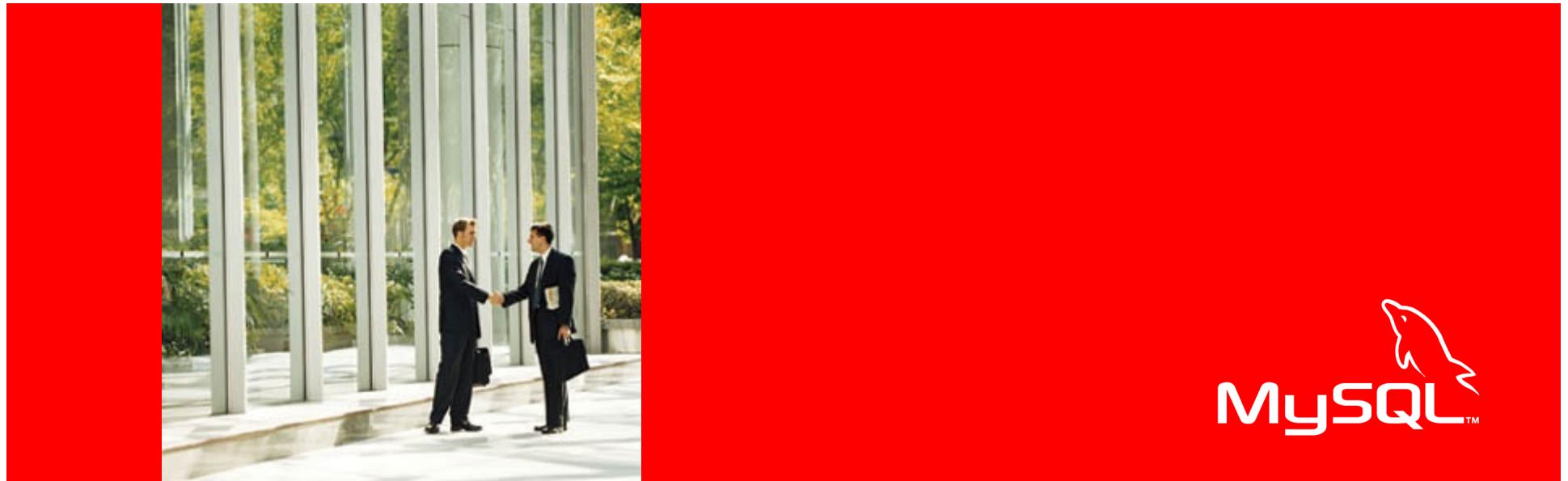


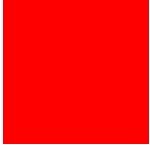
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## MySQL之自由斗士 - 涅槃重生的海豚

Scott Chen 陈少川  
Great China Regional Sales Manager  
MySQL Global Business Unit  
+86-13911785595  
[scott.chen@oracle.com](mailto:scott.chen@oracle.com)



The preceding is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.





## 日程

- Oracle 的开源政策
- MySQL 市场策略报告
- Community version 协议对 MySQL Embedded ISV 的重要性与合法性
- MySQL 5.5 简介
- MySQL Enterprise Monitor (MEM) 简介
- MySQL Enterprise Backup (MEB) 简介
- MySQL Workbench 简介
- MySQL for Windows
- MySQL Cluster 7.1 简介
- Integration : Oracle DB + MySQL DB





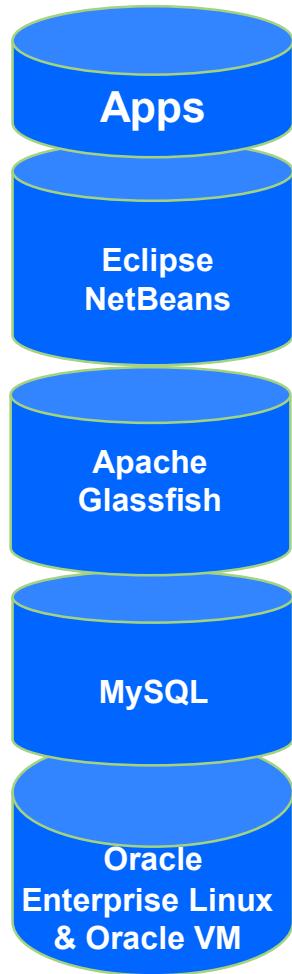
# Oracle 的开源政策

Making MySQL Better Today

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# Industry's Most Complete LAMP Stack

业界最完整的 LAMP 架构



- PHP, Perl, Python, Ruby, Java, C, C++
- Apache, Glassfish
- MySQL Database
- Oracle VM (Xen-based)
- Oracle Enterprise Linux

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## Investment in MySQL ; 对MySQL的投资

- **Make MySQL a Better MySQL**  
《让MySQL成为更好的MySQL》
  - #1 Open Source Database for Web Applications  
《网路应用中第一名的开源数据库》
- **Develop, Promote and Support MySQL**  
持续于MySQL的开发，发扬与支持
  - Improve engineering, consulting and support  
提升工程，顾问及支持
  - Leverage 24x7, World-Class Oracle Support  
结合 Oracle 世界级的24X7的支持服务
- **MySQL Community Edition**  
MySQL 开源版本
  - Source and binary releases 开放源代码
  - GPL license 符合GPL授权的要求



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# MySQL Product Releases

## Continuous Innovation

- MySQL Database 5.5
- MySQL Enterprise Backup 3.5
- MySQL Enterprise Monitor 2.3
- MySQL Cluster Manager 1.1

All GA now!

