



Building on Strengths Learning From Differences

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This is not about MySQL.

Knowledge is power.

The challenges and opportunities are enormous.

Database Paradigm Shifts

- NoSQL
- Cloud Computing
- Solid-State Storage

NoSQL Databases

- Key-value (memcached, ...)
- Document-oriented

Why NoSQL?

- The so-called “impedance mismatch”
- Performance problems with relational DBs

Solid-State Storage

- We've optimized for disks for decades
- The relational model loves fast random access

The Future of Solid State

- Bigger, faster, cheaper, stronger
- This isn't over yet

Cloud Computing

- There is value behind the hype
- We still have much to learn

Are We There Yet?

- Have open source DBs kept up?
- Has open source culture kept up?

Technical Status

- Not ready for SSD
- Not ready for cloud deployment
- Relationship to NoSQL not widely understood

Socio-Cultural Status

- We're working hard, but in many different directions
- We're reinventing a lot of prior art

Competition

- Competition is motivating
- Rivalry can absorb energy and goodwill

Perspective

We all fall short of the mark.

How Do We Build Big Databases?

In a painful and costly manner.

What About Midsize Databases?

- Scaling up is a viable option

Data Is Exploding

- Moore's Law isn't keeping up with data
- We're not keeping up with Moore's Law

Scaling In The Cloud

- Today: scale-out all over again
- Tomorrow: brace yourself

Do You Like Slow Servers/Network?



We Need Scale-Both

- Are you ready for petabytes?
- We need much more efficient databases.

We Have Tunnel Vision



Take a Fresh Look



Scale-Up And Scale-Out



Who Wants To Switch?

- Trying to win migrations is wasted energy
- A downgrade is a downgrade

Growth is in New Deployments

- Lock-in happens in open source, too
- Migrations don't grow the market
- We need to be good, not just acceptable

Can We Do This?



The Market Will Respond

Rivalry has consequences.

The Future Database

- It will be relational
- It will support alternative access paths

Who's Ready To Build This?

A long-term investment in code quality won't guarantee a good outcome, but it sure helps.

The Politically Correct Datacenter

- Don't expect it to be popular
- Banking on it will backfire

The MySQL Ripple Effect



MySQL is in Good Hands

I am very happy with Oracle's stewardship.

Our Mission Is Clear

- Proprietary databases are very, very good.
- We must build great open source databases.

I Want A Database That Offers...

- Scale up, scale out, and scale back natively
- Self-healing
- Fully online operation
- Cluster-wide backups
- ACID properties, with ability to relax ACID
- Multiple access paths
- Support for OLTP and OLAP

We Need Leaders

- Leadership is earned, not claimed
- We need to create prosperous companies

Cultivating Success

- We need a forum for incubation
- The intersection of interests:
 - Open-source
 - Databases
 - Entrepreneurship

Oracle, Please Support This Event

This is vital to your success with MySQL.

Thank You O'Reilly Conferences

You are amazing.
Please repeat this event next year.

