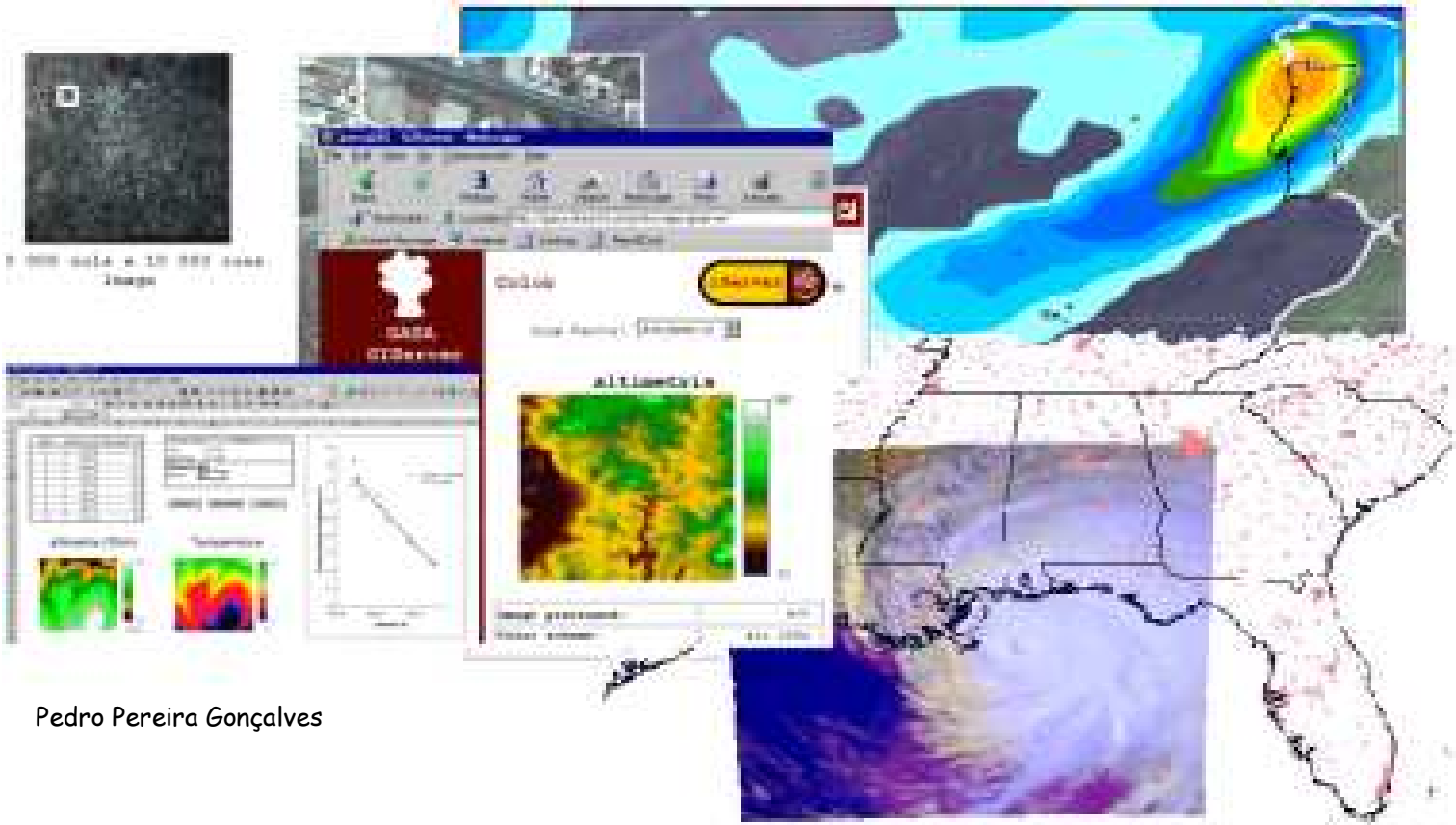
Summary

- GRID internal ESA promotion
- CEOS and GRID
- Compatible technologies
  - MASS
  - Large EO database and Interoperability
  - OpenGIS and Web Services

Creating GRID Services for Web Mapping



Pedro Pereira Gonçalves

OpenGIS Consortium

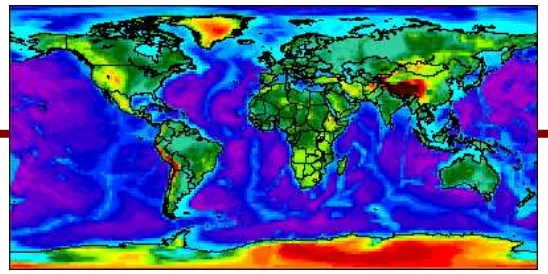
- International Consortium of 220 companies, governmental agencies and universities
- Consensus building for geographic information public access interfaces
- Interoperable solutions for geographic services in internet and mobile communications

