

# PRIMERGY RX8770 M7 Demonstrates Superior Peak Performance on SAP BW Edition for SAP HANA Benchmark

On August 14, 2023, the brand-new 8-socket PRIMERGY RX8770 M7 achieves outstanding results on the SAP BW Edition for SAP HANA Standard Application Benchmark Version 3 with 15.6 billion initial records.

The system was equipped with Intel's Xeon Platinum 8490H processor (8 processors, 480 cores, 960 threads, 4th Generation Intel Xeon Scalable Processor aka Sapphire Rapids) and 8192 GB of DRAM, running the SAP BW edition for SAP HANA Standard Application Benchmark Version 3 with 15.6 billion initial records on SAP NetWeaver 7.50, SAP HANA 2.0 and SUSE Linux Enterprise Server 15.

Compared to its Cascade Lake based predecessor PRIMEQUEST 3800B2, the RX8770 M7 increases the query throughput by more than factor 2. The query throughput phase of the benchmark (phase 2) is CPU bound and therefore best to compare generations.

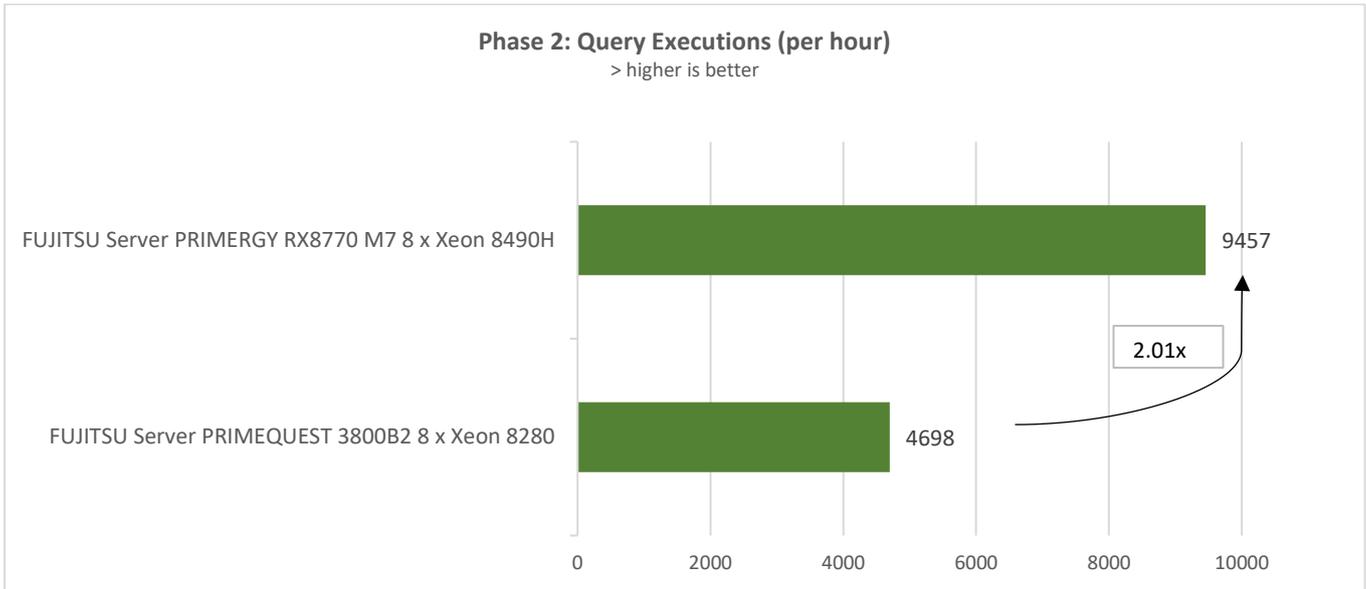
The system thus impressively demonstrates its superior performance and shows, that it is the perfect platform for SAP HANA.

Find the benchmark details including the comparison with the PRIMEQUEST 3800B2 in the following.