MySQL Workbench 5.2

GA

MySQL Enterprise Monitor 2.2

GA

MySQL Cluster 7.1

GA

MySQL Cluster Manager 1.0

GA

*A Better MySQL*

Q1 CY2010

Q2 CY2010

Q3 CY2010

Q4 CY2010

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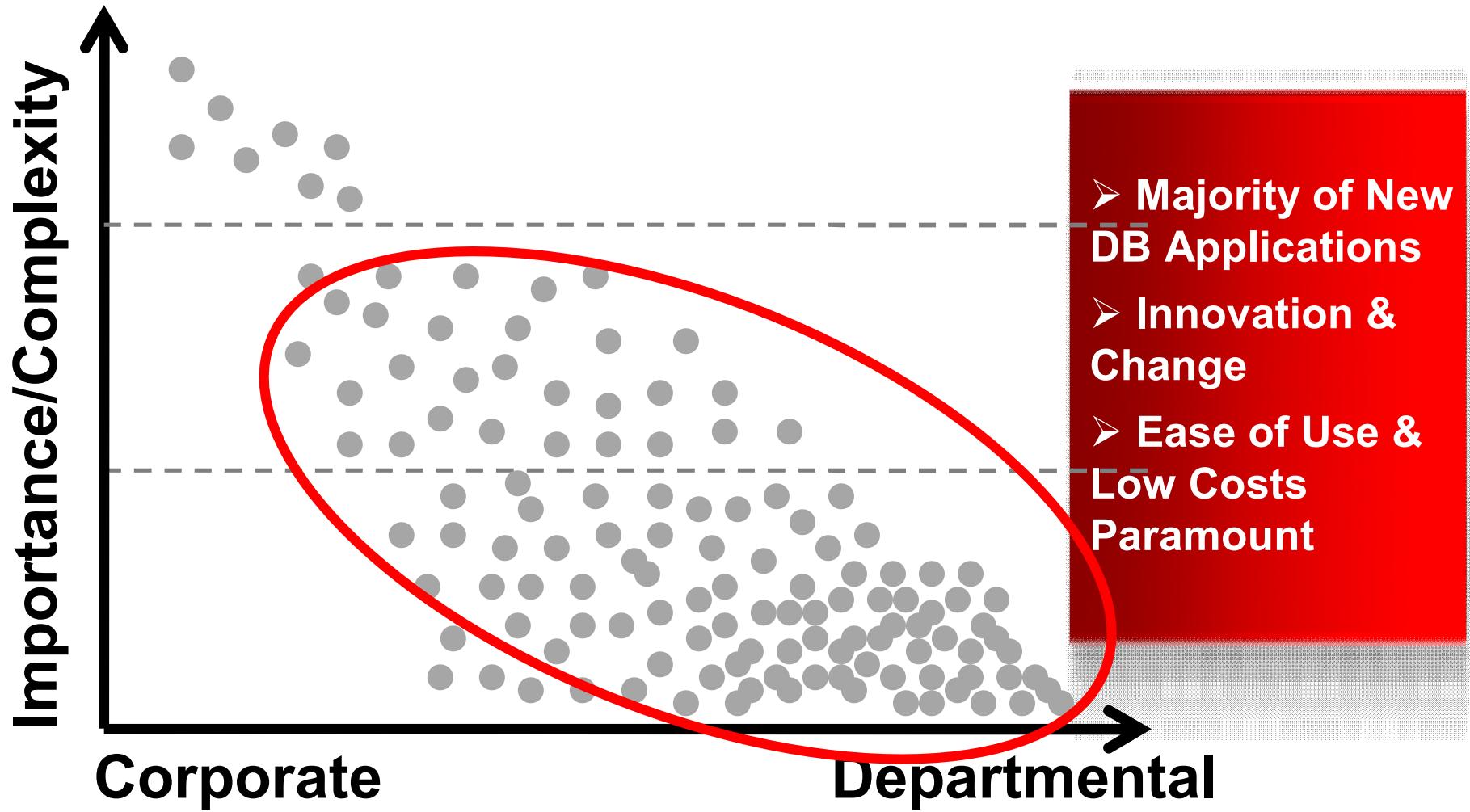


# Oracle 的数据库政策

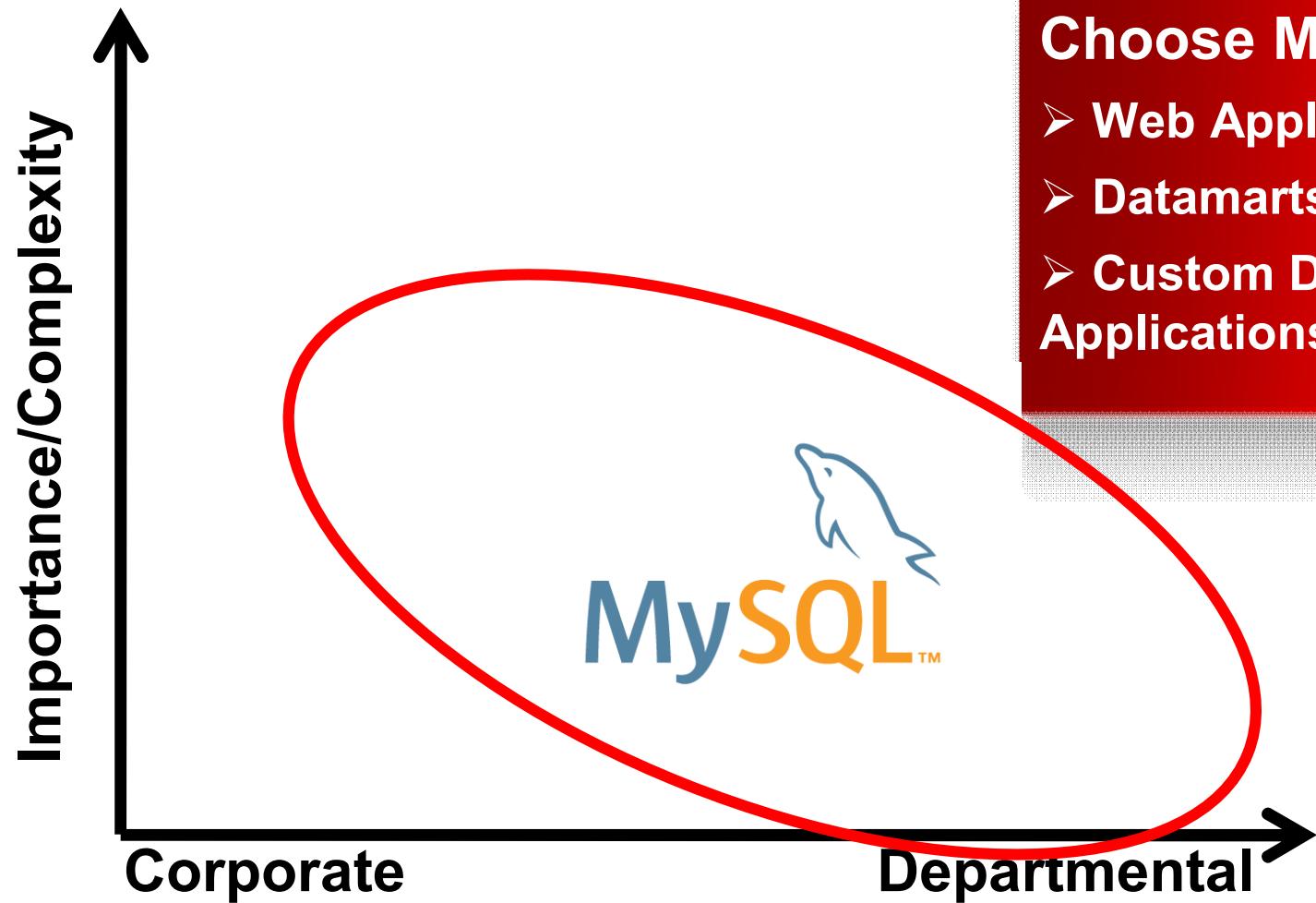
## Integration for Oracle DB and MySQL DB