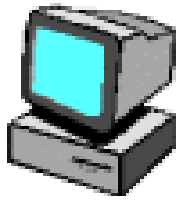
Web Map Service Specification

Web Map Services

USER

URL





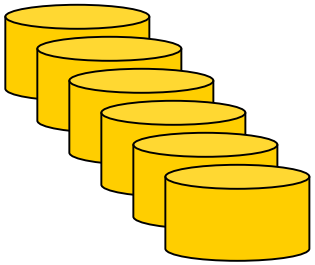
Webmap Service

Environmental Data

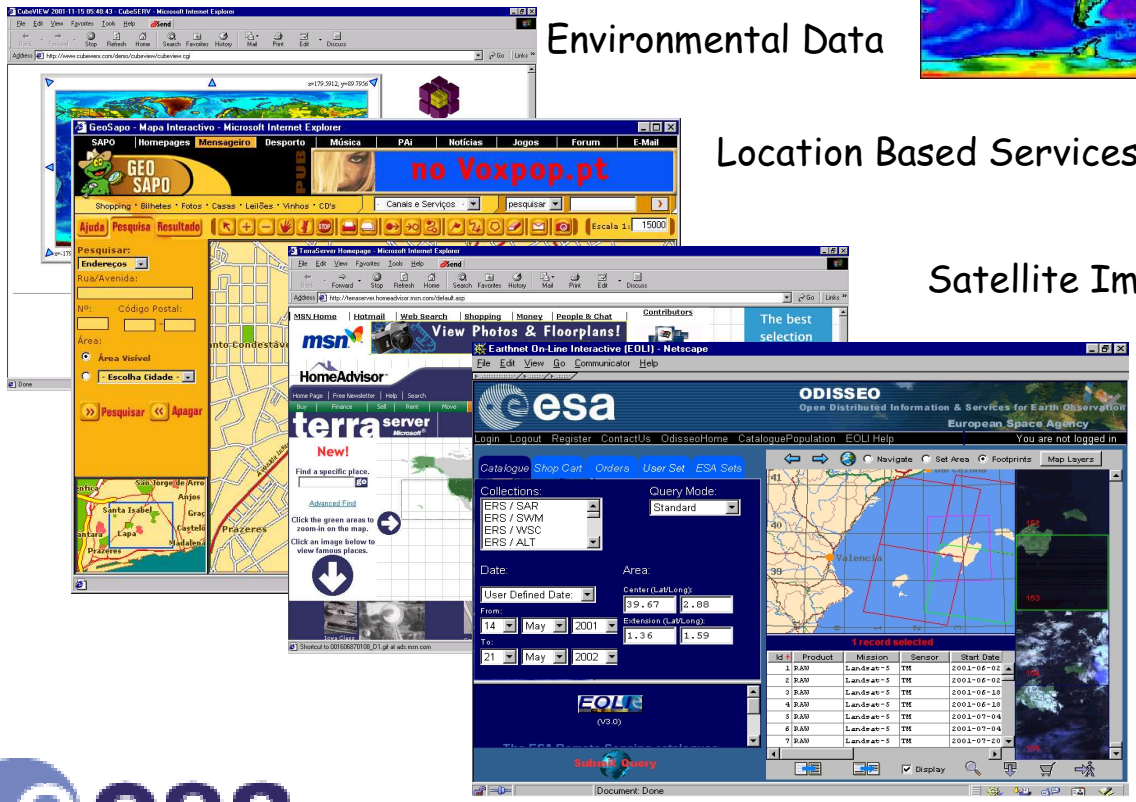
Location Based Services

Satellite Images

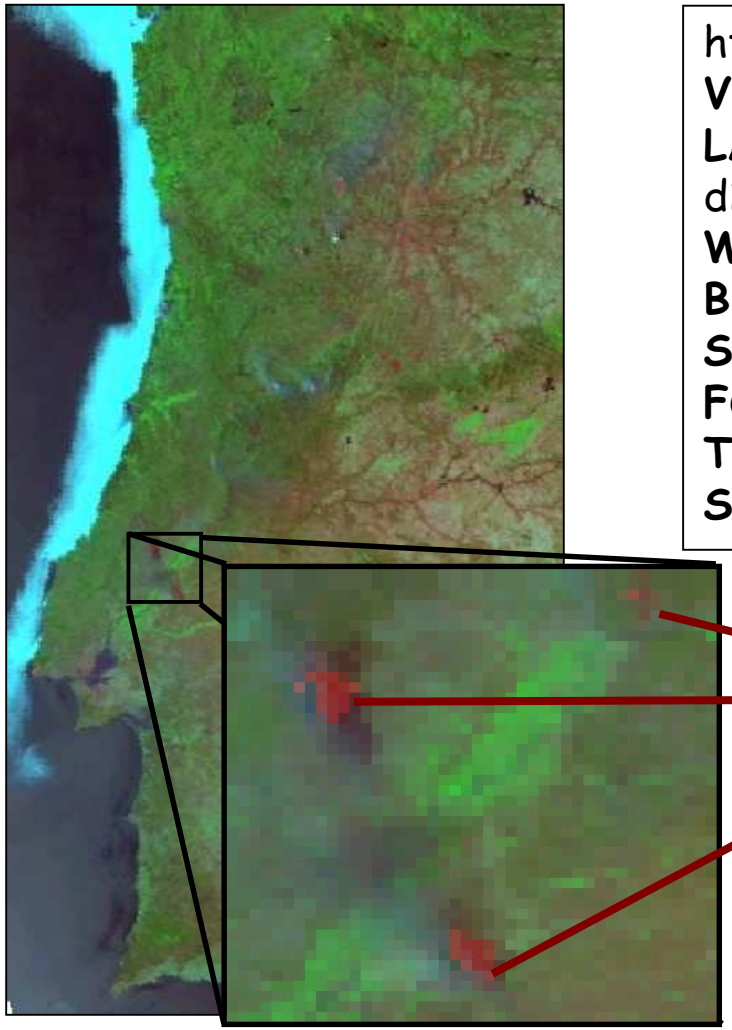
Catalogue Systems



Geographical Data



Web Map Services



http://inovagis.dcea.fct.unl.pt/giserver/map.exe?
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LAYERS=rgb(portugal.noaa.band1,portugal.noaa.band2,portugal.noaa.band3)&
