

# Enterprise GIS In Open Source

What is it?

How it works?

What do you need?

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# What Is Enterprise GIS?

- ▶ TL;DR: It depends.
  - ▶ On your organization and its needs.
  - ▶ On the data you want to work with.
  - ▶ It's how you store your data.
  - ▶ It's how you create your data.
  - ▶ It's how you present your data.
  - ▶ It's how you connect all of the above.

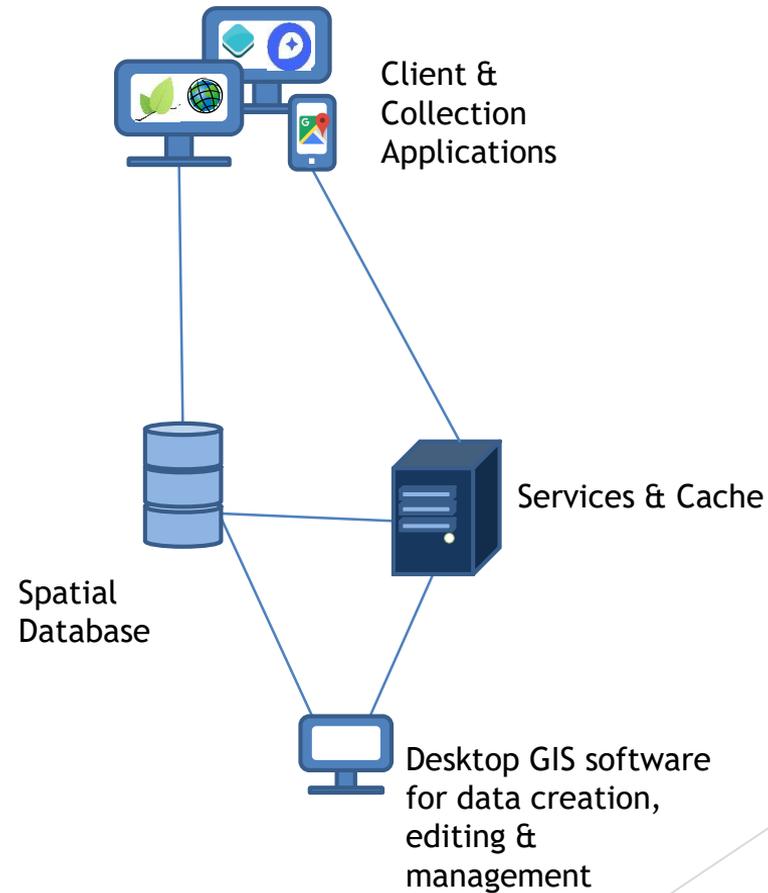
# What Is Enterprise GIS?

It allows you to:

- ▶ Store
- ▶ Visualize
- ▶ Query
- ▶ Analyze
- ▶ Share

Your data within and outside of your organization

# What Is Enterprise GIS?



# What Is Enterprise GIS?

- ▶ With ESRI's ArcGIS solution you get all of that handed to you.



- ▶ With Open Source you will have to roll up your sleeves.



# Why Go Open Source?

- ▶ One vendor (ArcGIS) limits you to its capabilities, and prices.
- ▶ Get to know more tools, some more powerful than you realize.
- ▶ Get to know what capabilities other GIS can have.
- ▶ It's Free!

# What Are Your OS Options?

Plenty.  
Why?

HOW STANDARDS PROLIFERATE:  
(SEE: A/C CHARGERS, CHARACTER ENCODINGS, INSTANT MESSAGING, ETC.)



# What Are Your OS Options?

## Desktop GIS



There are several options, most popular of which is **QGIS** (formerly Quantum GIS), but other options like **gvSIG** and **Udig** exist.

Most will rely on OS software to read, write and analyze data, some of those algorithms are used within ArcGIS as well with some pretty UI added.

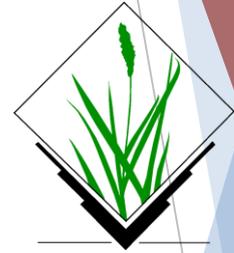
# What Are Your OS Options?

## Desktop GIS - Heavy Duty Analysis



**GEOS**

Geometry  
Engine  
Open  
Source



These are Open Source software and programming languages, some of which are implemented within your basic desktop GIS and require further knowledge and skill to use.

# What Are Your OS Options?

## Spatial Data Storage



PostgreSQL



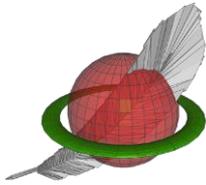
Is one of the most popular RDBMS in the world, and it's completely OS!

First released in 1996 it is constantly updated and maintained by the community and several companies.

It has several extensions which allow you to work with spatial data (PostGIS) and connects very easily with the other components of the OS GIS stack. (and ArcGIS too!)

# What Are Your OS Options?

## Spatial Data Storage



**Spatialite** is a spatial extension for SQLite, which is an easy to use one file database.

Geopackage is an open, standards-based, platform-independent, portable, self-describing, compact format for transferring geospatial information.

**Geopackage** is recommended for use by the OGC and can be used instead of the shapefile and File Geodatabase formats.

# What Are Your OS Options?

## Server Management (Services)



Popular projects for managing services, can be useful even for small organizations.

