Designing An OpenStack Private Cloud Between 2 Locations For Think Huge

ThinkHuge

The Background

After helping over 2,000,000 retail traders improve their knowledge and performance using Think Huge products, in the last 2 years the company focused on growing the B2B space, and this came with a different set of challenges.

The B2B focus created a new set of requirements such as additional security on top of a very secure environment, with planned maintenance without any downtime on their systems due to crypto trading 24x7 and migrations between locations.

The Challenge

With an infrastructure (IaaS) spanning over 8 key trading cities located all over the world, Haar challenge was to design and deploy a new network infrastructure for Think Huge, add 3 layers for firewall and WAF while also deploying an OpenStack Cloud in 3 of their biggest locations.

All these steps needed to happen without creating a single minute of downtime during trading hours.

- **Industry:** Information technology
- **Location:** Hong Kong, China
- **Employees:** 10-50

About the Company

Think Huge Limited owns and operates a range of websites dedicated to servicing the technology for Forex industry companies.

Created by dedicated innovators, developers and customer support technicians with an entrepreneurial spirit, the company is building incredible products that solve the problems of millions of customers worldwide across a range of markets, especially the trade exchange (forex or crypto).

The Solution

First, Haar deployed a fully redundant network in their 3 locations based on the latest Juniper MX204 hardware, fully redundant in each location (2 routers) and uplinked by 4 x 100G from 2 providers.

The routers benefit from a heavily protected ACL and firewall and uplinks 2 redundant Juniper switches that are also connected to a firewall and have their own ACLs.

The 3 locations are connected with redundant MPLS connections over diverse paths from 2 different providers, completely separate from IP Transit providers.

The network was fully designed and created as per Think Huge requirements and Haar helped facilitate all the process, from RIPE consultancy about getting their own ASN to installing, configuring and testing redundancy on routers and switches.

Once the network has been tested and deployed, Haar installed and configured in each location a fully redundant OpenStack private cloud with 3 controllers uplinked by 4 x 40G, 15 nodes using latest AMD EPYC CPUs, 1TB RAM, 4x10G uplinks and CEPH NVME storage.

Results & Improvements

The solution deployed by Haar resulted in Think Huge migrating all the Infrastructure as a Service (IaaS) to a fully redundant OpenStack cloud hosted under its own network. In other words, Think Huge had from that point on full control over their routing, computing and storage.

The first maintenance has been performed without any downtime, facilitated by live migrations and Think Huge is now able to migrate data and customers between the 3 locations using OpenStack and MPLS networking.

Not only did our solution provide full control, faster speeds, downtime free and peace of mind but also did save the customer around 15% of the total bill on the 3 locations in infrastructure costs.

ABOUT HAAR

Haar provides tailor made cloud and IT infrastructure services, all delivered by accredited technologies and certified experts.

Get the most from your technology with the best Cloud Infrastructure, Managed Hosting, Cyber Security and IT Consultancy solutions, and 24x7 support included.