

eXtremeDB® Cluster

Distributes processing across multiple nodes to improve speed, scalability and reliability.



The first clustering DBMS designed for embedded software as well as high performance desktop, workstation and server-based applications.

eXtremeDB, the embedded database management system for devices that are eXtremely innovative.

Overview

eXtremeDB Cluster is one leg of eXtremeDB's distributed database system triad, with High Availability and Sharding. Cluster manages databases across multiple hardware nodes, enabling two or more servers to share the workload. As the first clustering database solution designed for embedded systems and enterprise applications, eXtremeDB Cluster delivers a cost-effective and powerful distributed database for systems including carrier grade telecom/networking equipment, capital markets applications, Web services and hosted Software-as-a-Service (SaaS) platforms.

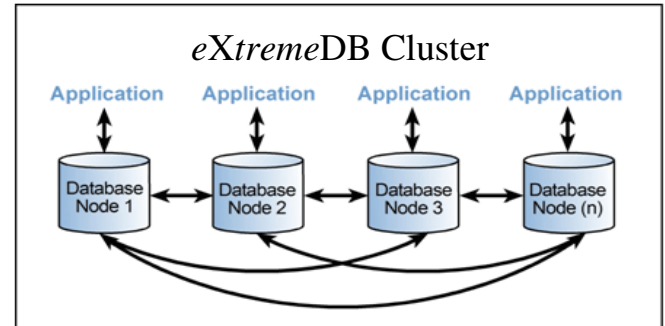
eXtremeDB Cluster increases available net processing power, reduces system expansion costs, and improves scalability and reliability. In McObject's benchmarks, eXtremeDB Cluster delivered an astonishing 161% throughput improvement when scaling to four nodes from one node.

In an eXtremeDB Cluster deployment, every database instance serves as a "master." Any process on any node can update its local database, and the eXtremeDB Cluster software replicates the changes to other nodes. This more evenly balances the workload, compared to High Availability solutions consisting of a single master database and one or more read-only replicas.

Lower Complexity Clustering Solution

Ask developers and IT managers about their clustering solutions' biggest drawback, and they'll likely say "complexity." Clustering technology based on relational database management systems (RDBMSs) can entail separate sets of nodes for clients, database servers and SQL processing, as well as dedicated server and client modules to address system management tasks. Assembling all these pieces to work seamlessly together often requires extensive consulting engagements.

In contrast, McObject's streamlined architecture integrates these functions on the nodes where eXtremeDB Cluster resides, making for a greatly simplified deployment. Designed to operate in field-based systems, eXtremeDB Cluster operates without the "care and feeding" of specialists such as the armies of RDBMS database administrators (DBAs) found in many companies. This elimination of setup and operational expenses contributes to eXtremeDB Cluster's very attractive total cost-of-ownership (TCO).



eXtremeDB's in-process (rather than client/server) database architecture integrates the DBMS within the application process, resulting in lower complexity.

Cost-Effective & Reliable

The hardware for each eXtremeDB Cluster node can be a low-cost (i.e., "commodity") server, so that the system expands cost-effectively. Multiple platforms are supported within a single cluster.

Distributing the system across multiple hosts ensures continuous availability in the event of a failure on one node. eXtremeDB Cluster's "shared nothing" architecture eliminates reliance on a shared SAN or other storage resource. eXtremeDB Cluster supports the same ACID transactions offered by the non-clustering eXtremeDB editions, making it an attractive choice for applications that demand consistency of distributed data (in contrast to 'eventual consistency' approaches).

Proven Building Blocks

McObject developed its clustering solution on a proven foundation of eXtremeDB technology:

- **In-Memory Database System** - eXtremeDB's core in-memory design cuts I/O, caching and other overhead inherent in disk-based DBMSs, while fully supporting persistence when necessary.
- **Hybrid storage** - eXtremeDB also enables persistent (HDD/SSD-based) storage for selected record types using a simple database schema notation.
- **Multi-Version Concurrency Control (MVCC)** - eliminates database locking to boost scalability and speed.

McObject LLC

33309 1st Way South
Suite A-208
Federal Way, WA 98003

Phone:+1 425 888 8505
info@mcobject.com
www.mcobject.com