

ECONOMIC COOPERATION ORGANIZATION (ECO)

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TRAINING COURSE



The National Cartographic Center of Iran with the support of ECO Secretariat holds a training course on:

**The Current Technologies and Trends in Various
Levels of Spatial Data Infrastructure (SDI)**

23-24 September 2024



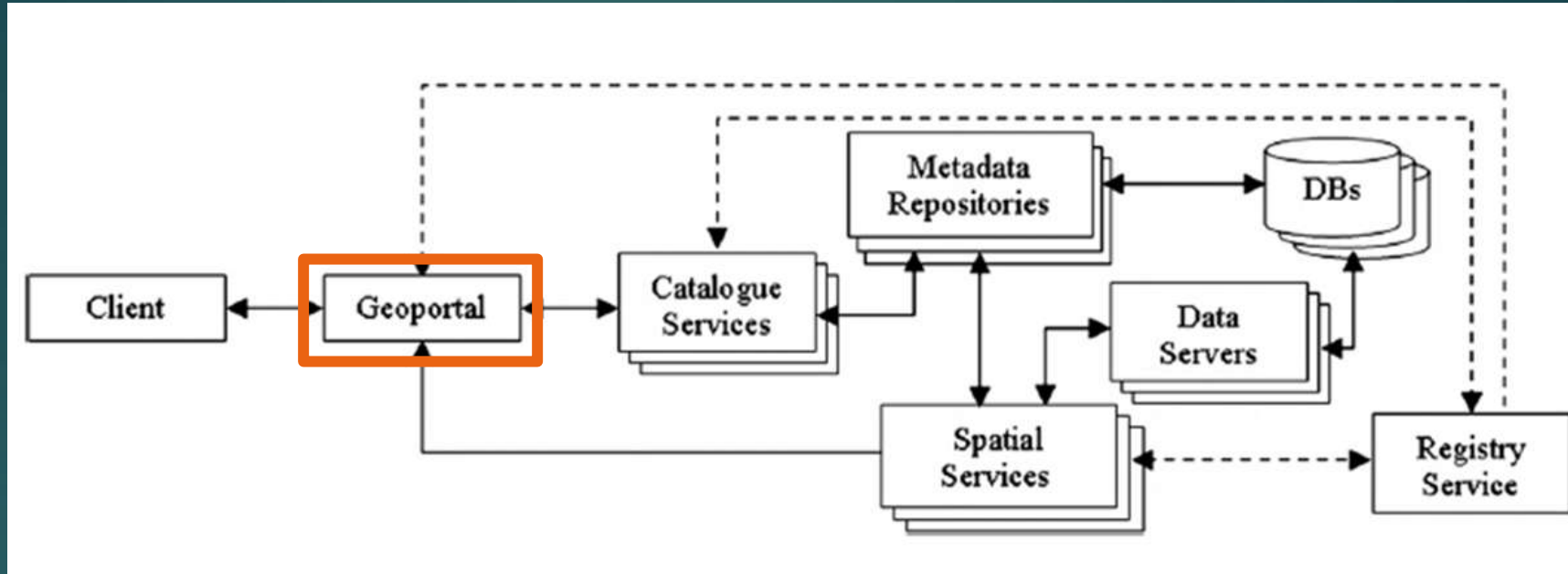
Spatial Data Infrastructure Architecture



Nima Ghasemloo
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Clearinghouse Network Architecture

