

**Software Patents Considered
Detrimental to Innovation and
European Competitiveness**



Kaj Arnö, MySQL AB
Vice President
EPP/FFII Conf on
SWPAT Directive Proposal
EP, Brussels, 1 June 2005

Topics of the day

- MySQL AB Backgrounder
- MySQL AB Business Model
- Our Stance on Intellectual Property

Kaj Arnö

- Owner entrepreneur at Polycon Oy Ab, CEO 1987-2001
- Vice President at MySQL AB 2001-
 - Joined MySQL AB in 2001 as VP Training
 - Vice President Professional Services 2002-04
 - Vice President Software Engineering 2003-04
 - SAP contact within MySQL management
 - Responsible for MySQL's Internal IT
- Based in Munich 2002-2004
- Based in Finland -2002, 2004-



Sweden's IT Enterprise of the Year 2003

- Founder Finland's "Software Entrepreneur of the Year" 2004
- Founded in 1995; VC funded in 2001 and 2003 (14m€)
- Main innovations in production and business model, as well as in the technology as such
- Over 200 employees in 21 countries (EU majority, se de fr uk at nl fi dk ee cy ei)
- Over 6,000,000 installations; 40,000 downloads/day
- Dramatically reduces Total Cost of Ownership (TCO) – including European governments besides the society at large
- Used by leading IT organizations worldwide





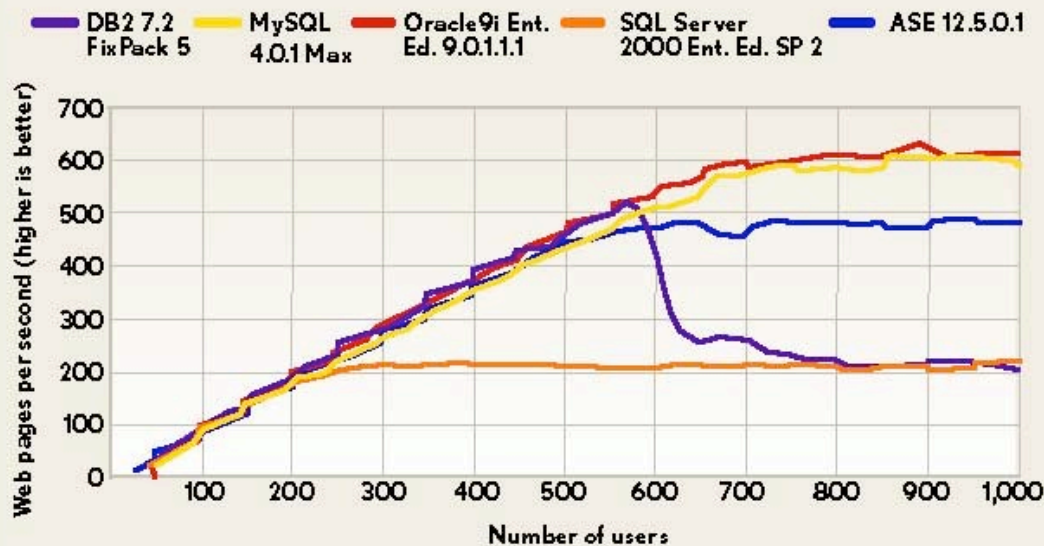







Performance, Reliability, Ease of Use

Oracle9i and MySQL top throughput



Throughput is in returned Web pages per second from the application server. Number of users is number of concurrent Web clients driving the load. Response time is the time to complete the six bookstore user action sequences, weighted by frequency of each sequence in the mix. All tests were conducted on an HP NetServer LT 6000r with four 700MHz Xeon CPUs, 2 GB of RAM, a Gigabit Ethernet Intel Corp. Pro/1000 F Server Adapter and 24 9.1GB Ultra3 SCSI hard drives used for database storage.

