Process 1.28x the MySQL Database Transactions with Intel® Xeon® processor-backed Alibaba G7 Instances vs. Alibaba G6 Instances

MySQL

Complete 1.28x
the MySQL database transactions per minute on G7 instances with 3rd Gen Intel Xeon Scalable processors

vs. G6 instances

Get better value with G7 instances featuring 3rd Gen Intel Xeon Scalable processors
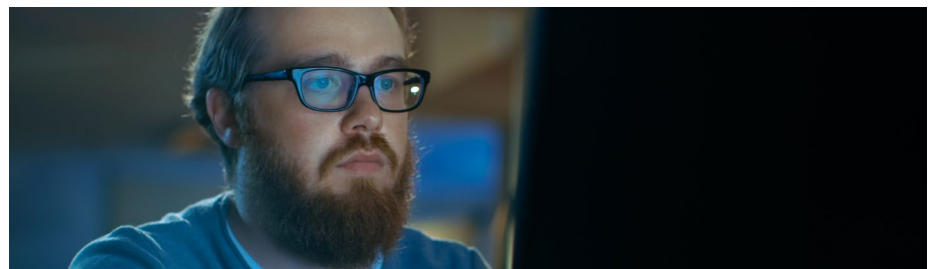
vs. G6 instances

Get Better Value with Alibaba G7 Instances Featuring 3rd Gen Intel Xeon Scalable Processors

When you're shopping for cloud instances to host your MySQL databases, choosing compute-intensive instances is a great way to be sure you're getting strong ecommerce performance. But did you know that selecting instances with the right processor is yet another way to get the greatest return on your cloud investment? For OLTP databases, Alibaba G7 Instances enabled by 3rd Gen Intel® Xeon® Scalable processors can offer greater performance—and greater performance per dollar— than G6 instances with 2nd Gen Intel Xeon Scalable processors.

HammerDB benchmark tests used an OLTP workload to compare MySQL database performance on three sizes of Alibaba instances (see Figure 1).

Table 1. Names of the tested Alibaba instances with their vCPU configurations

Instance name		vCPUs
G7 3rd Gen Intel Xeon Scalable processors	G6 2nd Gen Intel Xeon Scalable processors	
g7.2xlarge	g6.2xlarge	8
g7.4xlarge	g6.4xlarge	16
g7.8xlarge	g6.8xlarge	32

The G7 instances featuring 3rd Gen Intel Xeon Scalable processors not only handled 1.28x the transactions per minute of the G6 instances, but they also delivered better value than G6 instances, providing up to 1.12x the performance per dollar. When you select G7 instances that do more database work per instance, you can support the needs of your ecommerce users with fewer cloud instances, which is a boon to your bottom line.

Get Better Performance with G7 Instances

As Figure 2 shows, G7 instances enabled by 3rd Gen Intel Xeon Scalable processors outperformed G6 instances at the three vCPU counts tested, achieving 1.28x the MySQL database transactions per minute.

Relative MySQL Database Performance
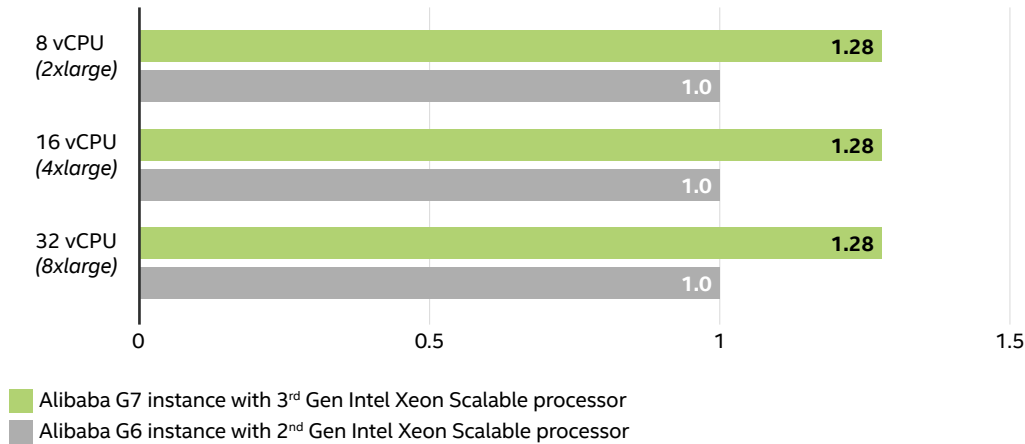Relative transactions per second | Higher is better

■ Alibaba G7 instance with 3rd Gen Intel Xeon Scalable processor
■ Alibaba G6 instance with 2nd Gen Intel Xeon Scalable processor

Figure 1. Relative results comparing the MySQL database transactions per minute of G7 instances vs. G6 instances at three different vCPU instance sizes.

Get Better Value with G7 Instances

While performance is an important consideration when shopping for cloud instances, so is cost. The newer instances are slightly more expensive, but the performance they deliver makes up for the extra cost. As of August 2021, the cost increase of the G7 vs. G6 instances was at most 1.14x while the performance gain on MySQL workloads was 1.28x. This means you can get better value out of the latest G7 instances featuring Intel® Xeon® Scalable processors.

Based on these comparisons, companies that host MySQL databases in the cloud could better position themselves both to meet performance goals and stay within budget if they chose compute-intensive Alibaba G7 instances enabled by 3rd Gen Intel Xeon Scalable processors rather than Alibaba G6 instances with 2nd Gen Intel Xeon Scalable processors.

Learn More

To begin running your MySQL workloads on Alibaba G7 Instances with 3rd Gen Intel Xeon Scalable processors, visit www.intel.com/Alibaba.

intel.