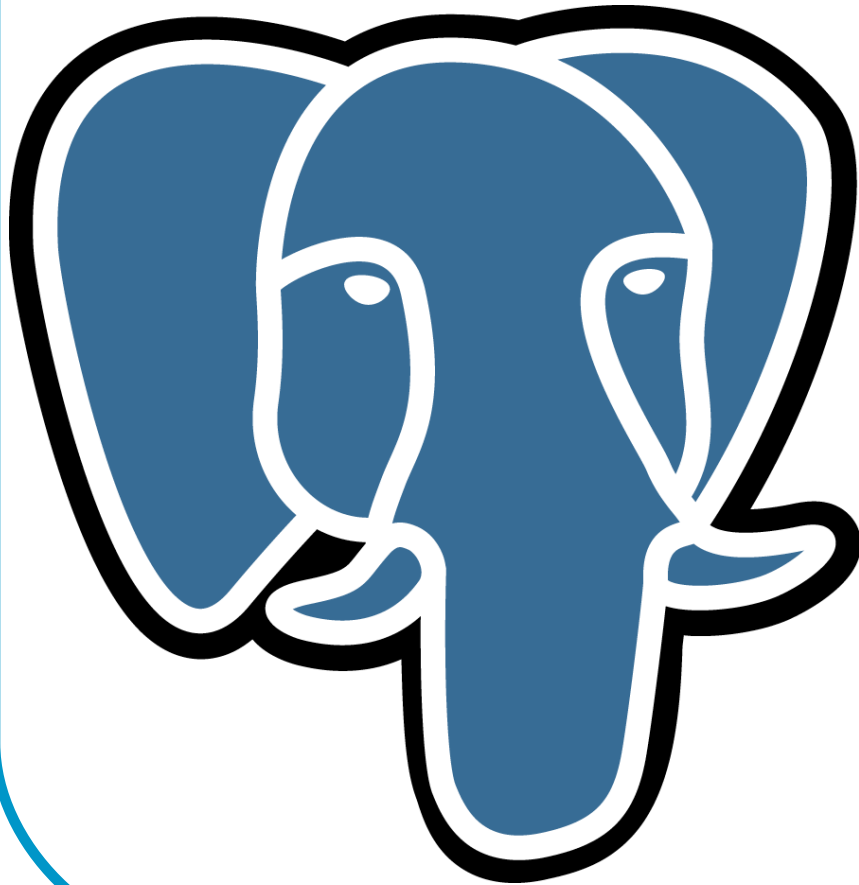


An ISP Hosting Solution on on PostgreSQL



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The Software

- Distributed ISP Panel solution
- Admin and customer interface
- Reseller and sub-reseller capable
- PHP (GUI)
- Perl (Front- and Backends)
- PostgreSQL

Architecture

- Database at the core
 - Provides views and functions as an API
- Frontends
 - GUI (PHP)
 - SOAP-Interfaces
- Queue manager (LISTEN/NOTIFY) + SOAP - confd.pl
- Backends - provd.pl

Architecture - Database

- Provides clear API to the Frontends
- Heavy normalized schema
- API functions(PL/pgSQL) simply INSERT/UPDATE/DELETE on the tables
- One trigger per table transforms the data into a predefined format (multi-dimensional array) and moves to the queue
- "no SQL errors" => subtransactions

Architecture - confd.pl

- Persistent daemon
- LISTEN/NOTIFY on the processing queue
- Row-level locking
- requests on at a time transformed into a SOAP call and directed to the relevant backend

Architecture - provd.pl

- Receives SOAP calls from confd.pl
- Transforms calls into appropriate actions for the local backend
- Plugins/Backends for
 - Webservices (Apache, IIS, Awstats, pureftpd)
 - Databases (MySQL, PostgreSQL)
 - Mailservices (Exim, Courier-Imap)
 - DNS (PowerDNS)
 - Messaging, Video, Snapshots, Xen, Nagios

Summary

- Distributed Provisioning is hard
- Avoid having backends depend on the database
- Design the API beforehand
- Avoid mixing async and sync
- Constraints, constraints, constraints

Thank you!



Questions?