WIDTH=229&**HEIGHT**=450&
BBOX=70000,-10000,375000,590000&
SRS=SHGM&
FORMAT=JPEG&
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STYLES=max300, max300, max300

Fire Detection

Auxiliary Information

VERSION=1.1.0&
REQUEST=GetMap&
LAYERS=PORTUGAL.CONC &
WIDTH=440&**HEIGHT**=440&
BBOX=138800,232800,187200,281200&
SRS=SHGM&
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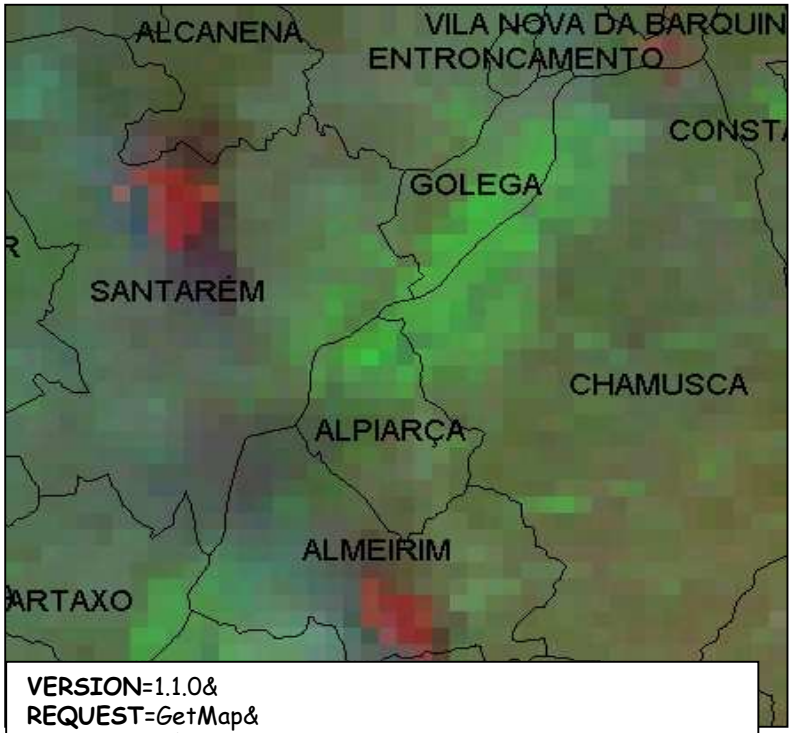

