
# Διαχείριση Χωρικών Δεδομένων σε Περιβάλλοντα Cloud: η πρόταση του INGEOCLOUDS

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# What is the cloud?

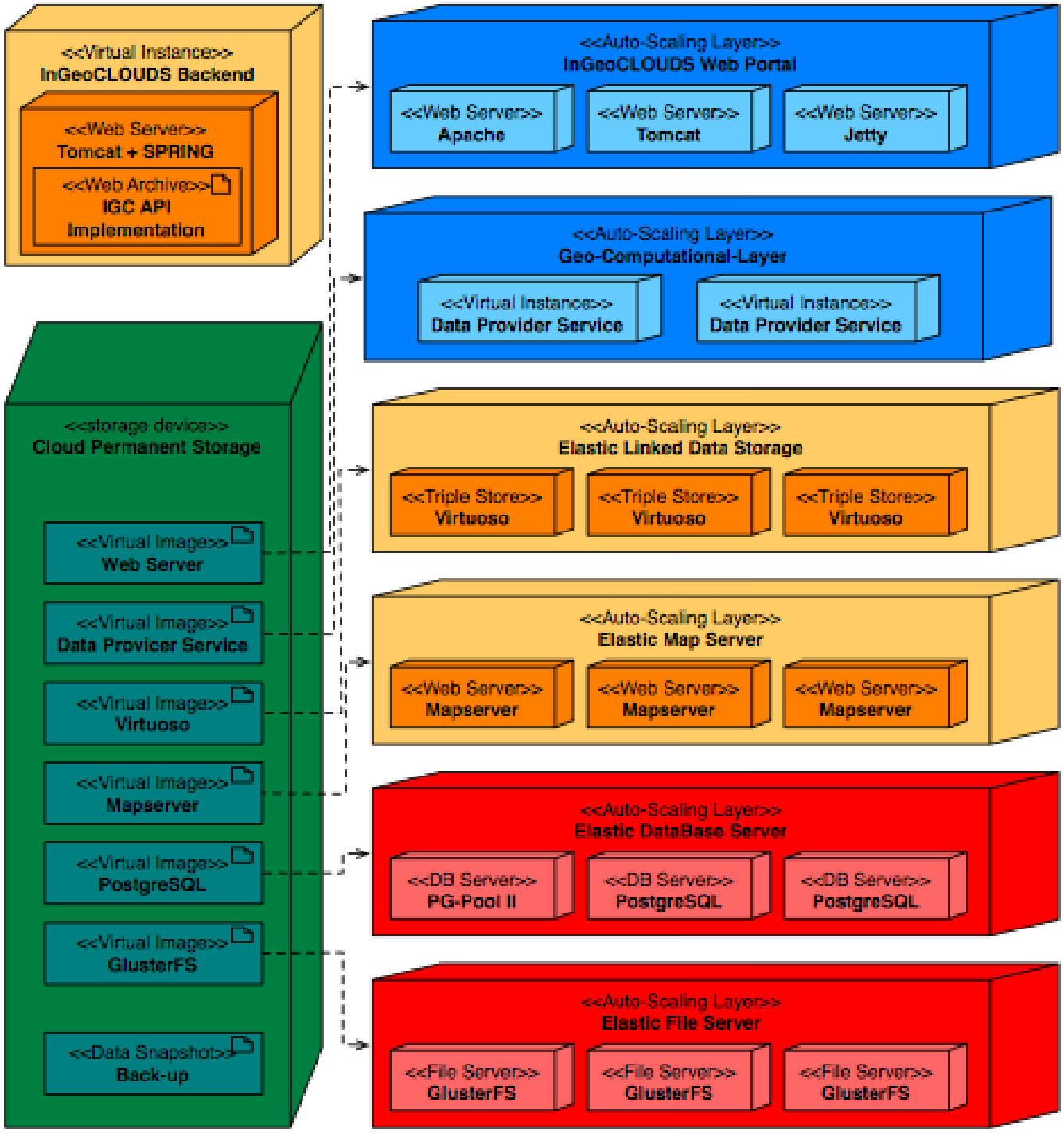
- Paraphrasing *Leslie Lamport:*
- A *cloud based* system is one in which the failure of a computer you didn't even know existed can render your own computer unusable.

