


# Datawarehousing Quattor



cdb2sql, cdb2sql-ora, quatview, etc...



# Quattor and Databases

- Managing relations between objects, and metadata having integrity constraints, should involve a relational model.
- Managing configuration behaviors should be described by a domain-specific language suited to expressing such policy.
- “What’s configured where and how?” should involve a datawarehouse.



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**ENTERPRISE  
MODEL**

**PAN + SCM**

**CDB2SQL**



# Datawarehouse

- We want to know all/any configuration for all/any machines.
- We want it via different views, different formats (human vs. machine)
- Time:
  - It would be nice to have historical views.
  - We'd like to know which templates generated which configuration



# QuatView

- Uploads selected information from locally-accessible profiles into MySQL (not hard to change db) database.
- Single timestamp.
- Most importantly, an interface: a web-based browser.



# cdb2sql (old)

- A server module - can run anywhere
- Finds profiles which have changed(\*), uploads them into DB via “bulk” insert.
- “Any database that DBI supports”. Defaults to MySQL
- Same as QuatView, but without web tool to browse the data.
- Works fine.



# Server Modules #1

- CDB and SCDB send CDP notification that profiles have changed:
  - CCM = *your* profile has changed. Sent to affected hosts. `cdp-listend` on host then invokes `ccm-fetch`.
  - CDB = *some* profiles have changed. Sent only to server module hosts (as per `/etc/cdb.conf`). `cdp-listend` on server module hosts will invoke `cdbsync-nch`. Not implemented by SCDB.



# Server Modules #2

- `cdbsync-nch` parses `profiles-info.xml`, builds index and then runs “actions”
  - doesn't manage caching
- Actions defined in `/etc/cdbsync.conf`:
  - `aii-shellfe --notify`
  - `cdb2sql`



# cdb2sql (recent)

- -ora version not actually Oracle specific (still defaults to MySQL), provides *extra* support for Oracle
  - Comes with many oracle-specific views
  - Works fine
- Still server module
- Still no web interface (Oracle)



# cdb2sql (new)

- -dist version more recent, faster. Oracle specific, although not hard to change code (cx\_Oracle in python).
- Still server module, but action is simpler: cdb2sql just schedules uploads and asks dispatcher to download XML, upload to DB. Multithreaded dispatcher...
- Still no web interface.



# Proposal

- Use cdb2sql
- Use QuatView web interface against cdb2sql schema instead of QuatView schema
- Bonus points:
  - extend schema to provide versioned data
  - include revision “tag” in data
  - publish datawarehouse to AII