- *eWeek's Database Benchmark Test*
 - MySQL has the best overall performance and scalability (matching Oracle)
 - MySQL excelled in stability, easy of tuning, and connectivity
 - MySQL offered the highest throughput

MySQL AB and Intellectual Property

- Unlike most OSS companies MySQL AB is a company based on intellectual property
- MySQL AB has the copyright to its own code base
- MySQL AB owns the trademark MySQL
- MySQL AB owns several software patents
 - but would be happy to have them declared void, if other SWPATs are, too
- MySQL AB has the policy to acquire IP rights to all external additions to the code base
- MySQL provides industry standard warranties and indemnifications for its commercial customers

Associated Press (AP)



Application

Provides news text, audio, video, photos to more than 15,000 media outlets reaching 1 billion people daily worldwide

Key Business Benefit

AP can handle customer demand for large volumes of information, even during peak transaction loads

Why MySQL? Performance / Low TCO

"The key benefits of using the MySQL database are its performance, its stability and its low total cost of ownership. Bottom line: it just works."

**Terry Ewing,
Senior Systems Manager
Associated Press (AP)**

Cox Communications



Application

MySQL powers a huge data warehouse for 6.3 million cable users. It includes 3,600 tables and 2 billion rows of data with 4 million inserts every 2 hours.

Key Business Benefit

Allows Cox to make informed business decisions and greater customer care

Why MySQL? – Best Price / Performance

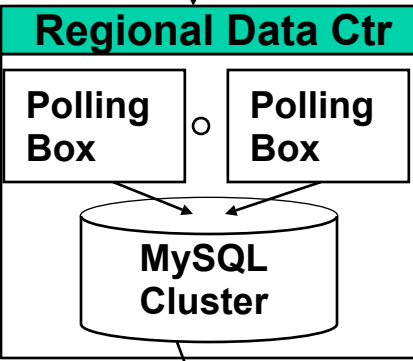
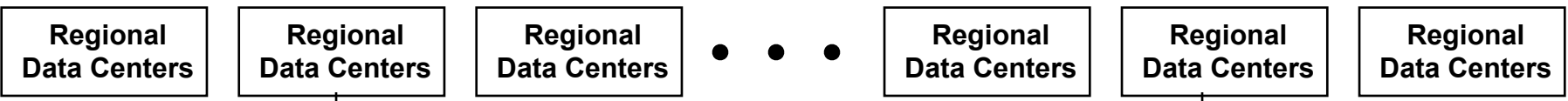
"In today's market, we are constantly striving to keep costs down, Leveraging the MySQL database allows us to save money without sacrificing performance."

**Mark Cotner, Manager
Network Application Development
Cox Communications**

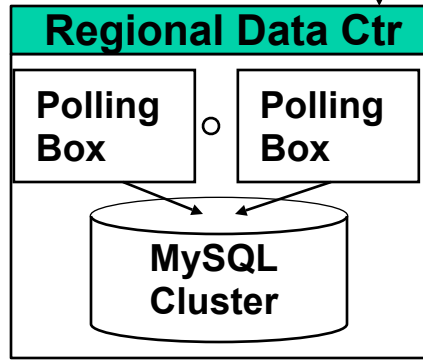


10 Million Users w/ Cable Modems

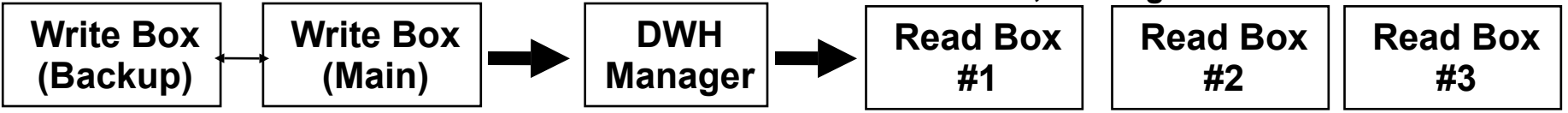
Polling of modems for telemetry data



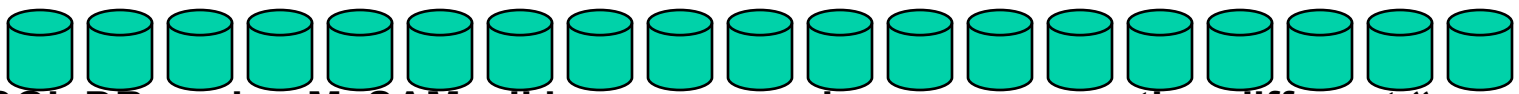
14 Regional Data Centers



Homegrown ETL Process: Batch now, looking to stream



NFS Storage: Summary/Rollup Tables + 3 to 6 months of raw data



(35 MySQL DBs using MySAM, all have same schema, representing different "geographies")

Lufthansa Systems



Application:

Accounting and data management of aviation customers

Key Business Benefit:

Reduced cost of operations with broad deployment of web applications.

