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
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

CHEVROLET CHALLENGES FORD TO A TOWING SHOWDOWN

DURAMAX vs. POWER STROKE!
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?
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

http://www.youtube.com/watch?v=C0OkjtlbqVs
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.

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