

pureScale Transcript

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NARRATOR (0:03)

Over the past 10 years, the world has undergone unprecedented changes and experienced extraordinary challenges. But difficult challenges create opportunity for innovation, and once again IBM is leading the way; taking x86 computing to an entirely new level -- because a smarter planet demands smarter systems.

BRIAN SANDERS (0:26)

IBM is leading the way in helping you achieve faster time-to-value with a fully integrated set of solutions that combine workload-optimized hardware, software and services.

These solutions can help you lower IT costs by choosing a single system that is pre-optimized, has one price, and can be deployed in days, not months. At the same time, IBM experts can help you leverage the deep integration and optimization of servers, storage, and software to achieve faster performance.

All of which leads to the ability to make better, faster decisions by extracting new insights from your data, minimize risks through a single point of service and support, and lower cost while improving performance leveraging IBM System x servers.

One such solution is IBM pureScale, designed for organizations that run online transaction processing applications on distributed systems.

IBM DB2 pureScale offers clustering technology that helps deliver high availability and exceptional scalability transparent to applications.

The IBM pureScale solution is the most complete integrated, optimized, ready-to-use, high-availability solution built on a foundation of IBM hardware, software and storage offerings.

NARRATOR (1:56)

IBM DB2 pureScale, and System x, powered by Intel Xeon processors, team up to provide extremely scalable database software on high-performance, highly available hardware. This means IBM clients can dramatically increase their database transaction capacity while reducing the risk and cost of growing their IT systems.

They can do this, because of three main features:

Horizontal scalability: This provides virtually unlimited database transaction capacity by easily adding new nodes to the cluster.

Application transparency: So you never need to change codes.

Continuous data availability: If a server fails, the system won't.

Other features include the self-tuning memory manager in DB2. It automatically leverages the unprecedented amount of cost-effective, dense memory in the IBM MAX5 Memory Expansion Module for System x. This means higher performance at lower cost for memory-hungry databases.

eXFlash, another innovation of System x eX5, combines solid-state disk technology with a high-speed controller architecture. This brings far greater performance at lower cost for I/O-intensive databases. DB2's industry-leading autonomies and cost-based optimizer automatically adapt to get the most performance boost from eXFlash, with 10x or more improvement possible.

How does DB2 pureScale on System x work?

Database users see one database instance. But they are connected to one of many System x nodes running the DB2 engine and cluster services. A high-speed network connects these member nodes to the shared database storage using the Cluster Caching Facility. This provides efficient global locking and buffer management, while synchronous connections to primary and secondary Cluster Caching Facilities provide high availability.

If any component in the system fails, it's isolated and the database transactions are rerouted using load balancing to active nodes. Any transactions in flight are held in transaction logs accessible to the active nodes. When the failing component is restored, the system places it back online, rebalances the workload, and reverts to full operation. All this is transparent to users.

SCOTT PARTINGTON (4:34)

The IBM DS3000 and 5000 storage systems selected for the pureScale deployments are matched with the latest System x servers to deliver the performance, scalability and high availability required at a very competitive price-point. These storage systems are designed to insure maximum system uptime and utilization through redundant and controller implementation and online capacity volume expansion and RAID-level migration that is transparent to system applications.

Simply put, the IBM DS3000 and 5000 storage systems adapt to customer business requirements quickly and easily with performance and capacity to spare in a low-risk design.

BOB ZUBER (5:26)

eX5 is the new family of scalable x86-based systems from IBM.

Combining the fifth generation of IBM X-Architecture technology with the latest Intel Xeon 7500 Series processors, eX5 delivers a level of innovation that gives your business new ways to get the job done with greater speed and efficiency, lower cost of acquisition and ownership, and faster time to return on investment.

eX5 is more than just new servers. It's new thinking to help solve the business challenges of today and tomorrow.

Today's businesses need systems that can:

- Start out small, then grow when your needs change.
- Offer maximum performance and capacity.

- Flexible repurposing.
- Conserve energy.
- Simple to administer.
- Highly reliable.

A few years ago, all of this would have been impossible in an x86-based system. But today, IBM offers all of this and more with our new eX5 family of scalable servers.

RAECHEL FRICK (6:20)

The Intel Xeon processor 7500 Series, built with next-generation Intel Micro-architecture, pushes the limits of scalable performance, giving you up to 3x better performance than previous generations.

Intel Xeon processor 7500 Series-based servers, like the IBM 3850 X5 system, combine intelligent, scalable performance that automatically adapts to the diverse needs of your environment with advanced reliability and world-record-breaking performance.

The latest Intel processor features up to eight cores supporting 16 processing threads, 24MB of cache per processor, and four advanced, high-bandwidth interconnect links that allow multiple processors to be directly connected to each other.

With four times the four-socket memory capacity, and up to eight times the memory bandwidth of prior generations, Intel's 7500 series is uniquely architected for data-demanding applications such as business intelligence.

This lets you deploy increasingly powerful business tools to track your marketplace and identify previously hidden opportunities.

Built to handle your most processor-intensive, business-critical workloads, Intel's Xeon 7500 Series processor and IBM X5 servers deliver everything you need to maintain data integrity, minimize downtime and maximize productivity.

BRIAN SANDERS (7:38)

IBM DB2 pureScale offers clustering technology that helps deliver high availability with exceptional scalability for organizations that run online transaction processing applications on distributed systems. The availability of DB2 pureScale on System x builds on the flexibility of our platform support, strengthening IBM's portfolio of smarter systems.

DB2 pureScale on System x leverages the outstanding benefit of IBM X-Architecture.