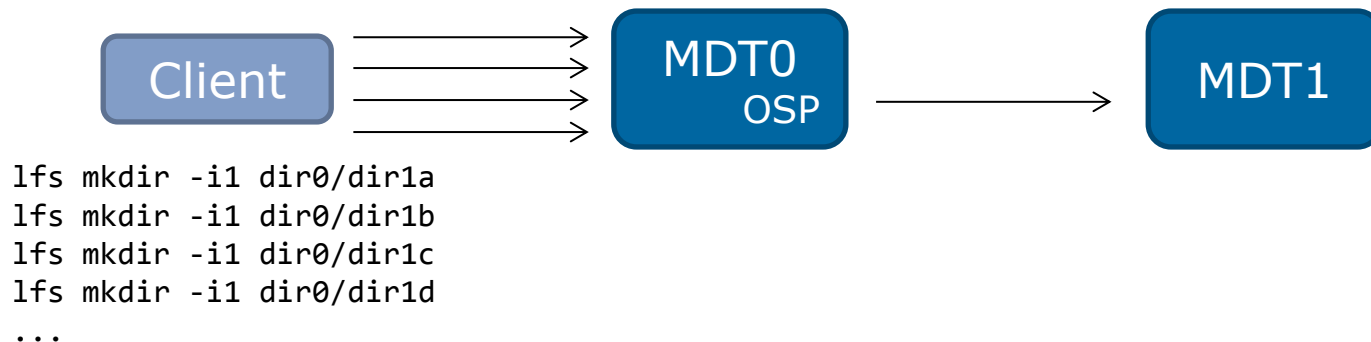# OSP multiple modify requests to MDT

► [LU-6864](#) "Support multiple modify RPCs in flight for MDT-MDT connection"
  – gerrit patch 14375 "osp: manage number of modify RPCs in flight"

► Implementation
  – use the same client_obd fields than for MDC
  – call obd_get_mod_rpc_slot() / obd_put_mod_rpc_slot()
  – OSP max_mod_rpcs_in_flight parameter
  – OSP modify rpc_stats statistics

► How to identify modify vs. non-modify OSP requests ?
  – currently if transaction needs sync commit (th_sync) or wait to submit (th_wait_submit) then no rpc_lock
    else take rpc lock but no max_rpcs_flight control (obd_get_request_slot())
  – opcode is always OUT_UPDATE

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OSP multiple modify requests to MDT (2)

▶ Cross MDT modify requests
  – remote directory operations
    • creation
    • unlink
    • any other ?

  – namespace LFSCK operations
    • mostly non-modify requests
    • how to test it ?

```
lfs mkdir -i1 dir0/dir1a
lfs mkdir -i1 dir0/dir1b
lfs mkdir -i1 dir0/dir1c
lfs mkdir -i1 dir0/dir1d
...
```

OSC or OSP multiple modify requests to OST

Following information come from discussions that occurred during LU-5319 development. It needs to be confirmed.

▶ LAST_RCVD is currently not used for OSTs
  – performance more important than correctness of data

▶ OSC modify operations are not all idempotent
  – lockless IO
  – attribute set

▶ OSP requests for layout LFSCK

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