Why MySQL? Stability

“The database is very stable, especially with NetWare and Linux.”

Antonio Mastrolorito
Engineering Directory Services
Lufthansa Systems

SAP

- Technology and cross licensing partnership
- MySQL is an SAP Global Technology Partner
- SAP/MySQL Partnership
Goal: To develop new open source technologies for the enterprise, for use with SAP and non-SAP markets
- Combine the best of MySQL and SAP: visibility, know-how, technology and quality



Lycos Europe



Application

Lycos-Europe migrated all company portal services to MySQL (100 servers) displacing one of the leading proprietary databases.

Key Business Benefit

Reduced TCO by more than 90% saving more than € 200K annually in less than 6 months with no interruption in services.

Why MySQL? Lower TCO

“With MySQL we were able to reduce our annual database costs by more than 90%. MySQL significantly reduced our license, support and maintenance fees!”

**Per Larsson
Lycos Europe**

Los Alamos National Labs



Application

SearchPlus is a robust, scalable and secure distributed database containing more than 55 million scientific journal articles.

Key Business Benefit

Scientists can search over 7Tb of data more efficiently.

Why MySQL? Scalability

“MySQL has proven itself to be the ideal solution for SearchPlus by combining high-performance, superior reliability, security and replication.”

*Mariella Di Giacomo
Los Alamos National Labs*

NASA



Application

Informing the general public about contract opportunities within NASA

Key Business Benefit

Saves NASA and its partners \$4 million annually with 28% faster database

Why MySQL? Proven Reliability

“We've been up and running for 3 years now without any data loss or downtime. That's just incredible.”

**John Sudderth,
Senior Computer Scientist
CSC NASA**

Sabre Holdings



Application

Air Travel Shopping Engine fare search used by Travelocity and others moved from mainframe to Linux, MySQL.

