

PORTALS: STANDARDS IN ACTION



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METADATA PORTALS

⇒ Portal – gateway, place of entry

◆ Producers

- Advertise, expose products
- Share information about holdings
 - ◆ Provide an understanding of data and services

◆ Users

- Perform efficient searches by requirements
- Discover data and services
- Determine fitness for use
- Acquire access information

“A Web "supersite" that provides a variety of services including Web searching, news, white and yellow pages directories, discussion groups, online shopping and links to other sites.” *TechWeb Encyclopedia*

WHAT ARE PEOPLE LOOKING FOR?

- ⇒ Data for use in GIS Software
- ⇒ GIS Services - Mapping, Geoprocessing
- ⇒ Geospatial Applications
- ⇒ Planned Data Acquisitions
- ⇒ Events, Activities and Information

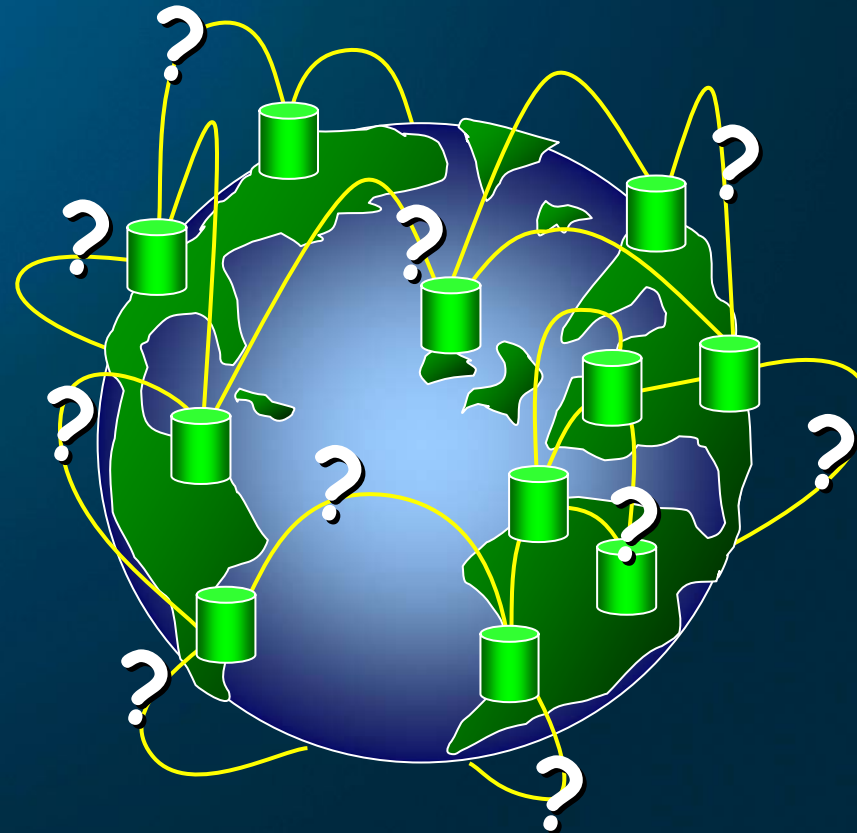
...

People need a mechanism to quickly find the most useful data for a given purpose



WITHOUT AN ORGANIZING PROCESS ...

- ⇒ Can't find data
- ⇒ Unable to collaborate
- ⇒ Use old or wrong data
- ⇒ Produce redundant information
- ⇒ Duplicate spending



**... Missed Business Goals
Increased Costs**

EVOLUTION OF SDI

GeoPortals



- Service-oriented
- Application focus
- IT standards
- Interoperable

Clearinghouses



- System-oriented
- Data focus
- Geo-standards
- Top down

File Transfer



- Ad hoc
- Data focus
- FTP transfer
- Bottom up

BENEFITS OF A GIS METADATA PORTAL

➔ Provides **Organized Access** to Geospatial Resources

- ◆ Gateway to the spatial data infrastructure

➔ Provides **Value** to an Organization

- ◆ Collaboration - Publish, share, and disseminate data and GIS Web services across the enterprise SDI
- ◆ Searching – Discover, connect to, and utilize GIS data and Web services
- ◆ Awareness – Organize geospatial resources in one place for the enterprise
- ◆ Categorization – Catalog GIS data and web services within the context needed

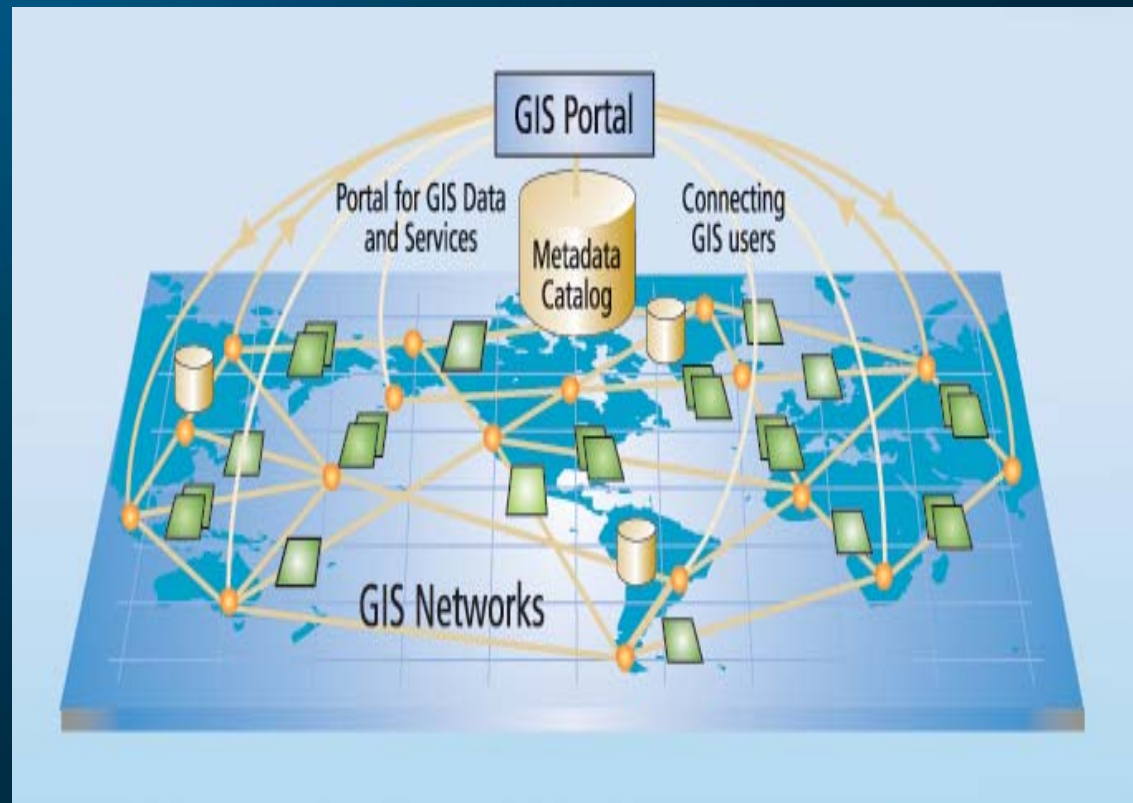
➔ Supports and **Facilitates**:

- ◆ Faster discovery
- ◆ Direct access and use
- ◆ Improvement of data quality and coverage
- ◆ Collaboration for new data collection

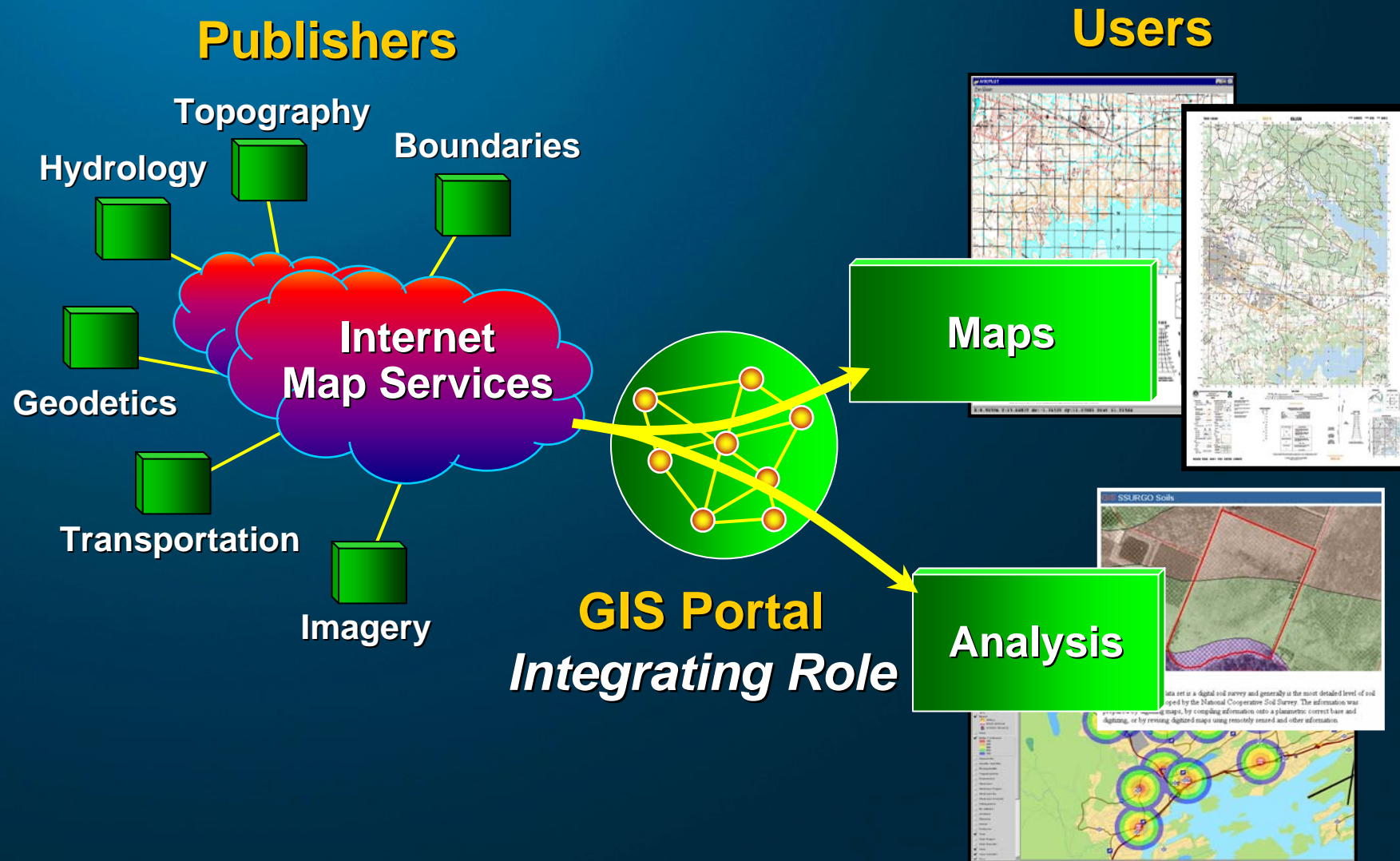
GIS PORTAL GOALS

⇒ Provide **Search, Discovery, and Brokering** of access to geospatial resources

- ◆ Data
- ◆ Applications
- ◆ Web sites
- ◆ Documents

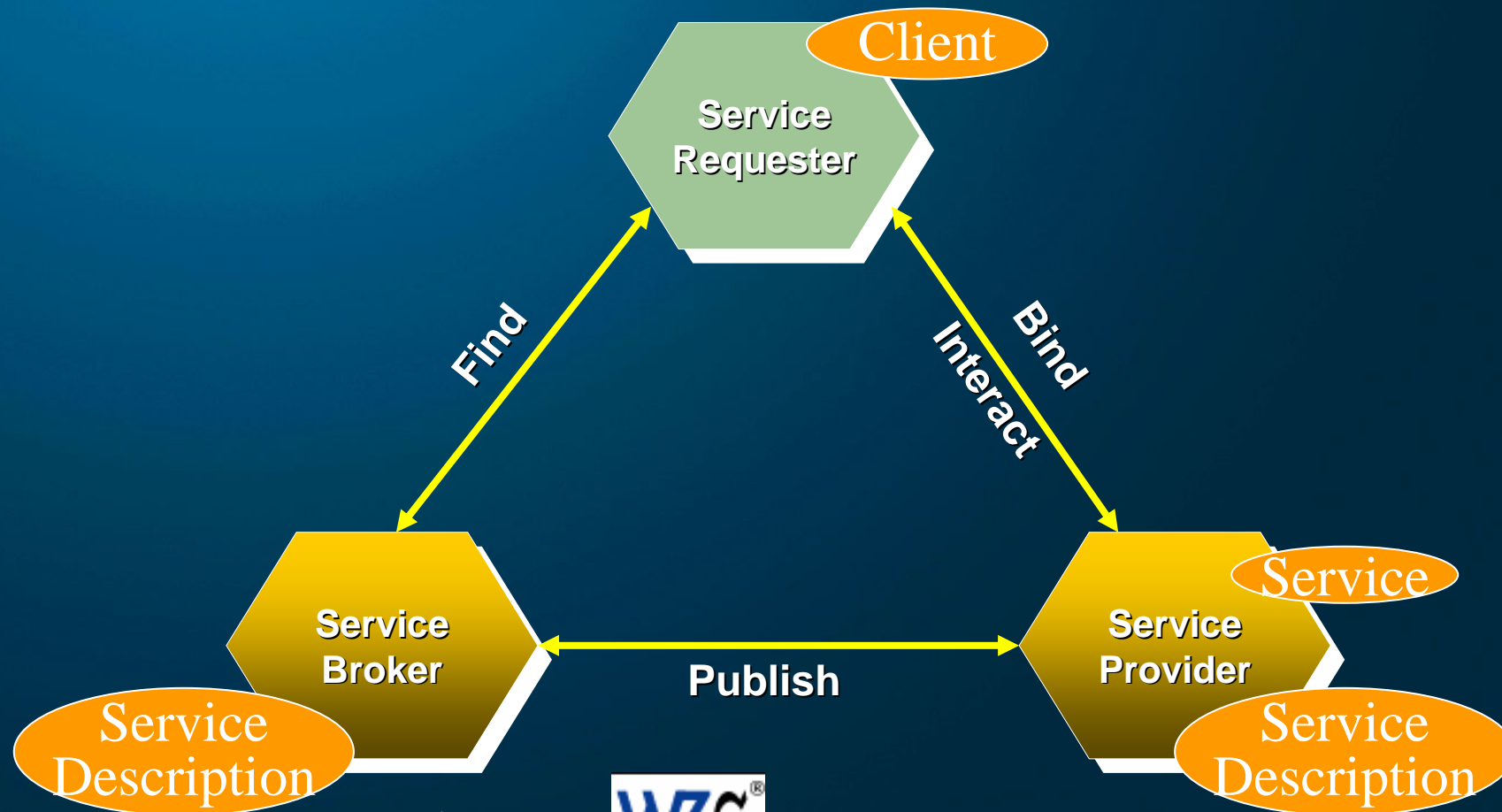


WE NEED AN INTEGRATION INFRASTRUCTURE



THE CONCEPT ...

