

Introduction to ArcGIS Server

Transcript

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Hello, and welcome to the ESRI Instructional Series podcast, this broadcast, *Introduction to ArcGIS Server*. I'm Bronwyn Agrios from Educational Services at ESRI in Redlands, California, and I specialize in ArcGIS Server and ArcSDE technology. Today I will discuss the workflow for using ArcGIS Server, including authoring GIS resources, making those resources available on the server, and using the server resources from a client application.

This topic is focused on what we can do with ArcGIS Server out of the box. For ArcGIS Server developer resources, please see the ESRI Developer Network, at www.edn.esri.com, as well as the ESRI Training Gateway at www.esri.com/training. This discussion is appropriate for new or prospective ArcGIS Server users.

Now before discussing the workflow, I want to talk a little bit about ArcGIS Server, the product. So what is ArcGIS Server? ArcGIS Server provides us with applications and functionality for data management, visualization, and spatial analysis. ArcGIS Server contains data management functionality that we commonly refer to as SDE technology. This aspect of ArcGIS Server is defined by its capacity for storage and access. ArcGIS Server is also composed of an application tier, for facilitating data access through services and Web application development. This aspect of ArcGIS Server is defined by the functions it provides and is what we'll be focusing on in this podcast. For more information on the capabilities of ArcGIS Server and the different levels of functionality, please search ArcGIS Server matrix on the support site at support.esri.com.

Now let's begin by understanding the author, publish, and use workflow for working with ArcGIS Server, beginning with author. So your work with ArcGIS Server begins in ArcGIS Desktop, ArcMap, ArcCatalog, and maybe even ArcGlobe for your 3D maps. We use these desktop applications to build local resources, like maps for visualization, geoprocessing models for analysis, just to name a couple. We can share these resources over an intranet or Internet by making them available to ArcGIS Server.

So this leads up to the second stage of our workflow: publish. Publishing makes that resource that we built using ArcGIS Desktop available to the GIS Server as a service. The GIS Server hosts and runs the service, or server resource, in conjunction with the Web server, to make it available to the client application for use. A service is simply a software component that is accessible over the Web for use in other applications, called clients. The types of services we can create from our local ArcGIS Desktop resources are: map and globe services (which are generated from map and

globe documents), geoprocessing services (which we create from model that were built using ModelBuilder), geocoding services (built from address locator files that we create in ArcCatalog), as well as geodata services generated by publishing a geodatabase.

So as you can see, we have services for 2D and 3D visualization, for analysis, and for data access. You now know that we author our GIS resources in ArcGIS Desktop, and publish the local resources to make them available on the GIS Server. But what tools do we have available for publishing and working with those services. There're two options: ArcGIS Server Manager and ArcCatalog. ArcGIS Server Manager is a Web-based application for publishing services. We can also use Manager to perform administrative tasks on the services, as well as on the GIS Server. ArcGIS Server Manager is also our tool for creating out-of-the-box Web mapping applications, and because it's a Web-based tool, it provides us with remote access to the server.

Our second option, like I said, is ArcCatalog. We can use ArcCatalog to publish our services, and perform administrative tasks on the services and on the server. Although Manager is very easy to use, many people with a GIS background feel more at home managing their services and server in ArcCatalog. For step-by-step instructions on publishing a new service from both Manager and ArcCatalog, go to the ArcGIS Server Help topic *Publishing a GIS Resource to the Server*.

Finally, we can use the published resource from a variety of clients, and like I said earlier, a client is an application or computer that makes requests to a server for information. So the first client is one I've already mentioned: the Web mapping application. This is our Web-based client that we create using ArcGIS Server Manager. You can work in Manager to build the application, as well as customize the properties, or you can use your .NET or Java development environments to customize an existing application or build a new application from scratch. Either way, a Web-mapping application provides your users with a focused, easy-to-use GIS application that will help to facilitate light GIS users accessing the organization's central GIS and, in turn, help them to make better spatial decisions.

One thing to remember is that ArcGIS Desktop is still required for your more advanced GIS user, like your GIS Analyst, who will perform more complex editing and analysis tasks, as well as potentially structural changes on the data and the geodatabase. When creating a Web mapping application, you also have the option to enable some additional functionality, like editing of your

2D features; as well, you can configure some additional tools that we call tasks in ArcGIS Server. These tasks will allow the end user to ask both spatial and attribute questions of the data.

So another client that you have available to you is ArcGIS Explorer. This is a lightweight client for ArcGIS Server that can be used for both 2D and 3D data. This is a free client that you can download by searching ArcGIS Explorer at www.esri.com.

Other clients that you have available to you are ArcGIS Desktop, mobile applications created with ArcGIS Mobile, KML clients, and WMS clients that comply with OGC standards.

In summary, ArcGIS Server allows you to share your GIS resources across an enterprise and across the Web. You first author these resources in ArcGIS Desktop, and then share them by hosting them on your ArcGIS Server system. We then allow client applications to use and interact with the server resource. The main advantages of sharing your GIS resources on a GIS server are the same as sharing any data through any kind of server technology. The data is centrally managed, supports multiple users, and provides clients with the most up-to-date information.

For further resources, please check out our instructor-led training resources at www.esri.com/training. This discussion touched on topics that are covered in our two-day instructor-led class *Introduction to ArcGIS Server*, as well as the recorded live training seminar *What's New in ArcGIS Server in 9.2?*

Thank you for tuning in to this session of our ESRI Instructional Series podcast. Please stay tuned for future podcasts.