

The cloud platform that simplifies your life

Bigstack Enterprise Cloud provides a single access point for administrators to configure, monitor, and manage virtual environments easily and elegantly.



Bigstack Enterprise Cloud is a proven foundation to help you create, deploy, scale, and manage a reliable hosted or private cloud

MODERNIZING THE IT INFRASTRUCTURE

Refreshing, with new processes and more advanced devices, the server, storage, and networking infrastructure

THREE RENOVATIVE WAYS OF DEPLOYMENT

- All-in-one
- Hyper-converged
- Web-scale

PRODUCT OVERVIEW

Cube HCI cloud platform is a 100% software-defined infrastructure solution. It integrates storage, compute, and network into one software package and implements cloud computing concepts, such as multi-tenancy and IT self-service, which can significantly reduce IT maintenance and deployment cost. You can scale the platform horizontally in minutes and run any application immediately. Without any service interruption, data center capacity can be easily expanded with linear and predictable scalability, and the flexibility to pay on demand.

ADVANTAGES

Cube HCI dramatically simplifies the deployment of virtual machines (VMs). Storage, compute, and network resources are seamlessly integrated into a single integrated platform. Using the concept of cloud computing, enabling application and virtualization teams to quickly and easily deploy new VMs without the need to worry about back-end storage systems.

- Realize functions such as multi-tenancy and IT self-service, which can greatly reduce IT maintenance and operation costs.
- Support virtual router, firewall, switch, and realize micro segmentation for VM to improve network security
- Provide enterprise-level object storage pool (S3 / Swift API compatible object storage) to support big data analytics
- Plug and play software package that can be expanded in minutes and scaled to any deployment size
- SSD cache tiering can be created through solid state drives (SSDs) for fast storage reads and writes over traditional hard disks
- Predictable scale-out architecture that seamlessly scales from pilot to full deployment
- Turnkey platform runs a variety of popular applications such as Microsoft SQL Server, Exchange and SharePoint



We offer a flexible solution that your business can take advantage of to deliver self-service provisioning and management of infrastructure

YOU WILL GET

- Software-defined Data Center
- Multi-site, Multi-region, and Easy to Operate Private Cloud
- Centralized Management and Monitoring
- Unlimited Agility, Predictable Scale, and Low TCO

- Decentralized architecture provides high-quality compute, storage, and network resources for environments with multiple workloads and multiple tenants
- Provide linear scalability, performance, and availability
- Local replication for simple and efficient backups, and support site-to-site asynchronize DR architecture.
- Reduces rack space and equipment costs
- Compatible with AWS Cloudformation to achieve workload orchestration and realize multi-cloud and hybrid cloud management

SOLUTIONS

- **Private Cloud:** software-defined datacenter, IT self-service, and multi-tenancy
- **Virtual Desktop Infrastructure:** a desktop-as-a-service solution with low TCO
- **AIoT / Bigdata Analytics:** combined with object storage pool and scalable computing resource to support hundreds of petabytes of bigdata analytics
- **Disaster Recovery:** by using cloud automated script to recover from disaster in minutes
- **Eliminate IT Silos:** can be installed on any commodity server, allowing idle equipment to be effectively utilized
- **Branch Office:** ideal for branch office businesses with abundant applications and minimum one node setup
- **Enterprise Storage:** support features like storage pools, volume backup, clone, and snapshot

BENEFITS

- Lower CAPEX/OPEX: Integrate servers and storage to reduce data center equipment, and also power / cooling costs
- Improve data center efficiency, run all applications efficiently with a single infrastructure, and eliminate IT silos
- Predictable infrastructure costs, the linear scale-out architecture makes forecasting IT needs and project costs easily
- Pay-as-you-go economics, adding resources when needed, making data center development in-line with demand
- Reduce IT risk, develop new applications without the need for significant up-front investment, and also simplify IT management

Bigstack provides a broad range of professional services for every stage of your software-defined infrastructure, so you can effectively harness open cloud innovation while dramatically reducing complexity and risk.

SERVICES INCLUDING

- Architecture Plan
- Quick Deploy
- Knowledge Transfer
- Technical Support

- Simplify data center architecture, no need for complex and expensive SAN / NAS systems for data center building blocks
- Optimize performance, advanced data layering technology improves the response speed of application software
- Effectively expand the data center with one node at a time to prevent over-provisioning. Scale compute, network, and storage resources independently to meet workload needs.

FEATURES

CLOUD COMPUTING

1. Multi-tenancy
2. IT self-service
3. Load balance-as-a-Service
4. DNS-as-a-Service
5. Workload orchestration with AWS Cloudformation compatible script

COMPUTE

1. Virtual computing platform for instance level live migration and high availability
2. Support snapshots and clones for individual virtual machine

STORAGE

1. Using SAN-free, RAID-free, and fault-tolerant software-defined storage models. All data is stored and distributed evenly among server nodes.
2. Distributed storage architecture can run on commodity hardware. It can scale horizontally and seamlessly consolidate all physical storage space into one or more logical storage pools.
3. A SSD and HDD composed storage pool can support the tiering concept. The SSD pool is used as cache, and the HDD pool is used as capacity.
4. Data protection with replication factor one to three
5. Allow configure backup & restore rules for protecting your critical data in desired time and period
6. Support Erasure coding storage model
7. Support network share storage, like NFS or Samba, allowing share storage space between VM
8. Support s3/swift API compatible object storage
9. Support site-to-site volume mirroring which is ideal for disaster recovery use case

NETWORK

1. Built-in micro segmentation and security group for comprehensive network security

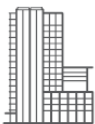
2. Software-defined routers, switches, and firewalls for establishing and managing enterprise-specific network topologies, like DMZ, internal, etc
3. Internal bandwidth control with VM QoS rules
4. External bandwidth control with floating IP QoS rules

OPERATION

1. Pay-as-you-grow model, zero waste investment
2. Capacity scale out in minutes, components replacement with few key strokes
3. Provide unified management web console can support mainstream browsers such as Google Chrome, Firefox, Safari
4. Support REST API and CLI for DevOps automation
5. Manage and monitor infrastructure resources via a single portal, and provide real-time and historical capacity analysis.
6. Dual boot and express package upgrade for quickly and safely cluster upgrade

MONITOR/NOTIFY

1. Display system version, overall CPU and memory usage, and instance stats
2. Storage IOPS, bandwidth, and latency usage
3. Individual host, instance, and disk stats
4. Virtual networks stats, like top ingress/egress IP addresses, connections, etc.
5. Top N hosts
6. Tenant-aware top N instances
7. Set alert rules combining with Slack / Email support to send notification when usage exceeds or services go down
8. Historical usage data is kept one year for auditing



ABOUT BIGSTACK

Bigstack Co., Ltd. is a software and consulting company focused on open source, software-defined data center, cloud platforms, and security. We help businesses thrive in a data-driven software economy with successful adoption and operation of Cube cloud hyper-converged infrastructure, enabling self-service, pay-as-you-grow, API-automated, and continuous delivery of IT.

Infrastructure empowered with simple

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