Integrating DIRAC with a PostgreSQL bookkeeping database via SQLAlchemy

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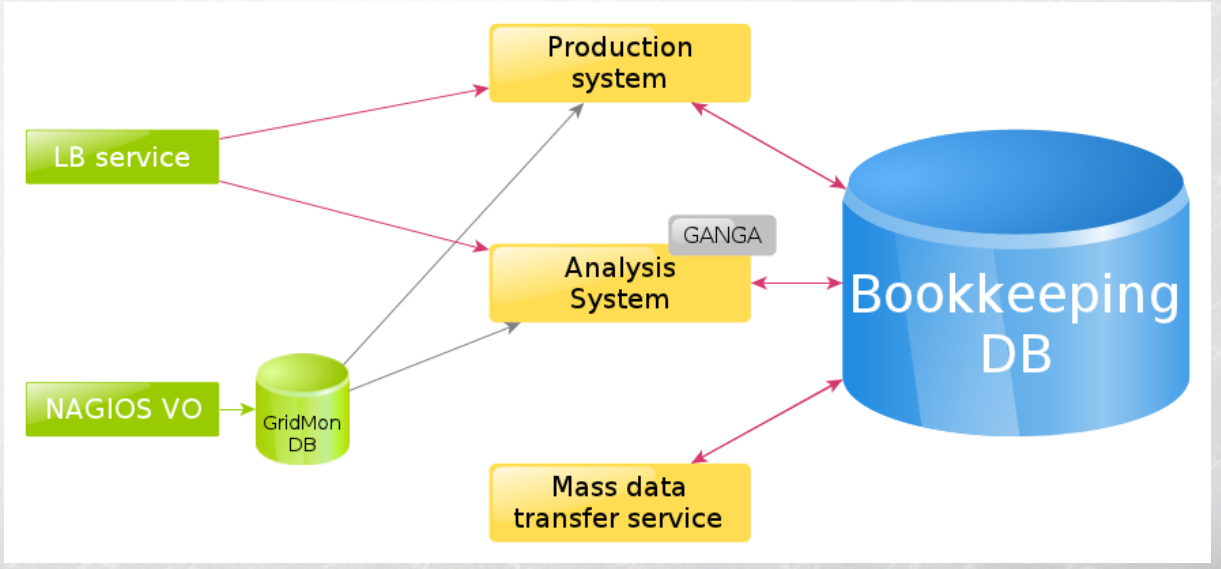
Agenda

- SBK5 – Bookkeeping database for SuperB
- Accessing PostgreSQL database from Python code
- Integrating with DIRAC

Bookkeeping database

- Cental database in computing model
- Accessed by many parts of the system (read and write)



Accessing database

- Considered alternatives:
  - Psycopg
  - REST interface
  - **SQLAlchemy**
- Why SQLAlchemy?
  - Powerful object-relational mapping
  - Elegant, easy to write and read code
  - Works with wide variety of database backends

Putting bricks together

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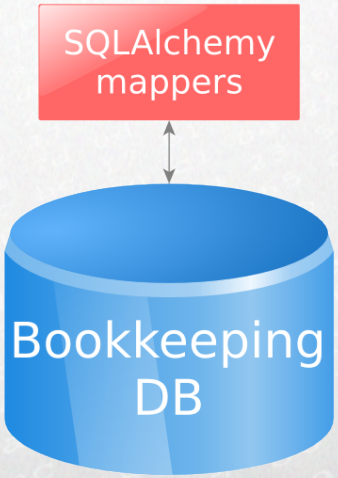
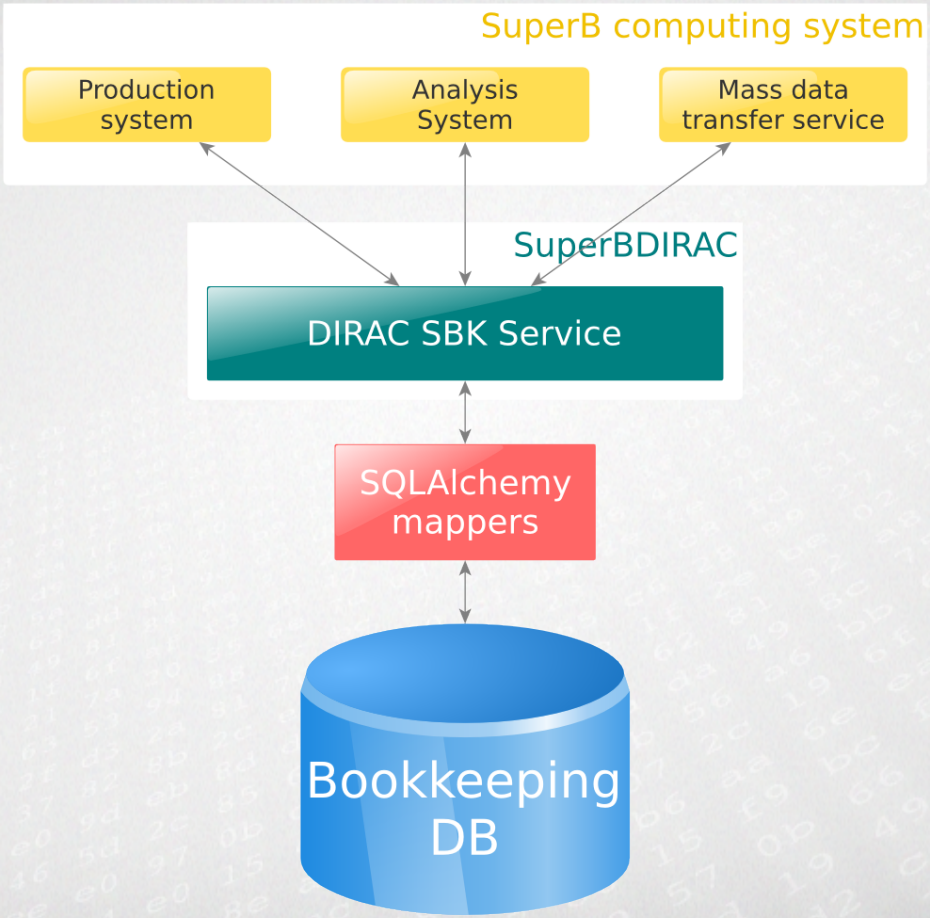


Putting bricks together



DIRAC SBK Service

- Parts of the computing system need to access bookkeeping database contents
- DIRAC Service is a way to export functionalities
  - Set of tools to manipulate on SBK
  - All functions in one place

- [one more diagram here]