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❑ Engaging stakeholders

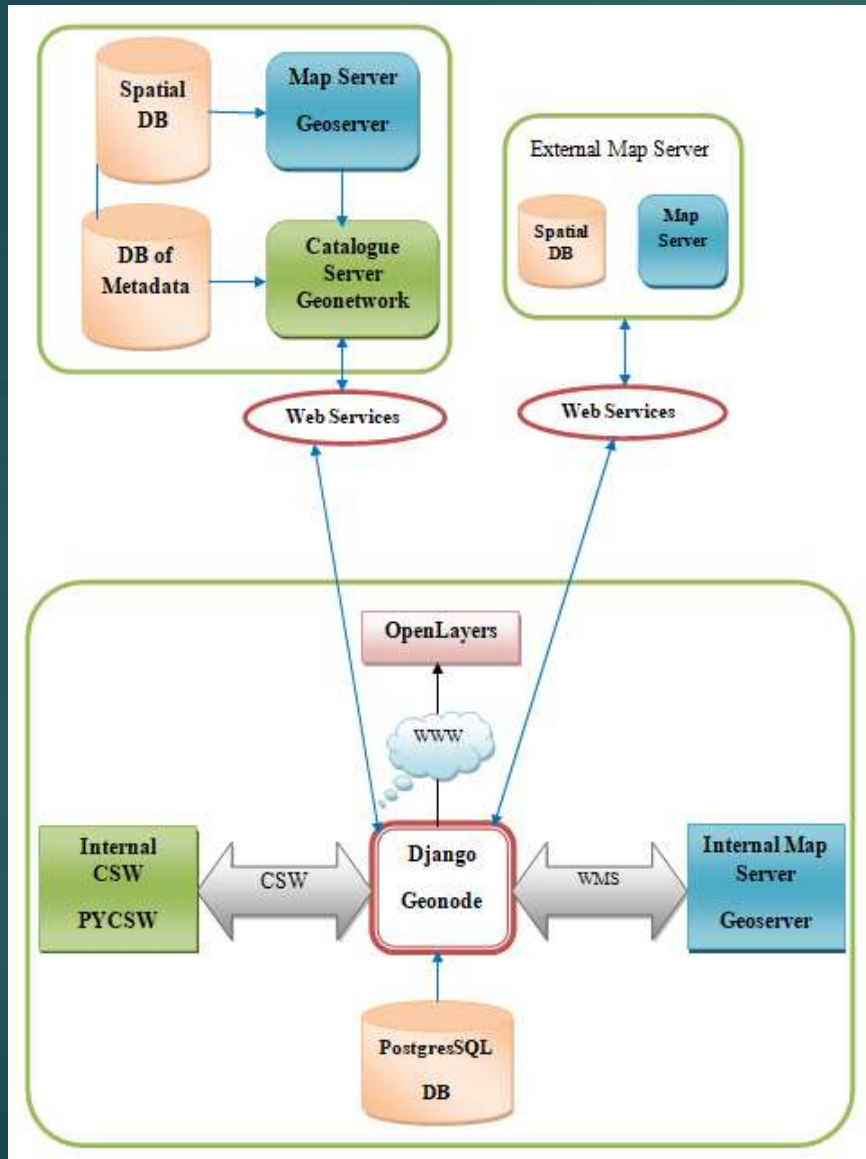
- Non-receipt of the original data from executive bodies
- The data is in the possession of the producers.
- Ease of sharing spatial data by the producers
- The services are easily created and provided by the producers.

❑ User aspects:

- Ease of access to the required spatial information
- Users are directed to the latest version available at the disposal of the producers.

Iran's Spatial Data Infrastructure Architecture

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□ Architecture: open source, service-oriented and distributed

