System x Solution for VMware Virtual SAN Ready Nodes

Establish scalable infrastructure with predictable, linear storage growth

With the unprecedented growth and variety of data flowing into and within the enterprise, it is difficult to predict how much storage is truly enough. Increasingly, organizations need highly scalable solutions which will enable them to respond nimbly to changing workload requirements. As virtualized environments become more complex, IT departments want to better manage volatile workloads with predictable cost, elastic storage scalability and simplified administration.

With the System x solution for VMware® Virtual SAN™ Ready Nodes you can build scalable storage to rapidly meet growing performance and capacity needs. VMware Virtual SAN provides the first step in the virtualization of storage, providing both high availability and scale-out. The combination of System x® servers with Intel Xeon processors and VMware software makes this a new, leading edge, cost-effective software defined storage (SDS) solution.

Build elastic storage with scalable, flexible configurations

This System x solution offers a range of standardized choices: for virtual servers and virtual desktops (VDI) configurations.

The System x3650 M5 and x3550 M5 servers with Intel Xeon processors and a combination of solid state and standard hard disk drives coupled with VMware Virtual SAN software radically simplifies virtual machine (VM) storage management. With the automated policy-based storage software, this solution can dramatically lower total cost of ownership while delivering high-performance, reliable, and flexible storage for your virtual machines. Define your VM storage needs and let VMware Virtual SAN do the rest.
VMware Virtual SAN is fully integrated with VMware vSphere®; it automatically aggregates server HDDs and SSDs in a cluster to create a shared datastore that can be rapidly provisioned from the VMware vSphere® Web Client so you can provision virtual machine (VM) and storage at the same time. Scale up by simply adding more disks and out by adding more servers.

Virtual SAN is embedded inside the vSphere kernel so it provides the shortest I/O path, brings data close to compute, and no additional software to install. Virtual SAN utilizes a unique Storage Policy Based Management (SPBM) platform. It is designed to simplify VM storage provisioning and management tasks and it is integrated with VMware stack including VMware vSphere® High Availability, VMware vSphere® Distributed Resource Scheduler™ and VMware vSphere® vMotion.

Secure, reliable and efficient – x3650 and x3550 M5 servers

The System x solution for VMware Virtual SAN Ready Nodes provides an ideal combination of hardware and software for high performance and exceptional reliability. Powerful System x servers are built for demanding virtualized environments where downtime will not be tolerated. Unique System x technology provides excellent capabilities for VMware applications and growing or volatile workloads through:

- High bandwidth and low latencies for fast virtualization performance.
- Pay-as-you-grow scalability for low total cost of ownership as workloads increase.
- Built-in system protections for outstanding system availability and dependability.

Depending on your datacenter needs, choose either the 2U rack optimized System x3650 M5 or the 1U System x3550 M5. The System x3650 and x3550 M5 servers have Integrated Management Module 2 (IMM2) and Unified Extensible Firmware Interface (UEFI) BIOS, to give a consistent system level code
stack for superior setup, configuration, and ease of use. Optional remote control features provide the ability to manage, monitor and troubleshoot from anywhere. Powerful and easy-to-use tools can help you manage both physical and virtual resources.

The System x3650 M5 blends outstanding uptime, performance and I/O flexibility for cost efficiency and rock-solid reliability, making it an excellent platform for virtualized environments. This powerful server offers an energy-smart, affordable, and easy-to-use rack solution with a pay-as-you-grow design to help lower costs and manage risks.

With more computing power per watt and Intel Xeon processors, advanced memory support, and greater disk capacity for businesses requiring extreme storage, the x3650 M5 offers:

- Resilient architecture with balanced performance and density ideal for VMware Virtual SAN.
- High uptime with redundant hot-swap fans, disks and power supplies.
- Predictive failure analysis and light path diagnostics for advanced warning on power supplies, fans, VRMs, disks, processors and memory.

The System x3550 M5 is a rack-optimized server designed for clients’ business challenges and offers the ultimate balance of uptime, performance, density and cost efficiency for virtualized workloads in a 1U rack package. It includes significantly more memory capacity than previous models and new on demand features to help keep costs low.

The System x3550 M5 server
Why System x

System x is the leading provider of x86 systems for the data center. The portfolio includes rack, tower, blade, dense and converged systems, and supports enterprise class performance, reliability and security. System x also offers a full range of networking, storage, software and solutions, and comprehensive services supporting business needs throughout the IT lifecycle.

For more information

For more information about System x Solutions for VMware Virtual SAN, contact your Lenovo representative or visit:

ibm.com/systems/x/os/vmware