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# Enterprise Databases Applications



# Enterprise Databases Applications



**Choose MySQL For:**

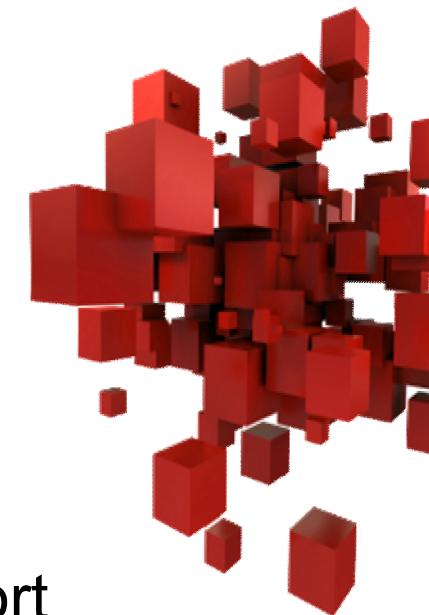
- Web Applications
- Datamarts & Analytics
- Custom Departmental Applications

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# Oracle + MySQL Customers

## Product Integrations in Progress

- Oracle GoldenGate (MySQL Capture is now GA!)
- Oracle Enterprise Linux + Oracle VM
- Oracle Fusion Middleware Certifications
- Oracle Secure Backup
- Oracle Audit Vault
- Oracle Enterprise Manager



## Support

- Leverage 24x7, World-Class Oracle Support
- My Oracle Support



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# MySQL 市场报告



Making MySQL Better Today

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# Thank You – MySQL Customers 感谢您，MySQL的客户们



eBay flickr

Zillow.com™  
Beta  
Your Edge in Real Estate

travelocity



mixi

Web

facebook

YouTube

YAHOO!

sage

ingenico

Check Point  
SOFTWARE TECHNOLOGIES LTD.

TRIPWIRE

SafeNet

OEM / ISV's

Adobe

NetQoS.  
Performance Experts

SurfControl®



F-SECURE®

RIGHT  
NOW  
TECHNOLOGIES

SaaS, Hosting

comcast.

Alcatel-Lucent



ERICSSON

Telecommunications

Associated Press

SHINSEI BANK

Enterprise 2.0

MySQL is Powering the Web

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# Major Customer in GCR 感谢您，这一年大中华区的客户们



**HKMEx®**  
Hong Kong Mercantile Exchange  
香港商品交易所



HUAWEI



中央銀行全球資訊網  
Central Bank of the Republic of China (Taiwan)

**F** 富邦金控



國泰綜合證券  
Cathay Securities Corporation



**PCCW®**  
電訊盈科

**Jobkoo.com**  
Find the next job easier

**中国移动通信 CHINA MOBILE**  
移 动 信 息 专 家



國家圖書館・臺灣廣域數位圖書館  
National Central Library Taiwan Digital Meta-Library



THE HONG KONG  
POLYTECHNIC UNIVERSITY  
香港理工大學

**CPCNet**



Jardine OneSolution | Hong Kong



**BCT 銀聯信託**  
專注·專才·專業



**Fetion**

**FUJI XEROX**



財團法人羅許基金會羅東博愛醫院  
Lo-Hsu Foundation, Inc., Lotung Poh-Ai Hospital



Hong Kong 香港科技園  
Science & Technology Parks



China unicom 中国联通

山东省分公司

**ACTION TECHNOLOGY**



中華電信

**FAREASTONE**  
芯傳

**A+** 亞太電信  
Asia Pacific Telecom



**FRIEDMAN COMPUTER SOLUTIONS**  
One Source IT Solutions Provider

**CHINA TELECOM** 中国电信  
中国 电信 股份有限公司 甘肃 分公司  
China Telecom Corporation Limited Gansu Subsidiary



清华大学  
Tsinghua University

**CHIMEI**  
世界級的液晶專家



**Ardentec** 欣銓科技

**ORACLE®**

# 支持第三方产品的标准应用

Apps	eShop & Commerce	Content Management	Session Management	User Directory	Blogs & Forums	Search Engines
Tools	Administration	 QUEST SOFTWARE	 Embarcadero Technologies	 ALPHA SOFTWARE	<b>GOLDENGATE™</b>	
	Transactional Replication					
	Application Development					
	Business Intelligence					
Platforms	Database					
	App - Web Servers & Load Balancers					
	Storage					
	Operating System					
	Hardware					

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# MySQL + GPLv2

Making MySQL Better Today

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# MySQL “开源” 版本与 “商业” 版本的差异

开源	商业
<ul style="list-style-type: none"><li>• MySQL Community Server 开源版</li><li>• MySQL Cluster (Community Edition)</li><li>• MySQL GUI Tools</li><li>• MySQL Connectors (JDBC, ODBC, etc)</li><li>• Documents, Reference Manuals</li><li>• Forums</li></ul>	<ul style="list-style-type: none"><li>• MySQL Enterprise 企业版<ul style="list-style-type: none"><li>• MySQL Enterprise Unlimited</li></ul></li><li>• MySQL Embedded Server (OEM)</li><li>• MySQL Cluster 企业版<ul style="list-style-type: none"><li>• Standard Edition</li><li>• Carrier Grade Edition</li></ul></li><li>• Training Classes (By OU)</li><li>• Professional Services</li></ul>

- 开源版本提供服务器的所有功能
  - 商业版本的服务器都包含企业管理工具与技术支持
- 开源版本都是基于 GPLv2 的软件授权

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# 开源免费及商业付费产品的区别

Spend time to save money or Spend money to save time?	MySQL™ COMMUNITY SERVER	MySQL® Enterprise
Open Source	✓	✓
Benefits from testing by worldwide Community	✓	✓
Extensive internal/external (Coverity, KLOCwork) testing		✓
Benchmarked with 2,000+ connections		✓
Feature Releases	Mature	Mature
MySQL Enterprise Monitor and Advisors		✓
Rapid Update Service Pack Program		✓
Quarterly Service Pack Program		✓
Hot Fix Program		✓
Bug Escalation Privilege		✓
Automated Software Update and Alert Service		✓
Online Knowledge Base		✓
24x7 Production Support		✓
Extended End-of-Life Policy		✓
Legal indemnification		✓