Key Business Benefit

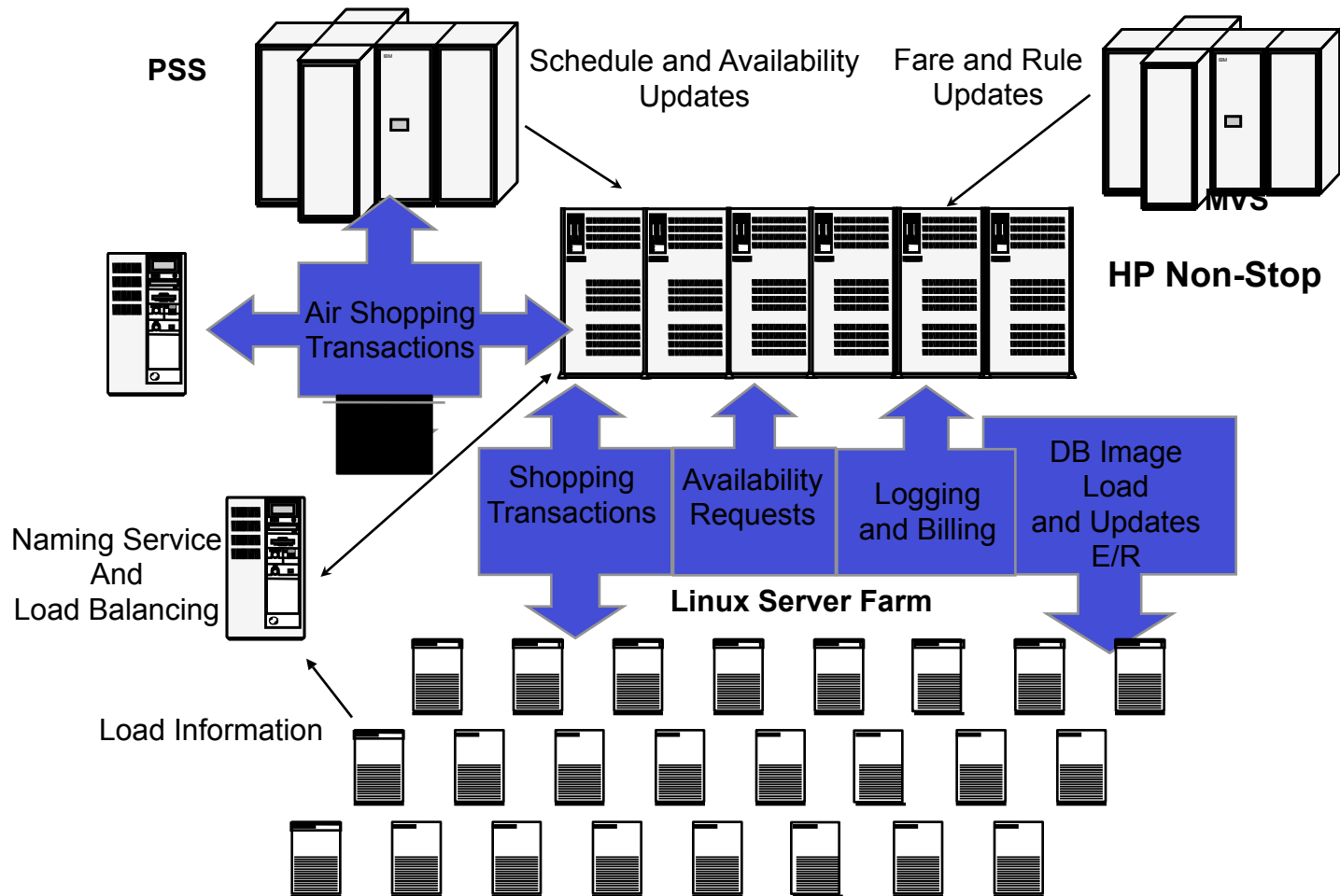
Multi-million dollar savings while supporting million of daily transactions

Why MySQL? Speed and Low TCO

“MySQL ran faster or as fast as any commercial database we tested. It never crashed. It was the fastest to get working.”

**Alan Walker,
Systems Architect
Sabre Holdings**

Sabre Holdings



59 HP DL585 (4-way Opteron) for CPU & memory-intensive search
45 HP rx5670 (4-way Itanium) for MySQL Database

US Census Bureau

Application

Award-winning FedStats portal application aggregates leading financial and economic indicators at a glance.

Key Business Benefit

Cost savings from LAMP have enabled greater investment in other areas

Why MySQL? Easy to Deploy

“We chose the MySQL database because of its ease of installation, maintainability, configuration and speed.”

**Rachael LaPorte Taylor,
Senior Technology Architect
U.S. Census Bureau**



Yahoo!



Application

MySQL powers over 200 Yahoo! properties around the world including Yahoo! Finance with 260 million rows.

Key Business Benefit

Low down time. Extremely reliable for high-volume, business-critical applications

Why MySQL? Mission-Critical Reliability

"We have used MySQL far more than anyone expected. We went from experimental to mission-critical in a couple of months."

**Jeremy Zawodny,
MySQL Database Expert
Yahoo! Finance**

MySQL Enterprise Partners



Novell.



