HP ProLiant DL980 G7 server and Microsoft SQL/Windows deliver scale-up power for Infor ERP LN

Solution brief

Summary

Infor™ ERP LN is Infor's top ERP (enterprise resource planning) application. Infor recently tested ERP LN on the new 8-socket Intel® Xeon® powered HP ProLiant DL980 G7 scale-up server and achieved its highest Baan/LN performance ever on an x86 system. The new ProLiant workhorse, with 2TB of main memory, 64 cores and up to 16 I/O slots, is not only an ideal scale-up option for 2- and 3-tier ERP environments, but offers advanced reliability features as well as the headroom for additional applications.

Customer benefits

- Benchmarking provides accurate information on the newest, most powerful x86 servers to help customers configure and size Infor ERP LN environments
- Infor incorporated enhancements in Infor ERP LN to optimize performance with the ProLiant DL980 G7 and other scale-up servers
- Scale up within x86 Microsoft® Windows® environments with little or no extra management overhead, yet far greater capacity, availability and performance

SMBs benefit from ERP

Enterprise resource planning solutions have long been standard equipment for the world's largest firms. Increasingly, small- to mid-size businesses are also embracing ERP in order to:

- Improve operational efficiency
- Support global business
- Capitalize on growth opportunities
- Reduce costs in multiple areas

Economic and operational challenges have firms of all sizes taking a hard look at ERP projects and seeking ways to cost-effectively achieve enhanced ERP performance. As companies approach a tipping point in their ERP system lifecycle—the need for a hardware refresh, capacity increase or merger-driven database consolidation—many companies have discovered the advantages of migrating their ERP environment to Windows/SQL on industry standard servers.

To provide customers with accurate sizing information and help optimize its applications for highest performance, Infor recently conducted an extensive test of its flagship Infor ERP LN solution on the new HP ProLiant DL980 G7 server, equipped with 8-core Intel Xeon Processors and running Microsoft Windows Server® 2008 R2 and Microsoft SQL Server® 2008 R2.

ProLiant DL980 G7 scale-up workhorse

The HP ProLiant DL980 G7 server features the new HP PREMA Architecture and delivers on the HP scale-up x86 value proposition of balanced scaling, self-healing resiliency, and breakthrough efficiency. It extends the Intel 7500/6500 series processors to deliver these key features:

- Smart CPU Caching – An HP-unique node controller enables faster access to local memory and reduces inter-processor communication traffic.
- Redundant System Fabric – This interconnect fabric provides higher bandwidth and lower data error rates for improved resiliency.

"Our customers rely on us to provide accurate and current performance information on a variety of platforms," explains Hans Kamman, Director, Development and Release Management at Infor. The firm regularly publishes an updated Sizing Guide for customers and an online Sizing Assistant for Infor staff and partners to use in assisting customers.

Benchmarking at HP Solutions Center

Kamman and his benchmarking team spent more than five weeks at HP's Solution Center in Böblingen, Germany, attempting to push the new HP ProLiant DL980 server to its limit.

"This is the most powerful x86 system we have ever tested," says Kamman. "This system would be ideal for our customers who are consolidating their ERP resources. This gives Windows customers a clear upgrade path, usually in the same square meter of rack space."

The HP ProLiant DL980 G7 test system was equipped with eight Intel Xeon 6550, 64 cores, 128 threads, and 2 TB of internal memory. "We welcomed the opportunity to test on such a powerful system," Kamman says. "x86 Windows accounts for about 50% of our Infor ERP LN customer base, and we see that percent increasing. This benchmarking gave us the opportunity to fine tune our application to take better advantage of this massive amount of memory and I/O connectivity."

Infor's benchmarking team tested the ProLiant DL980 in both 2-tier and 3-tier configurations. HP ProLiant blade and rack servers, running HP LoadRunner software, generated realistic loads using a range of transaction types. Two HP StorageWorks EVA systems stored test data.

- 3-tier: the ProLiant DL980 was used as a dedicated SQL database server and ProLiant BL495c G6 server blades ran ERP LN as application servers.
- 2-tier: the ProLiant DL980 ran both the database and ERP LN application.

Highest Baan/LN benchmark ever

Platform performance is characterized by the number of Baan Reference Users (BRUs) that have completed transactions within a predefined response time while the CPUs are fully utilized. The ProLiant DL980 G7 server scored 54,000 BRUs in the 3-tier test running on just four processors and 107,400 BRUs in the 8-socket test, achieving the highest Baan/LN score ever and a scale-up ratio of nearly 2x.

HP ProLiant DL980 G7 Server

Together with the latest eight-core Intel® Xeon® Processor 7500/6500 Series, expandable memory, and HP Integrated Lights-Out 3 (iLO 3) server management software, the ProLiant DL980 G7 server is an ideal choice for organizations looking for balanced scaling, self-healing resiliency, and breakthrough efficiencies for today's enterprise compute environments.

Features/benefits:

- HP Smart CPU Caching technology enables faster access to local memory and reduces inter-processor communication traffic.
- Breakthrough efficiencies deliver payback in as little as 60 days.[1]
- 128 DIMM slots for up to 2 TB of memory.
- Up to 16 I/O slots support the most I/O-intensive applications.
- Hot swappable power supplies and fans for improved serviceability.

Intel Xeon Processor 7500/6500 Series

- Largest performance leap in Intel® Xeon® processor history, with an average improvement of 3x across a range of benchmarks. Data centers can replace 20 single-core servers with a single new Intel Xeon 7500 processor series-based system.
- More than 20 new reliability features and eight-core, 16-threaded Intel Xeon Processor 7500 series performance further accelerate mission-critical adoption on Intel server systems.
- Unprecedented advances in scalability allow new designs to range from two-socket platforms up to 256 chips per system.

Microsoft SQL Server/ Windows Server 2008 R2

Research shows that organizations that migrate to SQL Server may be able to significantly reduce overall costs. For example, companies that migrate from the Oracle database running on a UNIX-based platform to SQL Server attained a 74 to 137 percent IRR while simultaneously lowering unplanned downtime and increasing system performance.[2]

- Labor cost savings of 20% or more are possible in a Microsoft SQL Server environment.
- Microsoft's licensing approach lowers software support costs by up to 86 percent.
- Unplanned downtime is reduced by over 20% in a Microsoft SQL Server environment.

Infor ERP LN

Infor ERP LN provides the foundation to improve business efficiency, customer service, and manufacturing productivity. From selling and sourcing to production and fulfillment, it provides clear visibility across the business, helping automate and manage the business processes needed to win today. Infor ERP LN makes it possible to:

- Compete globally by supporting multiple locations, multiple partners, and complex supply chains.
- Achieve optimum lean manufacturing processes.
- Improve quality management and compliance.
- Deliver orders on time, every time.
- Increase production accuracy and manage by exception.
- Adapt to rapidly changing business conditions.

[1] Based on calculations done through HP's internal ROI calculators using latest SPECpower estimates.

[2] From "Microsoft SQL Server TCO Study for SAP ERP Customers" White Paper February 2009

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