## SAP BW Edition for SAP HANA Benchmark Version 3 Result Comparison of 15.6 Billion Initial Records Category

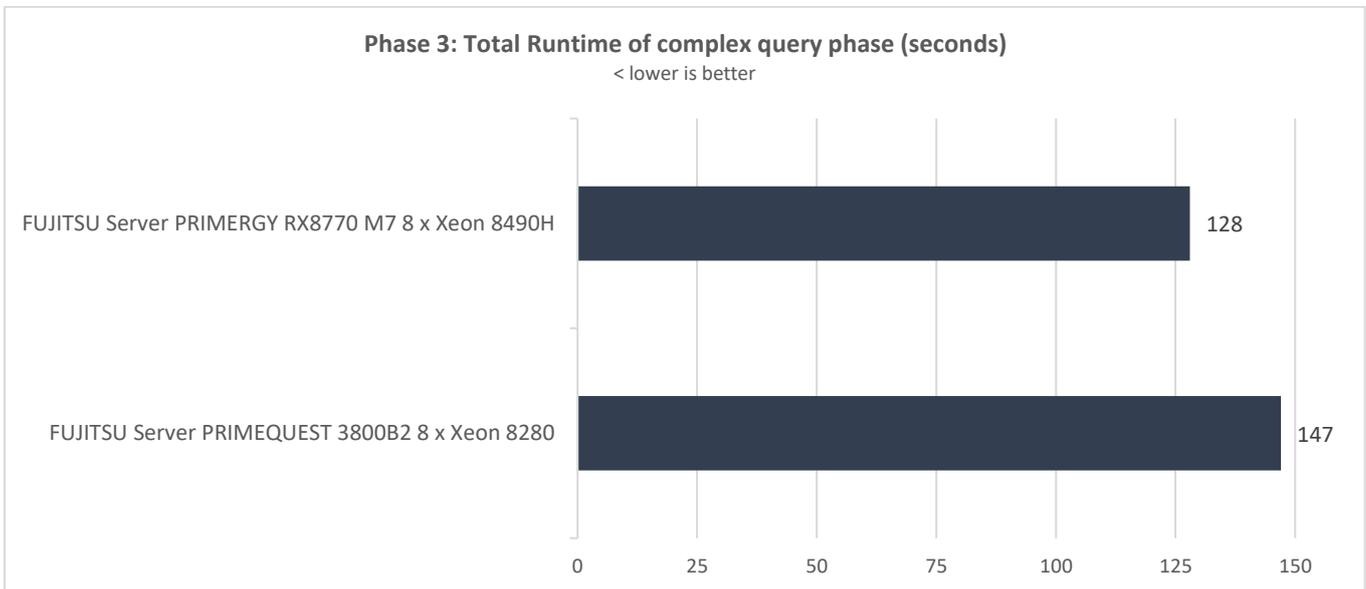


Phase 1 is the data load phase. It is a combination of CPU- and IO-intensive load.



The query throughput phase is CPU bound and therefore best to compare generations:

PRIMERGY RX8770 M7 achieves more than factor 2 query executions per hour, compared to its predecessor PRIMEQUEST 3800B2 with Intel Xeon 8280 (8 processors, 224 cores, 448 threads, 2nd Generation Xeon Scalable Processor aka Cascade Lake).



Phase 3 is the query runtime phase. 10 queries are used to measure the runtime. They contain complex query patterns of some power users. It generates a small load on the system. Single thread performance is important for short runtimes.

## SAP BW Edition for SAP HANA Benchmark Version 3

### Result Details of 15.6 Billion Initial Records Category

- Certification [2023035](#): FUJITSU Server PRIMERGY RX8770 M7, 8 processors / 480 cores / 960 threads Intel Xeon Platinum 8490H processor, 8192 GB DRAM, SAP BW edition for SAP HANA Standard Application Benchmark Version 3, 3-tier scale-up configuration, Bare-Metal environment, SAP HANA 2.0, SAP NetWeaver 7.50, SUSE Linux Enterprise Server 15, 15.6 billion initial records, 11508 seconds runtime of last data set, 9457 query executions/h, 128 seconds total runtime of complex query phase.
- Certification [2019058](#): FUJITSU Server PRIMEQUEST 3800B2, 8 processors / 224 cores / 448 threads Intel Xeon Platinum 8280 processor, 3072 GB DRAM, 6144.0 GB Persistent Memory, SAP BW edition for SAP HANA Standard Application Benchmark Version 3, 3-tier scale-up configuration, Bare-Metal environment, SAP HANA 2.0, SAP NetWeaver 7.50, SUSE Linux Enterprise Server 12, 15.6 billion initial records, 18267 seconds runtime of last data set, 4698 query executions/h, 147 seconds total runtime of complex query phase.

## References

### SAP

- [SAP Standard Application Benchmarks](#)
- [SAP BW edition for SAP HANA benchmark results](#)
- [Certified and Supported SAP HANA Hardware](#)

### Fujitsu

- [SAP Standard Application Benchmarks](#)