

VISION

WebGIS...REALIZING A NATIONAL
GEOSPATIAL INFRASTRUCTURE



SOCIAL CONFLICTS

BIODIVERSITY

DEMOGRAPHIC SHIFTS

URBAN GROWTH



ECONOMIC PRESSURES

TRANSPORTATION

EPIDEMICS

WATER

OVER-

CONSUMPTION



DISASTERS

CLIMATE CHANGE

DROUGHT

FOOD SCARCITY



THE SCIENCE OF WHERE

*A (Spatio/Temporal) Framework
and Process*

Geospatial
Infrastructure

Data Management
& Integration

Visualization &
Mapping

Analysis &
Modeling

Planning &
Design

Decision-
Making

Action

Measuring

Analyzing

Understanding

Collaborating

*Leveraging the Power of Geography . . .
to enrich all evidence-based or science-based decision making*

What Is Geospatial Infrastructure?

... GIS at Scale

Understanding



Content

Foundational ...
... Directly Usable
and Services-Based

Integration

Leveraging Location ...
... and Technology

Mapping & Analytics

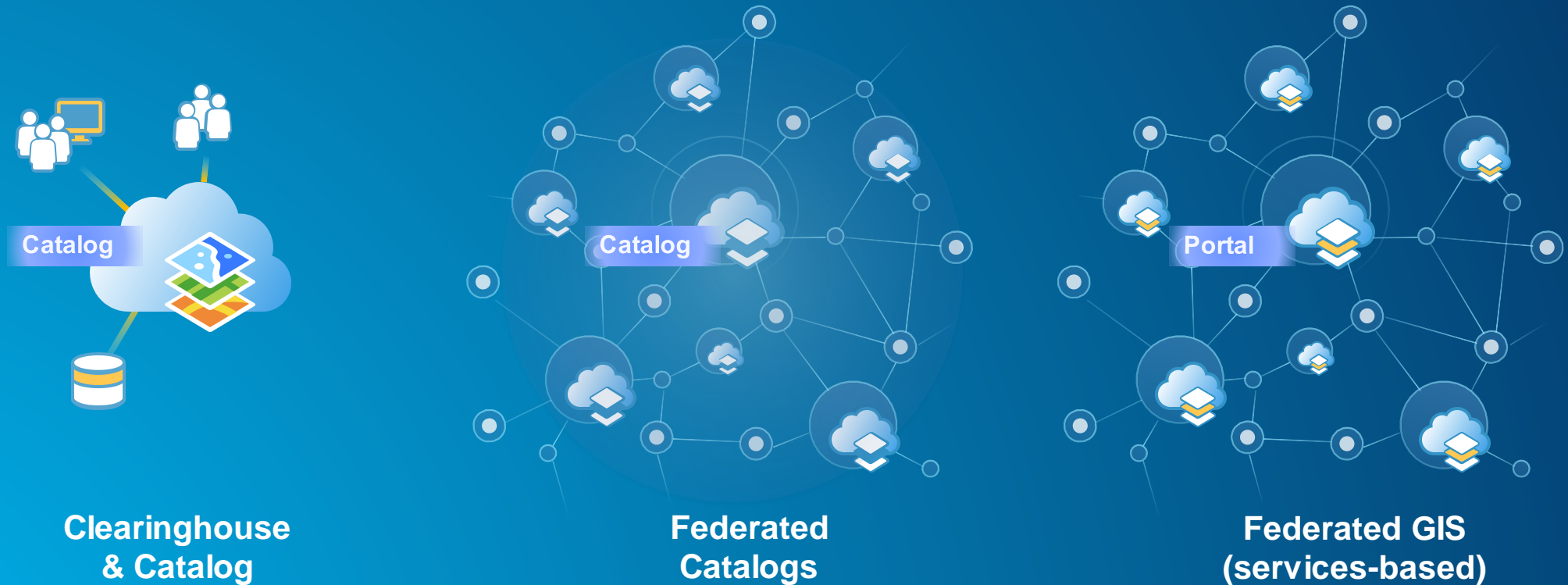
Geographic Sciences ...
... and Visualization

A Platform for Sharing ...
... and Collaboration

... and Solving
Problems Holistically

SDI is Evolving

Moving from Standards compliance, Metadata and Catalogs toward Integrated Systems and Initiatives to Support Evidence-driven Decision and Policy-making



Search / Discovery

Integration & Use

Local • National • Regional • Global Collaborations

Each government organization manages their own geospatial data pipelines...



...that feed into a larger national goals for sharing and collaboration goals.

