WHITEPAPER

Virtual vs Physical ADC

What are the primary differences and the pros and cons of virtual vs physical application delivery controllers?

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Forward-thinking organizations are shifting towards virtual infrastructure – and for good reason. It can be extremely beneficial to virtualize your infrastructure and extend this flexibility to your applications.

If you are interested in taking the leap, here are a few important reasons to consider:

- **Reduced costs** – A well-thought-out virtualization plan should result in lower overall power usage, management, and replacement hardware costs.
- **Less time spent on management/maintenance** – The management tools used for modern hypervisors make it easier than ever to monitor and review information faster across more servers.
- **Quicker deployment times** – By leveraging images, preconfigured virtual machines, or templates, you now have the flexibility to provision systems and applications on demand.
- **On-demand scaling of resources** – Modern hypervisors allow you to add resources to a server with the click of a button. Some even facilitate automatic scaling of resource allocations during bursts of activity.
- **Easier infrastructure upgrades in future** – Physical resources can be added to your pool of servers by adding a new server or adding more resources to one node at a time.
- **Disaster recovery** – Most hypervisor software includes a number of features to increase uptime for your environment, such as automatic failover and high availability options. Unsuccessful code updates or other issues can easily be reverted to a functional state thanks to snapshots. Even in the case of a physical host outage, with sufficient free resources the impact would be minimal.
- **Security** – When done correctly, your environment can benefit greatly from the increased security that is available through virtualized infrastructure, and systems can easily be isolated or access restricted as needed.
- **Legacy migrations** – Modern hypervisor software includes a range of tools to assist in migrating existing applications.
- **The green factor** – Through virtualization, you are better utilizing your available hardware and reducing the total number of servers likely required – which all amounts to more energy savings.

Some may argue that virtualization has many cons as well, such as decreased performance, for example. While it is true that a hypervisor adds a layer and that a bare metal system may perform better than a virtual machine, the difference is minimal with modern hypervisors, and the pros far outweigh the cons.

Across the majority of industry leading companies the consensus seems to be the same – virtualization has been an ever-growing industry, and the software-defined approach to data centers is key.

What are the big industry players doing?

If you are still not convinced, consider the following:

- Amazon has turned its entire data center into a system accessible through an API, and internet giants such as Google, Microsoft, Apple, Facebook, and others are paving the way for the concept of next generation data centers.
- Intel's infographic on data center best practices puts a heavy emphasis on the growing need to master cloud computing technologies to strengthen all aspects of your data center.
- McAfee's infographic on server protection indicates a more than 50% shift towards cloud-based applications, and the numbers will likely grow as more people adopt these methodologies.
- NetApp's infographic as a leading storage solution vendor has evolved substantially in terms of infrastructure, from old architectures with dedicated systems, to the so-called Software-defined Data Center revolution. In particular, NetApp reported in 2011 that 72% of organizations indicated that they were at least 25% virtualized.

It is estimated that from 2013 to 2020, 98% of IT industry growth will be driven by platform technologies such as cloud services. The global Software-defined Data Center market was worth approximately USD 396.1 million in 2013, and is expected to grow to USD 5.41 billion in 2018. It seems clear that the software-defined market is poised to expand faster than practically any other market, as all modern cloud applications will likely work towards adopting this approach.

At Snapt, we understand these trends and the direction of technology. We therefore built our ADC with the intention of it being used in virtualized environments. We provide a variety of preconfigured virtual machine templates so that you can deploy Snapt immediately with minimal effort.

Snapt was designed from the ground up to run in cloud and virtualized environments, and uses the processing power you give it, scales as you scale, and operates on any virtual machine.

Summary

If, at the end of the day, you still find yourself scratching your head over a specific issue, Snapt Support gives you access to our helpful staff's range of services. Feel free to enquire at our website.

Not ready to dive headfirst into the full Snapt Load Balancer experience? We understand. Take a 14-day trial run to see what top-quality performance and trusted security feel like.

For more information about Snapt Balancer, a detailed look at its features, or a better look at our entire line of virtual products, visit www.snapt.net.

About Snapt

Snapt is a total application delivery platform, ready to ensure your site is always online, always fast, and always safe. We provide load balancing, security, caching and acceleration to your website or service, and then we support it like you've never seen before.

With more than 10,000 clients in over 50 countries, industry leaders trust Snapt to ensure their critical applications are fast, security and available.

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