# What is the cloud?

- Diverse software requirements <?> ***Virtualization***
- To support a larger number of software requirements
- Diverse resource requirements <?> ***Scalability***
- To support large data volumes and high throughput
- To support increasing dataset sizes
- Resource requirements vary over time <?> ***Elasticity***
- To support a varying number of users
- To support on demand computations (e.g. shake-maps)
- Reduce costs <?> ***Pay as you ?go***
- To reduce infrastructural cost during low platform usage

InGeoCloudS
Inspired GEOdata CLOUD Services

# InGeoCLOUDS Architecture: Auto-Scaling Layers



# Data Management in the CLoud

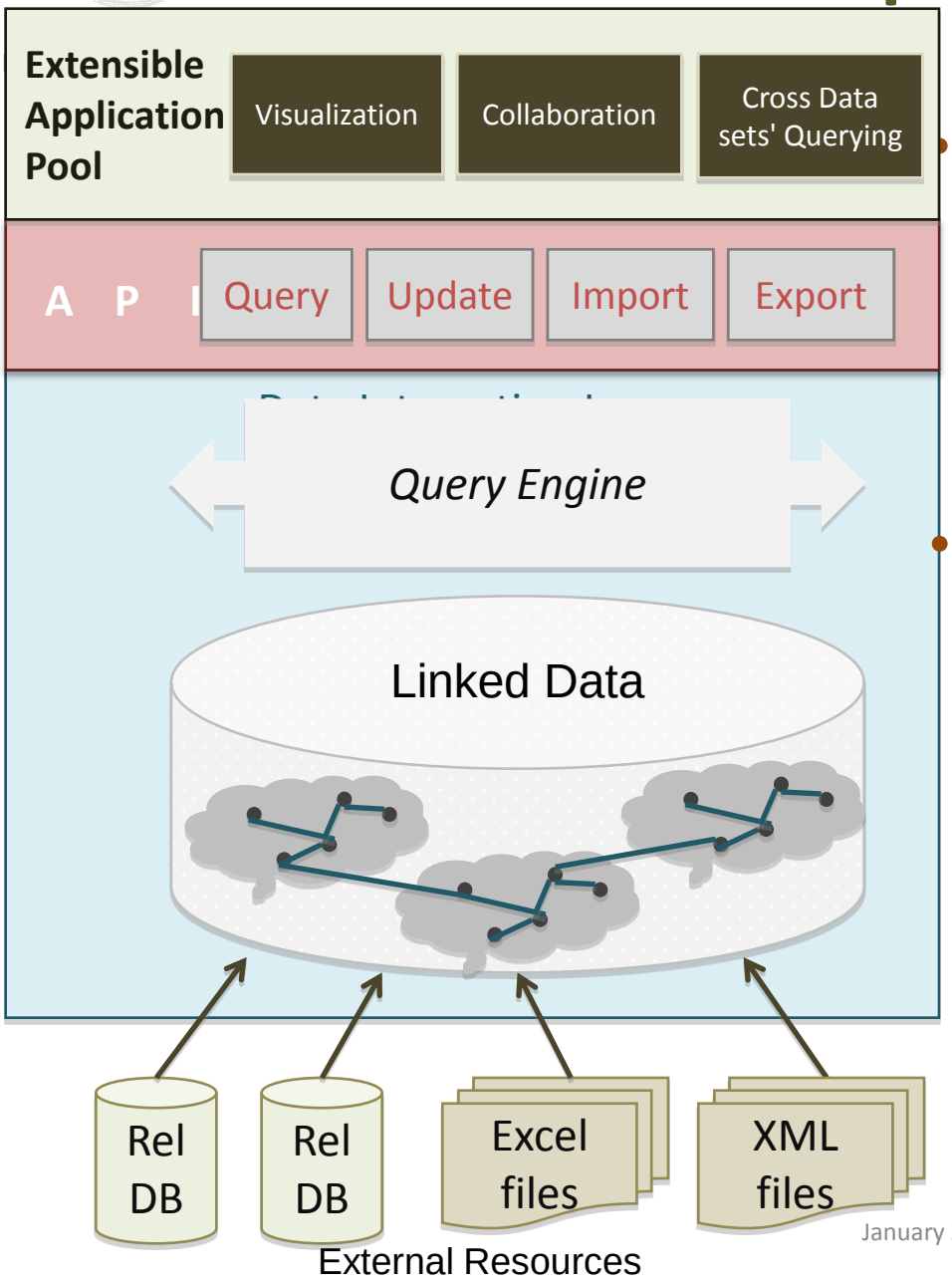
- Data integration
- Data retrieval in a uniform way
- Data export to other formats

# Information Integration

- The Web of data becomes a reality by connecting so far isolated islands or data silos such as
  - Enterprise silos (Disparate DBMS Engines & Development Frameworks)
  - Social Media silos (Social Networking Services, Discussion Forums, Blogs, Wikis etc.)
  - Scientific silos (in biology, physics, earth sciences, etc.)
- Linked Open Data (LOD) is a way of publishing data on the (Semantic) Web that:
  - Encourages reuse
  - Promotes its (real & potential) inter-connectedness
  - Enables network effects to add value to data


