Dell EMC vSAN Ready Node Certification

Tech Note by

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Summary

Dell EMC vSAN Ready Nodes are a turn-key solution that help accelerate vSAN deployments, as the hardware are pre-configured and tested with optimally configured CPU, Memory, Network Interface Controllers, SSD and HDD, pre-loaded with VMware vSphere and vSAN software's, offered in varied capacities for different workloads, with a certification from both Dell EMC and VMware.

Today's Digital IT requires to be more innovative at the same time reduce the cost and risks. Hyperconverged Infrastructure has addressed this pain-area of enterprises with simplified scale as you grow vSAN Ready Node that is more cost-effective, pre-validated, optimized, tested and ready to use than traditional approaches. Dell EMC Ready Nodes eliminates project risks and reduces the time taken to procure hardware and software, build, validate, certify and run a hyperconverged solution.

Introduction to the vSAN Ready Node Certification

Dell EMC vSAN Ready Nodes are hyperconverged infrastructure nodes that are validated configuration and certified hardware for vSAN deployment. These Ready Nodes are offered in varied configurations designed to meet VMware vSAN specifications and are ideal as hyperconverged building blocks in data center environments. For customers, it simplifies the path to Hyperconverged Infrastructure adoption and reduces risks with a validated, tested and certified ready to run Dell EMC vSAN Ready Nodes.

The Certification Process

All vSAN Ready Nodes are subjected to the certification process, that involves jointly testing for performance, feature and faults, different types and quantity of CPU's, memory and disks, network controllers, and stress tests for a period, that ensures the robustness and resiliency of the hardware.

The following diagram depicts the certification process for the Dell EMC vSAN Ready Nodes.

Figure-1. Dell vSAN Ready Node certification process.

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Certification Parameters and Outcome

vSAN as a hyperconverged solution is built ground up as Ready Nodes and certified to be listed on the VMWare Compatibility guide-VCG, website. Each Ready Node is chosen with the right hardware, specific firmware and driver versions, configuration type of Hybrid or All-Flash drives, ESXi version, combined with the best performance and availability of support used in a vSAN Cluster.

The certification process requires the base server platform and the driver versions of the peripheral devices of the hardware under test be IOVP certified. This ensures that the Ready Nodes listed in the vSAN Compatibility Guide are specific versions for every certification and not just minimums. For customers, this means a vSAN HCI node has been tested thoroughly with the base hardware and the exact combination of driver, firmware, All-Flash or Hybrid drives and ESXi version, that the Ready Node has been listed in the VCG, enabling in choosing the 'Most Optimized vSAN Cluster' configuration a simple task.

A change in this combination requires recertification even if a particular component has been tested with or changed from the previous version. vSAN Certification is on three levels: Ready Nodes-comprising of one or more chassis, Individual components, such as a Storage I/O Controller and PCIe or NVMe devices, with the rest of the base hardware made of certified components.

Benefits

Hyperconverged solutions offer inherent benefits, not just consolidated hardware with a license. Dell vSAN certified Ready Nodes provides enterprises the right Ready Node profiles for your workloads, a single SKU, modular and scalable platform with a lower TCO compared to a disparate solution and ease of use in

managing resources. With the Ready Nodes designed and engineered jointly by Dell EMC and VMware, hundreds of hours of testing and certification makes it the obvious choice for any enterprise's need for a hyperconverged solution.
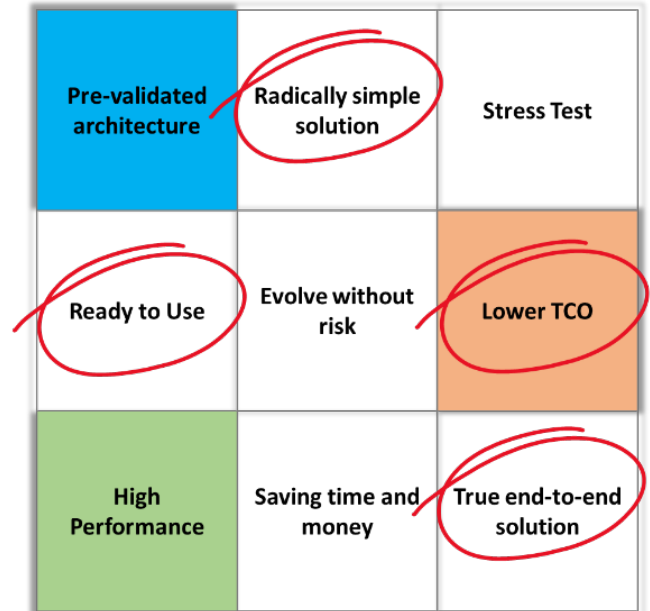

Figure-2. Benefits of Certified vSAN solution.

In Conclusion

Dell EMC vSAN is an ideal choice for enterprises planning to adopt a Hyperconverged Infrastructure solution. Choose a pre-validated reference architecture designed and tested to utilize the latest server and storage technologies that are ready to use as a true end-to-end solution.

Today's enterprises are faced with stringent IT budgets and customers are exploring technologies to lower the total cost of ownership drastically. Dell EMC vSAN helps streamlines HCI adoption strategy, reducing costs with a scale-up/scale-out architecture that adapts to a rapidly changing business need.