

introduction to web services



(IDeAMapSudan)

INTEGRATED DEPRIVATION AREA MAPPING SYSTEM FOR DISPLACEMENT DURABLE SOLUTIONS AND SOCIOECONOMIC RECONSTRUCTION IN KHARTOUM, SUDAN





(1)

التوافقية
Interoperability

(2)

ما هي خدمات الويب؟

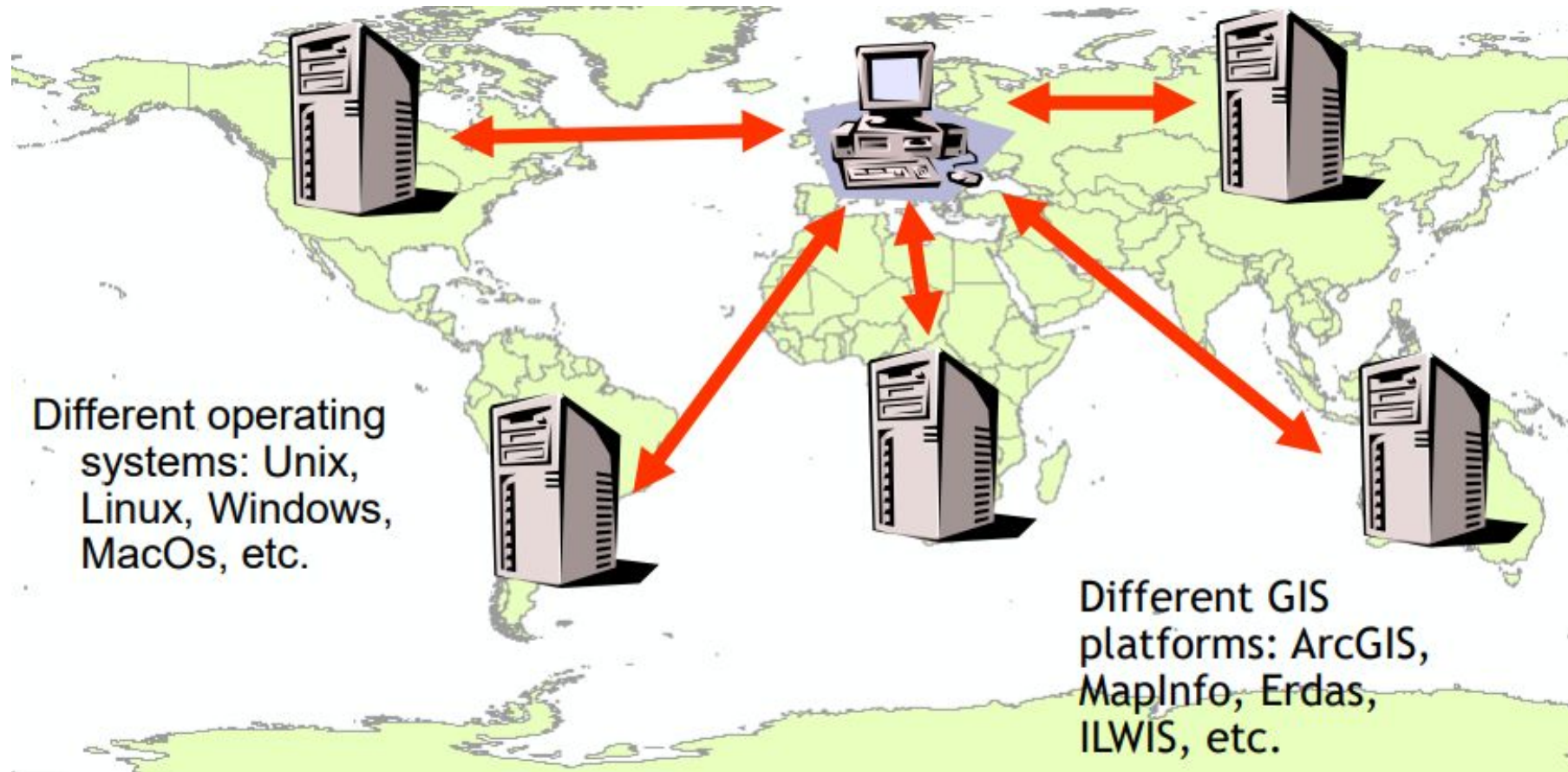
What is web
services?

