Read-Write Splitting
About Me

• Director of Consulting at Percona
• Lead author of High Performance MySQL, 2\textsuperscript{nd} Edition
• Creator of innotop, Maatkit, and Better Cacti Templates
Tell Me Your Problems

- What brought you to this session?
- Where is your app in its life?
- What are you trying to figure out?
Why Split?

• So you can have more than one server
• And you can abstract them to some degree
  – What degree?
• You want to stop thinking about *which* server
  – And start thinking about which *role*
Why More Than One Server?

- Performance
- Scaling
- High Availability
- Load Balancing
All Readers Identical?

• Any stickiness?
• Load balancing?
Query Routing

- Proxies
- Load Balancers
- Virtual IP Addresses, Multiple Connections
• The app needs to know
From One To Many

- Take it easy at first
Common Patterns

- Text-based split
- Staleness split
- Session-based
- Version-based
Why am I showing writes on slaves?
Capacity Increase

Reads
Writes

Reads
Writes

Reads
Writes

Reads
Writes

Reads
Writes

Reads
Writes

Reads
Writes

Reads
Writes

Reads
Writes

Reads
Writes
Common Mistakes

• Two writers
• No session barrier
• Writing to a reader accidentally
• Using DNS, /etc/hosts, or app configuration
Replication Delay

- Break complex updates into simpler ones
- Try row-based replication in 5.1, carefully
- Don't trust Seconds_behind_master