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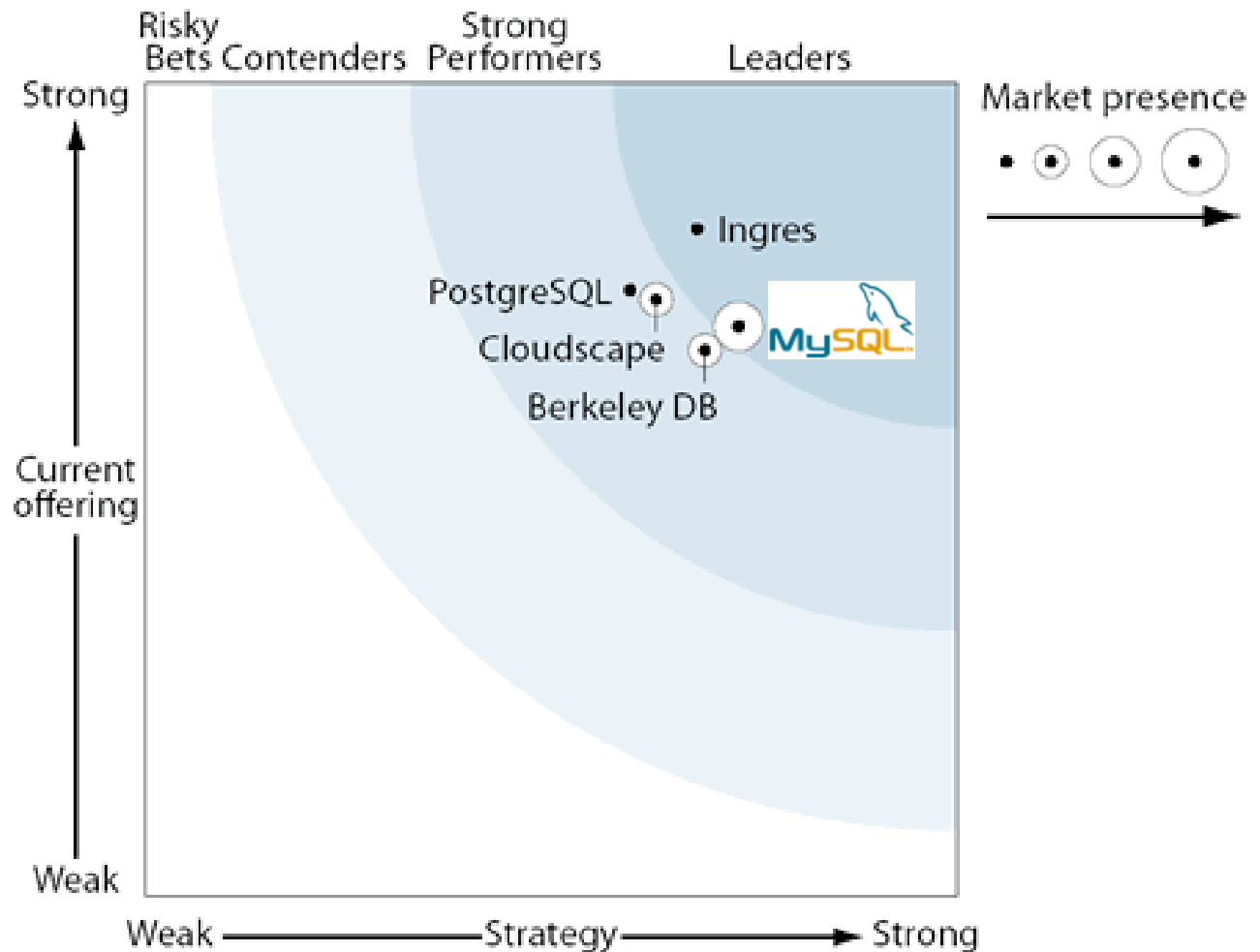


Forrester Rates MySQL Market Leader

Strongest market presence, strategy

FORRESTER

- 52% of those using Open Source are using MySQL.
- MySQL is known for its reliability, ease of use, and performance.



Source: Forrester Research

MySQL: Ready for the Enterprise

“The future of the database market will be the standardization on MySQL.”



“CIOs should put MySQL on their radar screen... MySQL is a powerful enough force to alter the database market.”



“MySQL Network is an offering that should both increase the velocity of MySQL within the enterprise market and mark the ‘beginning of the end’ for software licensing fees as a separately charged line item.”



“MySQL AB is currently the leading Open Source DBMS vendor... MySQL is good enough to displace Oracle, DB2 and Microsoft SQL Server.”



