

# ArcGIS 10 and REST Services Technology

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# ***Geospatial Revolution***

## **The Geospatial Revolution Project**

**A public service media project produced by Penn State Public Broadcasting**

**In 2009, Penn State Public Broadcasting, licensee of Penn State University, began to educate and engage the public and policy-makers about geospatial developments and applications with their Geospatial Revolution Project, "an integrated public media and outreach initiative about the world of digital mapping and how it is changing the way we think, behave, and interact."**

**Welcome to the Geospatial Revolution - Map Making for Everyone**

**<http://geospatialrevolution.psu.edu/episode1/chapter1>**

**Learn more about "Geospatial Revolution" on PSU's web site:**

**<http://geospatialrevolution.psu.edu/>**

# *Geospatial Revolution*

## Map Making for Everyone

<http://geospatialrevolution.psu.edu/episode1/chapter1>

[http://www.teachersdomain.org/asset/psu10sci\\_vid\\_geospatial\\_histgis/](http://www.teachersdomain.org/asset/psu10sci_vid_geospatial_histgis/)

[http://www.youtube.com/watch?v=OEWKTaY2ahg&feature=player\\_embedded#](http://www.youtube.com/watch?v=OEWKTaY2ahg&feature=player_embedded#)

# *Topics*

- **ArcGIS 10 — A Complete System - Map Making for Everyone**
- **ArcGIS Server 10**
  - **What are GIS Services?**
  - **ArcGIS Services Directory exposes REST API**

# *Topics*

- **ArcGIS REST Services Demo**
- **Connecting to ArcGIS Services in ArcMap Demo**
- **IndianaMap Demo - HTML5 using REST Services**
- **ArcGIS Online Demo - Creating Maps using rest services, configuring pop-ups, adding comma delimited file**
- **ArcGIS Explorer Online Demo - Web Map Editing using Indiana REST Services**

## **Quick Survey**

**How many of you are using ArcGIS 10 Desktop?**

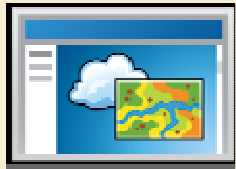
**How many of you are using ArcGIS 10 Server?**

**How many of you still have ArcIMS websites?**

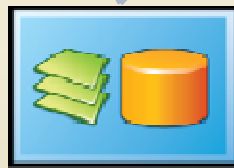
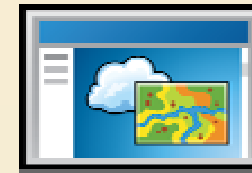
**How many of you are serving out websites using ArcGIS Server?**