(3)

Open Geospatial
Consortium
(OGC)

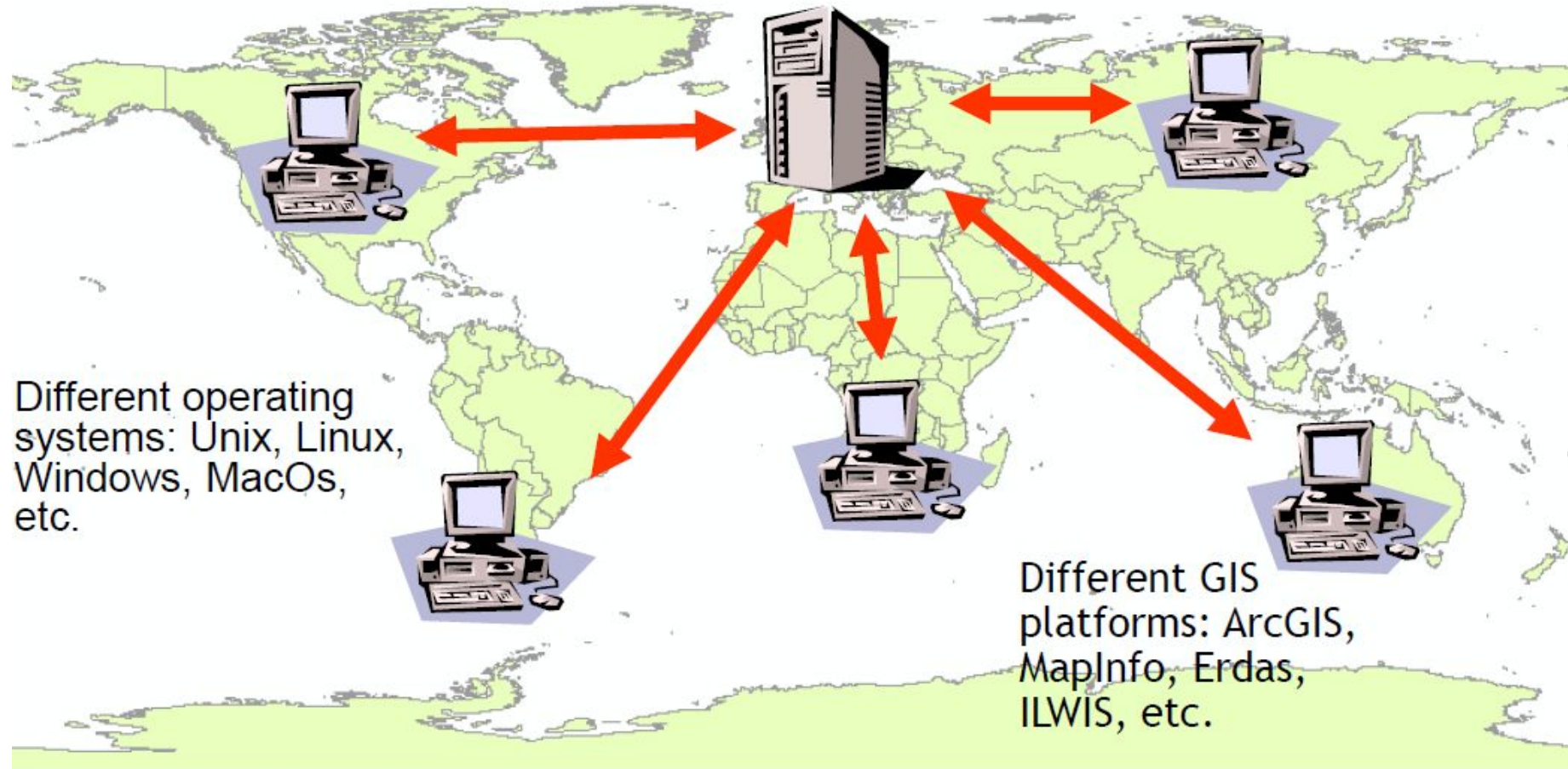
- **Introduction**
- **Interoperability**
- **What is web services**
- **Open Geospatial Consortium (OGC)**
- **Standards of OGC**

