cloud Instance 1024 MB Server - 192.0.2.3		London	\$1.67
<input type="checkbox"/>	Cloud Instance 2048 MB Server - 192.0.2.4		Seoul	\$1.00
<input type="checkbox"/>	Cloud Instance 4096 MB Server - 192.0.2.5		Silicon Valley	\$1.18
<input type="checkbox"/>	Cloud Instance 8192 MB Server - 192.0.2.6		Seattle	\$2.50
<input type="checkbox"/>	Bare Metal 32768 MB Bare Metal - 172.20.0.62		Singapore	\$2.56

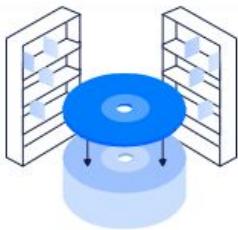
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Upload ISO

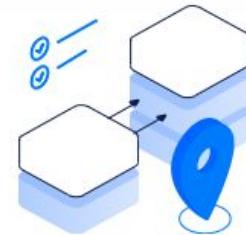
Enter remote URL

Upload



Choose ISO

Upload your own custom ISO or choose one from our diverse ISO library to mount on your instance.



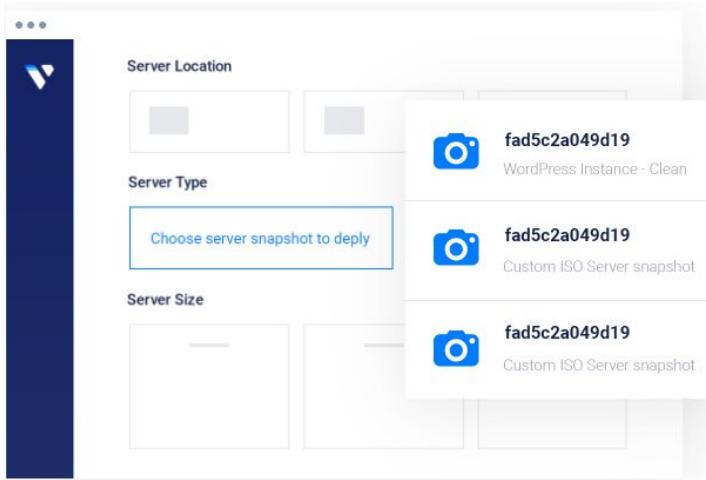
Choose Server Size and Location

Create unlimited operating system combinations in any of our 17 worldwide locations.



Deploy Your Instance

As soon as you click deploy, the Vultr cloud orchestration takes over and boots your new instance using the desired ISO.



Customize once, create a snapshot, and re-deploy

While using the Custom ISO feature, you don't always have to run through the setup process of your operating system to deploy more servers. Take advantage of our snapshot feature to create an image of your deployed server and quickly launch more instances with the same setup in any of our points of presence around the world!

Increase troubleshooting possibilities

Custom ISO adds some new options in your administrator toolbox when the underlying operating system gets corrupted/unbootable after kernel customization and other non-standard system upgrades. With the Vultr platform, this feature ensures your data is not automatically lost! Browse Vultr Docs and learn how you can upload your own rescue ISO to recover your data and fix your system configuration.

Finnix



Resources

Developer Resources

- Vultr API
 - Build your apps with our powerful API and automate infrastructure management without using our customer portal
- Metadata API
 - Enable instance self-discovery with the locally accessible Metadata API-available on both bare metal and compute.



Developer Resources

Developer Tools



Password
Generator



Subnet Calculator
IPv4



Subnet Calculator
IPv6



MAC Address
Converter



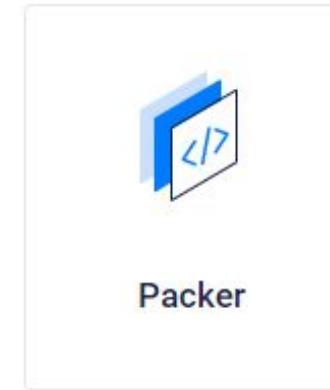
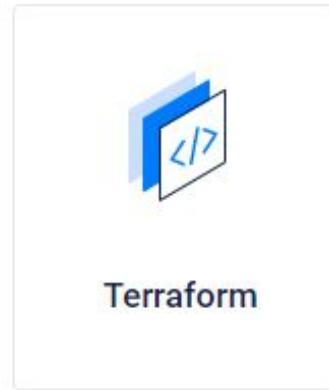
IPv4 Converter



Unixtime
Calculator

Developer Resources

Open Source Projects



Kubernetes Solutions at Vultr

- Why Use Kubernetes?
 - Kubernetes eases the burden of configuring, deploying, managing, and monitoring large-scale containerized applications. It is battle-tested and industry-proven.
- Vultr Kubernetes Tools
 - Vultr Cloud Controller Manager
 - Vultr Container Storage Interface
 - Condor - Condor is the easiest and fastest way to deploy a Kubernetes cluster on Vultr.
- Vultr Kubernetes Engine Beta
 - Simplify Kubernetes cluster management with the Vultr Kubernetes Engine.
 - Coming Soon!

Customer Support

- You can find many FAQs and helpful guides on our website.
- It's also possible to contact the customer care team directly through email, ticketing or social media.
- In addition to the internal support, there's also a vibrant online community. This can be found at discuss.vultr.com and can be very useful for developers of all experience levels.

Thank You