Executive summary

Empower your databases with strong, efficient, scalable performance

The Dell EMC VxRail P470F handled up to 50% more database work with up to 70% faster response times than the HPE Hyper Converged 380

Databases are often the driving force behind a company's mission-critical work. They power online stores, confidential records, and customer management systems, so a solution that sustains high levels of database work can be a big advantage as your company grows.

We found that the Dell EMC™ VxRail™ P470F hyperconverged system with VMware® vSAN™ could allow you to do more database work than the HPE Hyper Converged 380 (HC 380) with StoreVirtual VSA. The four-node Dell EMC solution processed more orders with faster response times, so more users can fulfill requests quicker—whether they're placing orders in a store, accessing databases of client info, or adding to company records.

The Dell EMC VxRail P470F sustained this strong performance even after we doubled the number of virtual machines, so it can keep meeting your needs as your business and its services expand. It also leveraged inline deduplication and compression to store the same amount of data as the HPE solution in less than a third of the space, so you can reduce your datacenter space costs and delay the need to purchase more hardware as you grow. Finally, the Dell EMC VxRail solution made it much easier to scale up and tune to optimize performance for our workload.

Dell EMC VxRail P470F

Support more users:
Up to 50% more database transactions

Users get answers faster:
Up to 70% faster response times

Utilize significantly fewer datastores:
Optimize performance and scale more easily

Maintain robust performance, ease IT efforts, and save storage space

Handle more orders and maintain fast response times

If your company relies on databases, you want them to be able to support many simultaneous users while providing fast response times. At think times of both 0ms and 50ms, the Dell EMC VxRail solution handled more orders per minute and input/output operations per second (IOPS) than the HPE solution. No matter what you use your databases for, when your hardware can handle more hits to your databases, it almost certainly means smoother business operations.

The Dell EMC VxRail solution also offered up to 69 percent faster response times than the HPE solution. In both the 0ms and 50ms think time test scenarios, the Dell EMC VxRail P470F achieved comparable or lower latencies. Users expect an immediate response from their databases—and technology in general—and those fractions of seconds can pile up to make a big difference in user experience and productivity.

Double your workload and maintain strong performance

As your business grows, you may need your database hardware to handle more work while continuing to offer a great experience for customers.

When we doubled the VM count from 18 to 36, both solutions did more work, but the performance of the Dell EMC VxRail P470F jumped dramatically, reaching close to linear scaling, while that of HPE solution rose a comparatively small amount.

The Dell EMC solution's advantage was most pronounced in this scenario. It handled 50 percent more orders and 22 percent more IOPS than the HPE solution while offering up to 70 percent faster response times. Though latencies were higher than they were in our tests with 18 VMs, both read and write latencies consistently averaged under 10ms for the VxRail P470F. The HPE solution's response times, on the other hand, were over 10ms, with write latencies reaching over 30ms.

Tune to optimize performance and scale your environment more easily

When you set up a new solution in your datacenter, tuning and optimizing for your specific workload is essential. For us, tuning the VxRail P470F and scaling up its workload was straightforward. The HPE solution, in contrast, was extremely challenging to optimize and scale, requiring us to create 85 more datastores than were necessary for the Dell EMC solution.

Utilize resources more effectively

Datacenter space is limited and costly, so your business directly benefits from more efficient hardware. The Dell EMC VxRail solution consistently offered an inline compression/deduplication ratio of over 2x, with the ratio reaching 3.48x when we scaled up to 36 VMs. The HPE solution did not offer compression or deduplication features at all.

To find out more about the Dell EMC VxRail P470F, visit DellEMC.com/VxRail.

Read the full report at http://facts.pt/KzRxeb ▶

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