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# MySQL的授权模式简易说明-智慧财产权

- Oracle/MySQL 拥有产品所有权，是基于**GPLv2**的开源协议
- MySQL 是开源的软件，当使用客户下载开源版本，自主开发与自行维护时，是不需要付费的！但 Oracle/MySQL 并不负责相关产生的责任
- MySQL提供订阅服务模式的授权，客户可以购买Subscription model 的 MySQL 服务来保障系统的健全与稳定
- 所有使用 MySQL 的软件开发商需要遵守**GPLv2**的开源精神；也就是说如果想将免费的使用 MySQL数据库当作您的解决方案时，也需要将您所开发的软件源代码开源给客户或是开源世界，假如违反了**GPLv2** 的开源精神，则需购买MySQL 的商业授权
- 假如您将MySQL嵌入你的产品或解决方案中而进行大量的商业销售，您需要购买MySQL嵌入式的商业授权
- 更多的资料：<http://www.mysql.com/about/legal/>

# MySQL 商业版本介绍

请注明为 5.5.x 最新版，非 5.0 或 5.1 的旧版本，也并非是 Redhead 或是其他 Linux 所附带的社区旧版本	MySQL Classic Edition MySQL 基本版	MySQL Standard Edition MySQL 标准版	MySQL Enterprise Edition MySQL 企业版	MySQL Cluster Carrier Grade Edition MySQL 集群版
Annual Subscription <sup>2,3,4,5,6</sup> /1-4 Socket Server /Year 所有都是未税价格 以下为功能的差异说明	<b>N/A</b>	<b>\$2,000</b>	<b>\$5,000</b>	<b>\$10,000</b>
	<b>N/A</b>	<b>¥13,644</b>	<b>¥34,116</b>	<b>¥68,220</b>
	<b>N/A</b>	<b>HK\$15,504</b>	<b>HK\$38,748</b>	<b>HK\$77,496</b>
	<b>N/A</b>	<b>NT\$65,784</b>	<b>NT\$164,448</b>	<b>NT\$328,896</b>
MySQL Database (MySQL 数据库)	√	√	√	√
MySQL Connectors (MySQL 连接器)	√	√	√	√
MySQL Replication (MySQL 复制)	√	√	√	√
Storage Engine: MyISAM (存储引擎: MyISAM)	√	√	√	√
<b>MySQL Workbench SE<sup>1</sup></b>		√	√	√
Storage Engine: InnoDB(存储引擎: InnoDB)		√	√	√
MySQL Partitioning (MySQL 分区)			√	√
<b>MySQL Enterprise Monitor<sup>1</sup> (MySQL 企业版监控器)</b>			√	√
<b>MySQL Enterprise Backup<sup>1</sup> (MySQL 企业版备份)</b>			√	√
Storage Engine: NDB(存储引擎: NDB)				√
<b>MySQL Cluster Manager<sup>1</sup> (MySQL 集群管理器)</b>				√
MySQL Cluster Geo-Replication				√

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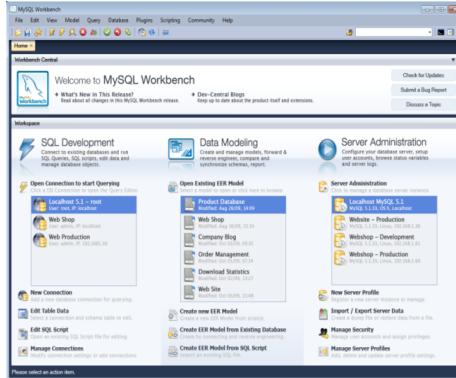


# Products

Making MySQL Better Today

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# 开始全面的了解使用 MySQL



Design, Develop,  
Administer



999.99s availability



Help when you need it

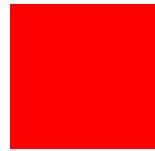


Most secure, up to date versions



Monitor, manage, tune  
all your servers with  
MySQL Expert Advisors

ORACLE®



# 全面的效能提升

MySQL 5.5 vs 5.1



- Linux - Read Only: +200%
- Linux - Read/Write: +369%
- Windows - Read Only: +538%
- Windows - Read Write: +1561%

And, Improved Availability & Usability



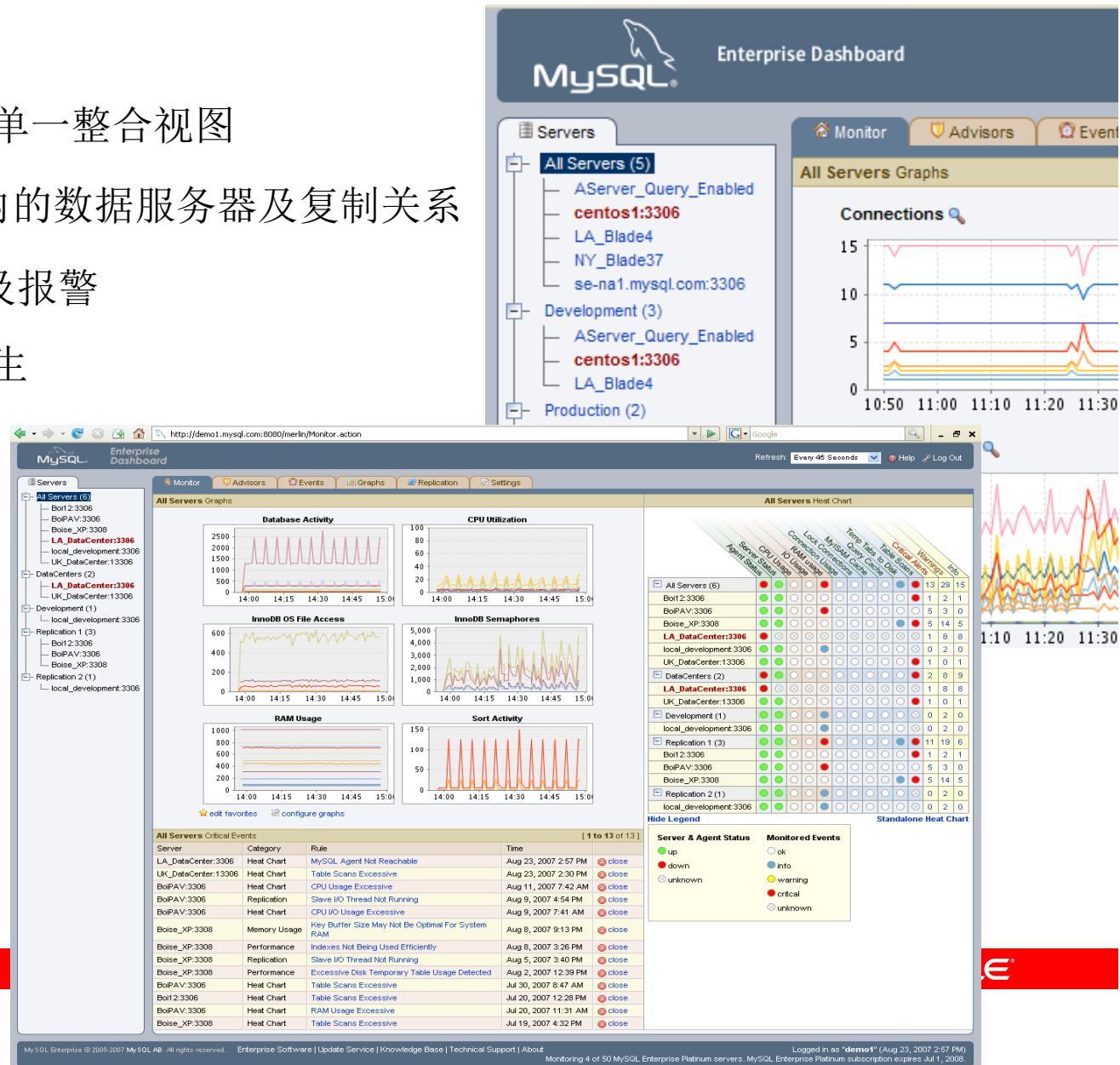
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# MySQL Enterprise Monitor 企业版的监控功能

