Lenovo Database Configuration for MongoDB Enterprise

Scale-up performance and consolidation with high reliability

Configuration Highlights

- Provides businesses with a highly scalable solution optimized for maximum MongoDB NoSQL database performance
- Includes the mission-critical Lenovo System x3850 X6 rack servers
- Maximizes application uptime by balancing and duplicating the load across multiple servers to keep the systems up and running

With the exponential growth of data from numerous sources, new tools and technologies are needed to gather, analyze, visualize, and extract powerful insights. In addition to traditional structured data optimized for relational database management systems, these new sources of data are typically unstructured or semi-structured. This means that schemas to harness actionable information must be flexible and designed for scale-out and scale-up implementations.

The NoSQL database movement quickly arose to address these new challenges. MongoDB has become the most popular NoSQL database. MongoDB is a next-generation NoSQL database that helps businesses transform their industries by rapidly harnessing the power of data.

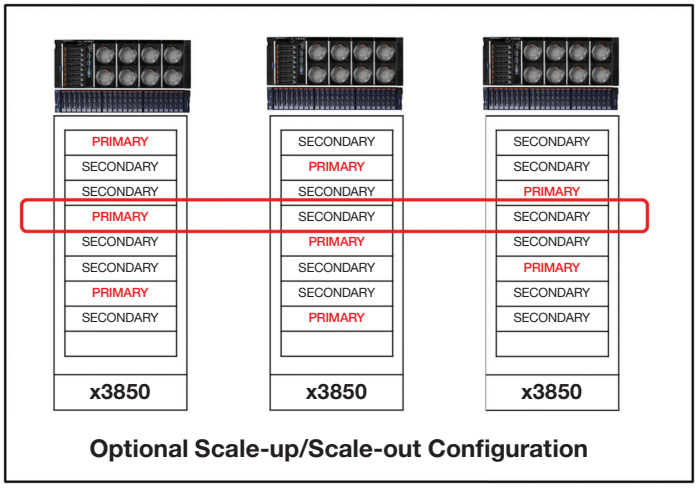
The Lenovo Database Configuration for MongoDB Enterprise combines the MongoDB software with the Lenovo System x3850 X6 for a novel scale-up approach. The configuration leverages built-in hardware platform capabilities, such as support for up to 4 Intel® Xeon® E7 v3 series processors, 6 TB of high-speed/low voltage TruDDR4 memory, and 11 PCIe 3.0 slots. In addition, scalability and advanced enterprise RAS characteristics enable consolidation of MongoDB workloads onto fewer servers, thus reducing TCO and increasing performance.

The x3850 X6 uses an innovative “book” design to scale up the server. Adding resources is as easy as adding (or swapping) books. If you need more memory and processors, add another Compute Book. For more PCIe slots, add another I/O Book. Or move a book to another compatible server.

When the Lenovo equipment in this configuration is coupled with the advanced features of MongoDB, the result is outstanding system performance, availability and dependability. By integrating these technologies into a cohesive configuration, the Lenovo Configuration for MongoDB helps you produce results faster, while reducing downtime. After all, it doesn’t matter how fast a server is—if it’s offline.

Configuration Values

- Dense packaging of CPUs, memory, and storage enables a powerful platform for running multiple compartmentalized MongoDB instances with no performance or scalability penalties.
- Reduce costs and remove the complexity of managing multiple physical servers and switches, and reduce your data center footprint.
- Create a highly available scale-out MongoDB setup by "striping" MongoDB instances across multiple x3850 X6 servers, distributing large databases across the servers



MongoDB deployed with Lenovo x3850 X6 server supports the Striping approach to database resiliency

Why Lenovo

Lenovo is the leading provider of x86 systems for the data center. The portfolio includes rack, tower, blade, dense and converged systems, and supports enterprise class performance, reliability and security. Lenovo also offers a full range of networking, storage, software and solutions, and comprehensive services supporting business needs throughout the IT lifecycle.

For more information

To learn more about the Lenovo Database Configuration for MongoDB Enterprise, contact your Lenovo Business Partner or visit **lenovo.com**/solutions

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