Able to load data from multiple sources and publish it to end users, either password protected or open to the outside.

<https://demo.boundlessgeo.com/geoserver/web/>

# What Are Your OS Options?

## Other Cool Stuff

**CARTO**



**Geonode** is a platform that lets you build and publish maps and basic apps

**Carto** is a platform for visualizing and analyzing your data.

# What Are Your OS Options?

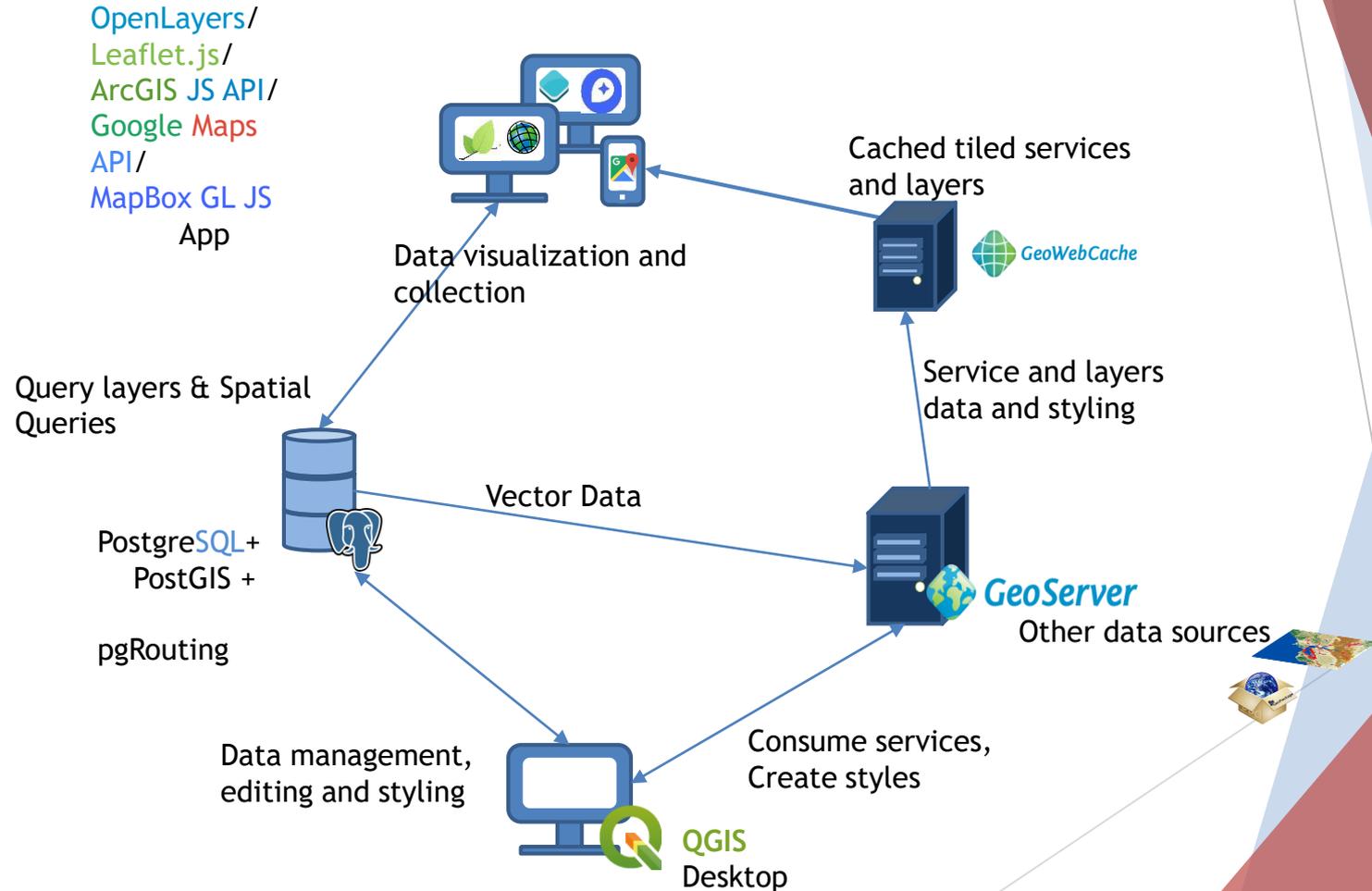
## Web Applications



Plenty of OS mapping libraries, for every need. With plugins increasing the range of abilities possible for each library and app.

<http://mapa.buenosaires.gov.ar/comollego/?lat=-34.620000&lng=-58.440000&zl=12&modo=transporte>

# How Will It Work?



# Why Not?

- ▶ It's Hard, I mean really hard, you might have to adjust working with command line tools or worse... a Linux server. 😬
- ▶ ArcGIS is very friendly, and comes with guides and a full stack ready to use and supported by one company.
- ▶ (Almost) No support, or classes, or a call center, or a guaranty the developers won't just get bored and stop updates.

# Why Go For It?

- ▶ It's Free, no licensing costs.
- ▶ It's Free, as in you can customize it for yourself and your needs.
- ▶ It's community centered, meaning support comes from a large community with varied solutions to any problem.
- ▶ Learn new tools, redefine what GIS is for you.