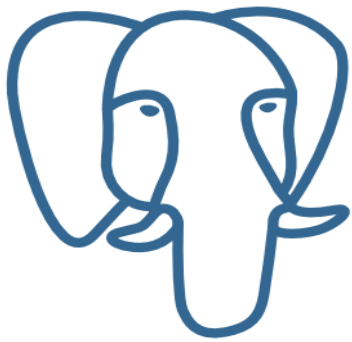PGConf.Brasil 2018

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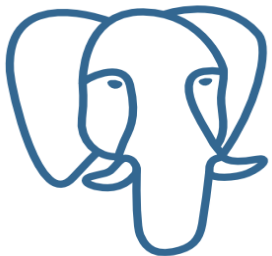# Data Integration Layer Solution

Author: Msc. Eng. Gilberto Castillo Martínez, Cuba
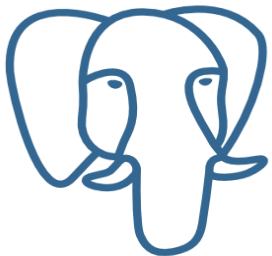
cu@postgresql.org

Antecedents

Origin of this work had began in a developer application for one entity the scientific pole, and before entering in BioCubaFarma, bring all information separately.
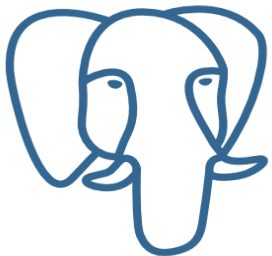
After of this development he could coordinating integrally its retroviral production, give following from patients ill and a save life the children specially.
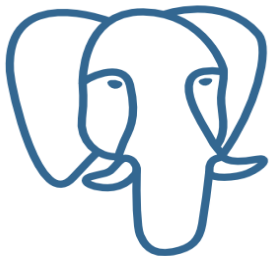
Antecedents

What is?

Database developed in PostgreSQL where it is include all operation information the enterprise of Telecommunication of Cuba S.A. Through a practical use of FDW with different data sources (pdf, text, access, Ldap, mongodb, Sqlserve, Oracle, PostgreSQL, etc.) and other functionalities as Jsonb, With recursive, Trigger Function, Upset, etc.

Data integration layer solution achievement the planned objectives and explored previously unacknowledged issues. They were accomplishment through the a data abstraction layer that unify all isolated information along enterprise by software that they responded to specific needs, both provincial and national level. All They had different languages and database manager.
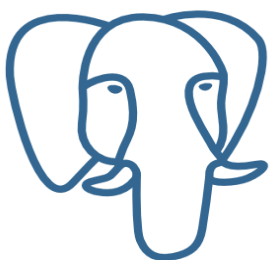
What is?

Its integration over time had become increasingly difficult and in all these years many attempts they did haven't the result expected.

