



# MySQL Enterprise Server 5.0

*The World's Most Popular Open Source Database*

*"MySQL's cross-platform flexibility and cost-effective licensing make it easier, less expensive, and more reliable to design and distribute our product. It has been the ideal database for embedding into our LeapTrack system."*

**Glen Hamilton**

Senior Director of Engineering  
LeapFrog SchoolHouse

*"MySQL is easy to use, reliable, and has stood the test of time. Plus, the performance of MySQL is unmatched. MySQL is making a lot of my customers very happy right now!"*

**Michael Patterson**

President  
Somix Technologies

## Enterprise Grade Database

MySQL Enterprise Server 5.0 is the most reliable, secure and up-to-date version of the world's most popular open source database. It gives corporate developers, DBAs and ISVs an array of new enterprise features to make them more productive developing, deploying, and managing industrial strength applications. MySQL Enterprise Server 5.0 delivers new enterprise features, including:

- **ACID Transactions** to build reliable and secure business-critical applications
- **Stored Procedures** to improve developer productivity
- **Triggers** to enforce complex business rules at the database level
- **Views** to ensure sensitive information is not compromised
- **Information Schema** to provide easy access to metadata
- **Distributed Transactions (XA)** to support complex transactions across multiple databases in heterogeneous environments

MySQL combines enterprise grade reliability and performance with advanced SQL 2003 features, making it the most cost-effective database solution for your business critical applications.

## NEW FEATURES

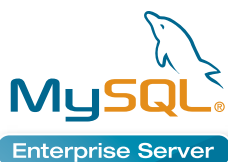
- **Stored Procedures**
- **Triggers**
- **Views**
- **Cursors**
- **Information Schema**
- **XA Distributed Transactions**
- **Faster Performance**

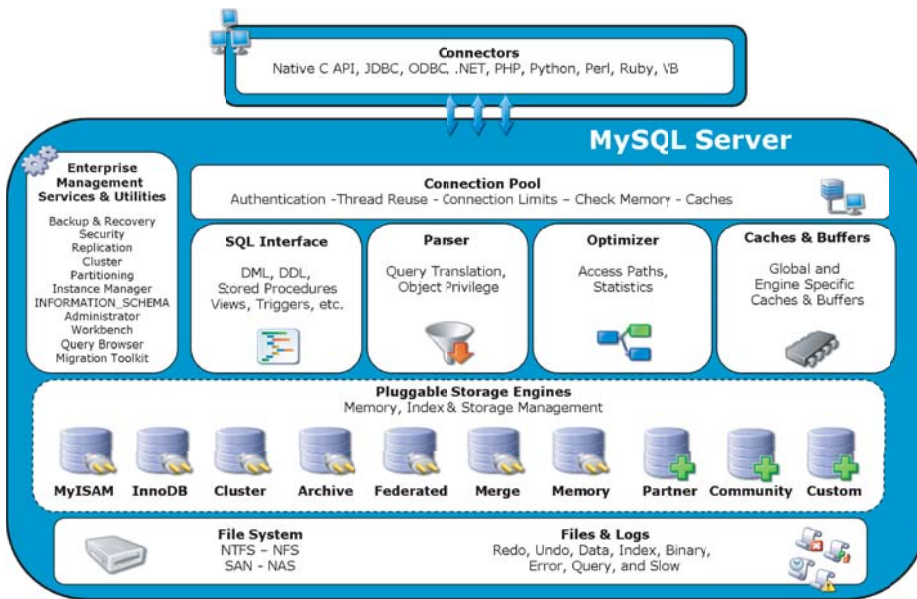
## Reliability

MySQL is consistently recognized for its high quality and reliability. Leading organizations such as Sabre, Yahoo!, Lufthansa and Cisco depend on MySQL to run their embedded, e-commerce, Web and data warehousing applications. Plus, independent code quality inspection tests from Coverity, Klocwork, and Reasoning have shown that MySQL's open source approach results in code quality that is up to **6x better** than proprietary software.

## Security

MySQL delivers product reliability and security your company can depend on. Powerful user authentication and authorization, as well as SSH and SSL support ensure you can protect your data assets.





MySQL's Pluggable Storage Engine Architecture

### Pluggable Storage Engine Architecture

MySQL's unique Pluggable Storage Engine Architecture gives you the flexibility to optimize MySQL for your specific needs. MySQL provides storage engines that are ideally suited for heavy-duty transaction processing, high-traffic web sites, terabyte-sized data warehouses, and high availability applications. And because MySQL is open source, users can create custom storage engines to handle their unique requirements.

