



VEXXHOST Expands Cloud Footprint with Supermicro Servers

Supermicro AMD Based Systems Give Users Fast Responsiveness for Innovative Workloads



INDUSTRY

Technology Provider

CHALLENGES

- Provide scalable compute services
- Maintain performance SLAs with customers
- Reduce Costs for Customers and Power costs

Introduction

VEXXHOST offers IT organizations and customers the ability to build and run their demanding applications in a cloud-based environment. Whether as a private cloud (on-premises) or in a public cloud, VEXXHOST works closely with end-user customers to deliver enterprise-grade servers, storage, and networking for a wide range of applications. VEXXHOST is a leader in providing scalable compute services based on OpenStack and open-source software. VEXXHOST is a significant contributor to the OpenStack software eco-systems and is a specialist at offering cloud services based on OpenStack software, which allows for the control of large pools of compute, storage, and networking resources, all managed through APIs or a dashboard. Once users and IT managers become familiar and implement their environments with OpenStack, vendor lock-in is removed, allowing for the movement of their entire software system to open clouds. OpenStack is being adopted widely, enabling organizations to easily take advantage of new cloud technologies to further their business goals.

Challenges

As the number of customers continues to grow, VEXXHOST needs to continually expand its server and storage offerings for customers who require a public cloud solution.

Whether an on-prem solution, a hosted solution, or a public cloud solution, the users of VEXXHOST's servers and storage systems needed to be able to respond quickly. Enterprises that require a private cloud solution also require state-of-the-art systems that respond to a wide range of applications with low latency. VEXXHOST determined that to give their users access to the latest generation of processors and storage technology, a cloud-oriented OS was required and looked to OpenStack as a solution. Typical applications that would use the VEXXHOST clouds in various forms include Continuous Development/Continuous Integration (CD/CI), High-performance computing, and traditional enterprise computing tasks, among others.

Obviously, cost was a significant concern, delivering the maximum performance for the lowest price while maintaining SLAs. While a range of suppliers could provide the necessary CPU performance, VEXXHOST was determined to partner with a Tier 1 supplier that offered a range of servers to optimize their offerings at the lowest cost.

Solution

SOLUTION

Supermicro A+ Servers with 2nd Gen AMD EPYC Processors.

VEXXHOST decided to work with Supermicro, a leading provider of a wide range of servers, and chose the 2nd AMD EPYC Generation processors to run their servers. The Supermicro A+ Servers contain AMD EPYC CPUs. VEXXHOST's systems are configured so that all workloads can run efficiently, based on the resources required.



Image 1 - Supermicro Compute Node

Many of the workloads hosted on VEXXHOST's servers require fast interconnects for applications that scale to more than one server or require data that resides outside of

the chassis. The processor and storage attributes enable running complex workloads across multiple systems with minimal latency and high bandwidth.



Image 2 - Supermicro Storage Node

VEXXHOST uses multiple different systems from Supermicro, and each configured explicitly for compute, optimized for storage workloads, and other internal IT infrastructure. VEXXHOST determined that the AMD EPYC processor-based systems excelled in handling these diverse workloads and standardized on AMD EPYC CPUs. VEXXHOST selected servers with significant amounts of NVMe storage in a compact form factor for the storage systems, ensuring maximum I/O performance.

"We are extremely excited and looking forward to using the new 3rd Gen AMD EPYC processors, especially the fact that they utilize the same sockets as our existing systems, and we will easily be able to take advantage of the new performance gains."

-Mohammed Naser, CEO at VEXXHOST

BENEFITS

- Faster Application Performance
- Wider Range of Services to Offer

PRODUCTS

- Supermicro A+ Compute Servers
- Supermicro A+ Storage Servers
- Supermicro A+ Management Nodes

Benefits

By choosing the Supermicro A+ Servers, VEXXHOST is enabling its customers to expand their workloads seamlessly. The Supermicro A+ Server 1123US-TR4 and A+ Server 2113S-WN24RT contain the AMD EPYC 7002 series processor, which gives VEXXHOST the ability to offer a wide range of instances to its customers. The versatility of the systems and storage VEXXHOST acquired allowed them to create data centers, whether on-premises, in a colocation center, or their cloud. The company uses and is a large contributor to the OpenStack software system, which runs extremely well on a wide range of Supermicro systems. OpenStack gives developers and end-user organizations the ability to quickly automate cloud tasks with no lock-in due to proprietary APIs or data access.

SUPERMICRO

Supermicro is a global leader in high performance, green computing server technology and innovation. We provide our global customers with application-optimized servers and workstations customized with blade, storage, and GPU solutions. Our products offer proven reliability, superior design, and one of the industry's broadest array of product configurations, to fit all computational need.

For more information, visit <https://www.supermicro.com>



VEXXHOST offers a wide range of systems and instances to their customers. By using the highest performing systems, their customers can get more work done in less time. Also, VEXXHOST can offer more users with higher-performing systems than before and host more Virtual Machines (VMs) on the underlying equivalent hardware.

"We are very pleased with the AMD EPYC based servers that we purchased from Supermicro. The raw performance of these systems has allowed VEXXHOST to offer more computing power and storage capacity at a lower cost to our customers—VEXXHOST offers a range of OpenStack-powered cloud offerings to choose from, including tailor-made private clouds that are architected to suit our customer needs in OpenStack and hardware configuration. We are also expanding globally to meet the needs of our customers, and working closely with Supermicro allows us to add capacity easily."

—Mohammed Naser, CEO at VEXXHOST

OPENSTACK

OpenStack is an open-source cloud computing platform used to create and manage public and private cloud environments. Deployed as an Infrastructure as a Service (IaaS), OpenStack can be used to build and pool resources such as compute, storage, networking, identity, orchestration, etc., with the help of tools such as RESTful APIs and dashboards.