W3C SERVICE ORIENTED ARCHITECTURE*

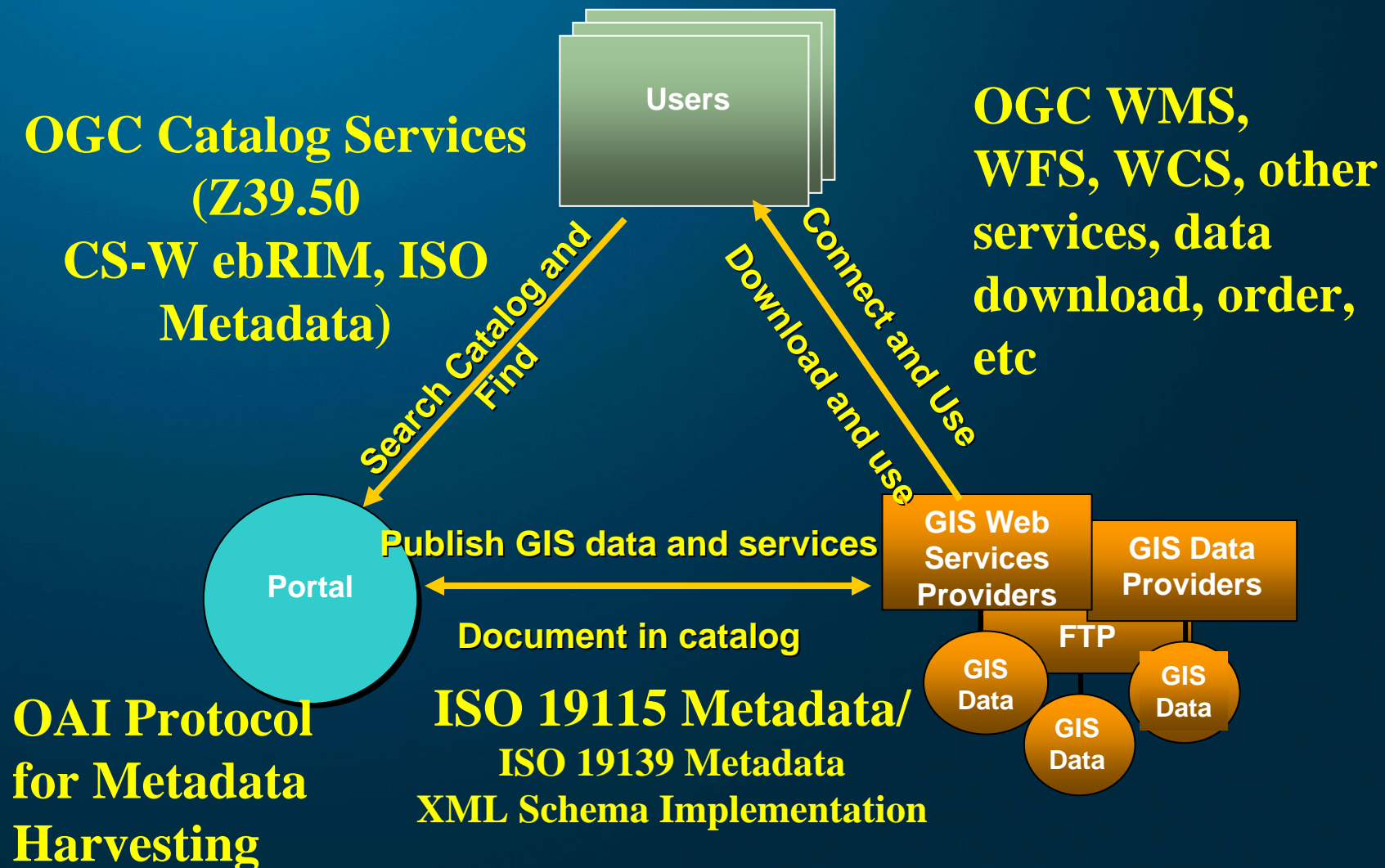


*From



Web Service Architecture, 14 Nov. 2002

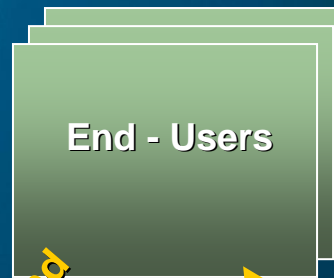
METADATA PORTAL SERVICE ARCHITECTURE



ROLE-BASED CAPABILITIES

⇒ Users

