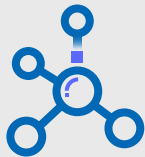intel.

Handle up to 1.36x More PostgreSQL Database Transactions on Microsoft® Azure® Ddsv4 Virtual Machines vs. Dsv3 VMs

PostgreSQL

1.32x more customers accessing PostgreSQL databases with 4-vCPU Azure Ddsv4 VMs

than Dsv3 VMs

1.36x more customers accessing PostgreSQL databases with 16-vCPU Azure Ddsv4 VMs

than Dsv3 VMs

1.33x more customers accessing PostgreSQL databases with 64-vCPU Azure Ddsv4 VMs

than Dsv3 VMs

Get a Stronger Solution for Database Performance with New Dds4 VMs Featuring 2nd Gen Intel® Xeon® Scalable Processors

The success of your e-commerce venture depends on more than your ability to offer products that resonate with consumers. Customers need fast access to your databases to search or make purchases, or they may tire of waiting and turn to a competitor. To make sure you can support large numbers of customers comfortably—even at peak times—select a Microsoft Azure Ddsv4 virtual machine enabled by 2nd Gen Intel® Xeon® Scalable processors to host your mission-critical PostgreSQL database workloads.

General-purpose Microsoft Azure Ddsv4-series VMs running on 2nd Gen Intel Xeon Scalable processors are primed for use cases such as enterprise-grade apps, relational databases, and data analytics by offering larger local storage and more disk IOPS than previous VM series. In PostgreSQL testing running a HammerDB TPC-C-like workload against three sizes of Azure VMs, new Ddsv4 VMs enabled by 2nd Gen Intel Xeon Scalable processors delivered up to 1.36x the number of new orders per minute (NOPM) of Dsv3 VMs with previous-generation Intel Xeon processors.

In addition to ensuring customer satisfaction, supporting more customers per VM on a more performant solution can allow your organization to purchase and manage fewer VMs to target a reduction in operating expenses.

Support up to 1.32x More Customers on Small Ddsv4 VMs

By selecting new Microsoft Azure Ddsv4 VMs to host your e-commerce databases, you can improve performance per VM over older Dsv3 VMs. As Figure 1 shows, Azure Ddsv4 VMs enabled by 2nd Gen Intel Xeon Scalable processors handled 1.32x the NOPM Dsv3 VMs handled.

Relative PostgreSQL/HammerDB performance with 4-vCPU VMs

Legend: ■ Ddsv4 (2nd Gen Intel Xeon Scalable processors) ■ Dsv3 (previous-gen Intel Xeon processors)
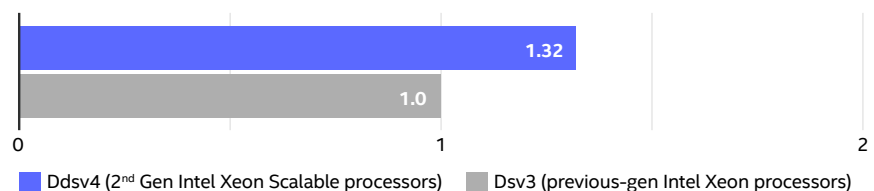
Figure 1. Normalized HammerDB test results comparing performance (in new orders per minute) achieved by the Ddsv4 VM to Dsv3 VM with 4 vCPUs.

Support up to 1.36x More Customers on Medium Ddsv4 VMs

Tests also showed similar performance improvements for medium-sized Ddsv4 VMs over their Dsv3 counterparts. As Figure 2 shows, with 16 vCPUs per VM, a Microsoft Azure Ddsv4 VM enabled by 2nd Gen Intel® Xeon® Scalable processors handled 1.36x more PostgreSQL transactions than a Dsv3 VM with older processors.

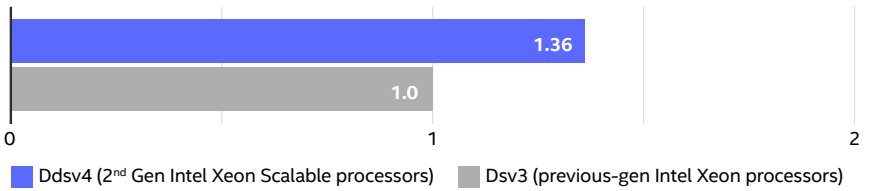### Relative PostgreSQL/HammerDB performance with 16-vCPU VMs

■ Ddsv4 (2nd Gen Intel Xeon Scalable processors)   ■ Dsv3 (previous-gen Intel Xeon processors)

Figure 2. Normalized HammerDB test results comparing performance (in new orders per minute) achieved by the Ddsv4 VM to Dsv3 VM with 16 vCPUs.

Support up to 1.33x More Customers on Large Ddsv4 VMs

Organizations with larger databases that require larger VMs can also boost performance by selecting a Ddsv4 VM. As Figure 3 shows, a 64-vCPU Microsoft Azure Ddsv4 VM enabled by 2nd Gen Intel Xeon Scalable processors completed 1.33x as many PostgreSQL new orders per minute as a Dsv3 VM.

These tests show that whether your PostgreSQL databases are small, large, or somewhere in between, Microsoft Azure Ddsv4 VMs enabled by 2nd Gen Intel Xeon Scalable processors can support more customers to account for peak times and future planning while also allowing your organization to minimize the number of virtual machines you must support.

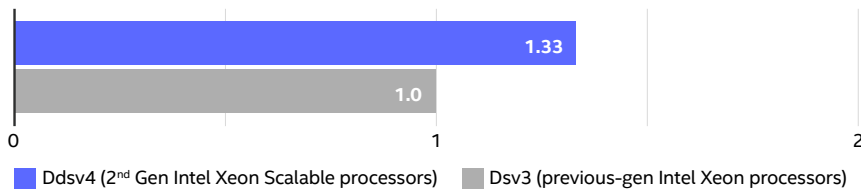### Relative PostgreSQL/HammerDB performance with 64-vCPU VMs

■ Ddsv4 (2nd Gen Intel Xeon Scalable processors)   ■ Dsv3 (previous-gen Intel Xeon processors)

Figure 3. Normalized HammerDB test results comparing performance (in new orders per minute) achieved by the Ddsv4 VM to Dsv3 VM with 64 vCPUs.

Learn More

To begin your PostgreSQL database deployments on Microsoft Azure Ddsv4 virtual machines with 2nd Gen Intel Xeon Scalable processors, visit http://intel.com/microsoftazure.