

## **Concepts of GIS: What Is Server GIS?**

### **Goals of the workshop**

- Explain why more and more GIS systems are evolving to an enterprise SOA (service-oriented architecture) model.
- Describe the GIS needs that drive such system evolutions and show how ArcGIS Server can effectively meet those needs:
  - Integrate and centralize GIS resources for more efficient internal access and management.
  - Securely share GIS resources with other external organizations and the public.
  - Support quick and easy GIS solution creation, customization, and deployment.
  - Plug the GIS system into existing IT infrastructure to leverage past investments.
- Give a high-level introduction to server functionality, briefly describing
  - What sets ArcGIS Server apart from basic Internet mapping solutions
  - Available GIS service—visualization, GIS operations, and geodatabase access
- Operations performed make resources available through ArcGIS Server.
- Highlight key strategic directions in which ESRI is pushing the ArcGIS Server product.

### **Major topics covered**

- What makes up an enterprise GIS system?
- Why is SOA so critical to the implementation of an efficient enterprise GIS solution?
- General overview of the components making up the ArcGIS Server architectural model.
- ArcGIS Server centralizes GIS data storage using enterprise geodatabase technology:
  - Via ArcSDE technology in concert with major RDBMSs (e.g., Oracle, SQL Server, Postgres)
  - Supports a full range of GIS workflows including geodatabase replication
- Introduction to specific GIS services including
  - Map and globe services
  - Geocoding, geoprocessing, and network analysis services
  - Geodatabase access and management services
- ArcGIS Server supports a variety of GIS client applications:
  - ArcGIS Desktop applications and the ArcGIS Explorer thin Web client
  - Third-party OGC applications (e.g., via WMS, WFS)
  - Many other common mapping applications (e.g., Google Earth, MS Virtual Earth)
- Understanding the basics of the ArcGIS Server security model.
- Introduction to Web mapping application.
- Introduction to mobile GIS including basic concepts of data access, mobile application development, and the Mobile ADF.