

PostgreSQL server configuration

Document author: anna.hammais@tyks.fi

Useful options to configure in the PostgreSQL server, according to https://wiki.postgresql.org/wiki/Tuning_Your_PostgreSQL_Server:

```
select * from pg_settings
where name in
('shared_buffers',
'checkpoint_segments',
'effective_cache_size',
'checkpoint_completion_target',
'maintenance_work_mem',
'autovacuum_work_mem',
'wal_buffers',
'config_file');
```

- shared_buffers – 25% of system memory (default very small)
- checkpoint_segments – default 3, set to 20
- effective_cache_size – 50% of system RAM (not hard allocation, just an estimate of max needs)
- checkpoint_completion_target – set to 0.9
- maintenance_work_mem – set to 64MB
- autovacuum_work_mem – -1, which means to use maintenance_work_mem
- wal_buffers – default 1/32 of shared buffers, which is ok

These changes should be entered in the *postgresql.conf* file, located by starting psql as superuser on the ktpg server:

```
ssh ktp@ktpg.vssh.net
sudo su -
psql
psql> show config_file;
```

The PostgreSQL server must be restarted for these changes to take effect. You can check this by re-running the above select query after the restart.