- 针对整体MySQL环境的单一整合视图
- 自动搜索 MySQL 环境内的数据服务器及复制关系
- 基于规则的客户化监控及报警
- 及时发现,防范问题的发生
- 降低down机风险
- 易于扩展

**“Virtual MySQL DBA”**

**Assistant**



# MySQL Enterprise Dashboard! 企业版监控中心

The screenshot displays the MySQL Enterprise Dashboard interface. On the left, a sidebar titled 'Servers' lists 'All Servers (5)' including 'BladeA32\_prod', 'LA\_datamart', 'mancub:3307', 'NY\_datamart', and 'se-nat.mysql.com:3306'. Below this are sections for 'production (3)' and 'Replication 1'. A callout box labeled '服务器和应用程序所在位置' (Where servers and applications are located) points to this sidebar.

The main area contains several monitoring components:

- Database Activity**: A line chart showing activity over time from 08:45 to 09:45. It includes multiple colored lines representing different metrics like CPU, Memory, and Disk usage.
- InnoDB Adaptive Hash Index Searches**: A line chart showing InnoDB search activity over the same time period.
- InnoDB OS File Access**: A line chart showing InnoDB file access activity over the same time period.
- All Servers Heat Chart**: A grid heatmap showing the status of various servers across different metrics. A callout box labeled '服务器上需注意的地方' (Places on the server to pay attention to) points to this chart.
- Critical Events**: A table listing current critical events. The first five rows are:

Current	Server	Category	Rule	Time	Action
!	mancub:3307	Heat Chart	MySQL Agent Not Reachable	Sep 1, 2010 5:50:34 PM	<a href="#">close</a>
!	mancub:3307	Heat Chart	Agent Host Time Out of Sync Relative to Dashboard	Aug 18, 2010 2:06:25 PM	<a href="#">close</a>
!	BladeA32_prod	Memory Usage	Key Buffer Size May Not Be Optimal For System RAM	Aug 14, 2010 2:16:08 AM	<a href="#">close</a>
!	BladeA32_prod	Performance	Prepared Statements Not Being Used Effectively	Jul 16, 2010 2:00:08 AM	<a href="#">close</a>
- Monitored Events Legend**: A legend defining the colors for server status (up, down, unknown) and event levels (ok, info, warning, critical).
- Standalone Heat Chart**: A smaller heatmap section.

At the bottom, there is copyright information for Oracle and a log-in message.

“企业版监控器为所有MySQL服务器提供快速的，单一的，可视化的状态检查。”

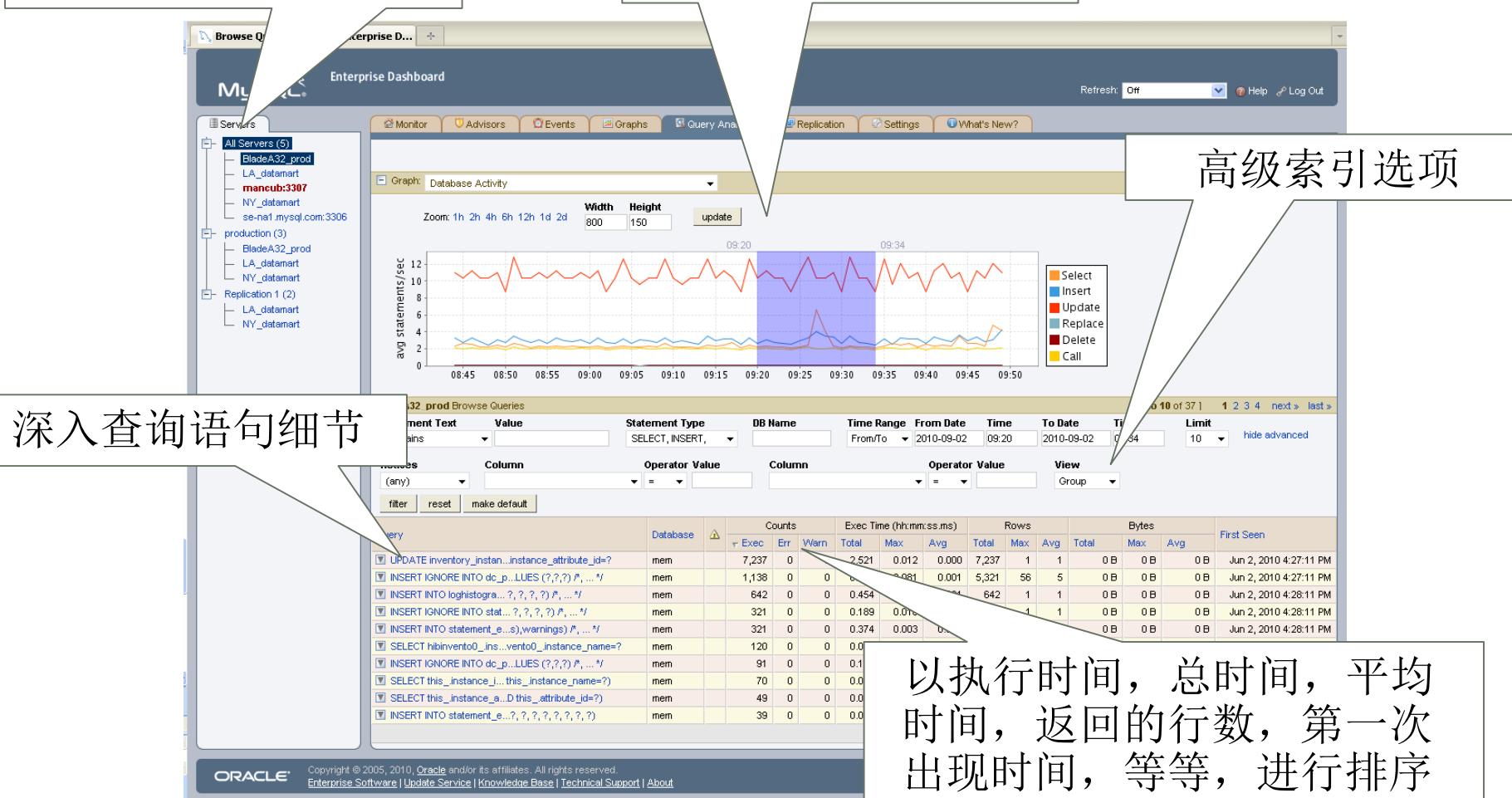
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# MySQL Query Analyzer 数据库分析检验功能