- ◆ Search – Browse – Connect
- ◆ Save Maps and Searches
- ◆ Interoperability

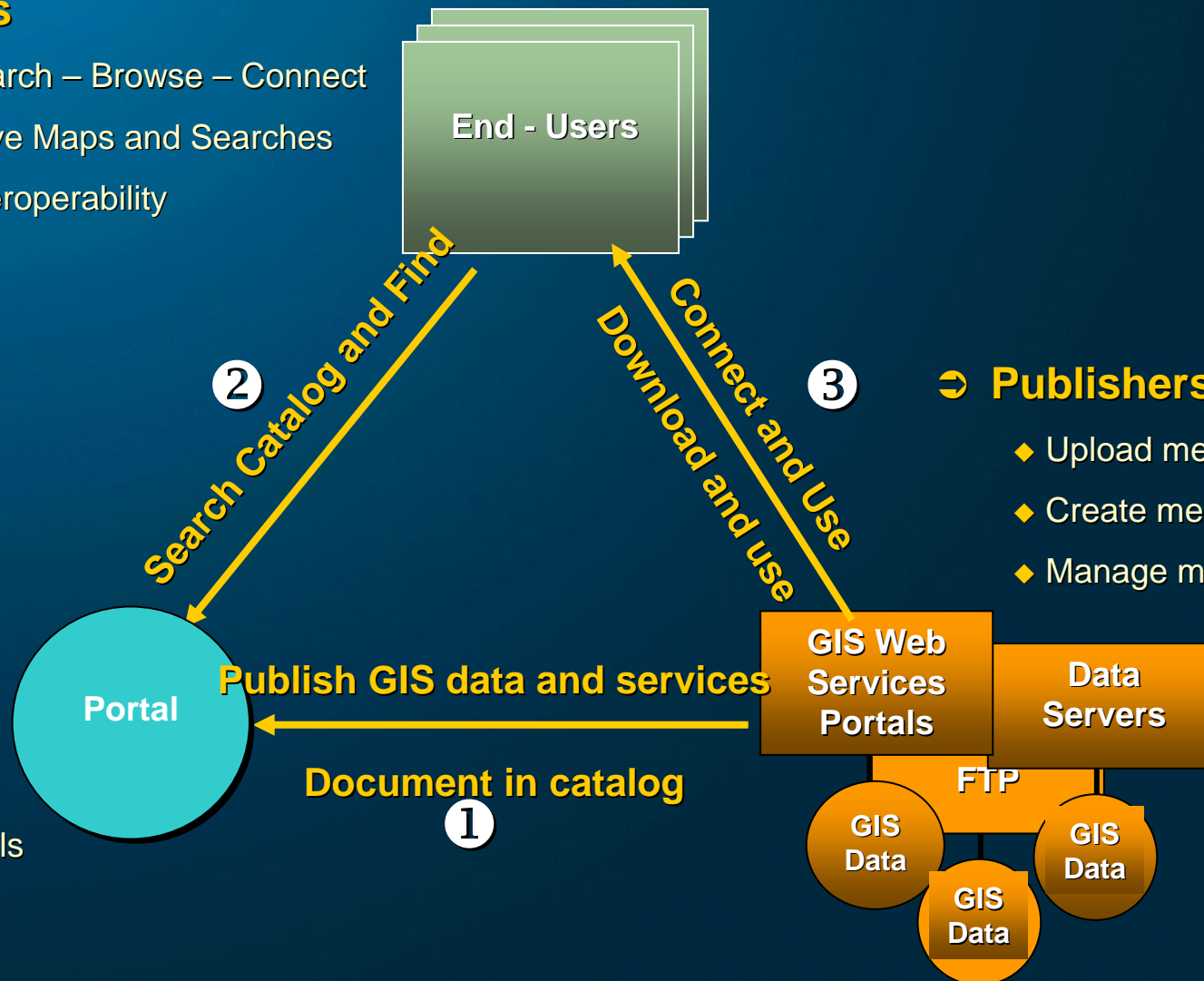


⇒ Publishers

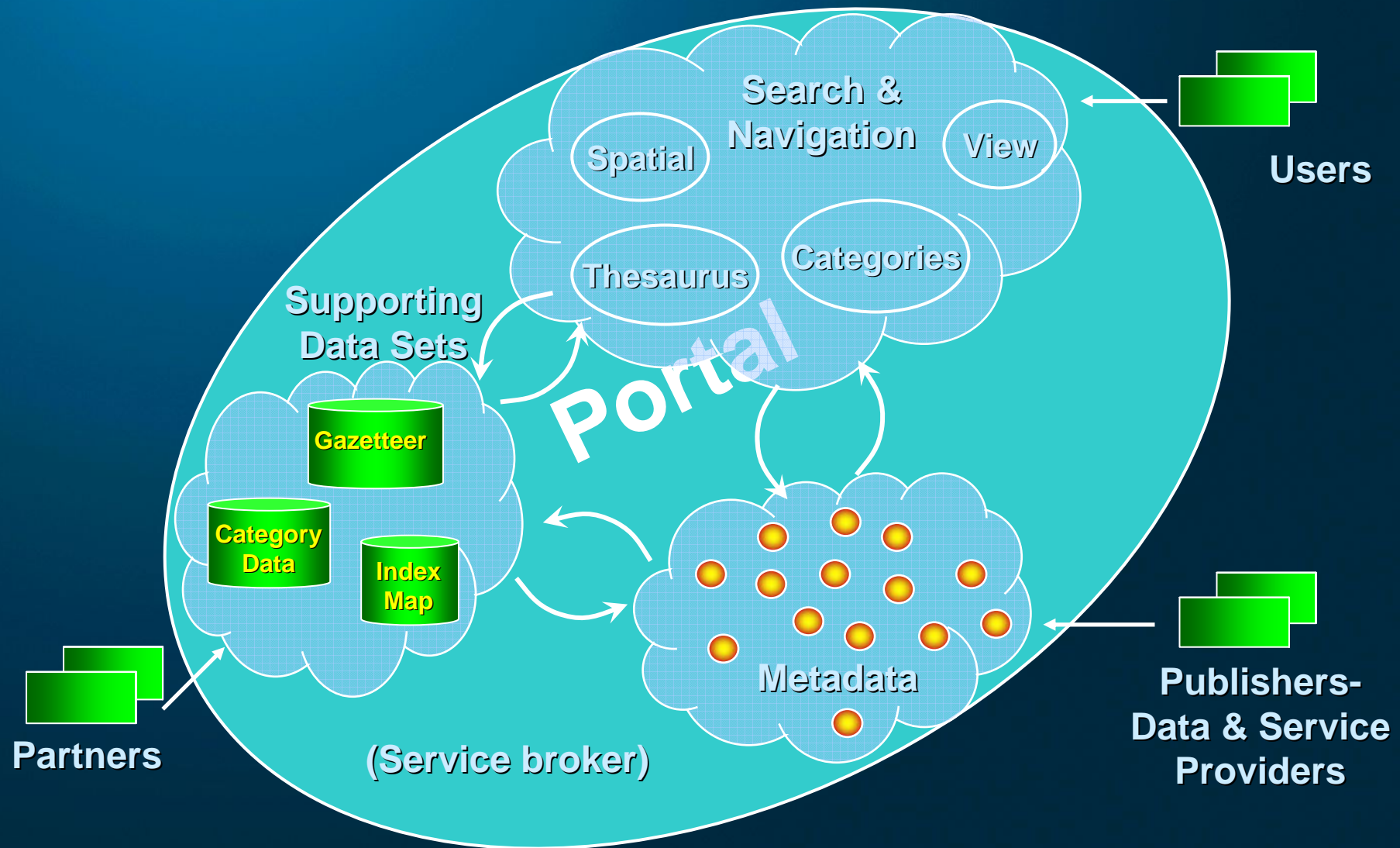
- ◆ Upload metadata
- ◆ Create metadata
- ◆ Manage metadata