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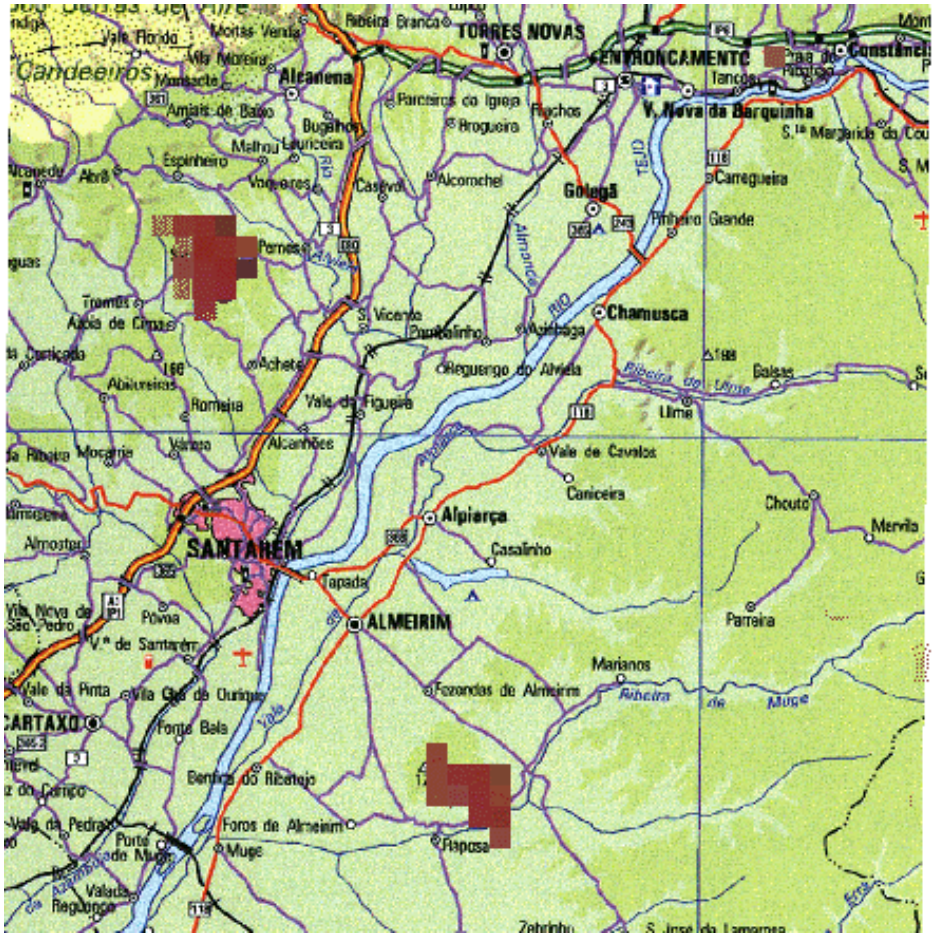
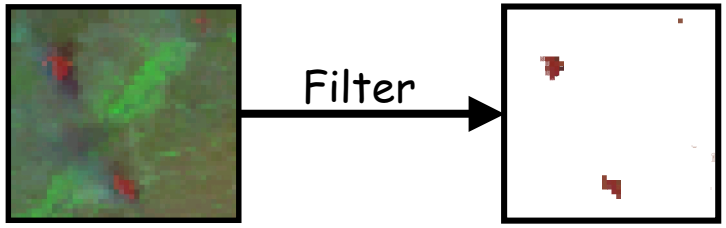