Distributed server



Interoperability

Distributed Clients

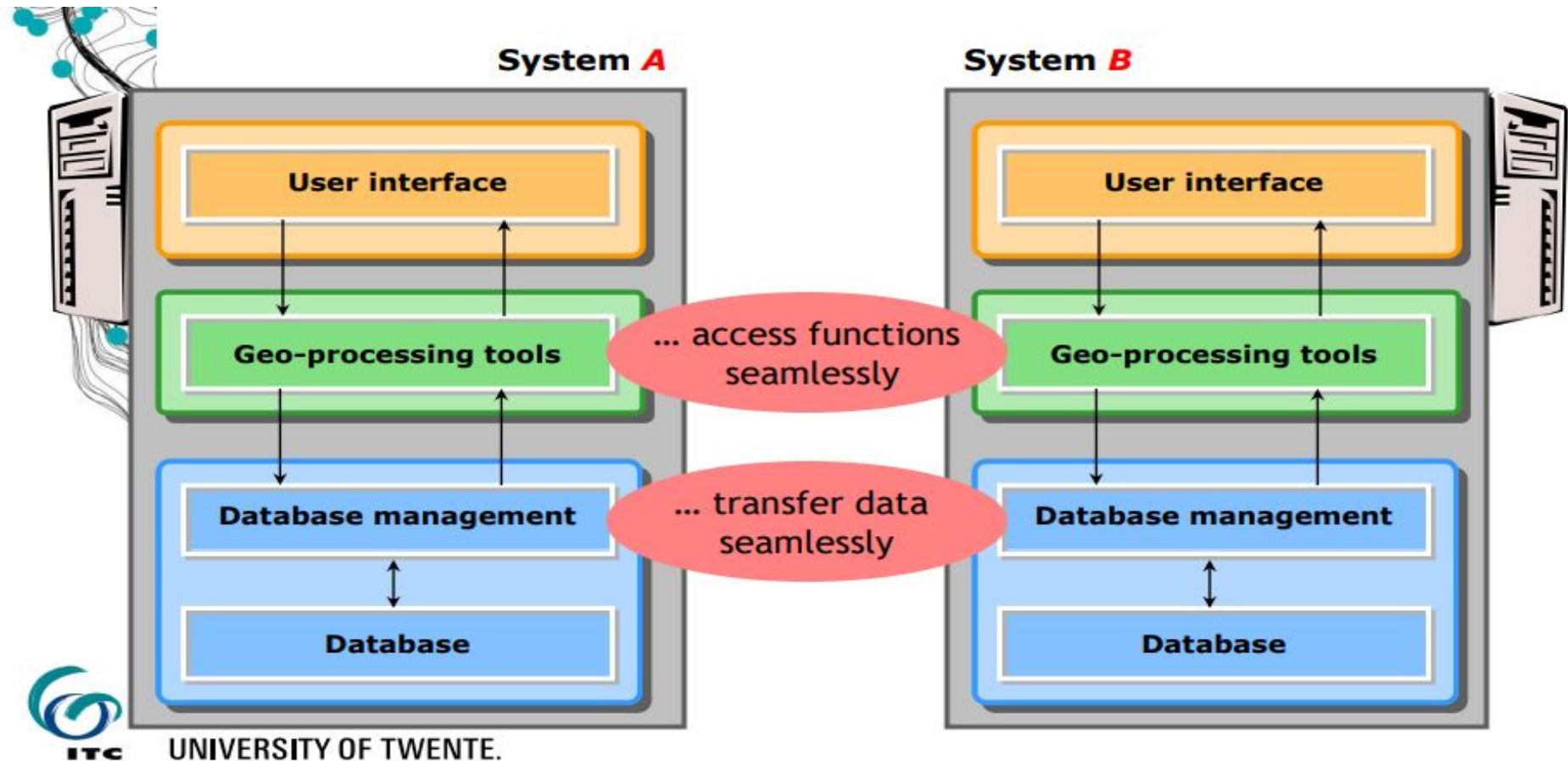


Interoperability

- “The capability to communicate, execute programs, or transfer data among various functional units in a manner