⇒ Portal Admin

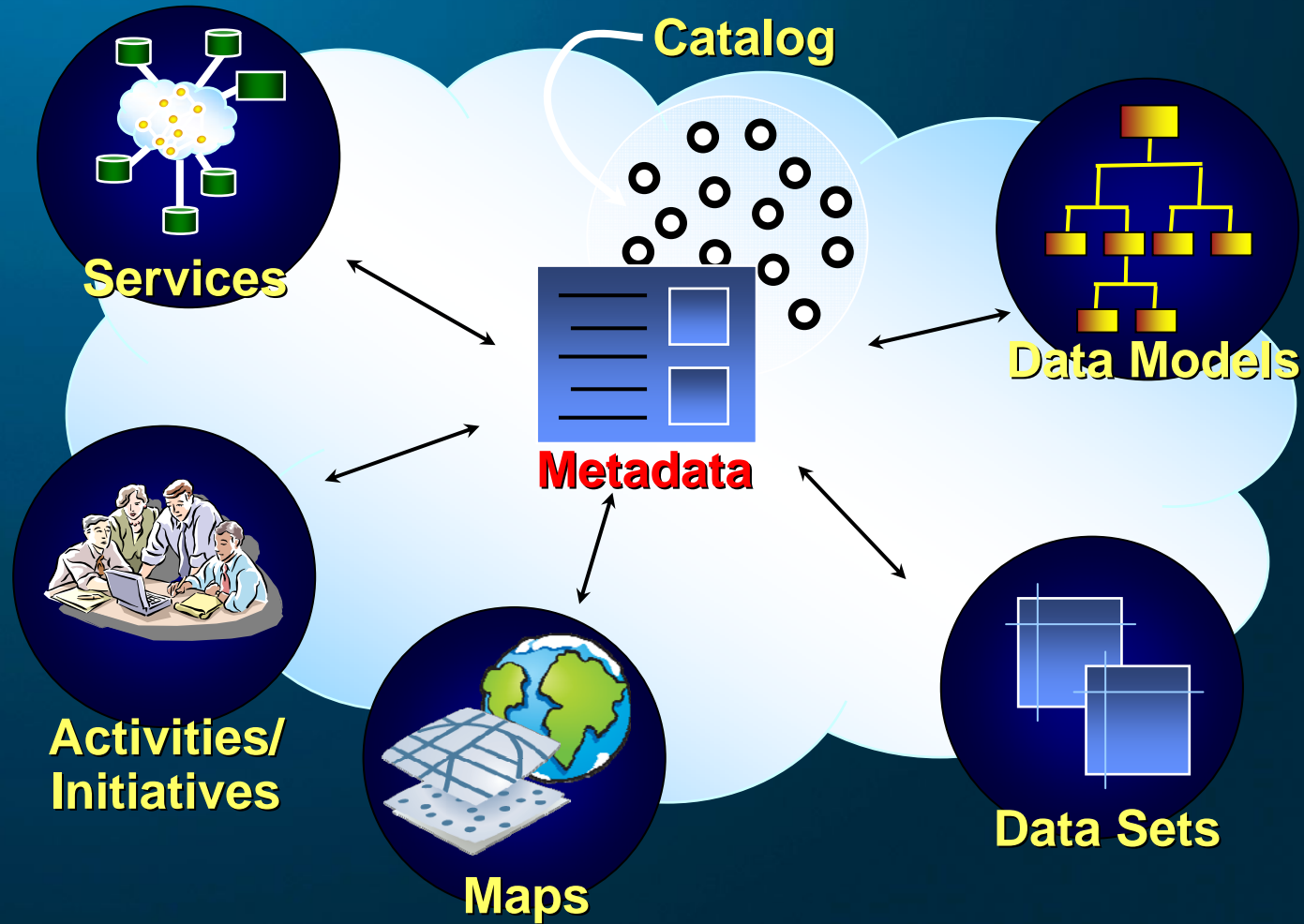
- ◆ Review and Approve Metadata
- ◆ Organize Channels
- ◆ Organize Groups



