

## PERFORMANCE BENCHMARK RESULT

## Lenovo Delivers First-Ever Result of 10 Billion Records on SAP Business Warehouse-Enhanced Mixed Load Standard Application Benchmark

Lenovo's result demonstrated linear scaling from 1 billion to 10 billion records as nodes were added to the Lenovo System x3850 X6 appliance for SAP HANA

May 12, 2015 ... Leveraging its strong partnership with SAP SE (NYSE: SAP) and technology innovation in support of the SAP HANA® platform, Lenovo announces its Lenovo System x3850 X6 has achieved a first-ever result on the SAP® Business Warehouse-Enhanced Mixed Load (SAP BW-EML) standard application benchmark (1) of 10 billion records. Even with such a huge query load, the x3850 X6 netted a record load of 269,960 ad-hoc navigation steps per hour.



The SAP BW-EML standard application benchmark measures performance in a real-time, data-warehouse environment running SAP software. This new path-breaking benchmark result demonstrates that the System x3850 X6 solution for SAP HANA offers near-linear scalability with the addition of additional Lenovo appliances as well as with additional data loads.

By simply adding more nodes to the existing infrastructure, IT leaders can benefit from extremely fast response times for analytical workloads and business queries for data workloads of a broad range of sizes, ranging from medium (1 billion records) to very large (10 billion records and beyond). The modular approach of the System x3850 X6 enables customers to invest in a workload-optimized solution for SAP HANA that enables infrastructure growth as the data volume grows, helping eliminate the need for the SAN storage that often is required.

The Lenovo System x3850 X6 solution for SAP HANA also comes with built-in high availability and synchronous disaster-recovery capabilities using IBM General Parallel File System™ (GPFS™) software.

The 269,960 ad-hoc navigation steps per hour result was achieved at the 10-billion-row scale factor on the System x3850 X6-based appliance scale-out cluster of seven nodes, each configured with four Intel® Xeon® E7-8890 v3 family processors with 72 cores and 144 threads, and 1TB memory, running SAP HANA 1.0, the SAP NetWeaver® technology platform 7.4, SUSE Linux Enterprise Server 11 and Lenovo GPFS 3.5.0.23 FPO on local disks (1). This is first result achieved with such a high number of records.

SAP standard application benchmarks have been designed to represent customer scenarios in different business application areas. The SAP BW-EML standard application benchmark has been developed with

near real-time reporting, ad-hoc reporting capabilities, and reduction of TCO in mind. Its focus is a mix of multiuser reporting load and delta data that is input into the database simultaneously to the queries. For more details, visit: <a href="http://global.sap.com/campaigns/benchmark/appbm">http://global.sap.com/campaigns/benchmark/appbm</a> bweml.epx

## **About Lenovo**

Lenovo (HKSE: 992) (ADR: LNVGY) is a \$39 billion global Fortune 500 company and a leader in providing innovative consumer, commercial, and enterprise technology. Its portfolio of high-quality, secure products and services covers PCs (including the well-known Think and multimode YOGA brands), workstations, servers, storage, smart TVs and a family of mobile products like smartphones (including the Motorola brand), tablets and apps. Join us on <a href="LinkedIn">LinkedIn</a>, follow us on <a href="Facebook">Facebook</a> or Twitter (@Lenovo) or visit us at <a href="https://www.lenovo.com">www.lenovo.com</a>.

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(1) Performance results of the Lenovo System x3850 X6 on the SAP BW-EML standard application benchmark as of May 12, 2015. This benchmark fully complies with the SAP Benchmark Council regulations and has been audited and certified by SAP SE (certification number: 2015018). Details can be obtained from Lenovo and SAP. For the latest SAP benchmark results, visit <a href="http://www.sap.com/benchmark">http://www.sap.com/benchmark</a>.