Improve MySQL™ Database Performance up to 1.69x with Amazon™ EC2 M5n Instances Featuring 2nd Gen Intel® Xeon® Scalable Processors

Amazon EC2 M5n Instances Feature Intel Cascade Lake Processors

Handle More MySQL Database Transactions in Amazon EC2 M5n Instances, Featuring 2nd Gen Intel Xeon Scalable Processors

The instance type you choose from Amazon Web Services drives database performance and ultimately determines how many customers can access your database at a time. To ensure better performance, select a new Amazon EC2 M5n instance type that runs on powerful 2nd Gen Intel Xeon Scalable processors.

In MySQL transactional database tests comparing Amazon EC2 instances, new M5n instances enabled by 2nd Gen Intel Xeon Scalable processors outperformed older M4 instances with Intel Xeon E5 v4 processors. A small instance (with 8 vCPUs) handled 1.50x the transactions per minute, a medium instance (with 16 vCPUs) processed 1.48x the transactions per minute, and a large instance (with 64 vCPUs) achieved 1.69x the transactions per minute of similarly configured older instances.

At various database and instance sizes, choosing a new M5n instance featuring 2nd Gen Intel Xeon Scalable processors can allow you to support more e-commerce customers and provide a smoother user experience.

Support More Customers on Small Instances

After you have selected a provider for your public cloud instances, there's another crucial choice to make—picking instance types that offer the performance and support your workloads require. Running databases in instances with outdated hardware limits the number of customers you can serve now and into the future as your business continues to expand.

Tests comparing performance of small instances with 8 vCPUs show that Amazon EC2 M5n instances featuring 2nd Gen Intel Xeon Scalable processors deliver up to 1.50x the MySQL transactions per minute of M4 instances running on older processors.

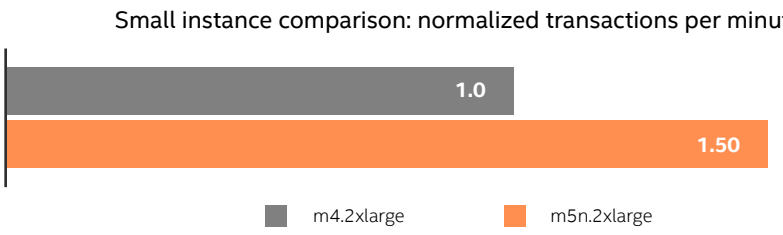

Figure 1. HammerDB test results comparing performance of the M5n instance type to M4 instance type with 8 vCPUs and 18GB database size.

MySQL

Handle 1.50x the customer transactions
on small instances

Handle 1.48x the customer transactions
on medium instances

Handle 1.69x the customer transactions
on large instances

This means that organizations looking to deliver improved performance or support more customers per instance can meet those goals by selecting Amazon EC2 M5n instances with updated 2nd Gen Intel® Xeon® Scalable processors.

Support More Customers on Medium Instances

Medium instances to support mid-sized databases saw similar gains in HammerDB testing. Third-party tests showed that with 16 vCPUs, Amazon EC2 M5n instances enabled by 2nd Gen Intel Xeon Scalable processors delivered 1.48x the MySQL transactions per minute.

For various workload sizes, using updated instances with 2nd Gen Intel Xeon Scalable processors can offer significant performance gains that allow organizations to support more customers.

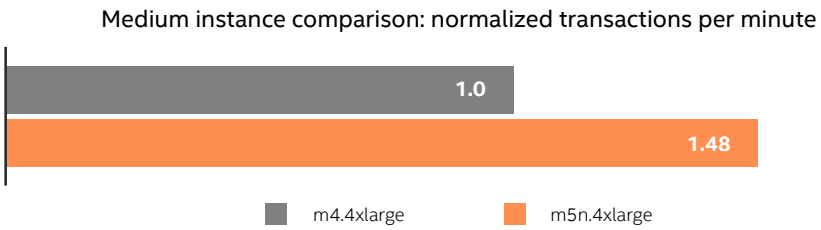

Figure 2. HammerDB test results comparing performance of the M5n instance type to M4 instance type with 16 vCPUs and 36GB database size.

Support More Customers on Large Instances

As in tests of small- and medium-sized instances, HammerDB testing with large instances saw big improvements from the updated Amazon EC2 M5n instances featuring 2nd Gen Intel Xeon Scalable processors compared to M4 instances—achieving a significant 1.69x the transactions per minute.

The big performance increases that M5n instances provide for MySQL database workloads mean that organizations can handle more customers with fewer instances and reduce the number of instances to manage and support.

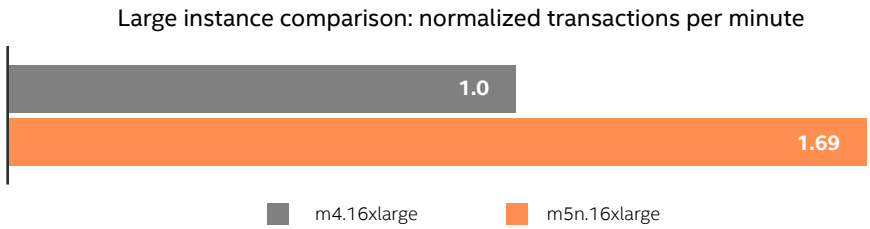

Figure 3. HammerDB test results comparing performance of the M5n instance type to M4 instance type with 64 vCPUs and 141GB database size.

Learn More

To begin your MySQL database deployments on Amazon EC2 M5n instances featuring 2nd Gen Intel Xeon Scalable processors, visit https://intel.com/aws.

For more test details, visit http://facts.pt/H9kHsIV.

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