以服务器或是应用组  
进行查询语句的审视

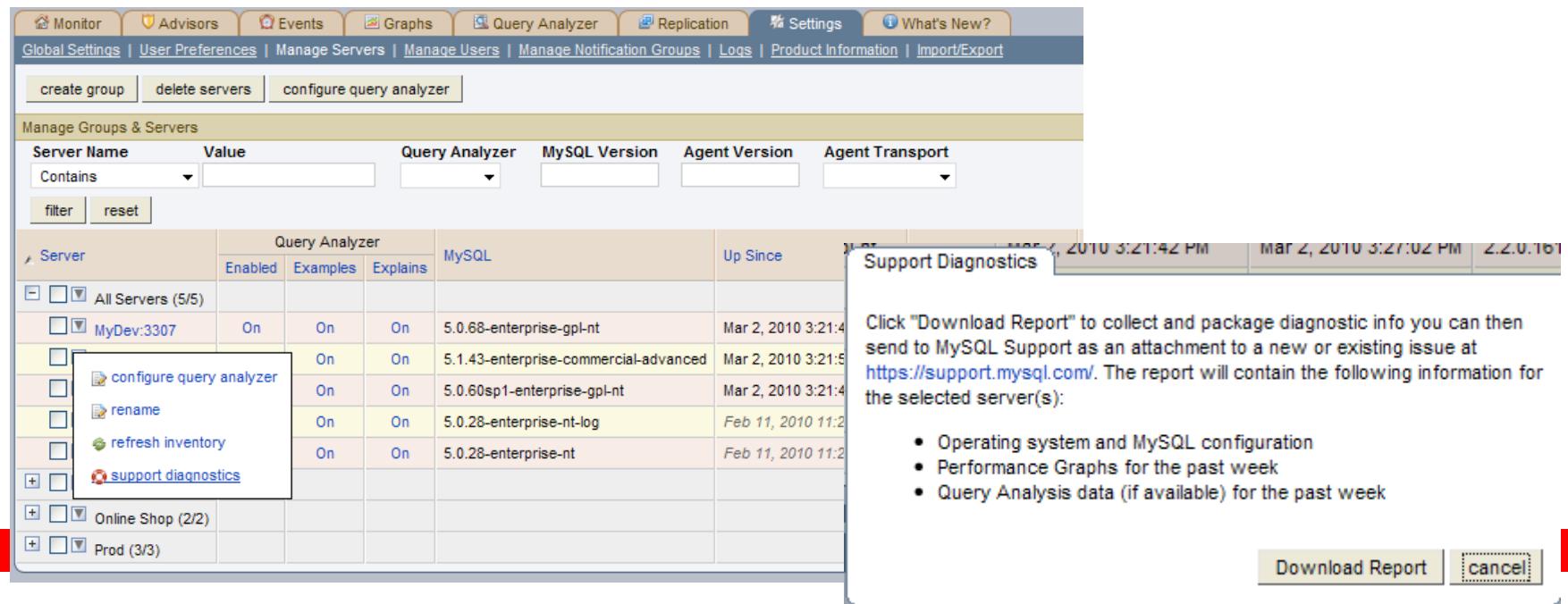
在任意波形图上以特  
定时间范围进行过滤

高级索引选项



# Integration with MyOracle Support 与MyOracle整合支持

- MySQL Support Diagnostic Reports 支持诊断报告
  - Quickly collects/packages MySQL, OS and query diagnostics into portable report for Oracle Support  
支持快速收集/打包 MySQL, 操作系统和 查询诊断的报告
  - Attach to new or existing SRs  
附加到新的或目前的服务清单
  - Quicker diagnosis/fixing of problems  
快速诊断/修复问题



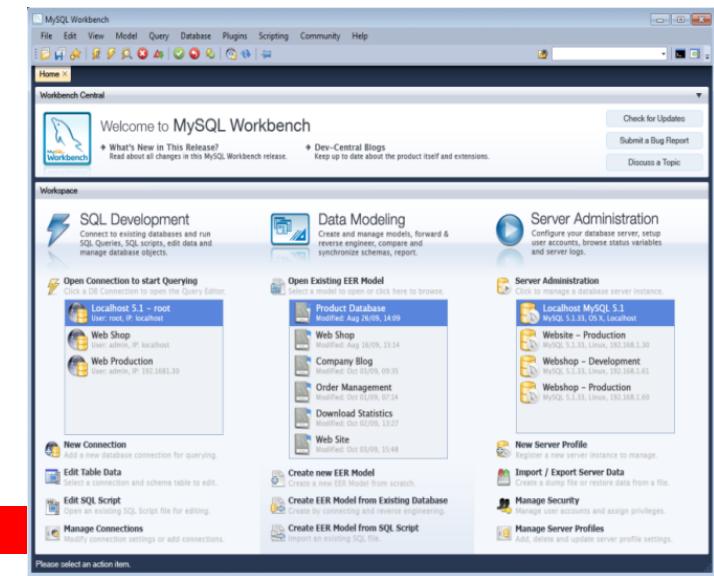
# MySQL Backup Types: Comparison

	mysqldump	LVM Snapshots	MySQL Replication	MySQL Enterprise Backup
Full Backup	✓	✓	✓	✓
Incremental Backups	✗	✓	✗	✓
Partial Backups	✓	✗	✗	✓
Compression Support	✗	✗	✗	✓
Allows updates	✗	✗	✓	✓
Point in Time - Consistent	✗	✓	✓	✓
Backup Speed	Poor	Good	Very Good	Very Good
Recovery Speed	Very Poor	Good	Very Good	Very Good
Partial Restore	✓	✗	✗	✓
Corruption Detection	✓	✗	✗	✓
Meets Regulatory Archive Req.	✓	✗	✗	✓
Supports DDL	✓	✗	✗	✓

