

Build Real Time Applications using CSQL Main Memory DBMS

CSQL Main Memory Database Management system is a relational database management, which stores the database in memory using lock free data structures. It provides highly concurrent access through standard SQL interfaces to retrieve and manipulate the data with unprecedented high throughput and response times.

Why CSQL?

Software applications that deal with real time data requires faster response times and high throughput, were limiting themselves to generic databases leaving incredible business benefits. With the speed of business increasing, and the volume of information that enterprises must process growing as well, businesses in many industry domains transition to real time data management in order to stay competitive.

CSQL, by its inherent memory architecture manages database in memory, data structures and access algorithms are optimized for memory access to attain maximum efficiency, achieving dramatic gains in responsiveness and throughput, even compared to a fully cached disk resident database.

CSQL Benefits

Performance

CSQL delivers 20-30 times faster response time compared to disk resident databases with minimal standard deviation. It delivers high throughput of 50K to 100K transactions per second.

Scalability

CSQL internally uses lock free data structures and algorithms to store and retrieve data and thereby leverages multi core and processor architecture machines to the fullest possible extent by reducing lock contentions.

Quick Facts

20-30X faster than disk based DBMS
Full ACID support
Highly Concurrent: Lock free structures
Standard Support: JDBC, ODBC, SQL
High availability: Replication
No Application Migration: Cache

Ease of Use

CSQL comes with preinstalled package (2 MB size) which follows download, extract and use strategy.

Through its standard interface support such as ODBC and JDBC, reduces the learning curve for developers to use CSQL in their applications. It requires no DBA and completely eliminates performance tuning.

It provides a transparent pass through mechanism in case the application wish to use existing database for normal queries and use CSQL only for frequently accessed queries. Refer CSQL Cache Datasheet for more information.

High Availability

Provides standard active – standby data replication for fail over mechanism as well as update anywhere clusters with synchronous and asynchronous update propagation between CSQL nodes in the cluster for load balancing database access. Refer CSQL Replication data sheet for more information.



CSQL MMDB Data sheet



Feature Summary

Full ACID Support

Atomicity
Consistency
Isolation
Durability

Highly Concurrent

Row Level Locking
Lock free index structures
Leverages multi core & multiprocessor

Indexes

Hash Index for faster point lookup
Tree Index for faster range lookup

Recovery

Automatic – uses checkpoint & redo log
Archive/Restore
Fault Tolerant

Isolation Level Support

Read uncommitted
Read committed
Read repeatable

Constraints

Primary Key
Unique
Not Null

Data Type support

All primitive types, String, Binary
Date, Time and Timestamp

Connection Mode

Embedded and Client/Server

Standard Compliance

SQL 92 Entry Level
ODBC Level 2
JDBC 2.0

Supported platforms

Linux - x86

Typical Real Time Applications

Pre Paid Billing
Fraud management
Finance
Retail
HealthCare
Airline
High traffic web portals

Business Value

Improves ROI by providing business applications process 1 million transaction in less than half a minute.

Cope up with increase in customers without compromising quality of service

Reduces the network bandwidth and load on back end systems

No additional H/W to handle more load or more customers

For any sales queries

<mailto:sales@csqldb.com>



For more information, visit Product web site at <http://www.csqldb.com>
Company web site at <http://www.lakshyasolutions.com>

LAKSHYA Solutions Limited, 1st Floor, #73&74 Margosa Road, ABMGP Building, 17th Cross, Malleshwaram, Bangalore – 560055, Karnataka, India. Call - +91.80.4149.0561

Copyright @ LAKSHYA 2008

The information being shared in this document is purely for technical and / or product reference. This document and any information enclosed within this document contains restricted and / or limited information and you must not disseminate, modify, copy/plagiarize or take any action in reliance upon it, unless permitted to by Lakshya Solutions Limited. None of the material in the document can be reproduced in any form.