

Lock Manager

Разработка основного функционала

Lock Manager



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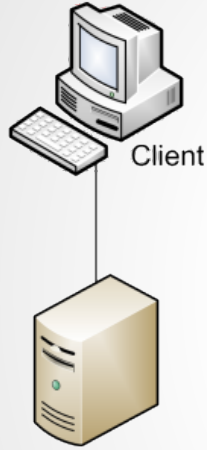
Read/Write locks

- +work over network

- +hierarchical locks

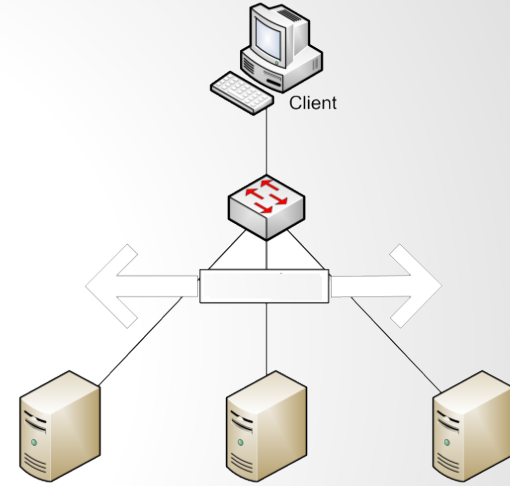
- +deadlock detection

Local vs Remote implementation



Local

- for standalone server
- single library



Remote

- for cluster
- client library + lock server

Local

- synchronization of process/threads on single system
- common data in shared memory
- synchronization on file locks
- boost::interprocess
- php extension
- linux & windows support



Lock logic

- mask support
- lock's priority
- read/write locks
- debug information
- deadlock detection
- unit tests



googletest
Google C++ Testing Framework

Synchronization

Process synchronization

- file locks
- interprocess conditions
- shared memory

Network connection:

- sync TCP
- redis synchronization

Remote

Client's c++ library for proxy calls over network



Server

- linux daemon
- asynchronous (boost::asio)
- ThreadPool (boost::threads)
- Fail Tolerance (master/slave mode + redis replication + heartbeat)



Continuous integration

Nightly build & testing



Jenkins

for windows:

latest local + stable + remote client



for linux:

latest local

stable local

remote client + server



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