



Portal for ArcGIS An Introduction

Derek Law

July 22, 2015

Agenda

- Web GIS pattern
- Product overview
- Installation and deployment
- Configuration options
- Security options and groups
- Portal for ArcGIS + ArcGIS Server
- Implementation suggestions
- Summary

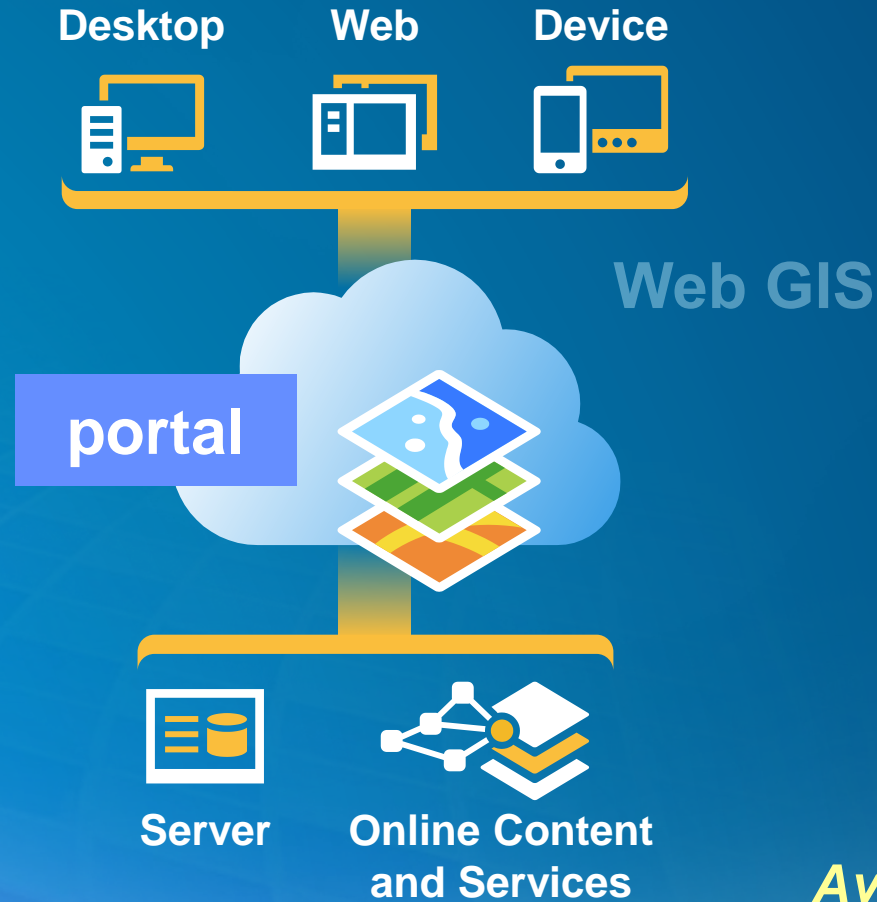


**Strongly Recommend:
Knowledge of ArcGIS Server**

ArcGIS Is a Platform

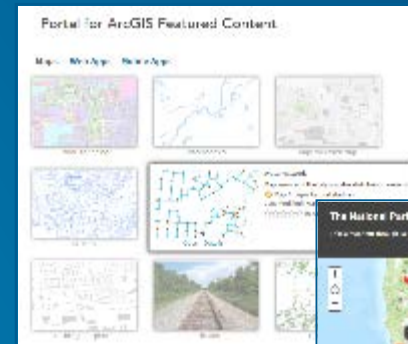
Enabling GIS Everywhere

Simple
Integrated
Open



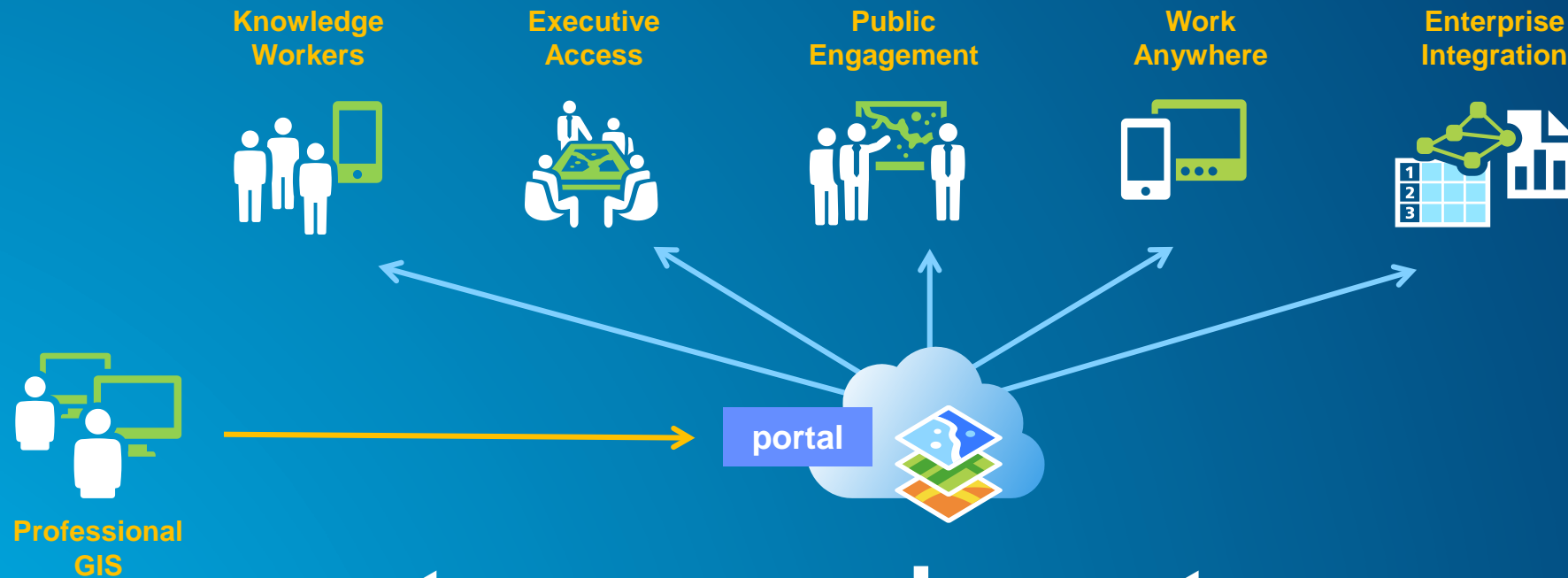
*Available in the Cloud . . .
. . . and On-Premises*