that requires the user to have little or no knowledge of the unique characteristics of those units.

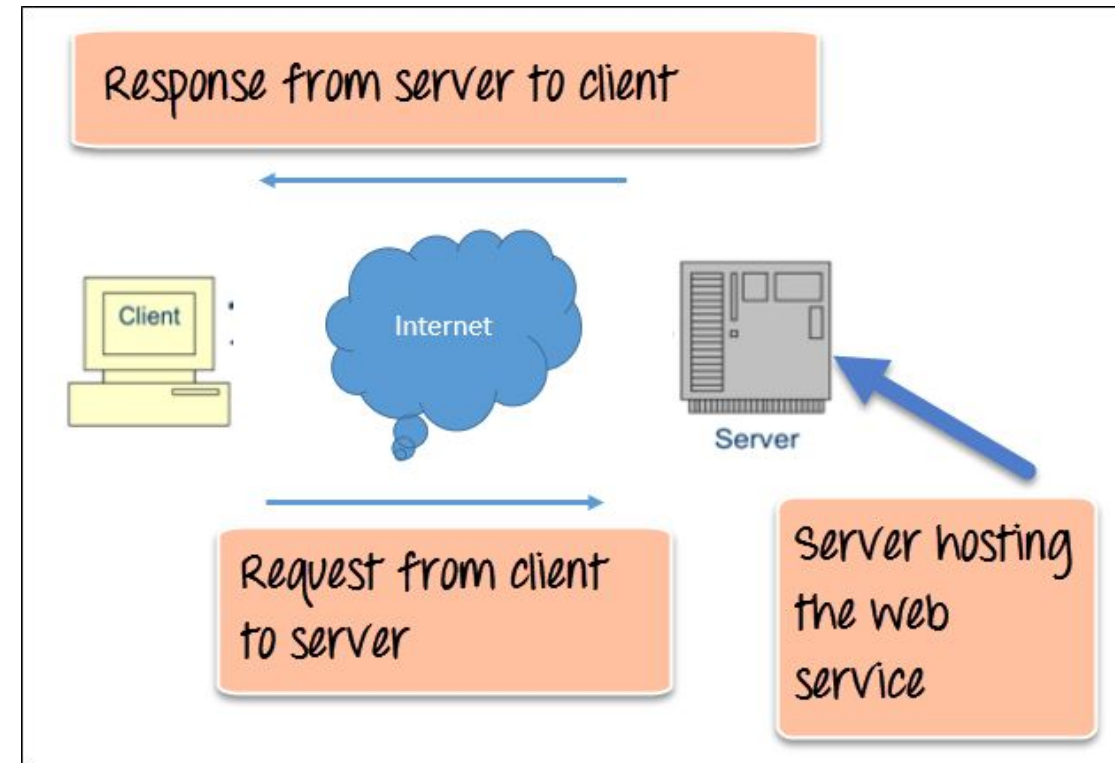
Interoperability

Two information systems are interoperable, if they are able to ...