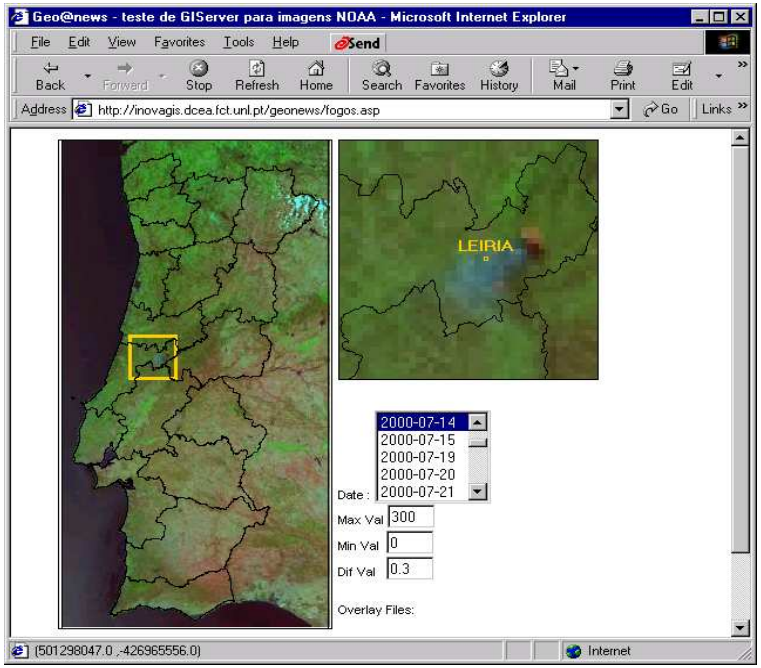
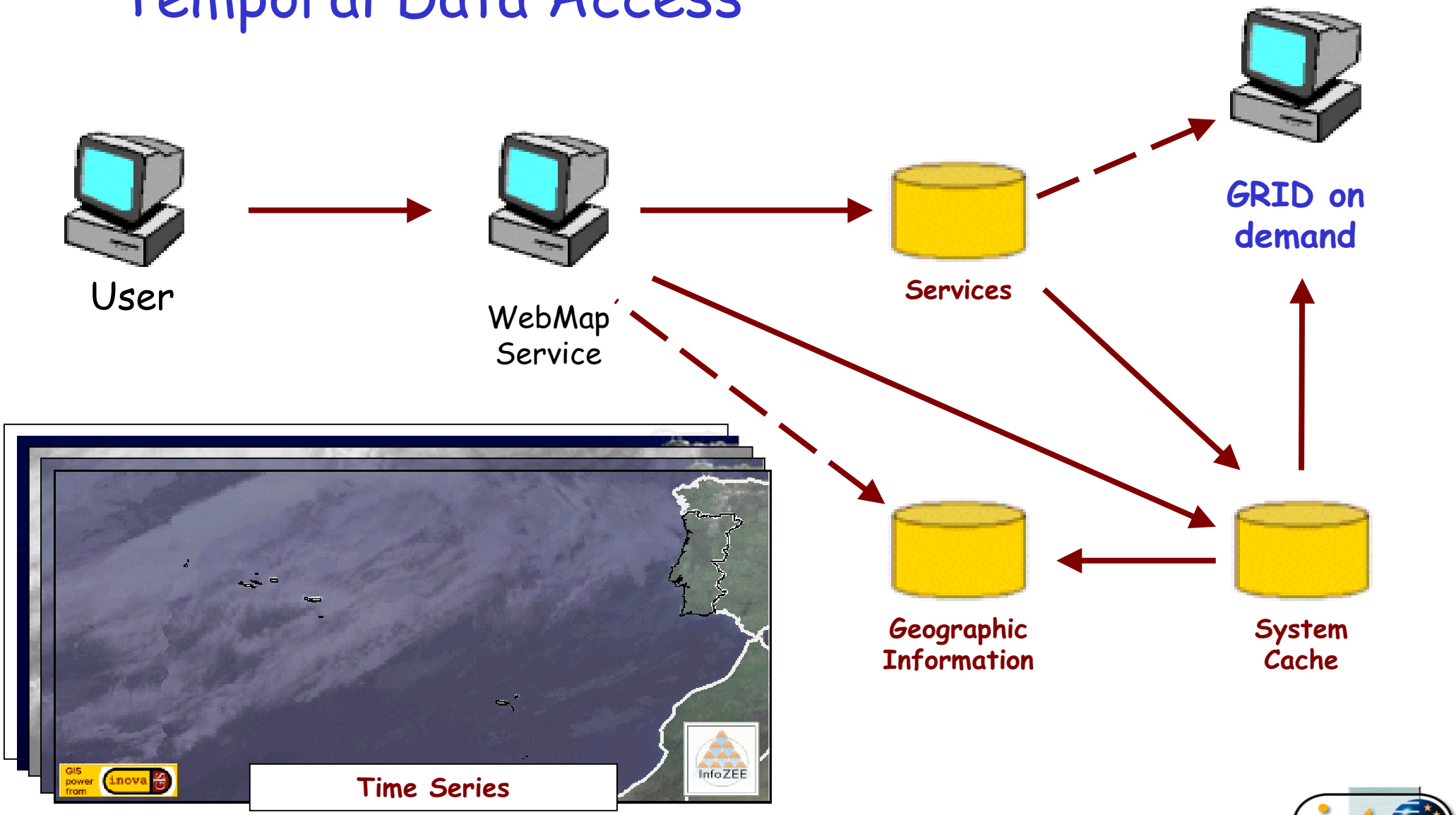
Image Processing Services

