Boost Decision Support Performance up to 1.24x by Selecting Microsoft® Azure® Edsv5 Virtual Machines Over Edsv4 VMs

Compared to VMs with Older Processors, Virtual Machines Featuring 3rd Gen Intel® Xeon® Scalable Processors Completed DSS Queries Faster

Many kinds of companies use decision support system (DSS) workloads to collect information and translate it into insights that drive business decisions. For these workloads, speed is of the essence. This is because the more current the data, the better it can inform decisions. For DSS workloads you're running in the cloud, it's vital to select a virtual machine that can execute queries quickly.

Independent testing measured the DSS workload performance of two types of Microsoft Azure: Edsv5-series VMs featuring 3rd Gen Intel® Xeon® Scalable processors and Edsv4-series VMs featuring 2nd Gen Intel® Xeon® Scalable processors. At three different VM sizes, the latest-generation Edsv5-series VMs completed a set of queries faster. This greater speed can help your business two ways: by needing less VM uptime, which reduces expenses, and by getting valuable information earlier, which could lead to better business decisions.

Speedier Queries with Small VMs

To measure the performance of the VM clusters, testing used a TPC-DS-derived benchmark that simulates a decision support system. As Figure 1 shows, by choosing 8vCPU Edsv5 VMs enabled by 3rd Gen Intel Xeon Scalable processors, you could complete DSS workloads 1.22x as fast as you could with the same size Edsv4 VMs enabled by older processors.

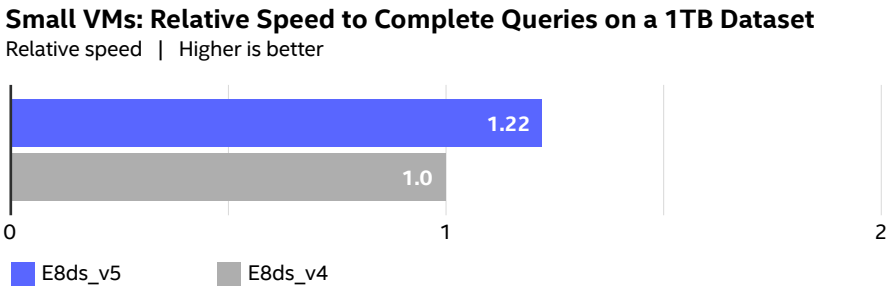

Figure 1. Relative speed to complete DSS queries using the 8vCPU Azure Edsv5 and Edsv4 virtual machines. Higher is better.

Spark

Execute Decision Support Queries up to 1.22x as Fast with 8vCPU Edsv5 Virtual Machines

vs. Edsv4 VMs

Execute Decision Support Queries up to 1.20x as Fast with 16vCPU Edsv5 Virtual Machines

vs. Edsv4 VMs

Execute Decision Support Queries up to 1.24x as Fast with 64vCPU Edsv5 Virtual Machines

vs. Edsv4 VMs

Intel Workload Proof Series: DSS Performance on Azure Edsv5 vs. Edsv4 VMs

See backup for workloads and configurations. Results may vary.

Speedier Queries with Medium VMs

As Figure 2 shows, by choosing 16vCPU Edsv5 VMs enabled by 3rd Gen Intel® Xeon® Scalable processors, you could execute your DSS queries up to 1.20x as fast as you would using 16vCPU Edsv4 VMs with older processors.

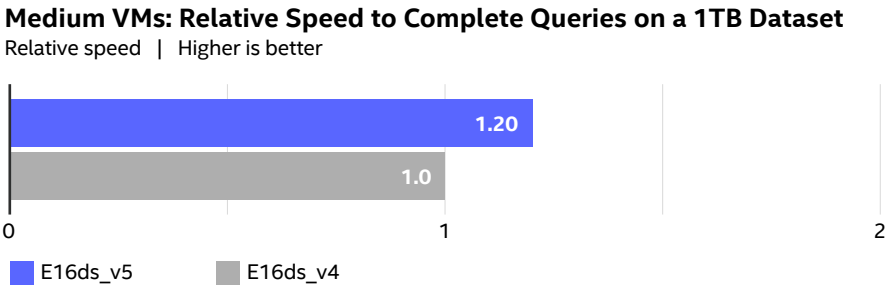

Figure 2. Relative speed to complete DSS queries using the 16vCPU Azure Edsv5 and Edsv4 virtual machines. Higher is better.

Speedier Queries with Large VMs

As Figure 3 shows, 64 vCPU Edsv5 VMs enabled by 3rd Gen Intel Xeon Scalable processors completed DSS queries up to 1.24x as fast as 64vCPU Edsv4 VMs with older processors.

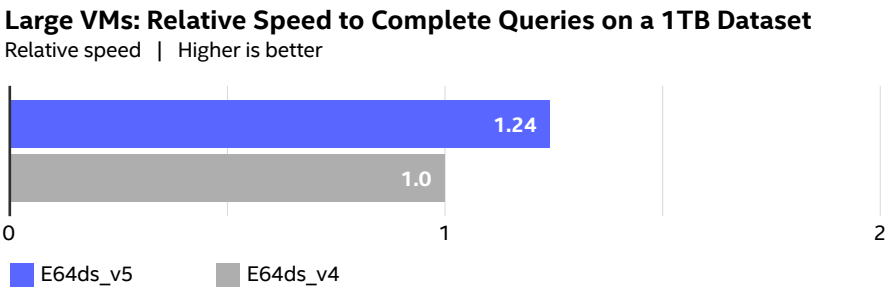

Figure 3. Relative speed to complete DSS queries using the 64vCPU Azure Edsv5 and Edsv4 virtual machines. Higher is better.

Conclusion

To make the best data-driven business decisions, choose Azure cloud virtual machines that deliver strong performance for your DSS applications. At three different sizes, Azure Edsv5 VMs with 3rd Gen Intel Xeon Scalable processors processed DSS queries faster than Edsv4 VMs with older processors.

Learn More

To begin running your decision support workloads on Microsoft Azure Edsv5 virtual machines with 3rd Gen Intel Xeon Scalable processors, visit https://docs.microsoft.com/en-us/azure/virtual-machines/edv5-edsv5-series.

For complete test details and results, read the report at https://facts.pt/WmJJyE9.

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