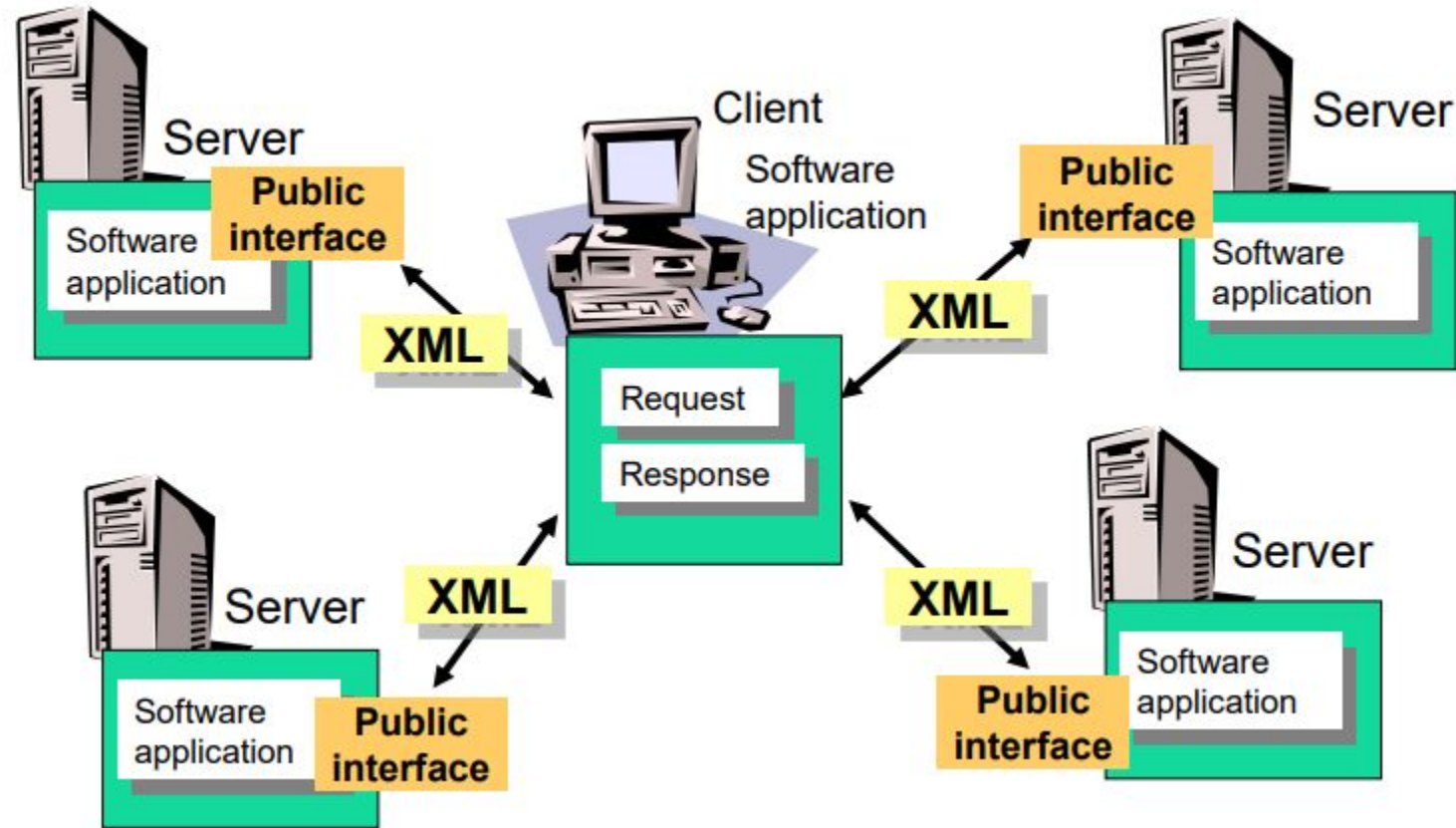


What is web services?

- web service is a collection of open protocols and standards used for exchanging data between applications or systems.