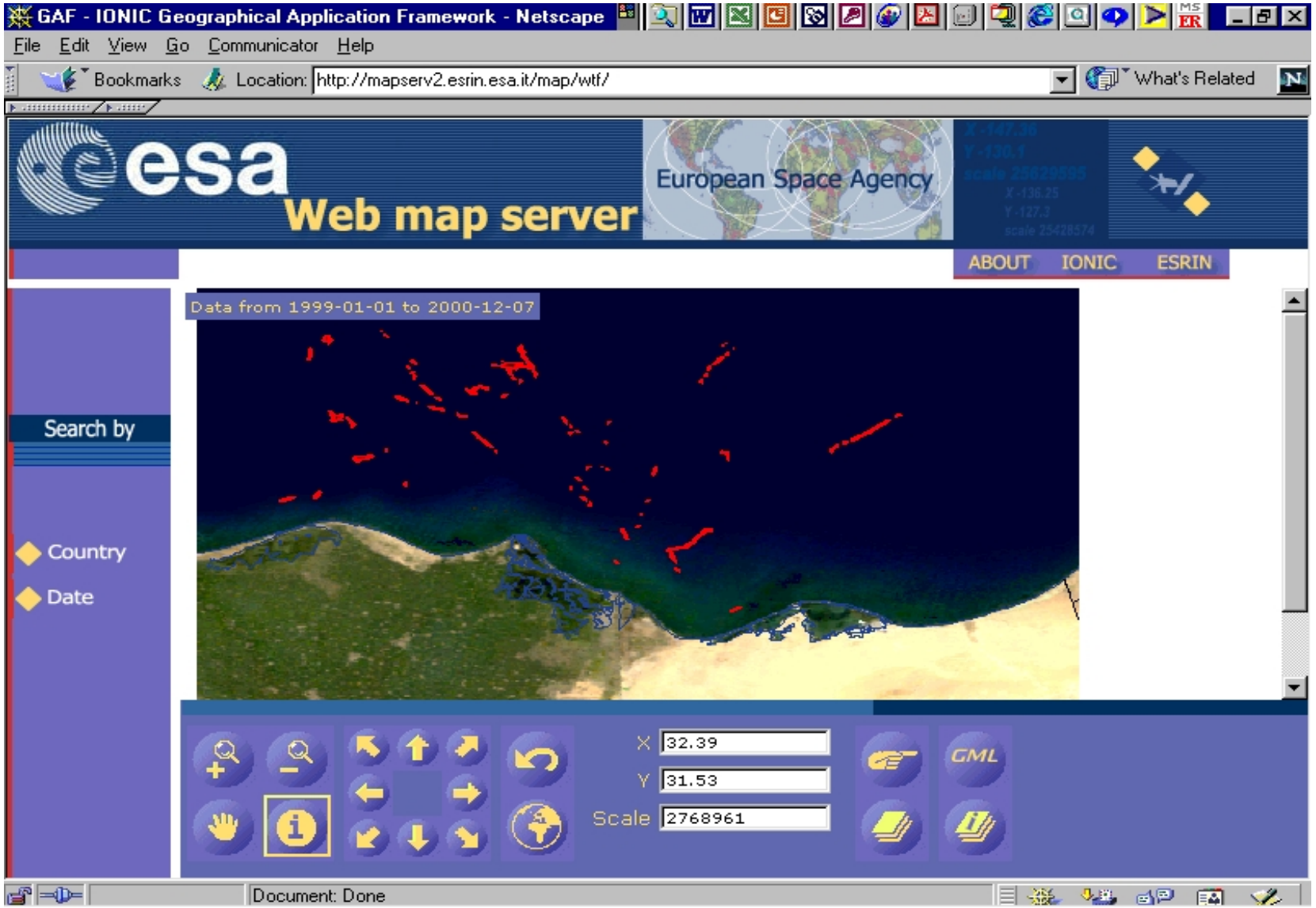






Temporal Data Access




GAF - IONIC Geographical Application Framework - Netscape
File Edit View Go Communicator Help
Bookmarks Location: http://mapserv2.esrin.esa.it/map/wtf/
What's Related
esa
Web map server
