



PERCONA  
Performance Consulting Experts

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# Read-Write Splitting

# About Me

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- Director of Consulting at Percona
- Lead author of High Performance MySQL, 2<sup>nd</sup> Edition
- Creator of innotop, Maatkit, and Better Cacti Templates

# Tell Me Your Problems

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

# Why Split?

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- 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?

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- Performance
- Scaling
- High Availability
- Load Balancing

# All Readers Identical?

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- Any stickiness?
- Load balancing?

# Query Routing

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- Proxies
- Load Balancers
- Virtual IP Addresses, Multiple Connections

# Application Knowledge

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- The app needs to know

# From One To Many

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- Take it easy at first

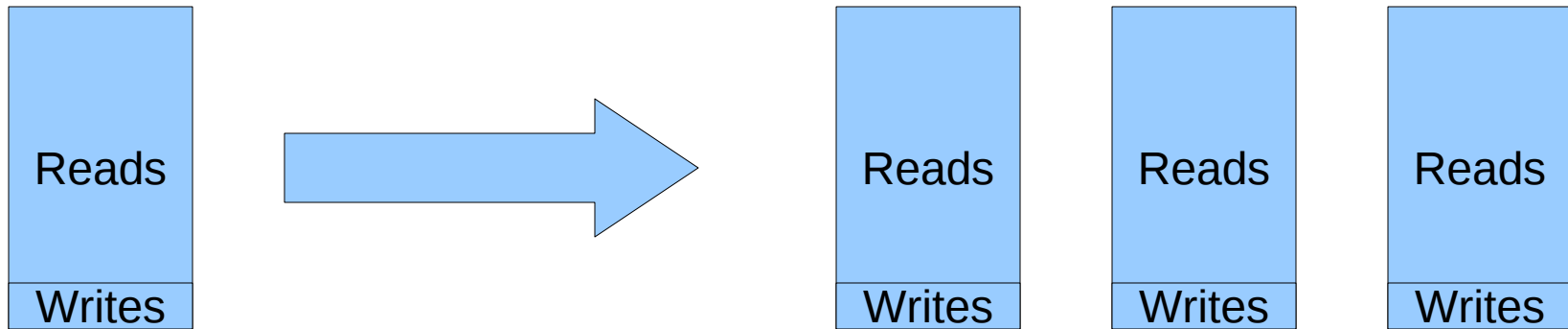
# Common Patterns

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- Text-based split
- Staleness split
- Session-based
- Version-based

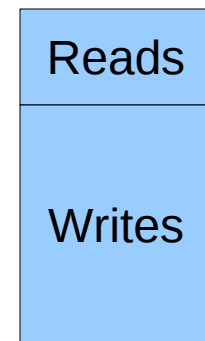
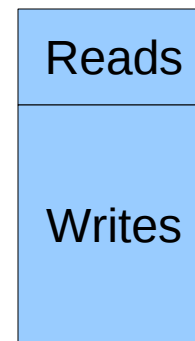
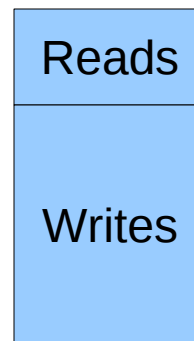
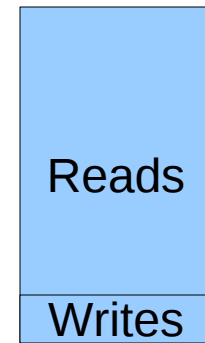
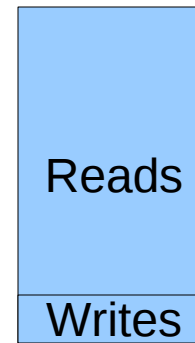
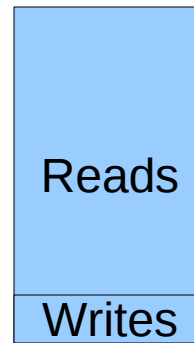
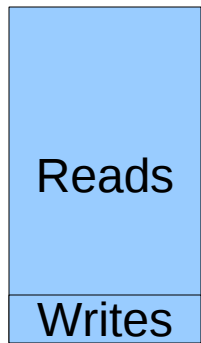
# Capacity Increase

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Why am I showing writes on slaves?

# Capacity Increase



# Common Mistakes

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

# Replication Delay

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- Break complex updates into simpler ones
- Try row-based replication in 5.1, carefully
- Don't trust Seconds\_behind\_master