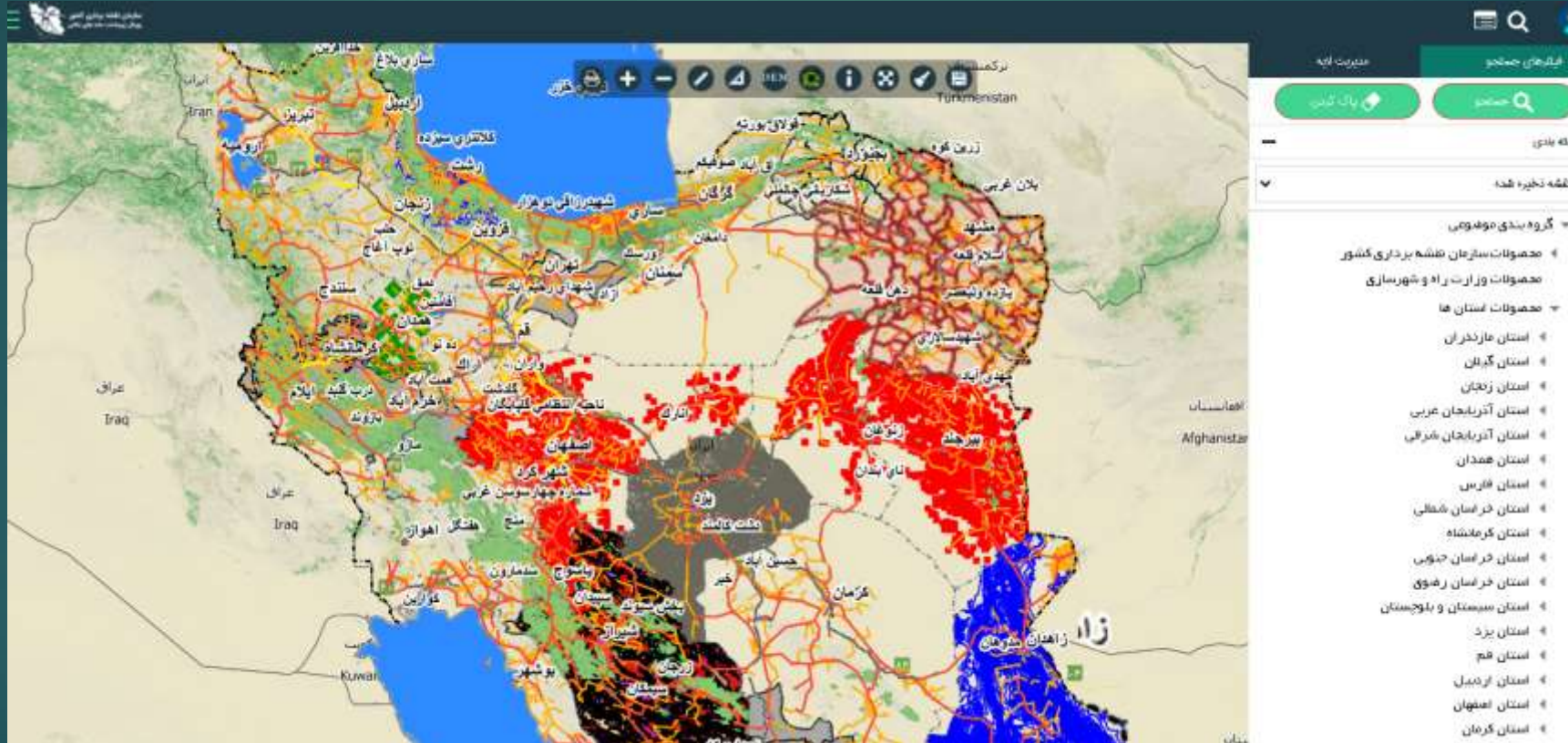
- Established data services: WMS, WMTS and WFS
- Metadata Service Standard: CSW
- Metadata standard: ISO19115

□ Open source software used:

- Construction of data service: GeoServer, MapServer
- Building Metadata Service: GeoNetwork
- Geoportal: GeoNode

Geoportal of the National Spatial Data Infrastructure

Providing spatial information available at different levels of the country



Participation of more than 380 operating devices with sharing of more than 22,000 layers

Geoportal Security Considerations

- ❑ Confidentiality: Measures to prevent unauthorized access to sensitive spatial data, such as user authentication and access control mechanisms.
- ❑ Integrity: Controls to ensure the accuracy and consistency of spatial data, such as data validation and encryption techniques.
- ❑ Availability: Mechanisms to ensure the geoportal is accessible and operational 24/7, such as redundancy and disaster recovery strategies.

