

Azure SQL Managed Instance Next-gen GP delivered up to 10x the OLTP performance of Classic GP

Independent testing firm finds Next-gen GP baseline matches classic GP pricing while delivering more than double the transaction throughput

REDMOND, WA, UNITED STATES, August 3, 2026 /EINPresswire.com/ -- Principled Technologies (PT) today released benchmark research evaluating Microsoft Azure SQL Managed Instance Next-gen General Purpose (GP) performance and cost efficiency against the classic GP tier. The research, conducted using HammerDB 5.0 on SQL Server 2025, covered both online transaction processing (OLTP) and online analytical processing (OLAP) workloads across three Azure pricing models. The findings establish that Next-gen GP delivers substantial performance advantages over classic GP—and that the baseline upgrade carries no cost penalty.

Testing methodology

PT tested three Azure SQL Managed Instance configurations: classic GP (baseline), Next-gen GP (baseline), and Next-gen GP (boosted). All configurations used 8 vCores and

Premium-series hardware running on Intel Xeon Platinum processors. The classic and Next-gen GP baseline configurations used identical vCore, memory (56 GB), and storage allocations,



Evaluating Microsoft Azure SQL Managed Instance Next-gen GP for SQL workloads: Performance and value analysis

Our tests demonstrated that upgrading from baseline classic GP Instances to Next-gen GP instances running on 3rd Gen Intel® Xeon® Scalable Processors can improve performance and value

Highlights of this report

 Up to 10.8x the OLTP performance Handle more database requests ¹	 Up to 3.8x the OLAP/ analytics performance Gain quicker insights from datasets ²	 Up to 7.8x better performance/price ratio Improve the return on your cloud investment ³
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A Principled Technologies report: Hands-on testing. Real-world results.

Report: Evaluating Microsoft Azure SQL Managed Instance Next-gen GP for SQL workloads: Performance and value analysis

isolating the performance difference to architectural changes in the Next-gen GP tier, most notably its higher IOPS ceiling.

OLTP results

On the TPROC-C OLTP benchmark, Next-gen GP (baseline) delivered 2.66 times the new order transactions per minute (NOPM) of classic GP (baseline). Next-gen GP (boosted), configured with 96 GB of memory and a 12,800 IOPS ceiling—extended that advantage to 10.88 times the NOPM of classic GP (baseline) and 4.08 times the NOPM of Next-gen GP (baseline). The higher IOPS available to Next-gen GP instances let both configurations sustain elevated transaction rates without the storage contention that limits classic GP performance under load.

Analytics results

On the TPROC-H benchmark, which measures the number of complex query sets each instance completes per hour, Next-gen GP (baseline) delivered 1.40 times the query sets per hour of classic GP (baseline). Next-gen GP (boosted) processed 3.89 times as many query sets per hour as classic GP (baseline) and 2.77 times as many as Next-gen GP (baseline).

Cost findings

Classic GP and Next-gen GP (baseline) carry identical monthly costs across all three pricing tiers PT evaluated—pay-as-you-go, 3-year reserved, and Azure Hybrid Benefit. Organizations running classic GP today can capture the 2.66 times the OLTP and 1.40 times the analytics throughput gains by moving to Next-gen GP hardware with no change to their purchasing model or monthly spend.

For organizations with room to increase investment, Next-gen GP (boosted) achieved up to 7.80 times the OLTP performance per dollar of classic GP at pay-as-you-go pricing, and up to 2.98 times the analytics performance per dollar. These gains came at a monthly cost increase ranging from roughly 30 to 117 percent, depending on the pricing model selected.

Conclusion

Across the workloads and pricing scenarios tested, Next-gen GP consistently outperformed classic GP, and the baseline configuration did so at identical cost. For database administrators and cloud architects evaluating whether to migrate existing classic GP instances or provision new workloads, the research indicates that upgrading to Next-gen GP can deliver meaningful throughput gains without moving to a more expensive service tier.

[Read the report to learn more.](#)

About Principled Technologies, Inc.

Principled Technologies, Inc. is the leading provider of fact-based marketing and competitive analysis backed by transparent methodologies.

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