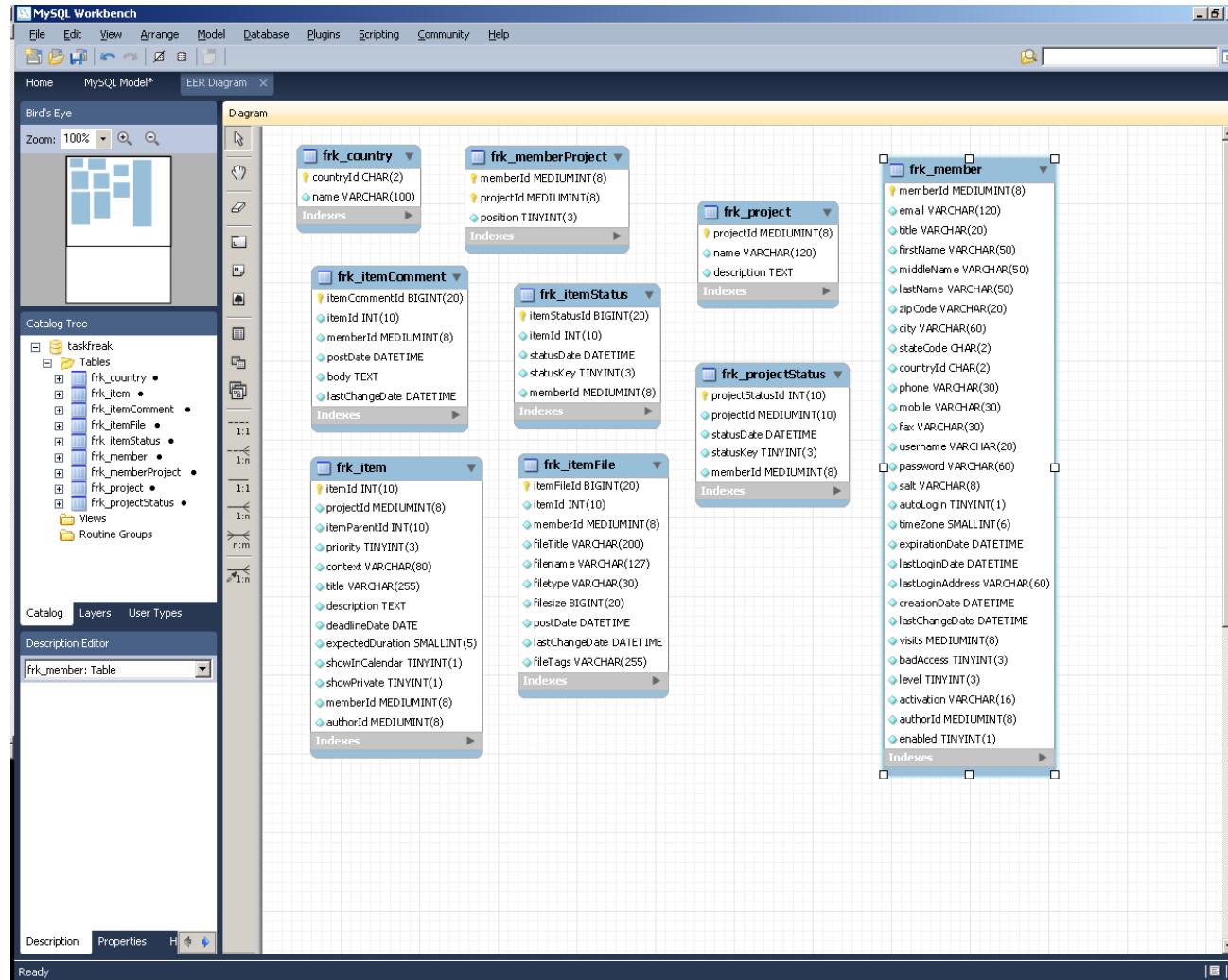
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# MySQL Workbench 5.2

- SQL Development 完整的开发环境
  - SQL Editor - Color Syntax Highlighting
  - Object Management - Import/Export, Browser, Edit
  - Connection Management - Wizard, SSH Tunnel
  - Multi-Pane Results View, In-grid data edits
- Database Administration 数据库的管理功能
  - Status, Configuration, Start/Stop, Replication
  - Users, Security, Session Management
  - Import/Export Dump Files
- Data Modelling 数据资料建模功能
  - Visual Design
  - Forward/Reverse Engineer



# Create database modules + reverse engineer



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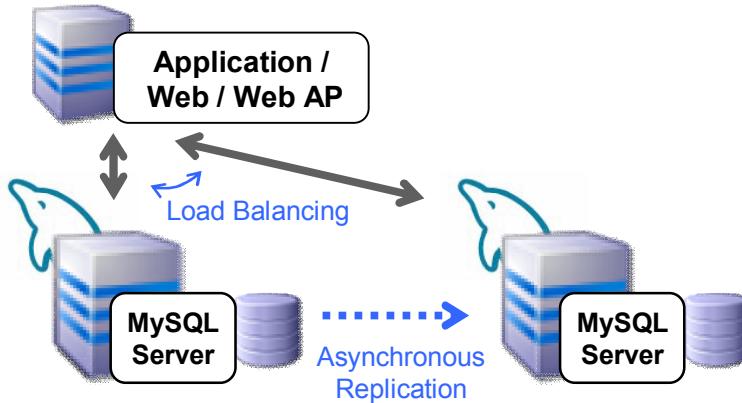
# MySQL HA & Cluster

Making MySQL Better Today

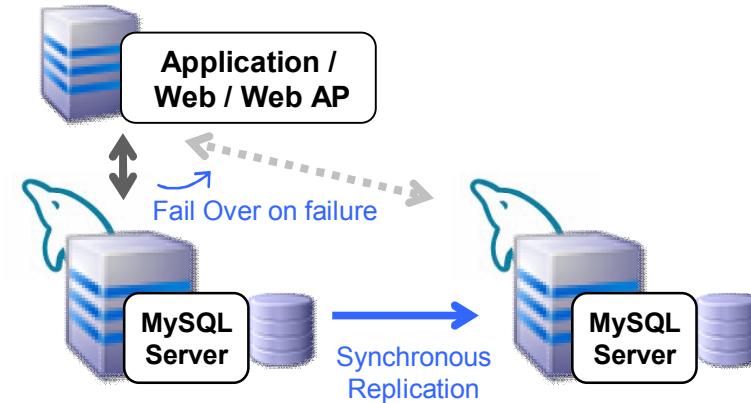
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# MySQL High Availability Option

