



Executive summary

30% more IOPS

Serve more simultaneous users



Up to 38% lower latency

Satisfy user requests more quickly



Upgrade to a Dell EMC PowerEdge R740xd database server that harnesses the power of Toshiba HK4R SATA solid-state drives

The new Dell EMC and Toshiba solution handled 30 percent more I/O operations while maintaining 38 percent lower latency*

If you're a database admin, you might have a wish list of improvements you'd love to offer your users. As your legacy systems with older solid-state drives struggle to keep up with growing transactional database workloads, you're probably considering newer solutions. After all, failing to upgrade could mean missed business opportunities.

We set out to examine the benefits associated with replacing a legacy Dell EMC™ PowerEdge™ R730 server configured with legacy SSDs with a new Dell EMC PowerEdge R740xd server configured with Toshiba HK4R Enterprise SATA SSDs. We ran an Oracle® input/output (I/O) workload generator on each server. The results showed the Dell EMC PowerEdge R740xd configured with Toshiba HK4R SATA SSDs delivered:

- 30 percent more I/O operations per second (IOPS)
- Latency reduction up to 38 percent

Wouldn't it be great to give your databases a performance boost that has the potential to drive business growth? Upgrading to the Dell EMC PowerEdge R740xd with Toshiba HK4R SATA SSDs could be what you need to do just that.

* compared to previous-generation Dell EMC PowerEdge R730 server with legacy SSDs

Putting the Dell EMC-Toshiba solution to the test

The 14th generation Dell EMC PowerEdge R740xd offers strong database performance with a variety of storage configuration options. We tested it with six 960GB Toshiba HK4R SATA SSDs. We assessed both solutions using the Silly Little Oracle Benchmark (SLOB), a tool that generates heavy database I/O workload and measures how many IOPS a solution can sustain. If a server and its internal storage can handle more IOPS while maintaining fast response times, it will likely be able to support periods of heavy user activity and other instances of high database use.

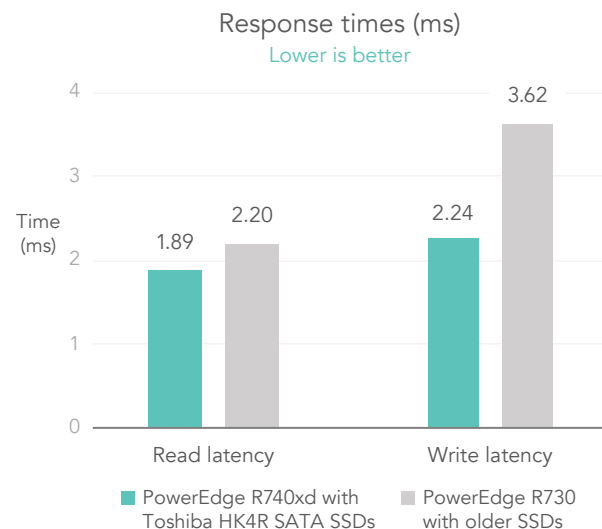
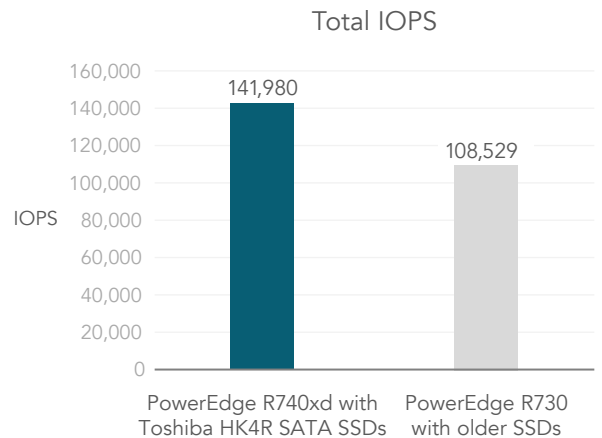
Handle more I/O operations

The new PowerEdge R740xd server with Toshiba HK4R SATA SSDs handled 30 percent more IOPS than the older solution. This increase in IOPS can allow your Oracle databases to handle higher levels of user activity. Whether customers are browsing your online store or employees are accessing the data they need to be productive, your company stands to benefit from this more robust ability to handle periods of heavy database use.

Enjoy better response times

To keep pace with ever-increasing business demands, your company needs a solution with low storage latencies. Compared to the previous-generation server we tested, the Dell EMC PowerEdge R740xd server with Toshiba HK4R SATA SSDs delivered 14 percent lower read response times and 38 percent lower write response times. With lower latencies, your servers complete each I/O request more quickly and deliver better overall storage performance.

To find out more about the Dell EMC and Toshiba partnership, visit <http://www.dell.com/toshiba> and <https://storage.toshiba.com/dell>



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