GIS PORTAL

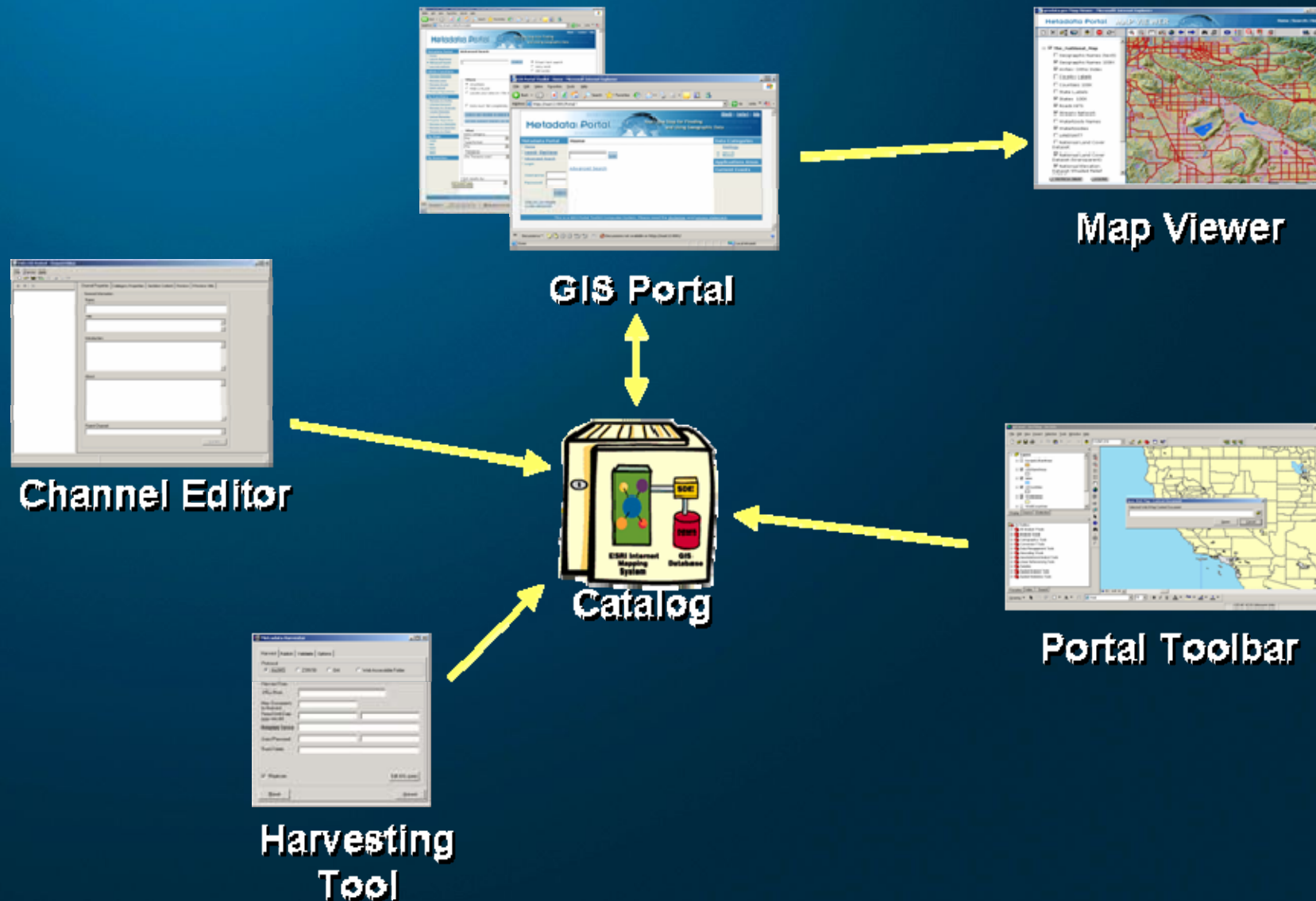


METADATA FUELS THE GIS PORTAL

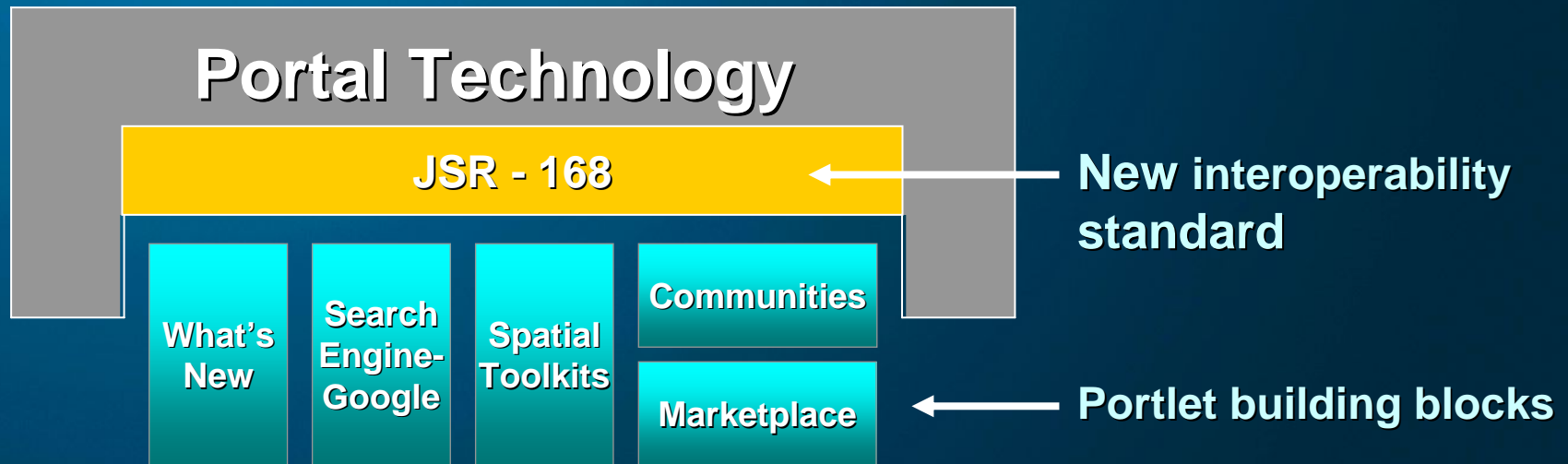


Metadata documents describe content and relationships

GIS PORTAL TOOLKIT COMPONENTS



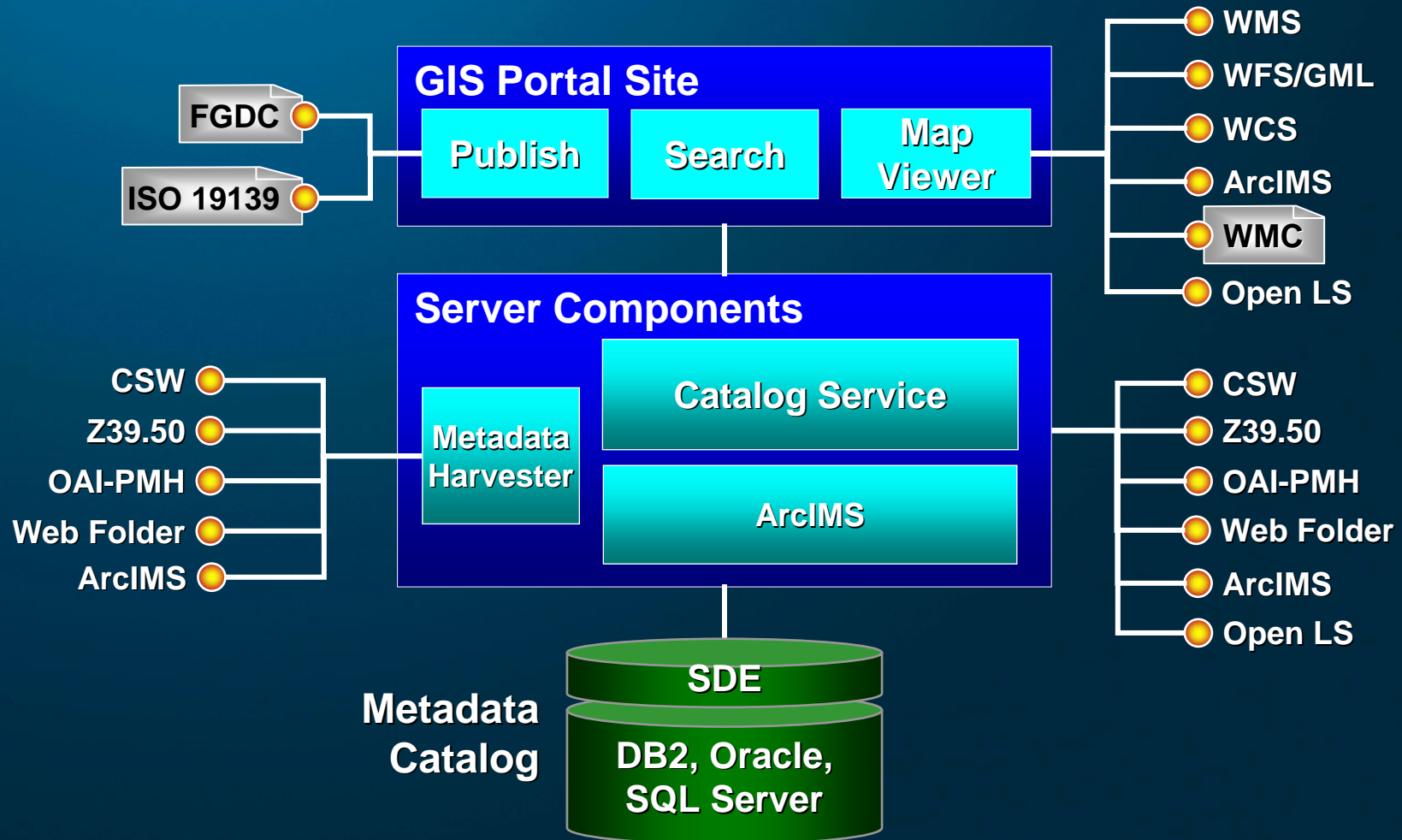
ENABLING TECHNOLOGIES



What this Means...



SUPPORTING STANDARDS OUT OF THE BOX