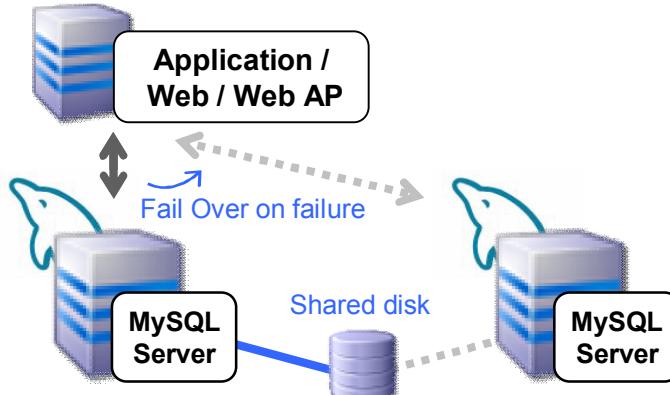
- MySQL Replication  
Asynchronous replication



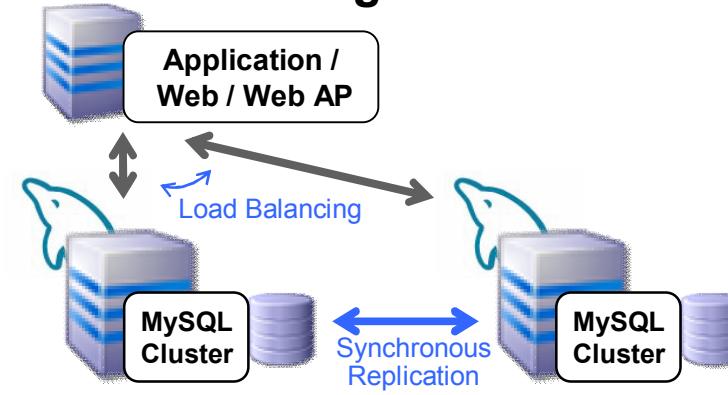
- MySQL+DRBD (for Linux)  
Shared Nothing Active/Passive



- Shared Disk Based  
Active/Passive



- MySQL Cluster  
Shared Nothing Active/Active



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# MySQL on Windows

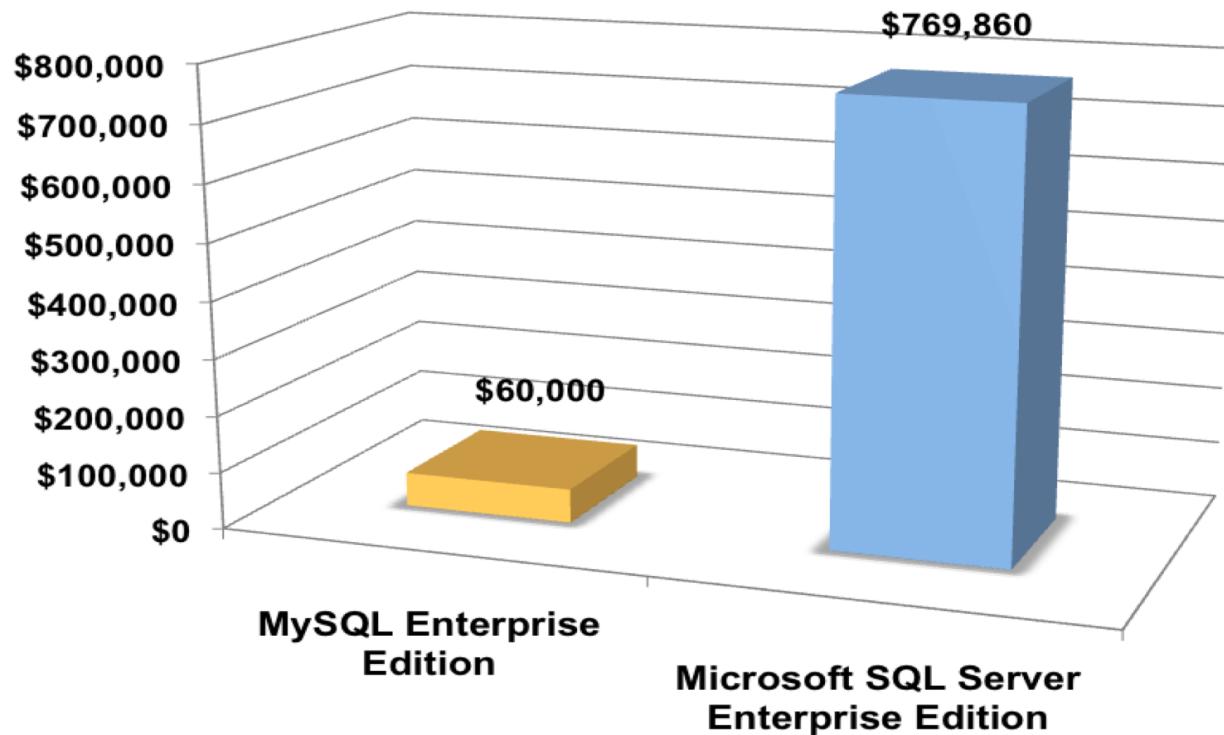


Making MySQL Better Today

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# Up to 90% Savings over SQL Server

## MySQL vs. Microsoft SQL Server 3 Year Database TCO



-Term: 3 Years; Users: Unlimited /Web); Servers: 4; CPUs/Server: 4; Hardware: Intel x86; MySQL: MySQL Enterprise Edition; Microsoft: SQL Server Enterprise Edition

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# Winning against MSFT SQL Server

- Remain the “#1 Open Source Database”
  - Continue to win on Customer References (e.g. FaceBook)
  - Continue to win on TCO (60-80% TCO Savings)
- Simplicity
  - **15 Minutes to Success!**
  - Easier to install, administer and tune than MSSQL
  - Easier tools than MSFT SQL Server Studio
- Quality
  - Reliable, Secure, Scalable and Fast on 4-8 Cores
  - Better Supported
- Any Platform, Any Language
  - Any Platform (Windows, Linux, Unix, Mac)
  - Any Language (PHP, Perl, Python, Ruby, Java, C, C++, C#, VB)
  - Escape from Microsoft’s “Windows Only” agenda

# Windows Initiatives

- Server Performance, reliability
  - Windows specific fixes and optimizations
    - MySQL Server and InnoDB engine.
- Ease of Use/Familiarity
  - Unified installer – Bundles products together
  - Workbench – the “MSSQL Management Studio” for MySQL
- Support Windows Ecosystem
  - Authentication – support authenticate using Windows Credentials
  - Development
    - Enhance Visual Studio Plug-in for MySQL
    - Add features to Connector/.NET and other connectors.
- Windows-centric Migration Tools
  - Workbench Plug-ins to move
    - MSSQL, Access, ... to MySQL

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## 重点回顾

- MySQL is important to Oracle and our customers
  - Part of our Complete, Open, Integrated strategy
- Oracle is making MySQL better **today**
  - Major Feature, Performance, Scalability enhancements
  - 24x7, Global support in 145 countries

Download Now

<http://dev.mysql.com/downloads>

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