National Geoportal of Iran was able to receive the security certificate from its main authorities



Policymaking in Spatial Data Infrastructure

□ Data Policies

- Data ownership and sharing
- Data quality and standards
- Data access and pricing

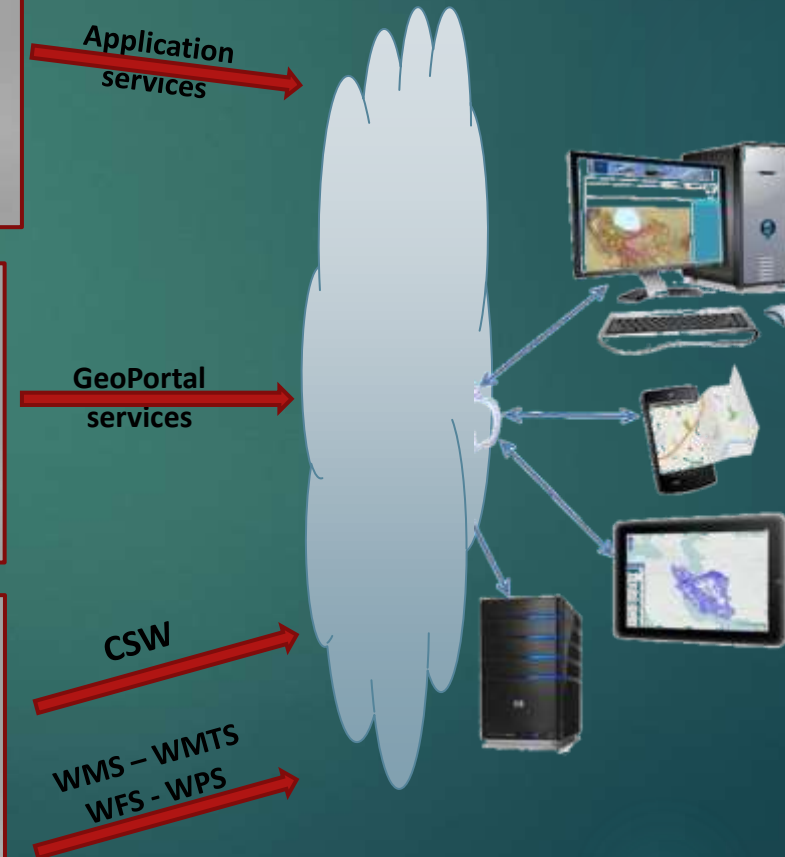
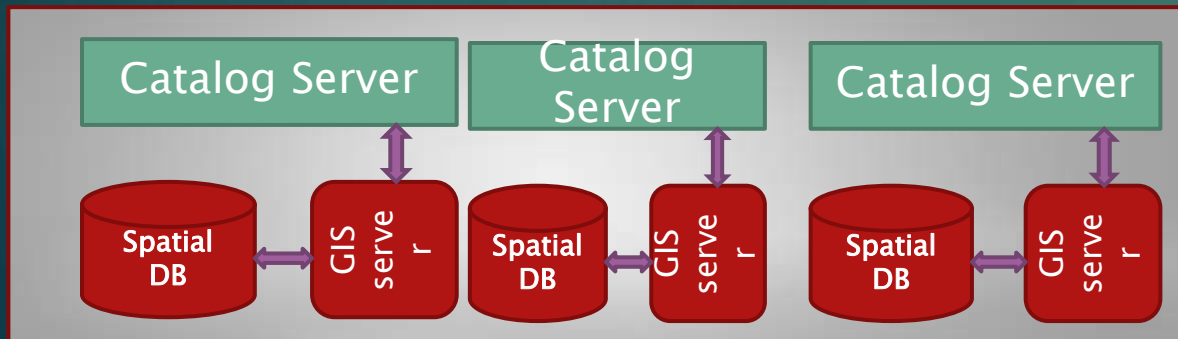
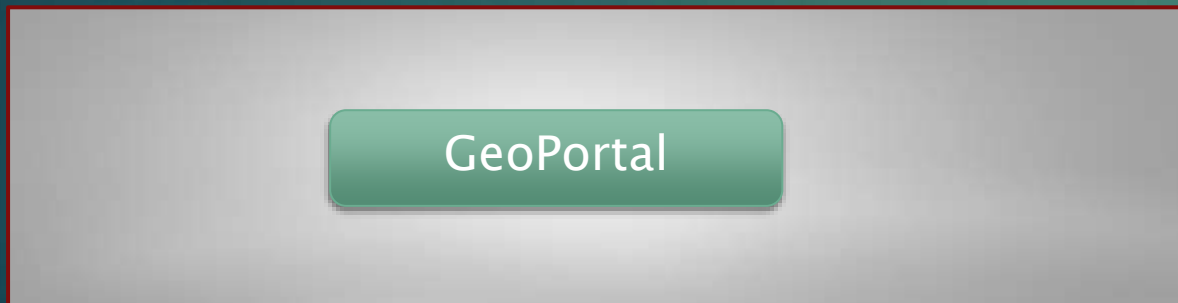
□ Institutional Arrangements