- XML is standard way of web browser to read data
- Requests and responses are XML messages



What is OGC?

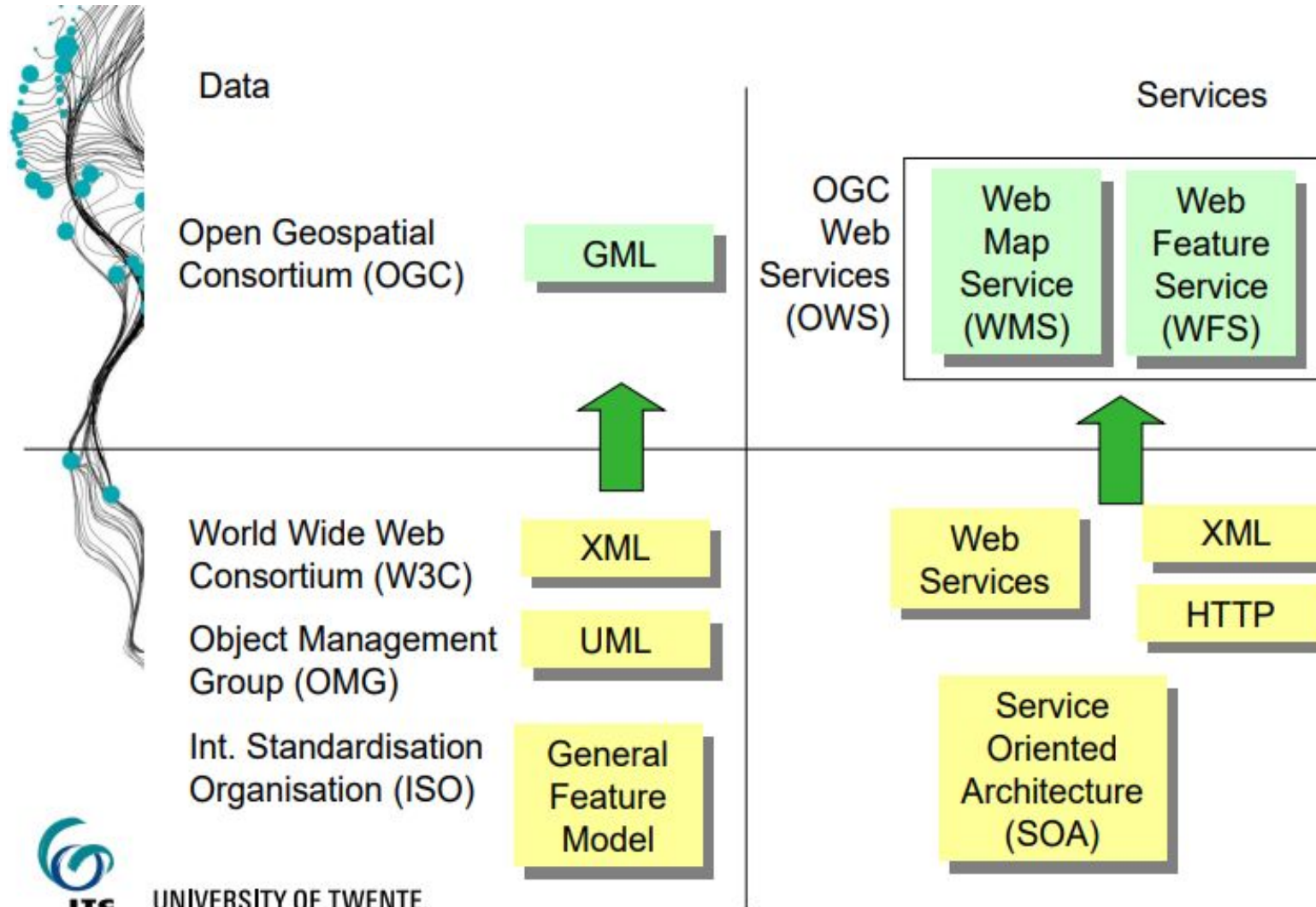
The Open Geospatial Consortium (OGC) is an international consortium of more than **500** businesses, government agencies, research organizations, and universities their core mission is to deliver interface specifications that are openly available for global use.





