

ArcGIS Server Capabilities

- ArcGIS® Server allows you to share your geographic information system (GIS) resources across an enterprise and across the Web.
- GIS resources are the maps, globes, address locators, geodatabases, and tools that you want to share with others.
- You can host GIS resources on your ArcGIS Server system or GIS server and allow client applications, like Web mapping applications, to use and interact with the resources.

What are Web-Services?

- Web services represent GIS resources that a server makes available to other computers on a network.
- The computers that access this service are called Clients.
- When ArcGIS Server is used to publish a service, permission is given to clients to access that GIS resource.

ArcGIS Server

Key Capabilities

- Publish Web maps tailored to your audience
 - [GIS Web Services Demo](#)
 - [Oregon Stimulus Tracker](#)
- Geographically enable IT investments
- Centrally manage Geodata
- Simplification of access to large volumes of imagery resources
- Extend GIS technology to mobile workforce
- Application developer tools and for mobile development





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Extended Capabilities


Extensions

- 3D
 - Analyze terrain data
 - Visualize optimum facility placement
- Spatial (Advanced Raster Analysis)
 - Finding Optimum locations
 - Utilizes other surface model techniques
- Network
 - Multipoint optimized routing
 - Allocation of service areas




Model visibility and analyze data based on 3D characteristics.

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Client Support

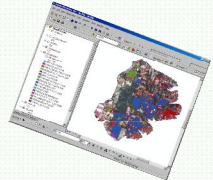
- ArcGIS Online: Access share data, maps, tools and services via the Web
- Mobile: Create and manage mobile projects
- ArcGIS Desktop: Author, Optimize and use GIS data, map services and spatial analysis tools
- ArcExplorer: Present 2D & 3D GIS map services
- ArcGIS for AutoCAD: Access to enterprise GIS base maps published by ArcGIS Server
- Custom applications




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Desktop-User Capabilities

- View files on server with ArcCatalog
- Batch Geocode addresses and find addresses using a geocode server
- Search and identify features
- Add a map server as a layer to a map document
- Interactively toggle layers on and off
- Pan and Zoom throughout map server



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Development Capabilities


Implement Functions in Web Application and Web Services Such as:

- Draw images from aerial photography or satellite images
- Dynamically display real-time or time series data
- Find features using SQL
- Perform Network Analysis
- Perform Geodatabase management

Enterprise level supports the following RDBMS:

- IBM DB2, Informix Dynamic Server, Microsoft SQL Server, Oracle and Postgre SQL




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Questions?

1. What are the 3 extensions listed for ArcGIS Server and briefly describe each?
 Spatial Extension: Allows users to create, query and analyze raster cell based data.
 3D Extension: Provides the ability to create and analyze surfaces/generated via web services.
 Network Analyst Extension: Enables developers to build Web applications and Web services that solve problems on network datasets.
2. ArcGIS Desktop users can perform which functions using ArcGIS Server?
 Connect to a GIS server on a local network over a LAN.
 Connect to ArcGIS Server Web services catalog.
3. List 3 Functions that you can perform using ArcGIS over a LAN or Internet connection?
 Use ArcCatalog to preview, pan, zoom throughout a map server and identify features on a mapserver.
 User ArcMap to identify, search for and find features on a map server.
 Use ArcMap to find addresses with a geocode server.
4. As a developer, on what type of feature, and what type of geometric operations can you perform with ArcGIS in Web applications/Web services?
 Geometric operations can be performed on shapes to create buffers, calculate differences, find intersections, unions or inverse intersections.

ArcGIS Server



Resources:

- ESRI: ArcGIS Server: Introducing ArcGIS Server
- ArcGIS Server 9.3.1: Functionality Matrix
- ArcGIS Server: Brochure