European Space Agency
ABOUT IONIC ESRIN
Data from 1999-01-01 to 2000-12-07
Search by
Country
Date
X 32.39
Y 31.53
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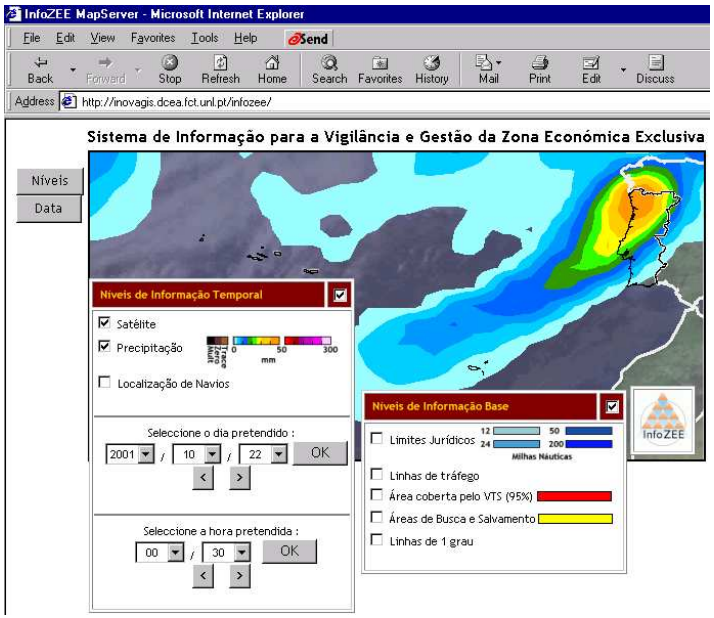
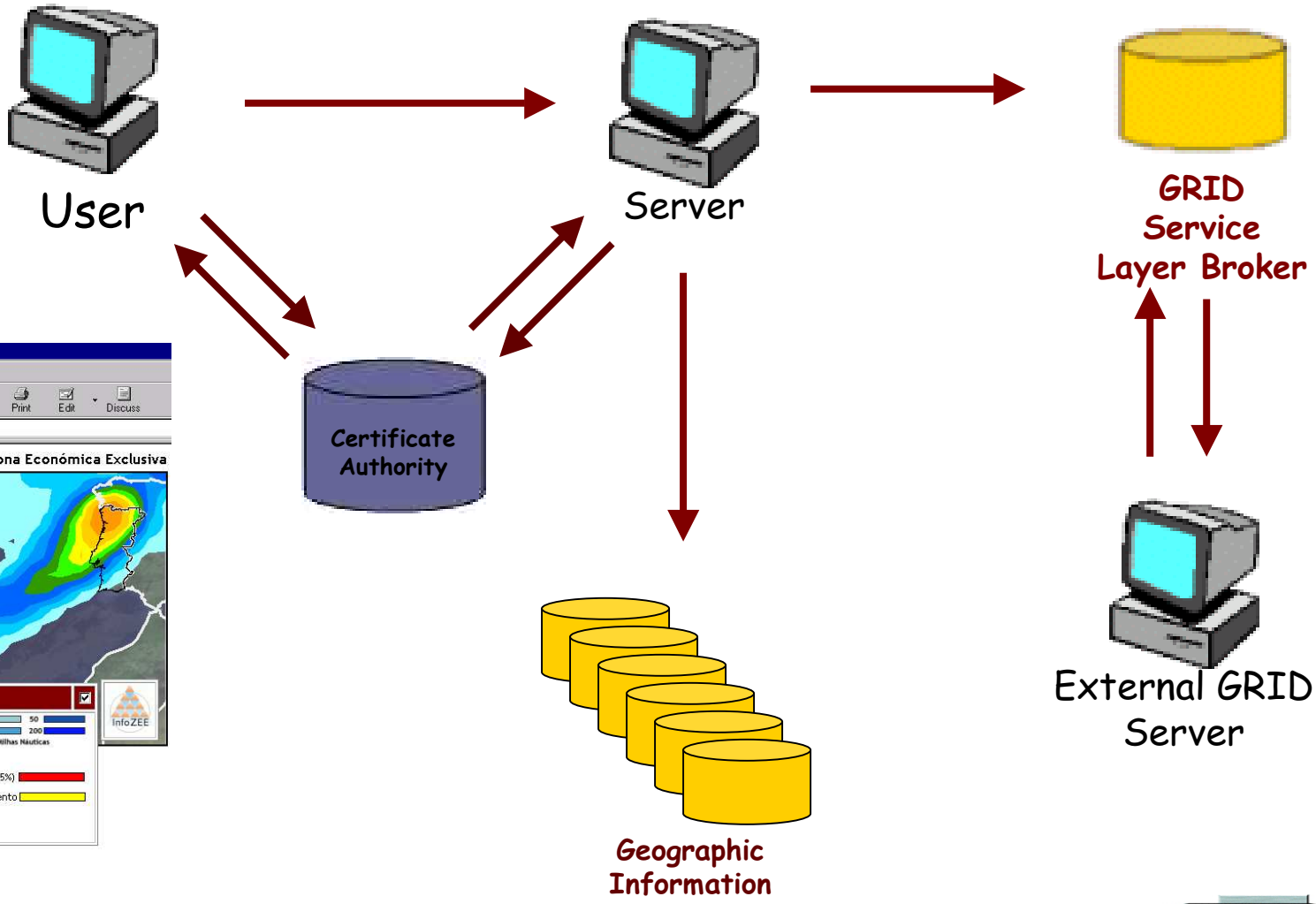
GML
Document: Done