This solution it is being used for more the 4 years.
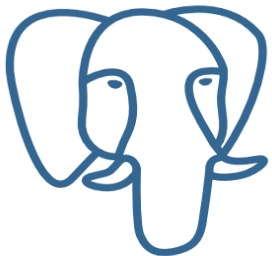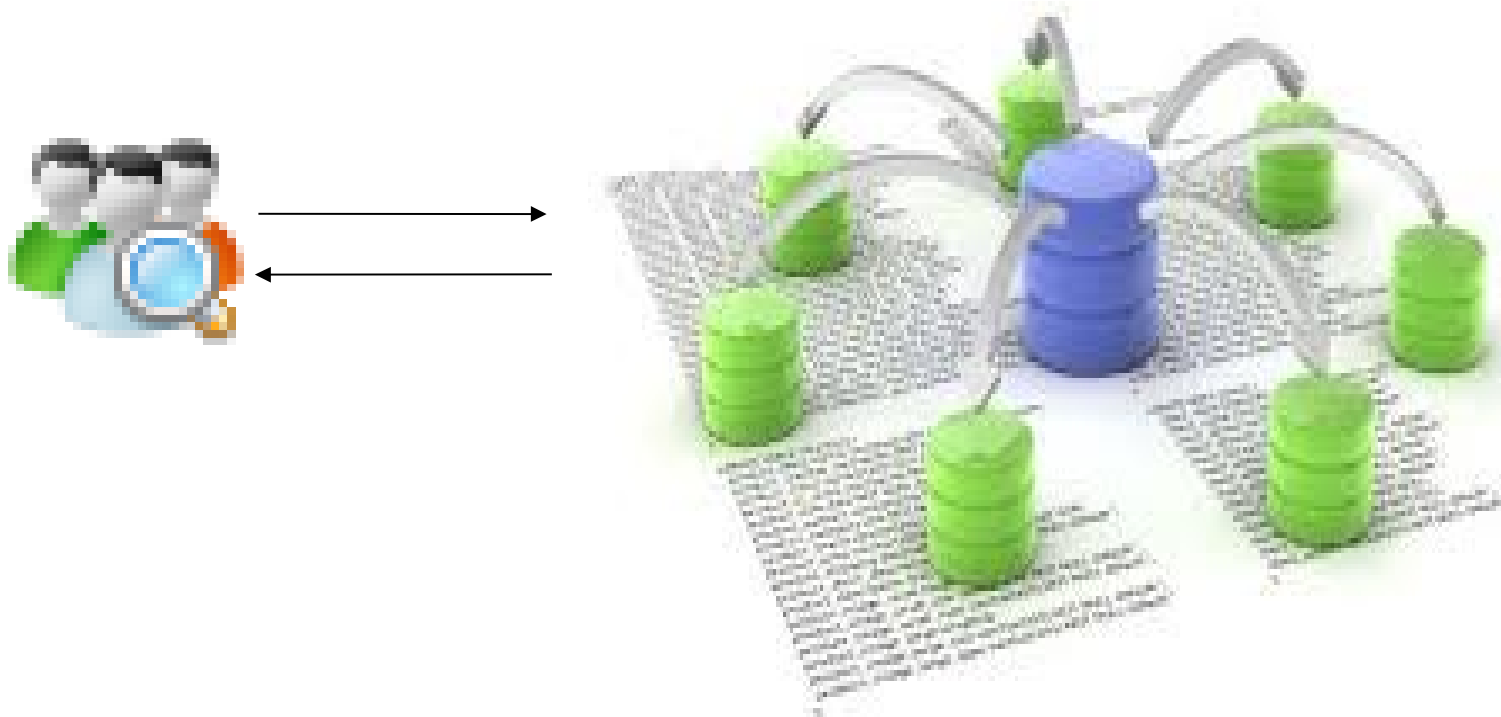
App Web

