WiredTiger Backend for OpenLDAP

Open Source Solution Technology Corporation

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LDAPCon 2015 Edinburgh November 2015

About OSSTech

- ID Management
- Open Source Contribution

About WiredTiger

- Embedded database
- High performance
- High scalable

About back-wt

Lock Free

bdb_next_id()

```
int bdb_next_id( BackendDB *be, ID *out )
{
    struct bdb_info *bdb = (struct bdb_info *) be->
        be_private;
    ldap_pvt_thread_mutex_lock( &bdb->bi_lastid_mutex );
    *out = ++bdb->bi_lastid;
    ldap_pvt_thread_mutex_unlock( &bdb->bi_lastid_mutex );
    return 0;
}
```

wt_next_id()

```
int wt_next_id(BackendDB *be, ID *out){
    struct wt_info *wi = (struct wt_info *) be->be_private;
    *out = __sync_add_and_fetch(&wi->wi_lastid, 1);
    return 0;
}
```
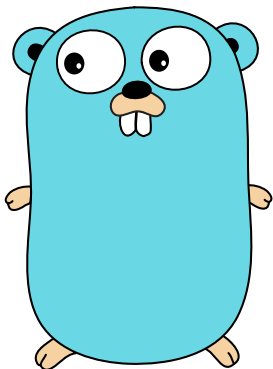
fsync(2) is slow

- Group commit

Durability Level

- in-memory txn log – fastest but no durability
- write txn log file, no sync
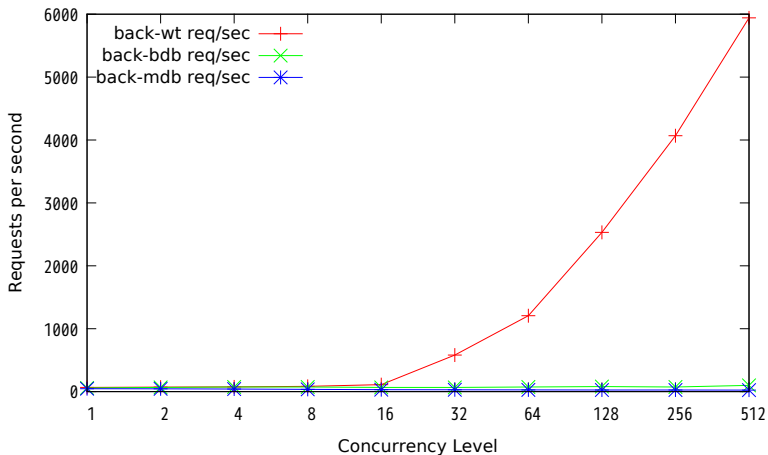- write txn log file, sync per every commit

New Benchmark Tool - lb

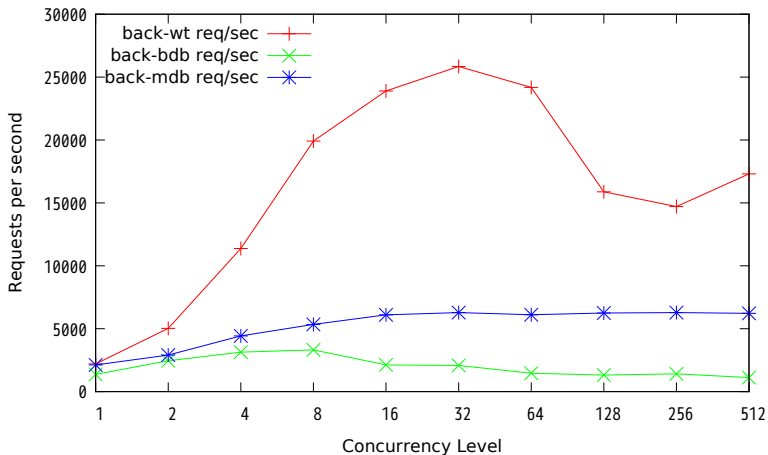- slamd is dead
- Apache Bench like inteface
- Written by golang

lb

- $ go get github.com/hamano/lb
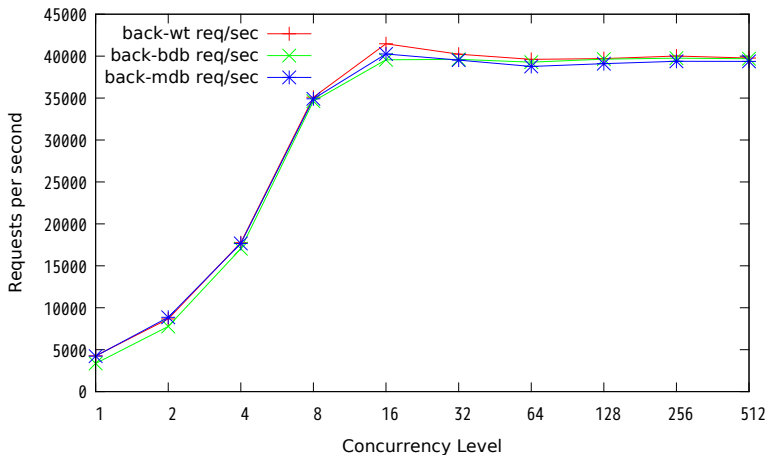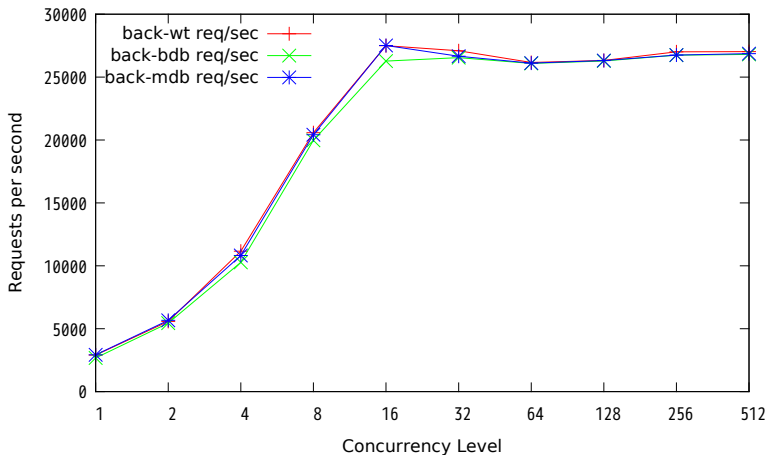- $ lb -c concurrency -n requests Apache Bench like interface

ADD (sync) Benchmarking

ADD (nosync) Benchmarking

BIND Benchmarking

SEARCH Benchmarking

Tests

$ make -C tests wt

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Tasks

- Hot-backup
- alias and glue entry

Questions?