Organize your maps and apps



enable discovery

Empower people

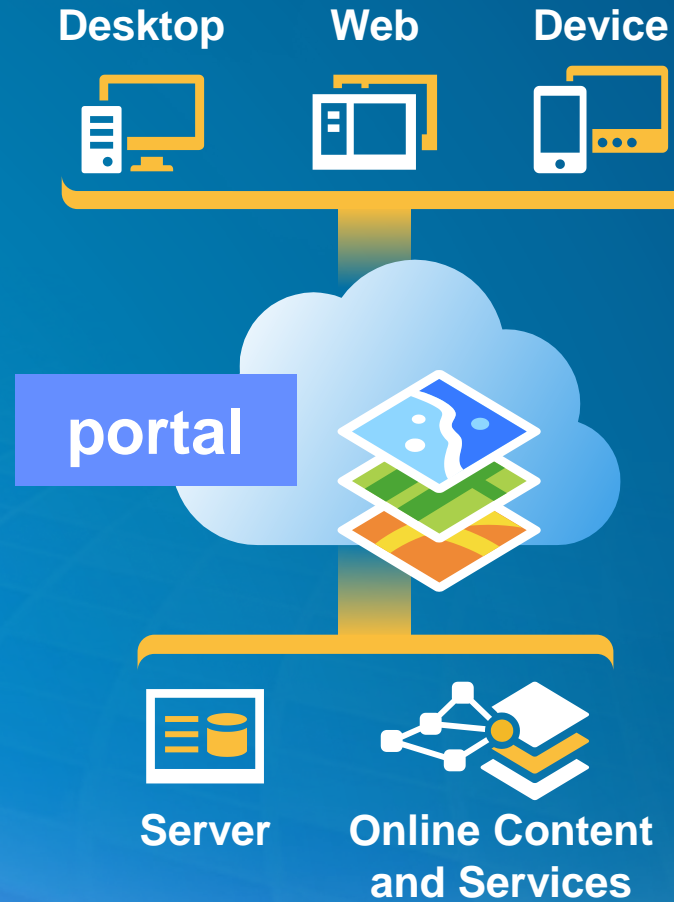


to use and create maps

The ArcGIS Platform enables Web GIS

Enabling GIS Everywhere

Simple
Integrated
Open



*Available in the Cloud . . .
. . . and On-Premises*

Key ArcGIS components for Web GIS



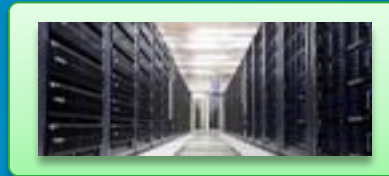
Apps

- Information Products
- Access Control



portal

- Web Services
- Data



GIS Servers
Authoring tools



Ready to use
Content

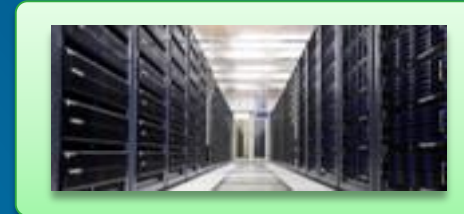
Web GIS Deployment Patterns



Apps



portal



GIS Servers



**Ready to use
Content**

SaaS

**ArcGIS Online
(portal)**

**ArcGIS Online
(Hosted Servers)**

**ArcGIS Online
Services**

Software

**Portal
for ArcGIS**

**ArcGIS
Server**

**ArcGIS Data
Appliance**

Web GIS Deployment Patterns



portal



GIS Servers



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GIS Servers



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ArcGIS Data
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Portal for ArcGIS

Web GIS in your infrastructure option

- **Central hub for your GIS assets**
- **Solution when**
 - Additional security requirements
 - No public cloud option
- **Allows for**
 - Enterprise integration (e.g., security)
- **COTS product since 10.2**
- **Extension to ArcGIS for Server**
 - **10.3.x Included with Standard and Advanced**



Portal for ArcGIS

Is it right for me?

- Typical reasons for choosing **Portal for ArcGIS**
 - Have no Internet/www connection
 - Have strict SLAs and governance
 - Not ready/interested in the cloud
 - You are responsible for maintenance
- Typical reasons for choosing **ArcGIS Online**
 - Lower overall cost (faster start, less admin costs)
 - Elasticity
 - Continuous updates and improvements from Esri



Portal for ArcGIS – Some User Success Stories



Portal



Demo

Web GIS On-Premises



Portal for ArcGIS Capabilities









- Browse, search, and discover your GIS assets
- Self-service mapping
- Content creation and management
- Sharing and collaboration
- Data hosting and mapping
- Visualization, collection, and analysis
- Ready to use maps and layers











Make a Web Application

Configurable Apps | Web AppBuilder









Click a template's thumbnail to preview it or click its links to download it to your computer or publish it to the web.

Basic Viewer  Publish ▼	Chrome - Twitter  Publish ▼	Classic Viewer  Publish ▼	Compare Analysis  Publish ▼
Directions  Publish ▼	Edit  Publish ▼	Elevation Profile  Publish ▼	Filter  Publish ▼

1 2 3 4

Find, Edit, and Filter  Publish ▼	Finder  Publish ▼	GeoForm  Publish ▼	Impact Summary  Publish ▼
Information Lookup  Publish ▼	Legend  Publish ▼	Local Perspective  Publish ▼	Map Tools  Publish ▼

1 2 3 4

Public Information  Publish ▼	Simple Map Viewer  Publish ▼	Story Map Basic  Publish ▼	Story Map Journal  Publish ▼
Story Map Series  Publish ▼	Story Map Swipe and Spyglass  Publish ▼	Story Map Tour  Publish ▼	Summary Viewer  Publish ▼

1 2 3 4

Web Application Templates

Each designed for a specific use

Print

Map Title: ArcGIS WebMap

Layout: Letter ANSI A Landscape

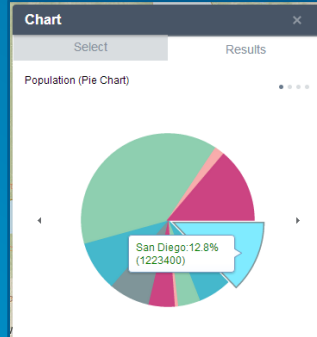
Format: PDF

Advanced Print

Map scale/extent:
 Preserve: map scale map extent
 Force scale: current

Layout metadata:
 Author: ArcGIS WebApp Builder
 Copyright:

Include legend:



Options Zoom to Clear Selection Refresh

Latitude	Longitude	Date	City	State	Country	Event	Tour	Venue	url	FID	CreationDate	Creator	EditDate
29.730278	-95.4316	4/5/1992 5:00:00 PM	Houston	TX	USA		Zoo to 1st Leg	The Summit	http://en.wikipedia.org	12	4/18/2013 10:25:55 AM	cmshih_jj@esri	4/18/2013 10:25:55 AM
41.311488	-72.920511	12/13/1989 4:08:00 PM	New Haven	CT	USA		Boy 2nd Leg	Toads Place	http://www.loading	13	4/18/2013 10:25:55 AM	cmshih_jj@esri	4/18/2013 10:25:55 AM
33.273998	-97.732278	4/6/1992 5:00:00 PM	Austin	TX	USA		Zoo to 1st Leg	Fresh Green Center	http://en.wikipedia.org	14	4/18/2013 10:25:55 AM	cmshih_jj@esri	4/18/2013 10:25:55 AM
39.851039	-75.933808	12/14/1989 4:08:00 PM	Philadelphia	PA	USA		Boy 2nd Leg	Boys Cafe		15	4/18/2013 10:25:55 AM	cmshih_jj@esri	4/18/2013 10:25:55 AM
33.424517	111.930543	4/6/1992 5:00:00 PM	Tampa	FL	USA		Zoo to 1st Leg	Activity Center Arizona State U	http://en.wikipedia.org	16	4/18/2013 10:25:55 AM	cmshih_jj@esri	4/18/2013 10:25:55 AM

1 - 20 of 464 results 0 selected

20+ widgets

Web AppBuilder for ArcGIS Water Network Leak Manager Water Dept

Themes Map Widgets Attributes

Set the widgets in this controller

Sidebar C...

Attribute T... Coordinate Footer Geocoder

Reader Home Button My Location Overview ...

Scalebar Splash Find water... Show alle...

Widget

Launch Previews Saved

Water Network Leak Manager

Esri World Geocoder

Water Dept

Franklin Av

College Park

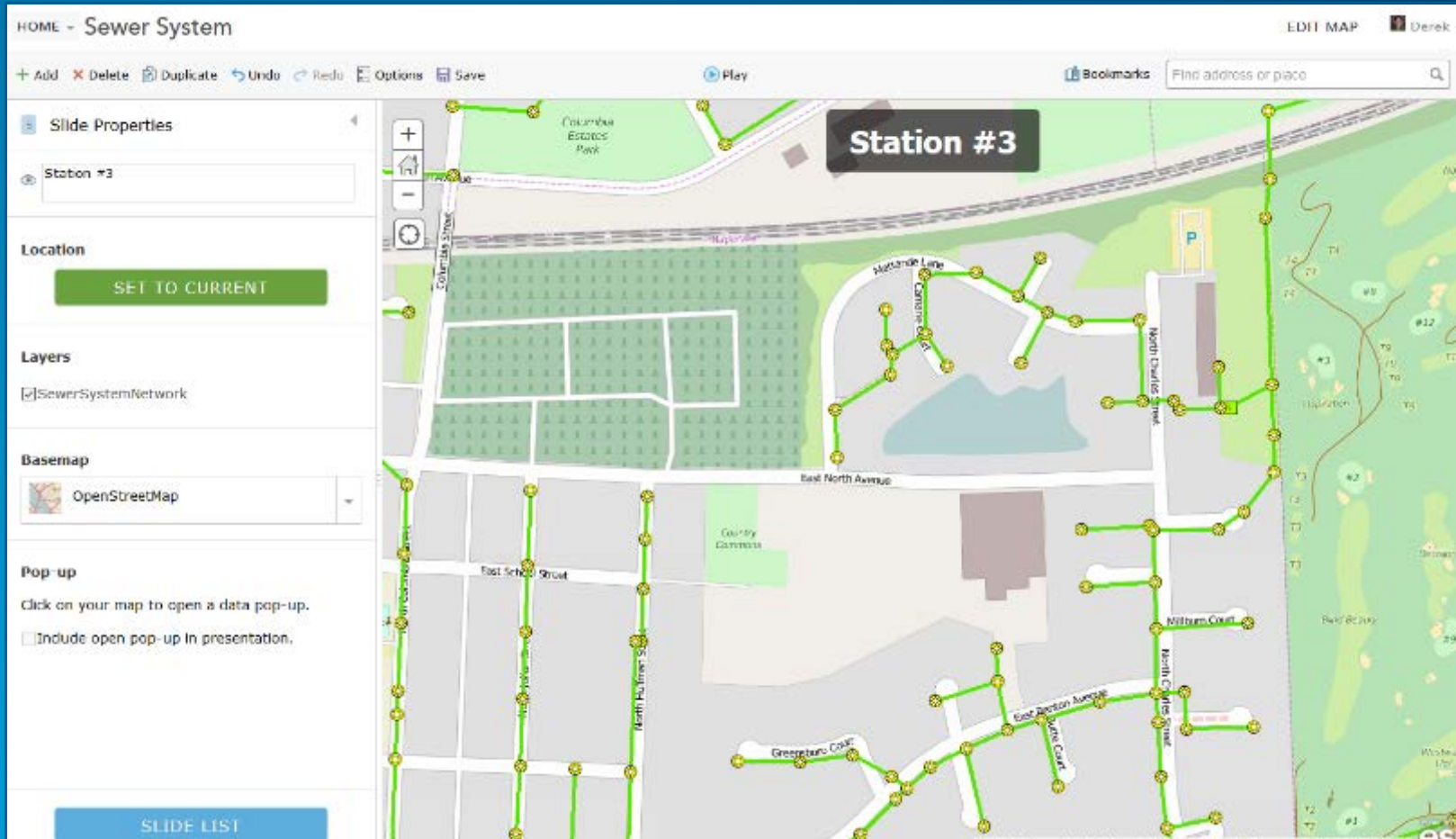
Water Network Leak Manager

Water Dept

Esri

Web AppBuilder for ArcGIS

Create new web apps without programming



Creating Presentations

Collection of slides that show specific locations, layers, pop-ups, basemaps, and titles.