### Robust Transaction Support

MySQL offers one of the most powerful transactional database engines on the market. It provides complete ACID (atomic, consistent, isolated, durable) transaction support, with commit, rollback, crash recovery, and row-level locking. It also supports high concurrency and multi-version consistent read support. Full data integrity is also assured through server-enforced referential integrity.

### High Performance & Scalability

According to independent benchmarks, MySQL is a recognized leader in both pure performance and price/performance tests. Query caching delivers significant performance benefits. Flexible replication enables you to cost-effectively scale-out your database environment to increase both speed and scalability by easily adding more MySQL servers on low-cost commodity hardware.

### Ease of Use & Administration

MySQL's ease of installation, deployment, and administration is unmatched. You can install and get MySQL up and running in less than 15 minutes, enabling you to deliver applications much faster than with other databases. In addition, MySQL requires little or no administration which significantly reduces the time and cost of maintaining your database infrastructure.

### Cost-Effective

MySQL allows you to significantly reduce your database Total Cost of Ownership (TCO). On average, companies using MySQL are experiencing per-project savings of between \$250,000 and \$500,000. Larger enterprise deployments, are yielding savings in the millions of dollars. MySQL reduces database TCO by:

- Reducing licensing costs by over 90%
- Cutting system downtime by 60%
- Lowering hardware expenditure by 70%
- Reducing administration, engineering and support cost by up to 50%

For example, Sabre/Travelocity has saved over \$10 million using MySQL.

### Ideally Suited for OEMs & ISVs

MySQL is used by leading Original Equipment Manufacturers (OEMs), Independent Software Vendors (ISVs) and Value Added Resellers (VARs), making it the most popular choice for those who want to cost-effectively embed or bundle a reliable, high-performance, and low administration relational database. Some of these leading technology companies that embed MySQL include Adobe, Cisco, Motorola, NEC, Nortel, NetIQ, SAP, SAS, Siemens, Sony and Symantec.

### Backed by MySQL Services & Support

MySQL provides a comprehensive set of enterprise-grade software, support and services directly from the developers of MySQL to ensure the highest levels of reliability, security and uptime.

Learn More About MySQL 5.0 Today! Visit [www.mysql.com](http://www.mysql.com)

# MySQL Enterprise Server 5.0: Technical Specifications

## Flexible Architecture

- Open Source
- Multi-threaded
- Pluggable Storage-Engine Architecture
  - MyISAM
  - InnoDB
  - Merge
  - Memory
  - Archive
  - Cluster

## ANSI SQL Standards

- ANSI SQL
- SubQueries, Joins, Cursors
- Prepared Statements
- Views
- Triggers
- Stored Procedures
- User-Defined Functions
- Information Schema
- Unicode
- Referential Integrity
- Server-enforced Data Integrity
- Strong Data type Support (e.g. Numeric, VARCHAR, BLOB, etc.)
- Optimized Datatype Support (e.g. Tinyint, Smallint, Mediumint, Bigint, etc.)

## Replication, Cluster & High-Availability

- Built-in Replication Engine
  - Master/Slave
  - Dual Master
  - Replication Ring
  - Replication Tree
- Proven Load Balancing
- Distributed Autolncrement
- Main Memory Cluster Engine with instant failover (available separately)

## Backup

- Auto-Restart/Recovery
- Backup and Point-in-Time Recovery
- Logical Online Hot-Backup
- Physical Online Hot-Backup (available separately)

## Storage Management

- Hassle-Free Storage Administration
- Automatic Space Expansion
- Built-in Space Reclamation
- Auto Undo/Rollback Management
- Customizable Storage Assignments
- Compressed and Archive Tables
- Packed Index Storage
- Works with NAS or SAN storage

## OLTP and Transactions

- ACID Transactions
- Commit, Rollback
- Foreign Keys, Referential Integrity
- Row-level Locking
- Customizable Lock Isolation Levels
- Distributed Transactions (XA)
- Snapshot Repeatable Reads (readers don't block writers and vice-versa)
- Timed Deadlock Detection

## Web Application optimized features

- Server-side Thread Pool
- Connection Thread Caching
- Query Results Caching
- Load Balancing
- Prepared Statements
- Full Text Search
- Multiple Character Sets
- Geospatial Support
- Multi-Terabyte Scalability

## Data Warehouse optimized features

- Fast Data Load Utility
- High-Speed Multi-Insert Function
- GROUP BY WITH ROLLUP
- Aggregate UDF
- Analytic SQL Functions
- Geospatial Support
- Archive Storage Engine for historical data
- Multi-Terabyte Scalability