Integrate Database

PostgreSQL

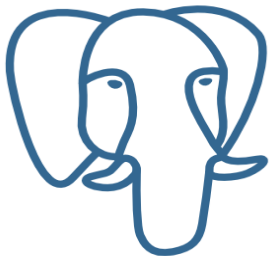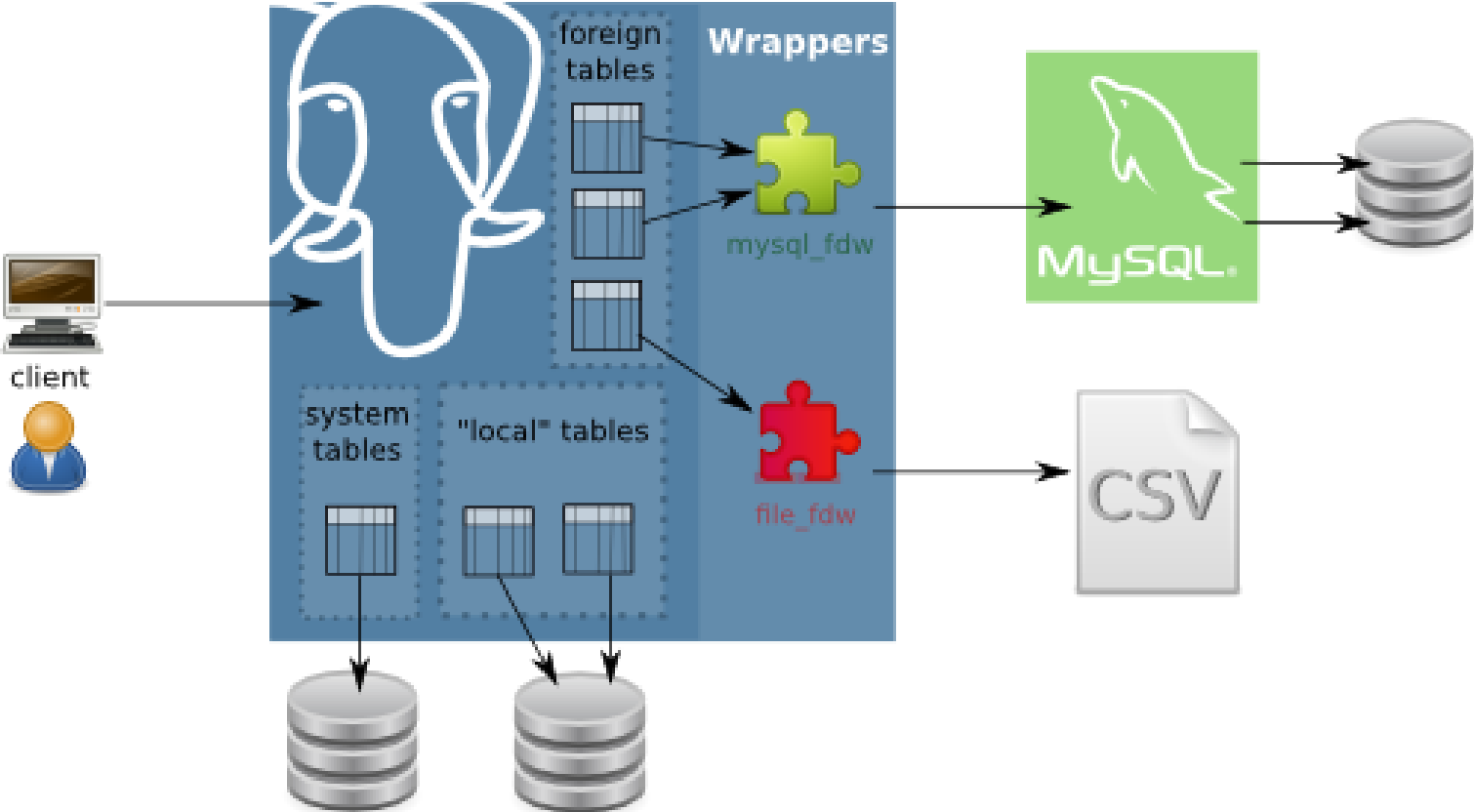MySQL   Oracle   MongoDB   SQL   Otras   Documento Accesible
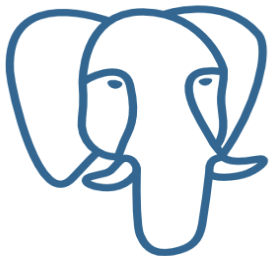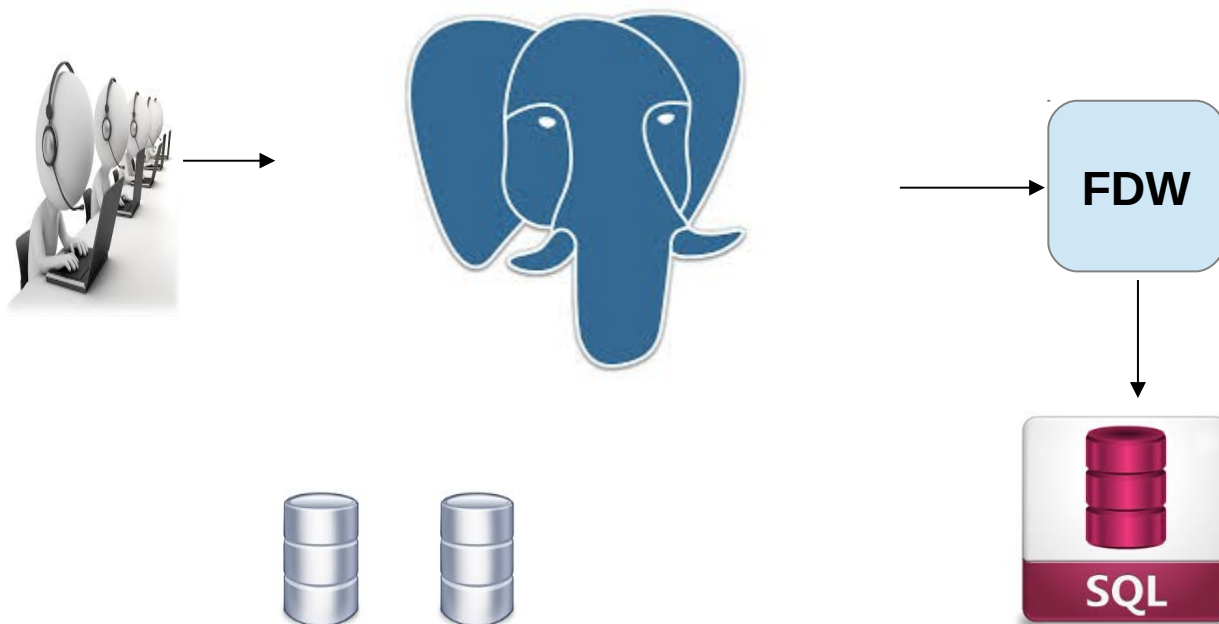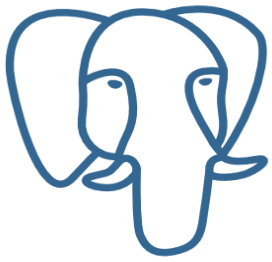
How to use?