Apps included with Portal for ArcGIS

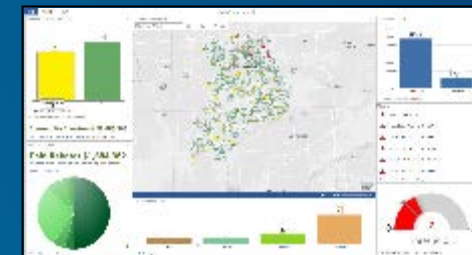
- Web application templates
- Collector for ArcGIS
- Operations Dashboard for ArcGIS
- Explorer for ArcGIS
- Esri Maps for ... Apps (5 different apps)
- 10.3.x: Web App Builder for ArcGIS



Web Application Templates



Collector for ArcGIS



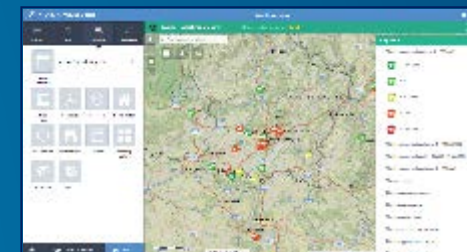
Operations Dashboard for ArcGIS



Explorer for ArcGIS



Esri Maps for ... Apps



10.3.x Web App Builder for ArcGIS

Portal for ArcGIS – System Requirements

Same Supported Operating Systems as ArcGIS Server

Windows

Supported operating systems

The Portal for ArcGIS setup will only proceed if the operating system is 64-bit; 32-bit operating systems are not supported. The operating system must be one of the following:

- Windows Server 2012 R2 Standard and Datacenter
- Windows Server 2012 Standard and Datacenter
- Windows Server 2008 R2 Standard, Enterprise, and Datacenter (maximum version supported is SP1)
- Windows Server 2008 Standard, Enterprise, and Datacenter (maximum version supported is SP2)
- Windows 8.1 Professional and Enterprise
- Windows 8 Professional and Enterprise
- Windows 7 Ultimate, Enterprise, Professional, Home Premium
- Windows Vista Service Pack 2 Ultimate, Enterprise, Business, and Home

Linux

Supported Linux operating systems

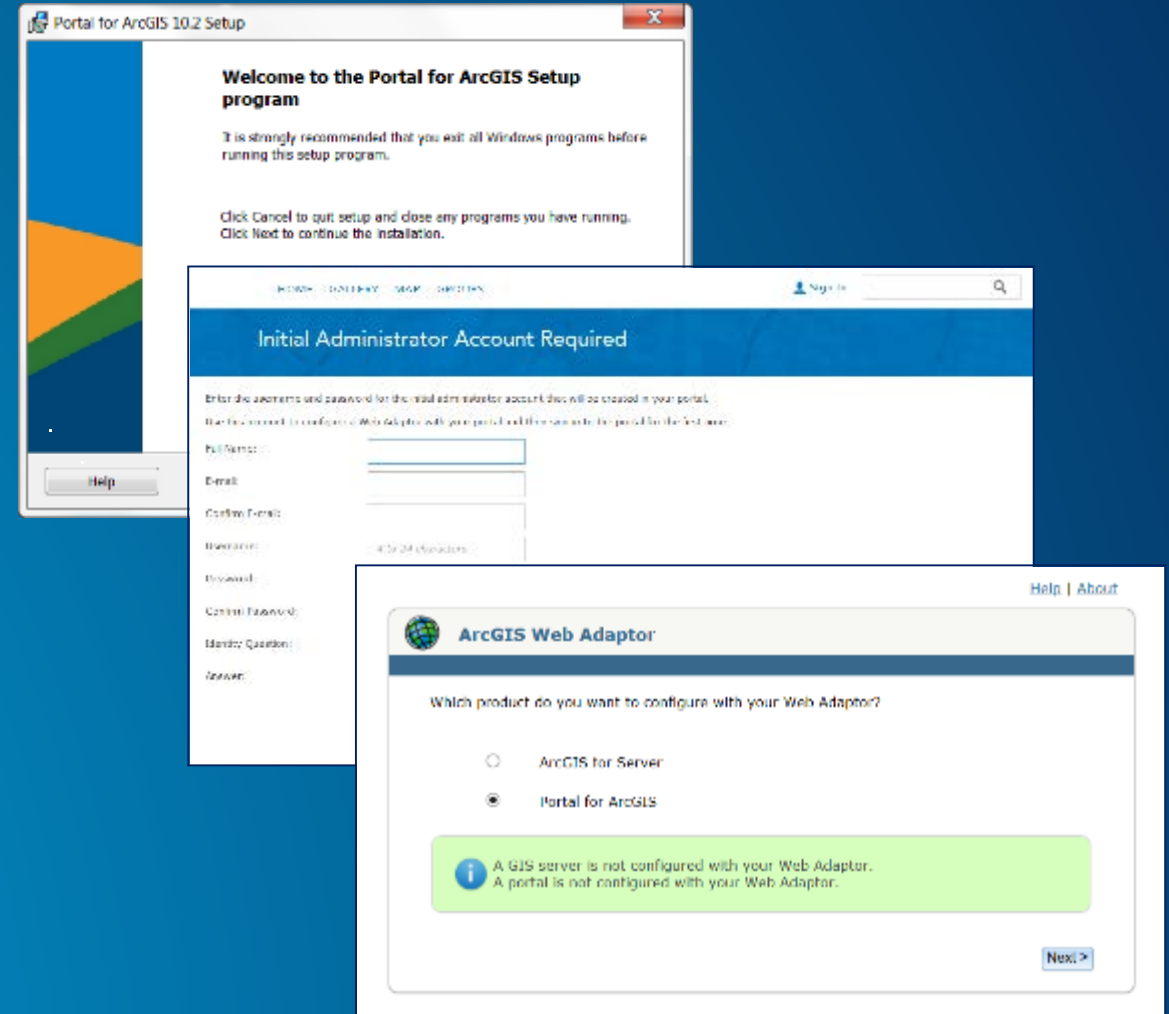
The Portal for ArcGIS setup will only proceed if the operating system is 64-bit; 32-bit operating systems are not supported. The operating system must be one of the following:

- Red Hat Enterprise Linux Server 6
- Red Hat Enterprise Linux Server 5 Update 7 with [libX11 patch](#)
- SUSE Linux Enterprise Server 11 Service Pack 1