## Security

- SSL Support
- Built-in Data Encryption/Decryption
- Granular External Security Control
- Fine Grained Object Privileges
- View Support
- Triggers for auditing
- Query Logs for auditing
- Archive Storage Engine for auditing

## Fully backed by MySQL Network

- Certified Testing
- Indemnification
- 24x7 Production Support
- Online Knowledge Base
- Customized Advisors
- Targeted Alerts



## High-Performance

- Dynamic Memory Caches
- Unique Query Cache
- Multiple Index Type Support (B-tree, R-tree, Hash, etc.)
- Cost-based Optimizer
- High-speed Query Optimizer
- Diagnostics and SQL Tracing

## Manageability and Ease of Use

- Easy Install and Setup (under 15 minutes for all supported platforms)
- Dynamic Configuration Changes
- Information Schema

## Graphical Tools

- MySQL Workbench
- MySQL Query Browser
- MySQL Administrator
- MySQL Migration Toolkit

## Drivers

- MySQL Native C Library
- MySQL Drivers for ODBC, JDBC, .Net
- Community Drivers for PHP, Perl, Python, Ruby, etc
- MySQL Connector/MXJ for deployment as a JMX MBean

## Platforms

- 32 and 64 bit native binaries
- Operating Systems
  - Linux: RedHat, SuSE, Fedora, Debian
  - Unix: Solaris, HP-UX, AIX, SCO
  - BSD: FreeBSD
  - Apple: Mac OS
  - Windows: 2000, 2003, XP
  - Novell: NetWare
- CPUs
  - Intel x86, IA32, IA64
  - AMD Opteron
  - IBM PowerPC
  - Sun SPARC
- Additional platforms available

### Partial List of MySQL Enterprise Customers

Alcatel	Lucent
Amazon.com	Lufthansa
The Associated Press	NASA
Bank of America	Nortel
Caterpillar	NYSE
Continental Airlines	Sabre Holdings
DaimlerChrysler	Siemens
Deutsche Post	Southwest Airlines
Dow Jones	Time Inc.
Disney	UPS
Ericsson	US Army
Google	US Dept. of Defense
HypoVereinsbank	US Navy
Lockheed Martin	Wells Fargo
Los Alamos National Labs	Yahoo!

### Partial List of MySQL Partners

Actuate	Novell
Alfresco	Pentaho
Business Objects	Quest
Computer Associates	Rackspace
Dell	Redhat
Embarcadero	SAP
GoldenGate	SugarCRM
HP	Sun
Intel	Veritas
JasperSoft	Zend
JBoss	Zimbra

### Partial List of MySQL ISV/OEM Customers

Adobe	NEC
Agilent	NetIQ
BMC Software	NetQoS
Cisco	SAS
Hyperion	Suzuki
LeapFrog SchoolHouse	Symantec
Motorola	Verisign

### About MySQL

MySQL AB develops and supports a family of high performance, affordable database products. The company's flagship offering is MySQL Enterprise, a comprehensive set of production-tested software, proactive monitoring tools, and premium support services.

MySQL is the world's most popular open source database software, with over 10 million active installations. Many of the world's largest and fastest-growing organizations use MySQL to save time and money powering their high-volume Web sites, business-critical systems and packaged software — including industry leaders such as Yahoo!, Alcatel, The Associated Press, Suzuki and NASA.

With headquarters in the United States and Sweden — and operations around the world — MySQL AB supports both open source values and corporate customers' needs in a profitable, sustainable business. For more information about MySQL, please visit [www.mysql.com](http://www.mysql.com).

## MySQL Sales and Support

**USA Toll Free** 1-866-697-7522  
**Worldwide** +1-208-514-4780

## MySQL Worldwide Offices

**North America Headquarters**  
 Cupertino City Center Building  
 20450 Stevens Creek Blvd.  
 Suite 350  
 Cupertino, CA 95014  
 +1-408-213-6600

**Worldwide Headquarters**  
 Bangårdsgatan 8  
 S-753 20 Uppsala  
 Sweden  
 +46-730-234-111 Sales

**United Kingdom**  
 +44 (0)845 399 1124

**Ireland**  
 +353-1-6177878

**Spain, Portugal, Latin America**  
 +1-425-373-3434

**France**  
 +33-(0)1-43-077-099

**Seattle**  
 2510 Fairview Avenue East  
 Seattle, WA 98102 USA  
 +1-206-336-2030

**Finland**  
 +358 9 852 1421

**Germany, Austria, Switzerland**  
 +49 (0)89/724 99-150



The World's Most Popular Open Source Database