How to use?

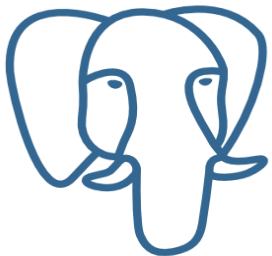# How to use?

FDW

SQL

How is the functionality?

- For each origin table add two columns "Id_integration and activity"
- For each new table add several columns "Id_integration, activity, candidate and no-billed" more the origin columns
- Triggers
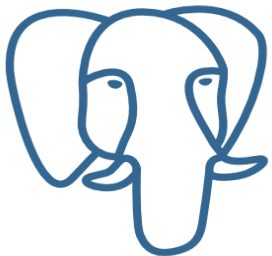**- Processing scripts**
- Others

Result

- **Creation of convergent layer where are permit the access integral at all necessary information with possible the manage new variables in the future.**
- **All test made with different data sources It was successful and explored all external data with acceptable speed.**
- **Jsonb data, allowed us stores different information for each clients.**
- **Recursive, allowed us identify orphaned services, is to say, service without clients, or clients with one service associated several time, or clients without services associated.**
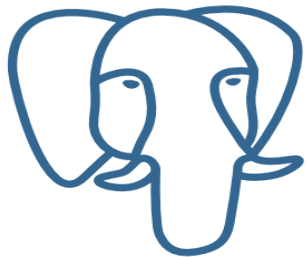- **It is derived other testing task at the telephone central.**

Result

- **All the information we can access in real time.**
- **It isn't necessary massive data load by update.**
- **The work of update for intermediate data is done automatically by responsibility areas, they only select the correct data.**
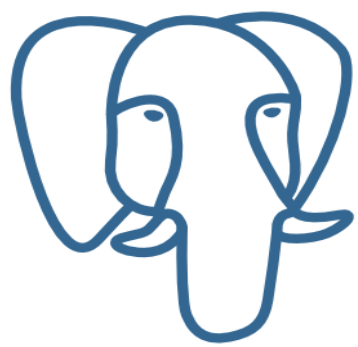- **This solution it relation with all application that today using in the different areas the enterprise.**

More Important Lists of help:

- **pgsql-es-ayuda@postgresql.org**
- **pgsql-performance@postgresql.org**
- **pgsql-sql@postgresql.org**
- **pgsql-hackers@postgresql.org**
- **pgsql-announce@postgresql.org**
- **pgsql-es-fomento@postgresql.org**

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