PORTALS – TRULY STANDARDS IN ACTION

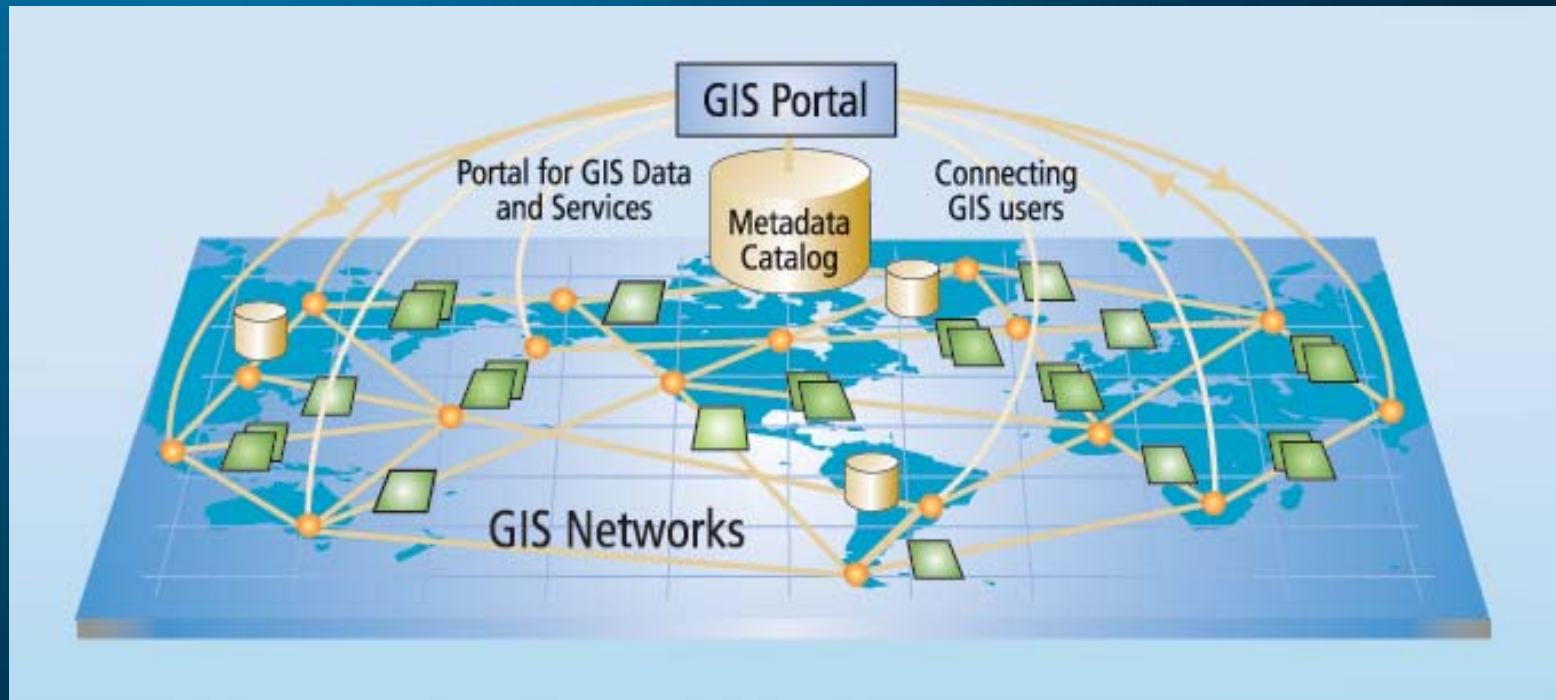
- ⇒ A web super site
 - ◆ Gateway to a spatial data infrastructure

- ⇒ Providing
 - ◆ Discovery
 - ◆ Access
 - ◆ Collaboration
 - ◆ Improvements in quality and use

- ⇒ Based on W3C Service Oriented Architecture

- ⇒ Metadata for data, services, activities, data models – anything geospatial

- ⇒ Bringing the standards together:
 - ◆ ISO 19115
 - ◆ ISO 19139
 - ◆ FGDC Metadata
 - ◆ Dublin Core metadata
 - ◆ W3C SOA
 - ◆ SR 168
 - ◆ OAI –Metadata harvesting
 - ◆ OGC CS-W ISO, ebRIM, Z39.50
 - ◆ WMS
 - ◆ WFS
 - ◆ WCS
 - ◆ WMC
 - ◆ OpenLS



THANK YOU