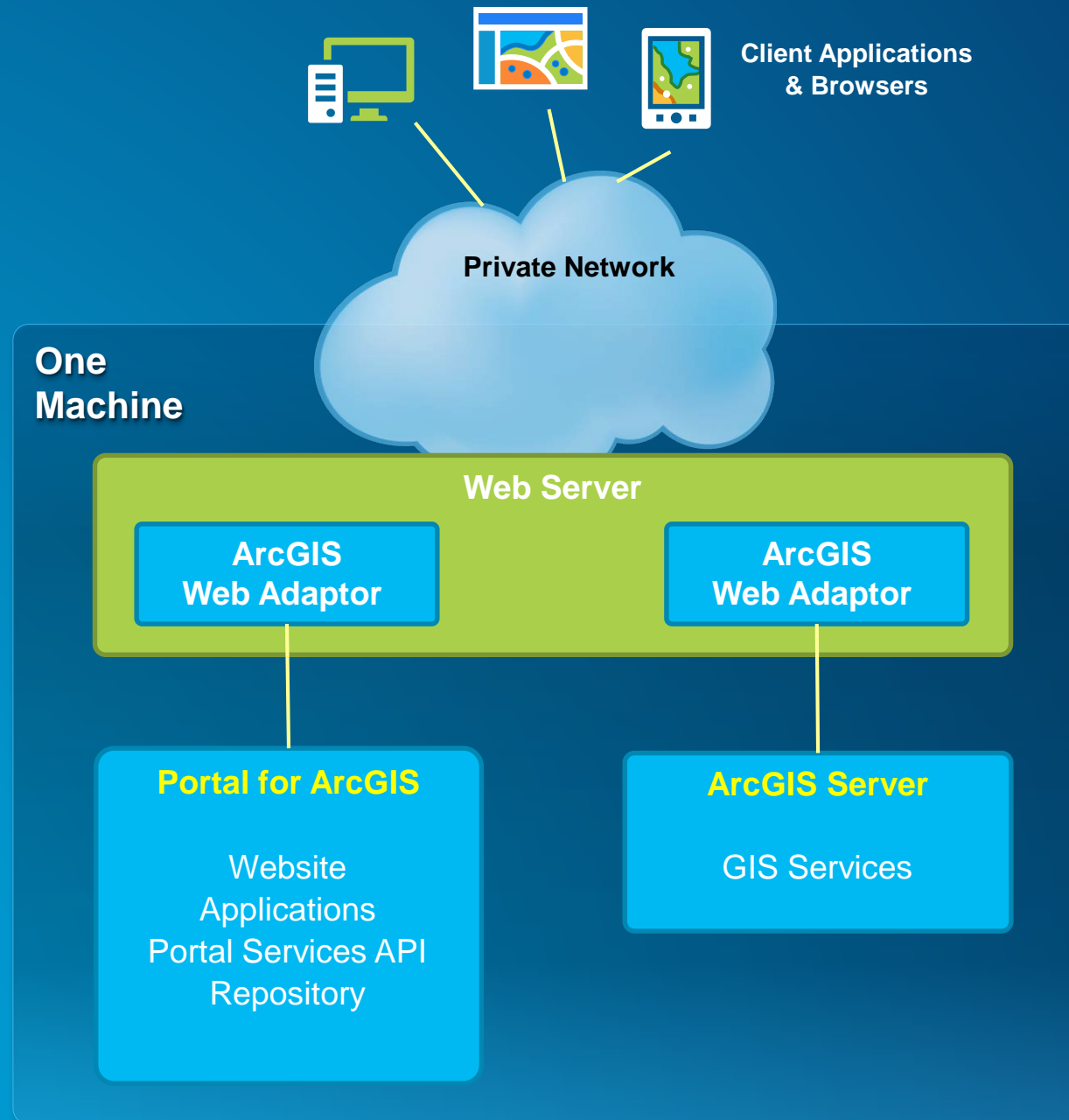
Installing Portal for ArcGIS

Can be scripted for silent installs

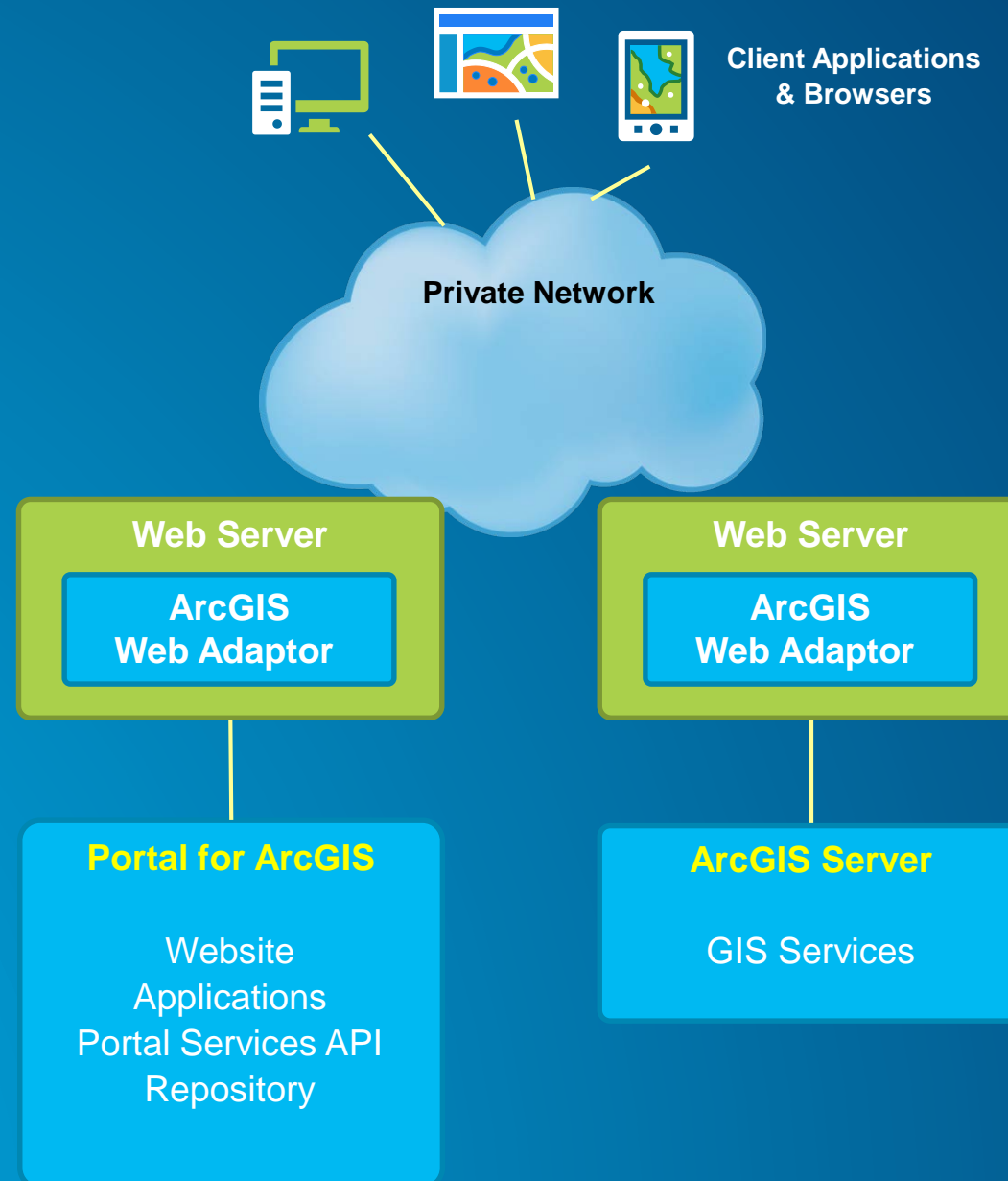
- 5 step workflow
 1. Run installer
 2. Authorize software
 3. Create initial admin account
 4. Enable SSL on web server
 5. Configure ArcGIS Web Adapter
- Review help documentation
- Helpful to have
 - IT knowledge
 - Understand security, SSL, etc.