- OGC standards are developed by members to make location information and services FAIR – Findable, Accessible, Interoperable and Reusable. They are used by software developers to build open interfaces and encodings into their products and services.

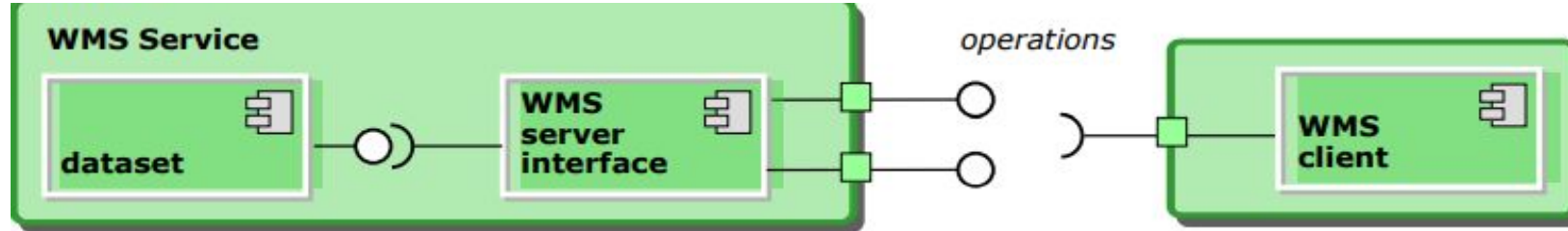
OGC standards are based on generic ICT



- The most common are the **Web Map Service (WMS)** and the **Web Feature Service (WFS)**
- From a practical point of view, these are the essential differences

	WMS	WFS
Data distributed as:	Static Image	Vector
Is the data Downloadable?	No	Yes
Typical use	Base map	Retrieving the data

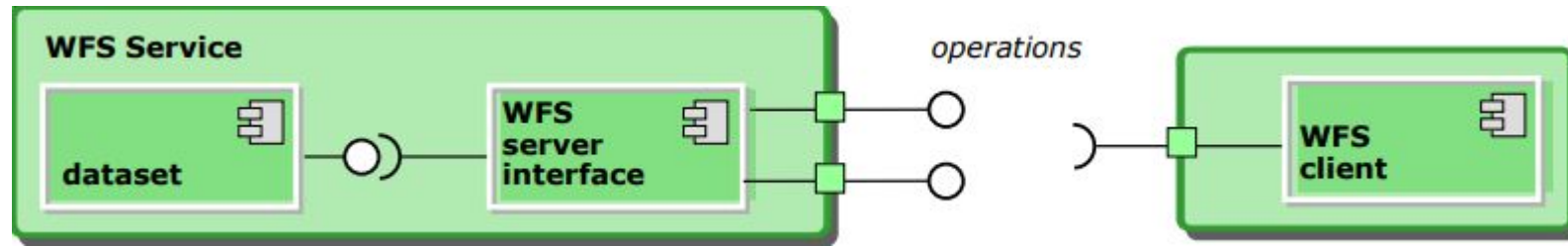
WEB MAP SERVICE (WMS)



Operations

- Get Capabilities: Returns server-level metadata, description of services and content, acceptable request parameters
- Get Map : Returns map image whose geospatial and dimensional parameters are well-defined
- Get Feature Info Returns information about particular features shown on map (optional)