Source: flickr http://www.flickr.com/photos/docsearls/5500714140/

# Linked Open Data as Service

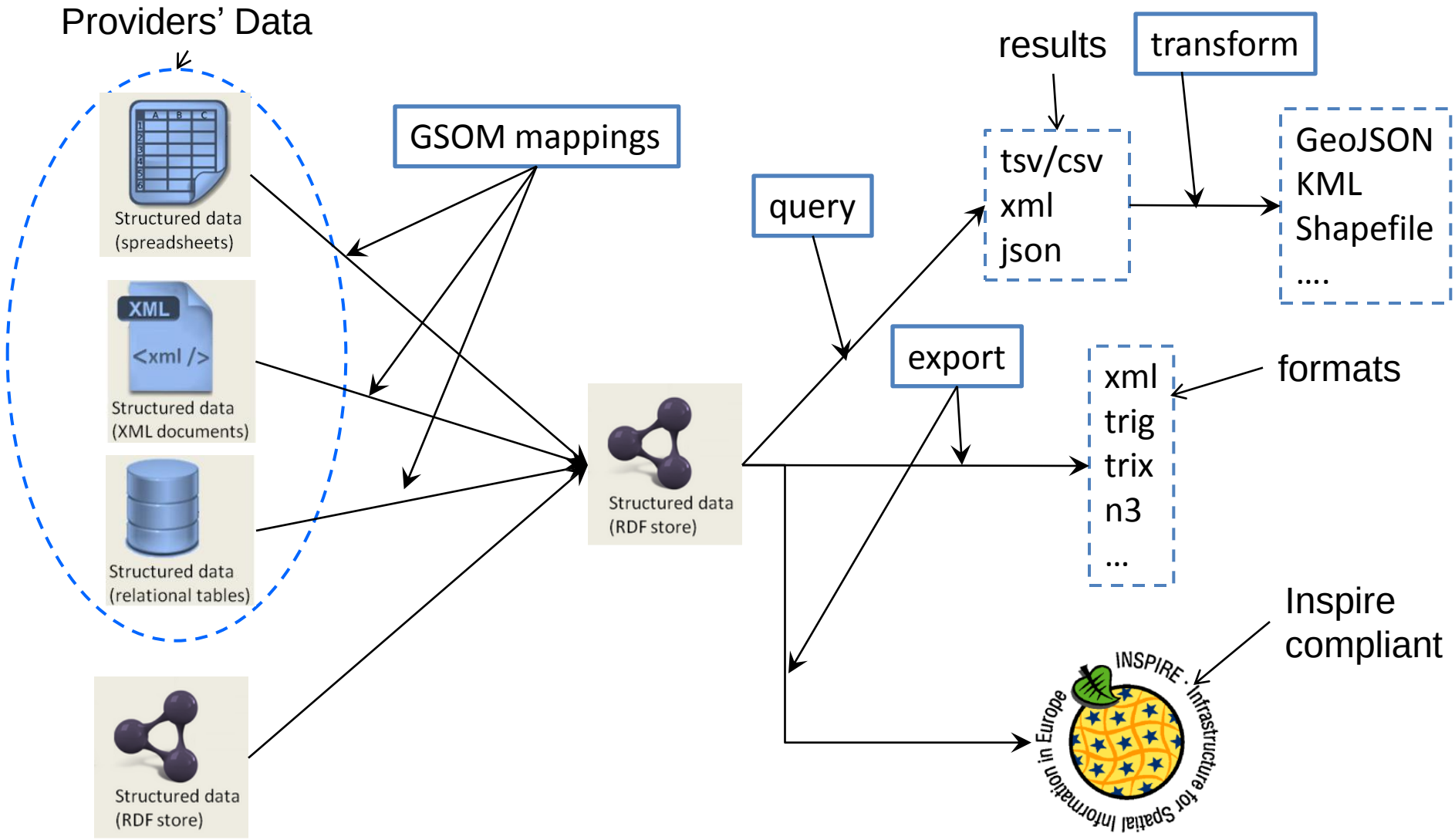



- Abstraction layer for data access
  *abstract the applications from the specific setup of the data management service (such as local vs. remote, federation, and distribution)*
- Beyond Data Access
  - Enabling automation of discovery, composition, and use of datasets
  - Data Markets
  - Online Visualization Services
  - Data Publishing Solutions
  - Data Aggregators
  - BI / Analytics as a Service

# Data Exports

- Query results viewed as:
  - RDF/XML
  - JSON
  - GML
  - KML
  - Shapefiles
- Transformation services to user provided conceptualizations
- Export to INSPIRE compliant XML formats

# Models, Mappings and Integration



# Later …

- How to publish your data as Linked Open Data using GSOM?
- How to query your data?
- How to export in different formats?
- How to export your data as INSPIRE compliant data?

**Yannis Roussakis**

InGeoCloudS

# Ερωτήσεις
# (και στο kotzino@ics.forth.gr)
# &
# Ευχαριστώ πολύ