“Open source databases are ready for many enterprise uses today, so companies should begin evaluating them and determine a coexistence strategy with traditional databases.”



“MySQL is known as one of the fastest databases available, beating even commercial options according to widely accepted industry benchmarks. It has been shown to be capable of handling billions of rows.”



MySQL: A Recognised Leader

“The open source movement has become a major force across the software industry, and MySQL is the world’s most popular open source database.”

FORTUNE

“HypoVereinsbank, Germany's second-largest bank, opted to use MySQL's database over costlier systems to help track credit risk at its Bank Austria unit and other subsidiaries”

INTERNATIONAL
Herald Tribune

“When Sabre was building a new computer system for online shoppers, Murphy took a flyer on a database program from a little-known company called MySQL.”

Forbes

“MySQL CEO Marten Mickos, makes a virtue of his product's stripped-down simplicity. ‘Software shouldn't be glorified,’ he says.”

THE WALL STREET JOURNAL.

“MySQL has gained a reputation for being an exceptional database for powering Web sites.”

BusinessWeek

“Forrester analyst Noel Yuhanna estimates Sabre saved \$3 million migrating from a legacy database to MySQL.”

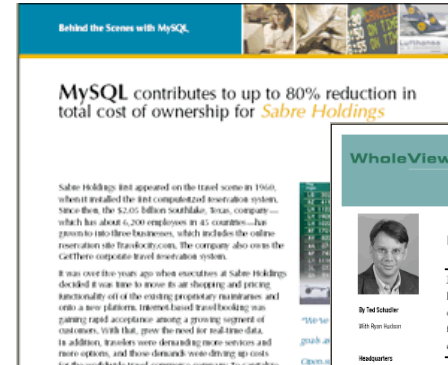
BUSINESS 2.0

“NASA's Clark compared MySQL's performance against Oracle's for his application, and it averaged 28% faster.”

COMPUTERWORLD

More Information Available

- **MySQL Case Studies**
 - A-P, Cox, Enviro, Enercon,
 - Evite, H&M, Lycos, MIT, Pivex,
 - Sabre, Sony, T-Systems
- **White Papers**
 - TCO Guide
 - LAMP Strategy
 - Cluster Architecture
 - Embedded, Retail & Telco
- **Analyst reports**
 - Forrester, Meta, others



Behind the Scenes with MySQL

MySQL contributes to up to 80% reduction in total cost of ownership for **Sabre Holdings**

Sabre Holdings first appeared on the travel scene in 1966, when it installed the first computerized reservation system. Since then, the \$2.05 billion Southlake, Texas, company—which has about 6,200 employees in 45 countries—has grown into three businesses, which includes the online reservation site Travelocity.com. The company also owns the GoThere corporate travel reservation system.

It was over five years ago when executives at Sabre Holdings decided it was time to move its air shopping and pricing functionality off of the existing proprietary mainframes and onto a new platform. Internet-based travel booking was gaining rapid acceptance among a growing segment of customers. With that, grew the need for real-time data. In addition, it makes more demanding more services and more options, and those demands were driving up costs for the web-based travel commerce companies. Two analysts



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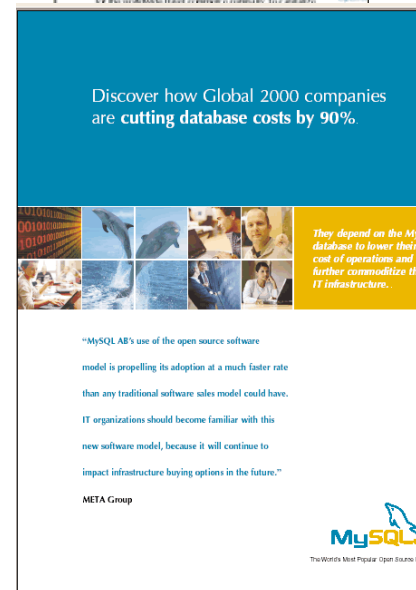
MySQL: On The Path To Enterprise Relevance

MySQL has been quietly earning enterprise chops running apps like Google. But now SAP has agreed to put its muscle behind the open source database with contributions of code, developers, and features. The result: MySQL will gain the features it needs to compete for mainstream enterprise attention.