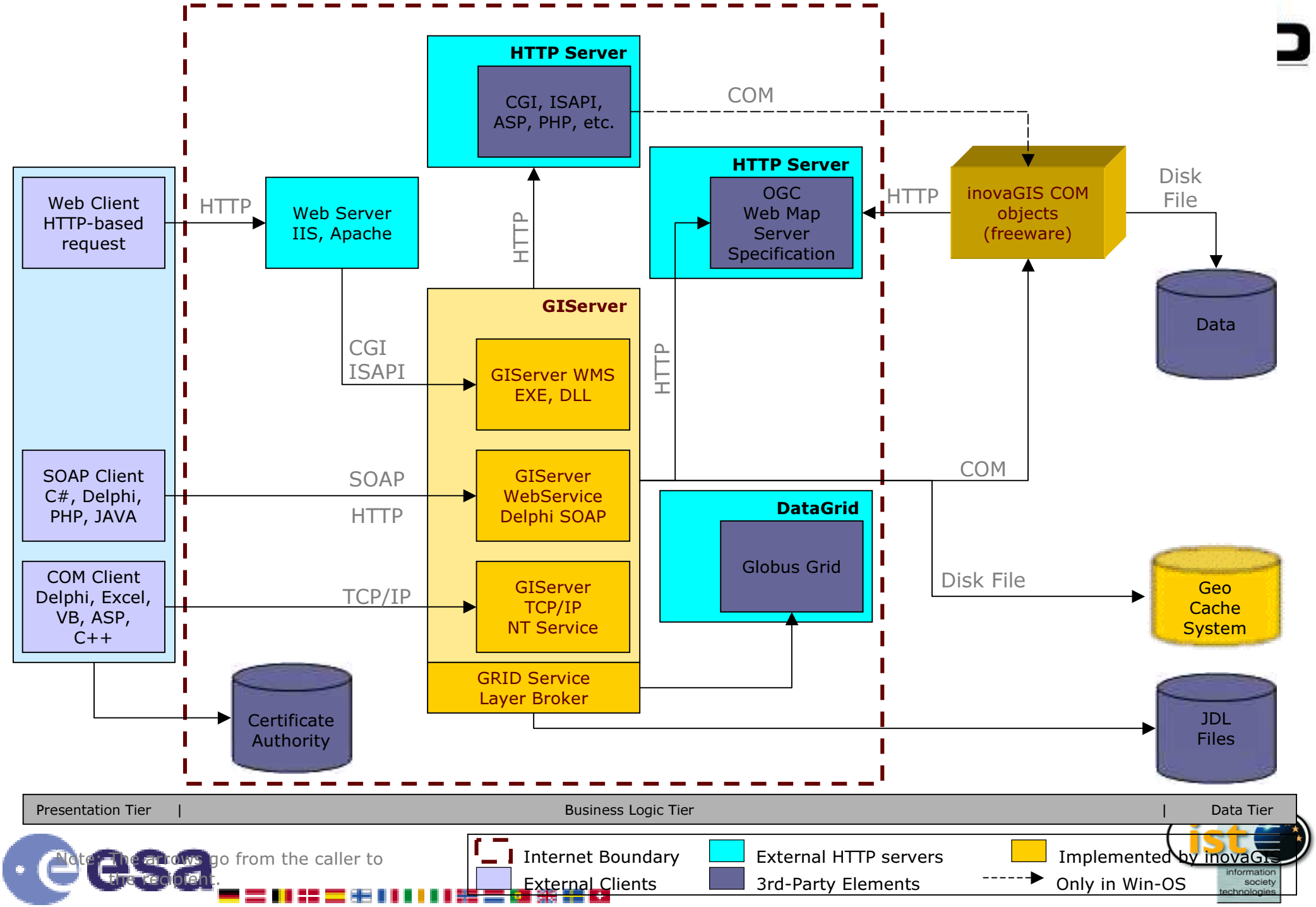
Potential for "GRID on demand" Services

- Catalogue Searching
- Automatic Image Mosaic
- Classification
- Environmental Data Processing

Web Access to GRID Services






HTTP Server
CGI, ISAPI, ASP, PHP, etc.
COM
HTTP Server
OGC Web Map Server Specification
HTTP
inovaGIS COM objects (freeware)
Disk File
Data
Web Client HTTP-based request
HTTP
Web Server IIS, Apache
HTTP
GIServer
CGI ISAPI
GIServer WMS EXE, DLL
HTTP
SOAP Client C#, Delphi, PHP, JAVA
SOAP
HTTP
GIServer WebService Delphi SOAP
COM
DataGrid
Globus Grid
COM Client Delphi, Excel, VB, ASP, C++
TCP/IP
GIServer TCP/IP NT Service
Disk File
Geo Cache System
GRID Service Layer Broker
Certificate Authority
JDL Files
Presentation Tier
Business Logic Tier
Data Tier
Note: The arrows go from the caller to the receipient.
Internet Boundary
External Clients
External HTTP servers
3rd-Party Elements
Implemented by inovaGIS
Only in Win-OS