**National Level
Sharing &
Collaboration
Goals**

*Comprehensive
Front Door for
Discovery
INSPIRE/ELF*

*Reuse in 3rd Party Apps
Supporting Known
Communities of Interest*

*Lowering Barrier of
Discovery and Analysis to
unlock value for more
stakeholders Exploration
Innovative uses*

*Catalog
Feeds*

*Shared Services
& Open Data*

*Discovery Apps for
External Stakeholders*

Government Agency
System of Record



Government Agency
System of Record



Government Agency
System of Record



Government Agency
System of Record



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System of Record



A National Geospatial Infrastructure can unlock the value from existing geospatial data assets more quickly and cost-effectively.

National GIS System for Sharing and Discovery
seamlessly federates agency output



- *Search Engine Optimization*
- *Sandbox for Multi-Agency Creation*
- *Tools for Citizen Engagement*

Targeted Sites | Geo Data Themes | Statistical Data Integration

Catalog Feeds

Shared Services & Open Data

Discovery Apps for External Stakeholders



A Network of Collaboration Is Emerging

Connecting Organizations and Individuals



A Global Network of Collaboration Is Emerging

The Components of a National Geospatial Infrastructure

Requires More Than Technology

- Governance:
 - Vision, policy & strategy, doctrine & concepts
- People:
 - Organization, training, personnel
- Processes:
 - Workflows, Community of Interest
- Information:
 - Authoritative data, information and services
- Interoperability:
 - People, systems, networks, security



.....and a Culture of Collaboration and Continuous Innovation



A National Geospatial Community of Interest... Building a Common Spatial Infrastructure

Government Consumers



Systems Of Insight

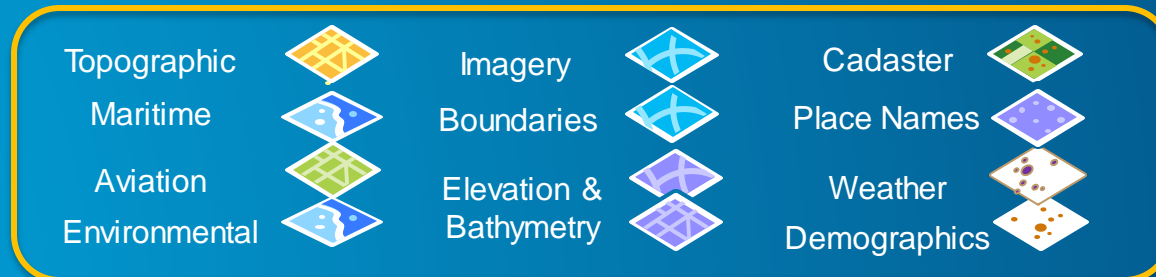
Non-Government Providers & Consumers



National Geospatial Cloud

Systems Of Engagement

National Government Authoritative Data & Service Providers

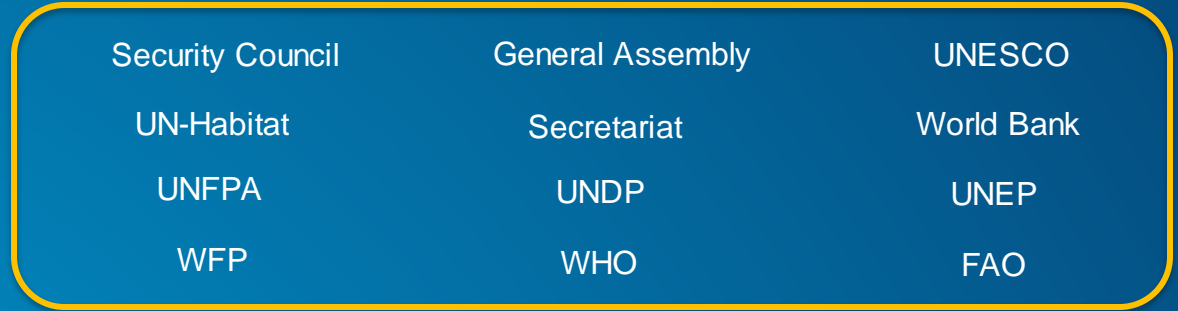


Systems Of Record

A Global Geospatial Community of Interest...

Building a Common Spatial Infrastructure

International Community Consumers



Systems Of Insight

Non-Government Providers & Consumers



UN SDG Hub Network

Systems Of Engagement

National Government Authoritative Data & Service Providers



Systems Of Record

How Do We Take the Next Step?

Embrace Digital Transformation . . .
. . . and Leverage All Geospatial Technologies

*Envision a
Better Future*

Societal GIS

Innovate
Create Solutions
Participate & Take Action
Take the Initiative
Work Together
Collaborate
Understand the Possibilities
Embrace Technology
Learn Continuously
Inform & Educate

Energy
Population
Food
Social Conflict
Water
Urbanization
Climate Change
Biodiversity

. . . Create a Geoscience-Based Foundation for Our Future