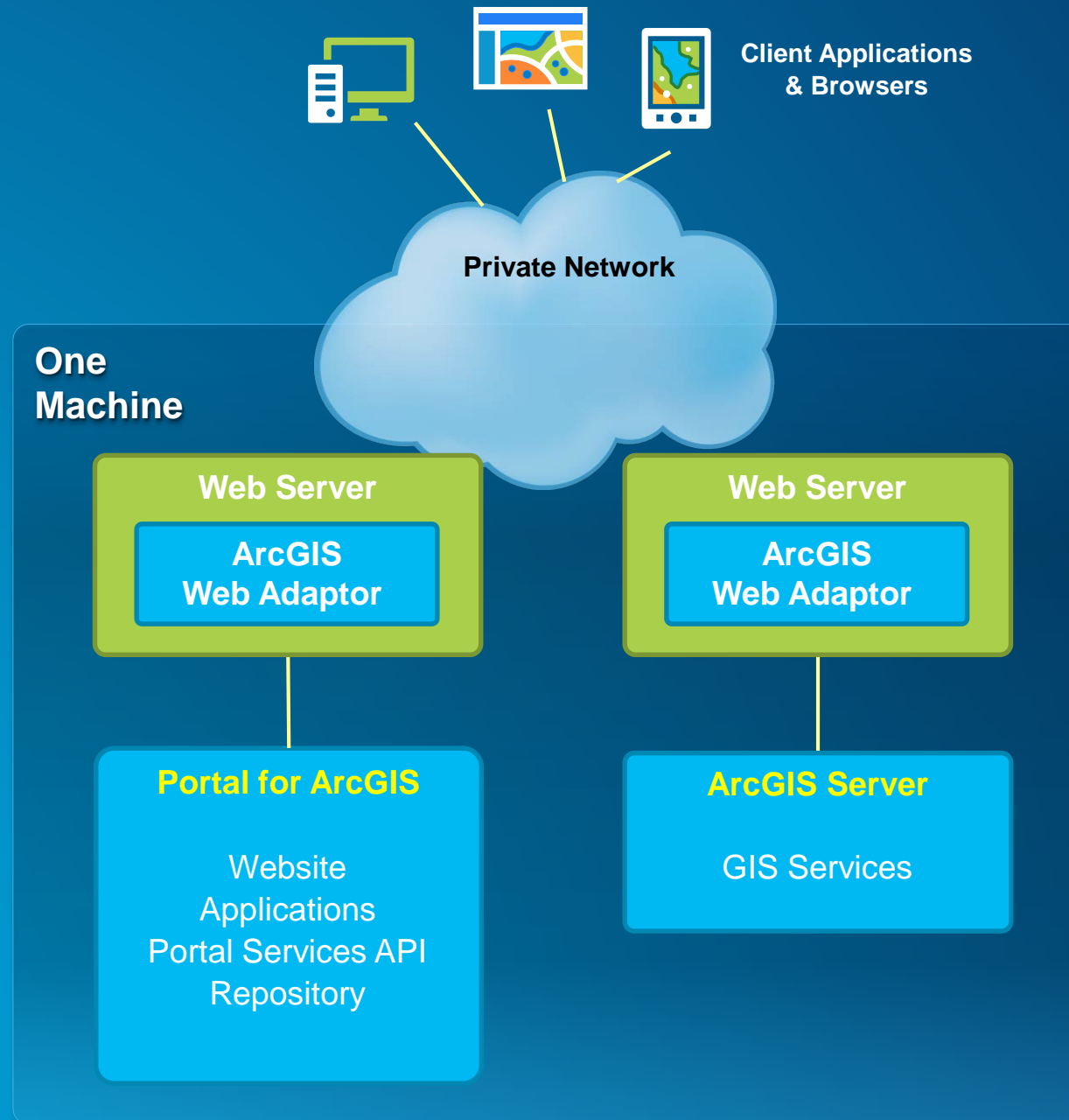
Deployment



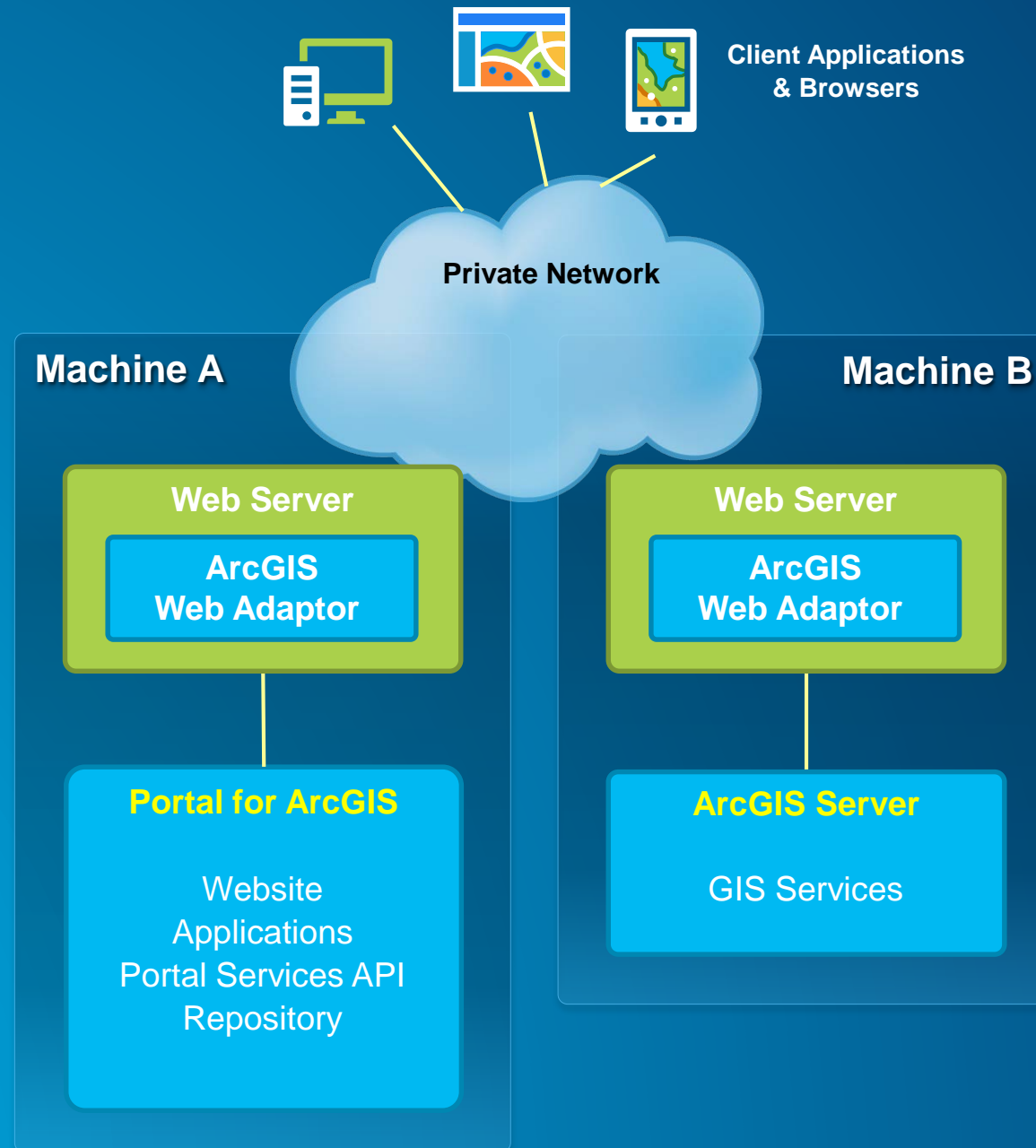
Deployment



Deployment

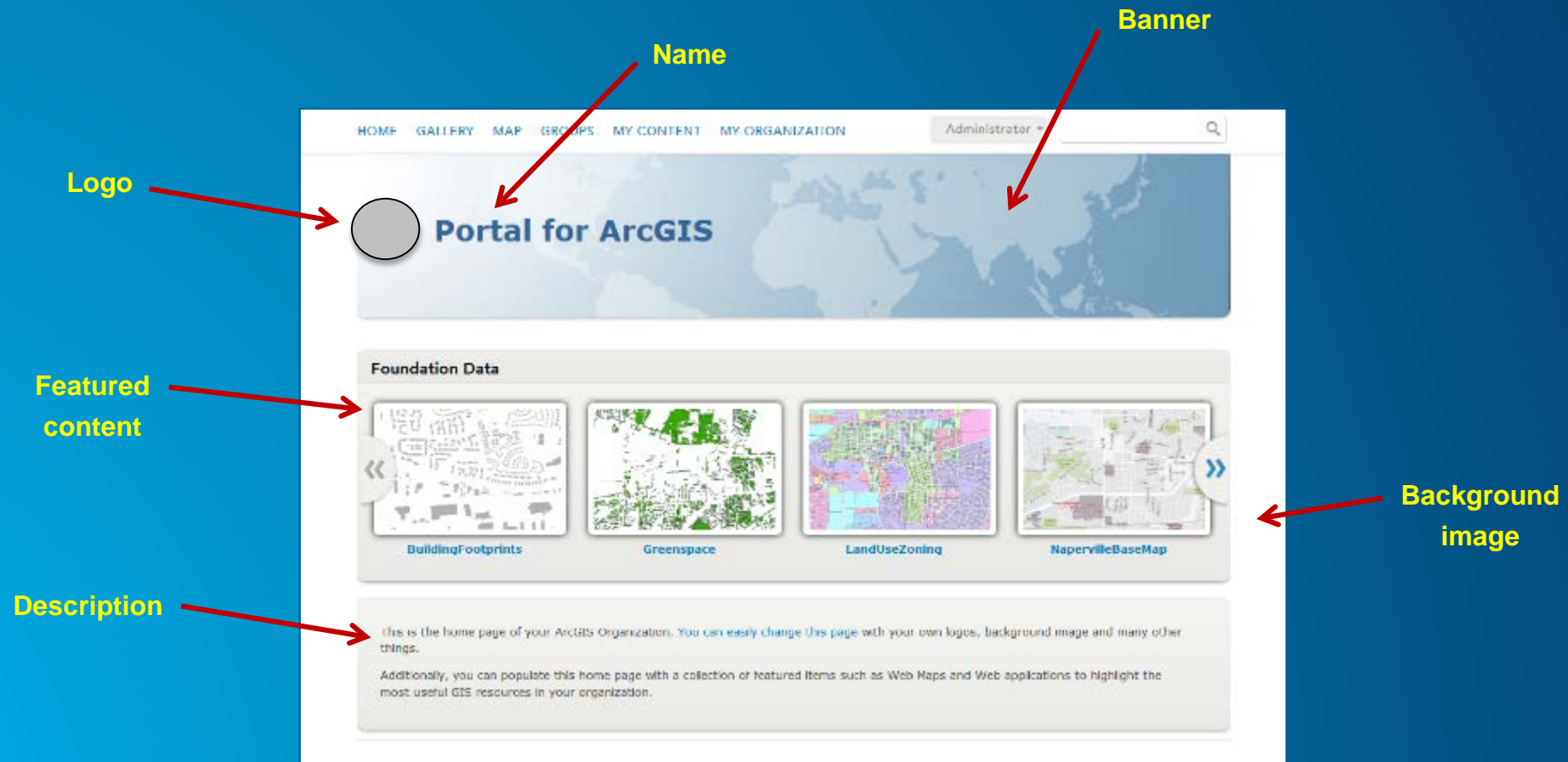


Deployment



Configuring Portal for ArcGIS

- Must have Administrator privileges





Demo

Configuring Portal for ArcGIS

A screenshot of the ArcGIS 'My Organization' configuration page. The page has a dark blue header with navigation links: HOME, GALLERY, MAP, SCENE, GROUPS, MY CONTENT, MY ORGANIZATION. On the right of the header is a search bar with 'Administr...' and a magnifying glass icon. Below the header is a 'My Organization' title bar. The main content area has a left sidebar with a 'SAVE' button and a 'CANCEL' button, and a list of configuration categories: General, Home Page, Gallery, Map, Item Details, Groups, Utility Services, Servers, Roles, and Security. The 'General' category is selected. The 'General' section contains instructions: 'Represent and describe your portal. You can also set the default language for your portal's user interface and the default basemaps and units that users see.' Under 'Logo and Name', there is a thumbnail of a logo and a text input field containing 'Naperville Portal'. Below the input field is a link that says 'Click to change thumbnail'. Under 'Description', there is a rich text editor with a toolbar and a text area containing 'This is the GeoPortal for the City of Naperville'. At the bottom of the page, there is a checkbox labeled 'Show description toward bottom of Home Page'.