# Indiana – Parallel Servers

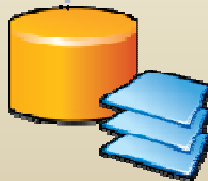
## ArcIMS Websites



## ArcGIS 10 Services

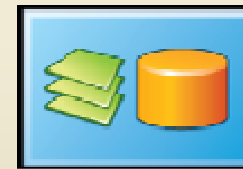


9.3.1 ArcIMS  
Server

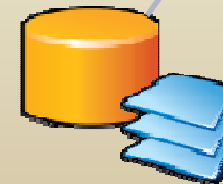


9.3.1 SDE  
Database

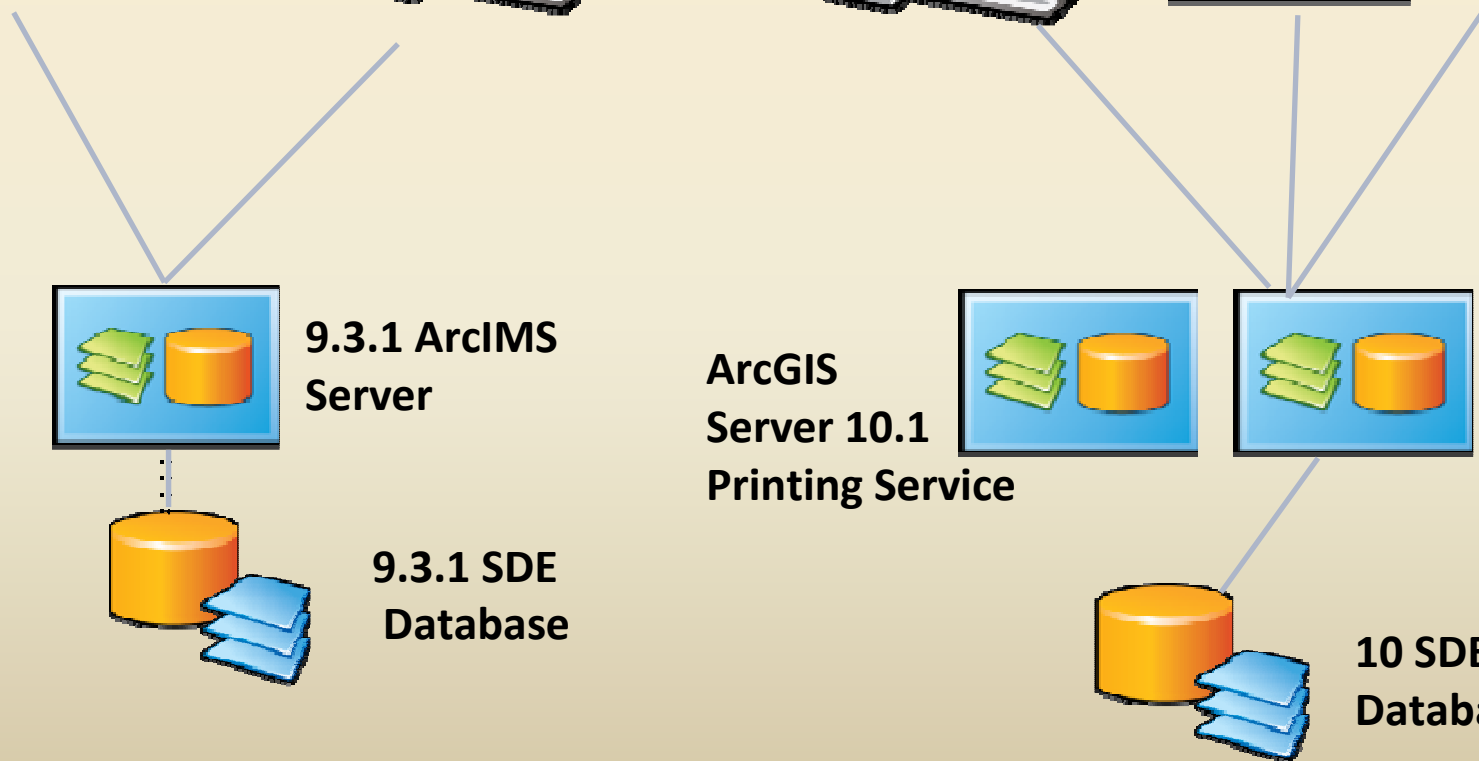
ArcGIS  
Server 10.1  
Printing Service



ArcGIS  
Server 10



10 SDE  
Database



## **Taking the Next Step**

- **Start using ArcGIS 10**
- **Review the ArcGIS 10 resources**  
<http://resources.arcgis.com/>
- **Take advantage of the training resources available**
- **Create a login for <http://arcgis.com> and start using it**



## *ArcGIS Server 10*

- **Complete, out-of-the-box Web based GIS**
  - **Ready to use applications and GIS services**
- **Platform for developing Web and enterprise applications and services**
  - **Available for .NET and Java platforms**

# What are GIS Services

**GIS Service = GIS resource running on a server  
vs. GIS application on your local computer**

**Almost any GIS operation that you can do locally  
can also be run using a service**

**Enables sharing of GIS resources across the Web**

# *What is REST?*

## **REST Services (Representational State Transfer)**

### **Definition –**

**A unique URL for a GIS map service published with ArcGIS Server. It can be used to serve a single GIS layer, or a collection of layers.**

### **Role or function --**

**Give users access to the GIS layer or layers in a custom map viewer (e.g., IndianaMap, ArcGIS Online, ArcGIS Explorer, or Google Earth) or in desktop GIS software (e.g., ArcMap)**

# *ArcGIS Services Directory*

- **Way to discover information about the services available on a particular server**
- **Lists the spatial extent, spatial reference (coordinate system), supported operations, cache status with levels of detail available**
- **Layers are listed with links to details about each layer, including fields, extents, scale dependencies**

**To access the Services Directory for an ArcGIS Server machine, you must know the URL of the server. Usually the Services Directory will be at:**

**<http://www.example.com/arcgis/rest/services>**

# Demos