- Data ownership and sharing
- Data quality and standards
- Data access and pricing

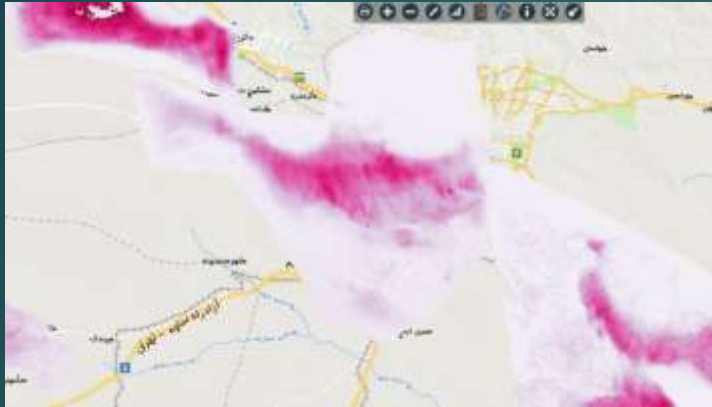
□ Capacity Building and Outreach

- Training and education
- Stakeholder engagement
- Public awareness and adoption

The Position of SDI as the Port of the Spatial Information Unit



Spatial Data Infrastructure Subportals



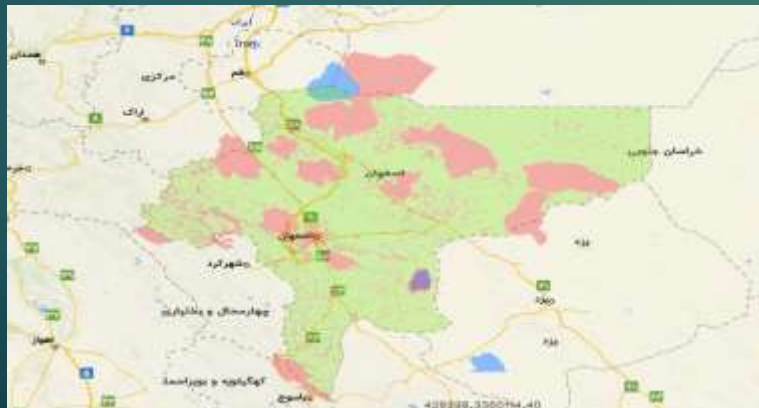
❑ Disaster Management Geoportal

- Subsidence Services
- Dust Services
- Methane gas services



❑ The rural management sub-portal

- Displaying information about the country's settlements
- Integration of information with the demographic information of the Statistical Center of Iran



❑ Investment sub-portals

- Providing location based information related to investment

Investment Portal



Providing more than 800 layers of information in the investment portal



Thank you for your attention!