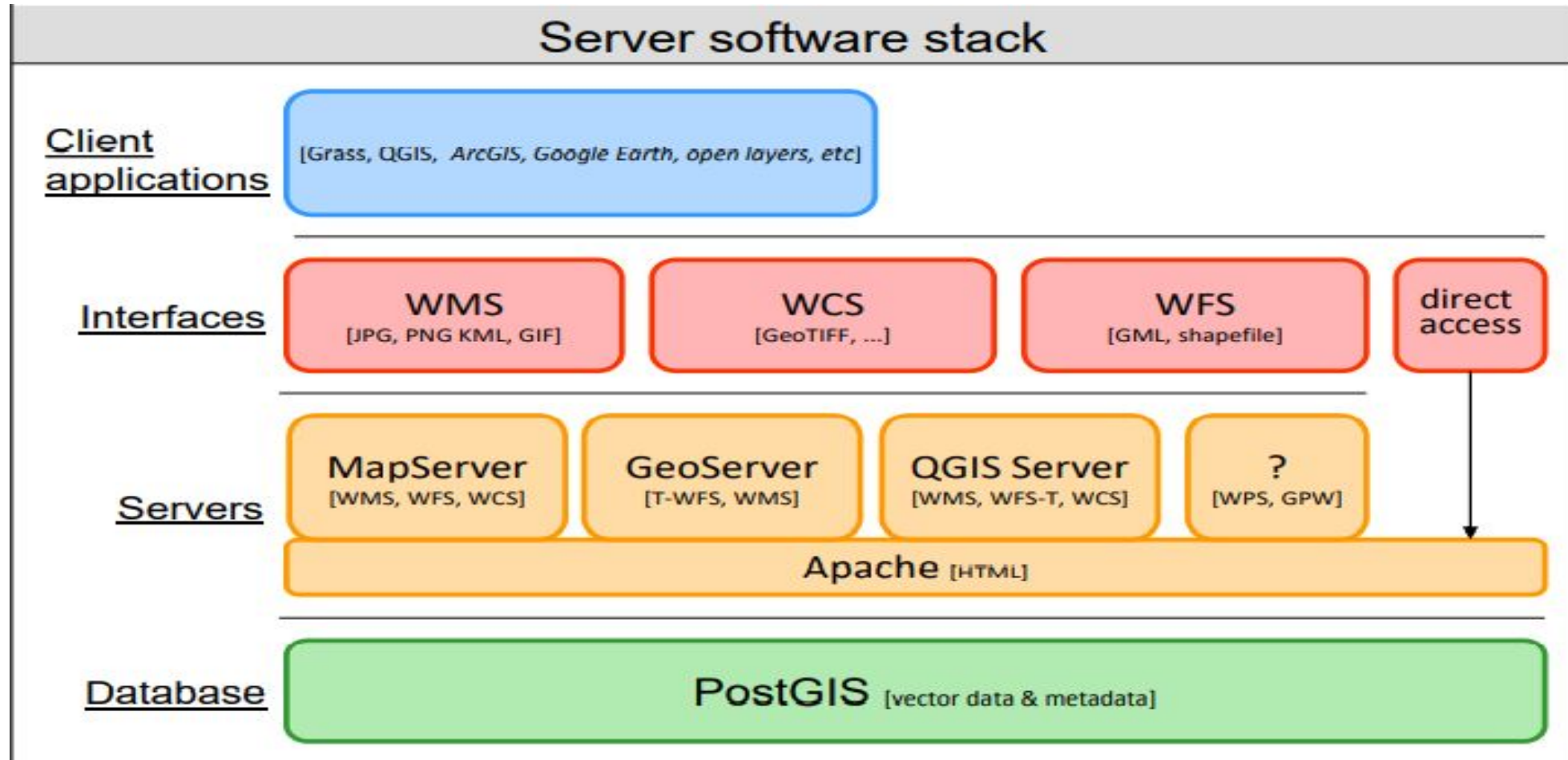
WEB FEATURE SERVICE (WFS)



Operations:

- ☐ Describe Capabilities
- ☐ Describe Feature Schema
- ☐ Get a Feature
- ☐ Insert a Feature
- ☐ Update a Feature
- ☐ Delete a Feature
- ☐ Create a new feature

Spatial Data Infrastructures



Questions?

Selftest

