



I only care for performance,
scalability is just complexity

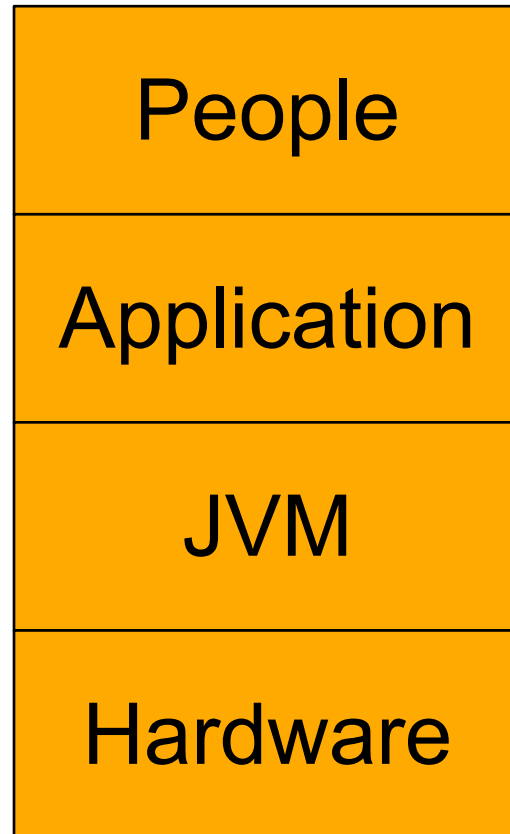
Finn-Robert Kristensen, System Architect

→ Is scalability the solution?

- Scalability is taken for granted
- Missing performance solved with hardware
- Performance problems are neglected



Performance bottlenecks



→ → Vertical vs Horizontal scalability

- Improving performance with more servers
- Improving performance with concurrency

→ Pure Java in the “old days”

- Threading
- Sockets
- Plain old java objects

→ Enterprise Java

- Enterprise Java Beans
- JMS
- Servlets
- The application server
- Distributed applications



Light-weight Enterprise Java

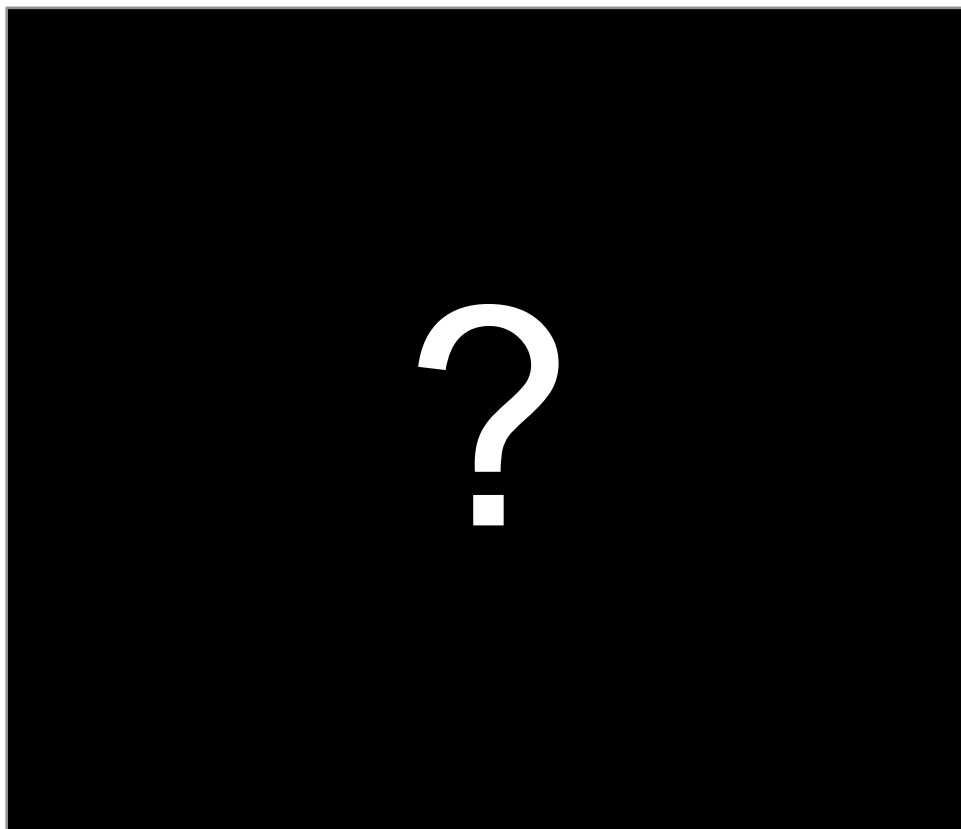
- No more EJB
- Opensource frameworks
- “Small” containers

→ SOA - the new money machine for vendors

- Frameworks
- Engines
- The Enterprise Suite if your are serious about SOA



The black box





The Black box

- Developers expect it to work how they think
- Requires understanding how it works to use it efficiently
- Performance problems due to inadequate use



Frameworks are just a tool

→ O/R mapping

- easy OO access to relational data
- requires deep understanding
- requires thorough tuning
- requires runtime analysis



Performance bottlenecks revisited

- Database
- Network latency



Performance bottlenecks revisited

