

Protocol Issues

- GRANTED RPC
 - retransmission versus new call that looks like old one
- network partitions
 - is it dead, Jim? What (when) do I tell the user?
- F_GETLK sysid
 - hard to map protocol info to UNIX info
 - server's idea of sysid not same as client's?
- recovery scheme is weak

Client Implementation Issues

- orphan locks, signals
 - don't want to orphan locks
 - don't want to ignore signals
- mmap
 - avoid possible race condition
 - just require page-aligned locks?
- SIGLOST
 - reduce chance of file corruption
 - how does application recover?
- file sharing != file locking

Server Implementation Issues

- lock offset & length
 - protocol is unsigned, Posix is signed
- avoid dependency on name service (asynch calls)
 - errors in name/address map
 - can't find hostname (wrong domain)
- reclaim requests: ignore `block` bit
- duplicate request detection
 - avoid `EDEADLK` from local locking code

Shared Implementation Issues

- recovery
 - cross-domain: may not have client's domain
 - client's name for server versus server's name for server
 - single-threaded statd: down client or loopback mount
- RPC client handles
 - when to flush cache entries
 - memory consumption
- authentication flavors

Status

- New lock manager in Solaris 2.5
- problem with orphan locks (fixed in Alpha)
 - need to release lock if server might have gotten request
- problems with loopback transport (fixed in Beta)
 - use of fully qualified domain name
 - strings aren't null-terminated

Lock Manager Status and Issues

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