By Ted Schadler
With Ryan Hatcher

Forrester speaks with Dr. Peter Graf, SAP's Senior VP of Technology Marketing, and Marcin Mikos, CEO of MySQL, about SAP's commitment to the MySQL product and company. They told us that:

- MySQL will take on the SAP DB code base. MySQL is a company that offers



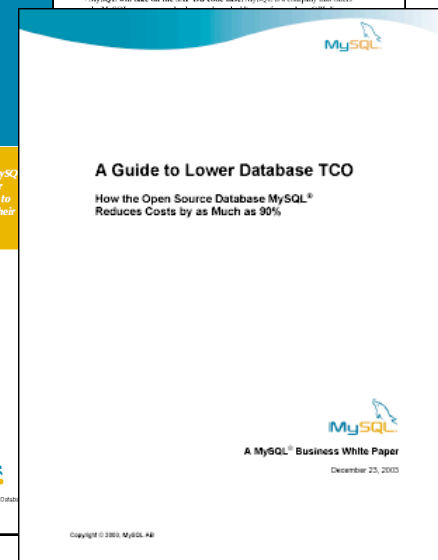
Discover how Global 2000 companies are cutting database costs by 90%.

They depend on the MySQL database to lower their cost of operations and to further commoditize their IT infrastructure.

"MySQL AB's use of the open source software model is propelling its adoption at a much faster rate than any traditional software sales model could have. IT organizations should become familiar with this new software model, because it will continue to impact infrastructure buying options in the future."

META Group

MySQL
The World's Most Popular Open Source Database



MySQL

A Guide to Lower Database TCO

How the Open Source Database MySQL® Reduces Costs by as Much as 90%

A MySQL® Business White Paper

December 23, 2003

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Idealistic Assumptions: Free Enterprise

- Everyone should have the right to strive for profit
- Software developers should have rights akin to ownership
- Society should protect its members against being exploited by a few
- Society should give its players a level playing field

Pragmatic Reality

- SWPATs: The US has them
- While SWPATs are not in the interest of the General Public, powerful lobbying by incumbent players might give EU this "benefit", too ("CII directive")
- P-Day: The rejection of the CII directive in the European Parliament may change the tides against SWPATs

MySQL AB General Stance on SWPATs

- Patenting ideas used in developing software is a dangerous obstacle to all software development
- SWPATs are detrimental to innovation and competitiveness
- Copyright already provides the protection
- In contrast: Databases are considered "inherently technical" by EPO, but they have nothing to do with the use of controllable forces of nature and are purely a matter of data processing

SWPATs sound like a good idea

- We should protect innovation!
 - Yes we should, but SWPATs hinder innovation
- We want R & D to pay off!
 - Yes we do, but copyright is sufficient
- Europe should get the benefit of the patent system to stay competitive with the US!
 - Illogical; EU companies can already get US SWPATs, and most EU SWPATs would be held by Americans
 - Europe must retain its competitiveness benefit, which it has through lack of patents
- Of course we will not grant trivial patents!
 - They are being granted all the time in the US and elsewhere
- SMEs benefit from SWPATs!
 - No. But Microsoft, IBM, Siemens, Alcatel, Ericsson think they would.

Three main uses of SWPATs

1. Protect incumbent players against market entry by SMEs
 - SMEs cannot search databases to protect themselves against patent infringements (large number, complexity, 18 months of non-publication of new patents)
 - At the cost of 50 k€, lay out 1 m€ land mines for your competition
2. Levy taxes by productless patent profiteers, "trolls"
 - iPod threatened by such patent
3. Create cold war like terror balance pacts between large incumbent players
 - Siemens-Microsoft Nonaggression Pact

Summary

- Society needs software
- Society needs innovation
- To get more and better software, society is ready to reward developers
- These interests of society are taken care of by copyrights and trademarks
- SWPATs stifle innovation and kill competition
- **Support the meaningful amendments to the CII directive, as proposed by MEP Kauppi**