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Analyze Microsoft SQL Server Databases up to 1.39x as Fast with Amazon™ EC2 M5n Instances Featuring 2nd Gen Intel® Xeon® Scalable Processors

Amazon EC2 M5n Instances Feature Intel Cascade Lake Processors

Microsoft SQL Server

Analyze data up to 1.22x as fast
on medium instances

Analyze data up to 1.39x as fast
on large instances

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Speed Microsoft SQL Server Database Analysis in Amazon EC2 M5n Instances Featuring 2nd Gen Intel Xeon Scalable Processors

For modern organizations, proliferation of data is nonstop—but massive amounts of data must be sorted and analyzed before providing value. Speeding up the data analysis process can ensure your business can act sooner, and the instance type you choose from Amazon Web Services determines how fast you can get those answers. To speed analysis of Microsoft SQL Server databases, select a new Amazon EC2 M5n instance type that features powerful 2nd Gen Intel Xeon Scalable processors.

In Microsoft SQL Server online analytical processing (OLAP) tests comparing Amazon EC2 instances, new M5n instances featuring 2nd Gen Intel Xeon Scalable processors outperformed older M4 instances enabled by Intel Xeon E5 v4 processors. A medium instance (with 16 vCPUs) analyzed data streams up to 1.22x as fast, and a large instance (with 64 vCPUs) did so up to 1.39x as fast as similarly configured older instances.

At multiple database and instance sizes, choosing a new M5n instance featuring 2nd Gen Intel Xeon Scalable processors can allow you to analyze data faster, which helps your organization put those insights to use and move business forward more quickly.

Faster Data Analysis on Medium Instances

Choosing the type of instance that will host your workloads is as important as selecting the cloud provider itself. By selecting outdated hardware to run your OLAP workloads, you limit how fast you can get insights from critical data—which can leave your business a step behind competitors. Updated processor technology is better equipped to handle these workloads, cutting data analysis times dramatically.

Tests comparing performance of medium instances with 16 vCPUs show that Amazon EC2 M5n instances featuring 2nd Gen Intel Xeon Scalable processors analyzed Microsoft SQL Server databases up to 1.22x as fast as M4 instances running on older processors.

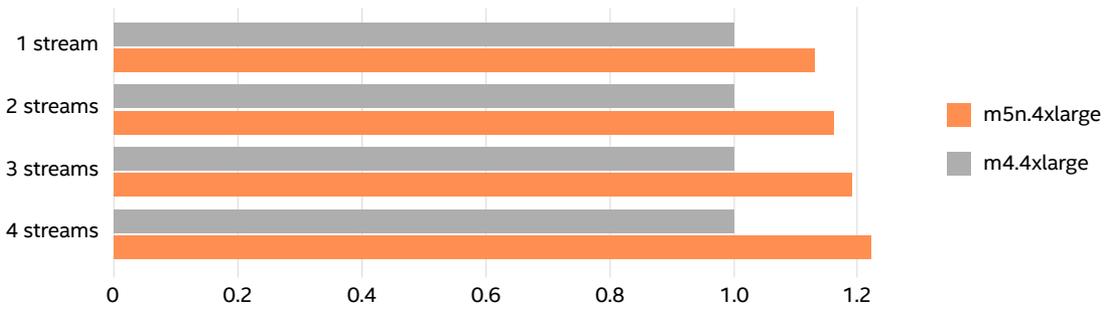## Medium instance comparison: relative speed to complete

Figure 1. Relative speed to complete multiple query streams from a TPC-H-like HammerDB workload running against Microsoft SQL Server databases on medium-sized instances.

Organizations looking to quickly gain insights from data can meet that goal by selecting Amazon EC2 M5n instances with updated 2nd Gen Intel® Xeon® Scalable processors.

Faster Data Analysis on Large Instances

Business intelligence workloads for larger databases and instances may take longer to complete than medium-sized instances, but speed still improves when replacing older M4 instances with new M5n instances. Using a HammerDB TPC-H-like workload to analyze large instances showed that updated Amazon EC2 M5n instances featuring 2nd Gen Intel Xeon Scalable processors completed data analysis up to 1.39x faster across multiple query stream counts compared to M4 instances.

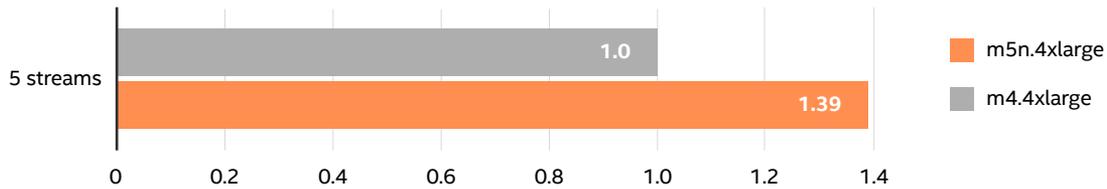## Large instance comparison: relative speed to complete

Figure 2. Relative speed to complete multiple query streams from a TPC-H-like HammerDB workload running against Microsoft SQL Server databases on large-sized instances.

Running OLAP workloads to analyze Microsoft SQL Server databases on Amazon EC2 M5n instances can save significant data analysis time compared to M4 instances, so your organization can get the knowledge you need earlier when time is of the essence.

Learn More

To begin your Microsoft SQL Server database deployments on Amazon EC2 M5n instances featuring 2nd Gen Intel Xeon Scalable processors, visit http://intel.com/AWS.

For more test details, visit http://facts.pt/30SQBuS.

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