Portal for ArcGIS Security

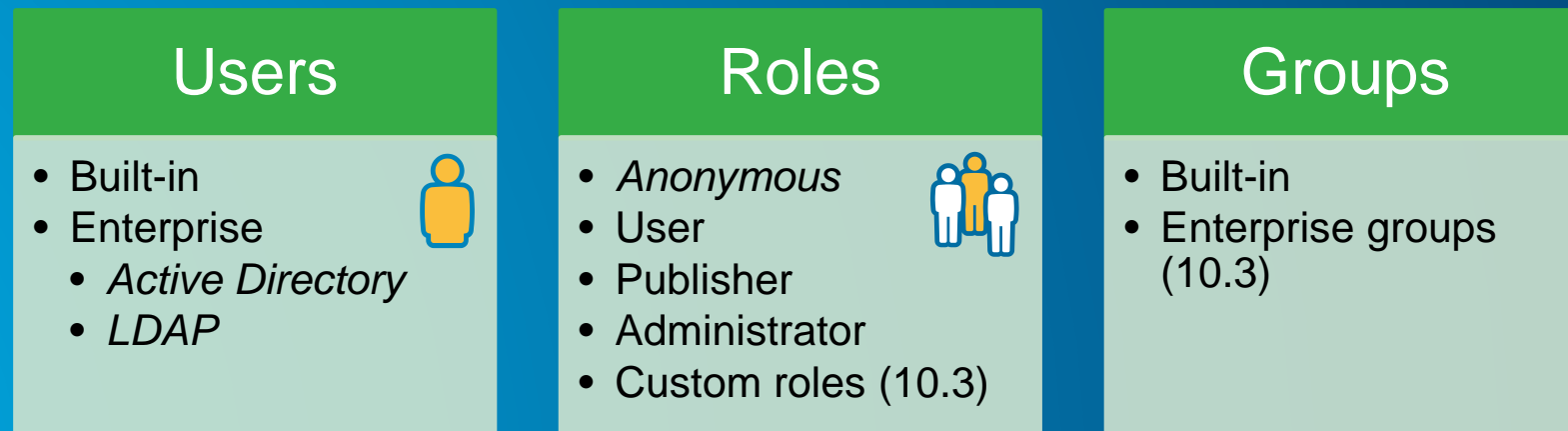
Integrates with Your Enterprise Security Infrastructure



- **Authentication**

- Web tier authentication, including Windows Authentication & PKI
- Web single sign-on (SSO) with SAML (10.3)
- Portal tier authentication combining both built-in and enterprise users (10.3.1)

- **Users, Roles, and Groups**



Portal for ArcGIS: Named Users and Roles

	With an ArcGIS organizational account			Without account
	User role	Publisher role	Administrator role	
Search and use public items	✓	✓	✓	✓
Search and use private items	✓	✓	✓	
Create and share items	✓	✓	✓	
Publish new content as tiled or feature services		✓	✓	
Administer the ArcGIS organization			✓	
Manage users and their privileges			✓	
Manage items created by others			✓	
Use Collector, Explorer, Operations Dashboard, Esri Maps for ... Apps, Templates, Web AppBuilder	✓	✓	✓	

Portal for ArcGIS: Custom Roles

- Provide more flexibility to enable fine grained control on what members can do
- My Organization page > Edit Settings > Roles > Create Role

HOME GALLERY MAP SCENE GROUPS MY CONTENT MY ORGANIZATION Administr...

My Organization

SAVE CANCEL

General
Home Page
Gallery
Map
Item Details
Groups
Utility Services
Servers
Roles
Security

Roles ?

Role Name:

Description:

Select a role or template on which to base the new role:

TOGGLE ALL ON COLLAPSE ALL SAVE ROLE DISCARD CHANGES

General Privileges

<input type="checkbox"/> Create, update, and delete	<input checked="" type="checkbox"/> Create, update, and delete	<input type="checkbox"/> Share with groups
<input checked="" type="checkbox"/> Join organizational groups	<input checked="" type="checkbox"/> Publish hosted feature layers	<input checked="" type="checkbox"/> Share with portal
	<input type="checkbox"/> Publish hosted tile layers	<input checked="" type="checkbox"/> Share with public
	<input type="checkbox"/> Publish hosted scene layers	<input type="checkbox"/> Make groups visible to portal
		<input type="checkbox"/> Make groups visible to public

Administrative Privileges

<input type="checkbox"/> View all	<input type="checkbox"/> Reassign ownership	<input type="checkbox"/> View all
<input type="checkbox"/> Update	<input type="checkbox"/> Assign members	<input type="checkbox"/> Update
<input type="checkbox"/> Delete	<input type="checkbox"/> Link to enterprise group	<input type="checkbox"/> Delete
<input type="checkbox"/> Disable		<input type="checkbox"/> Reassign ownership
<input type="checkbox"/> Change roles		
<input type="checkbox"/> Manage licenses		

This privilege grants the ability to update member account information within your portal.

Leverage Groups in Portal

- Groups have membership
- Organize by:
 - **Theme or initiative**
 - Common and supportive content
 - **Functional department/structure**
 - Based on organization's business units
 - **Projects**
 - Specific projects or tasks
 - **Ad-hoc**
 - Prototyping, non-permanent/temp projects, staging
- 10.3.x supports Enterprise Groups
 - When Portal is enabled with enterprise identity store (Windows AD or LDAP)



Demo

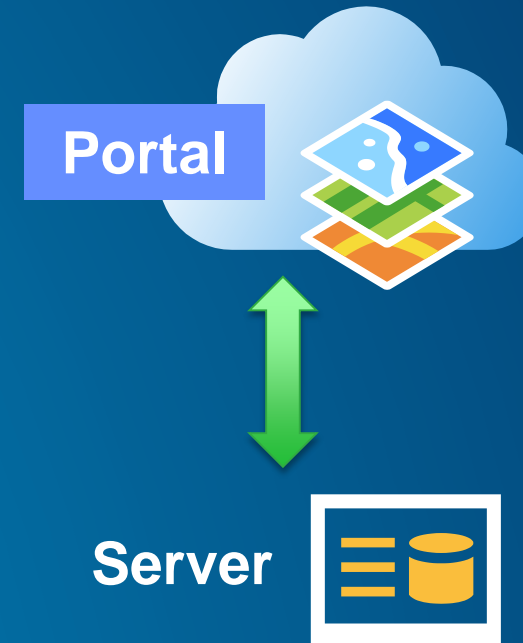
Leveraging Groups



Using Portal with ArcGIS Server

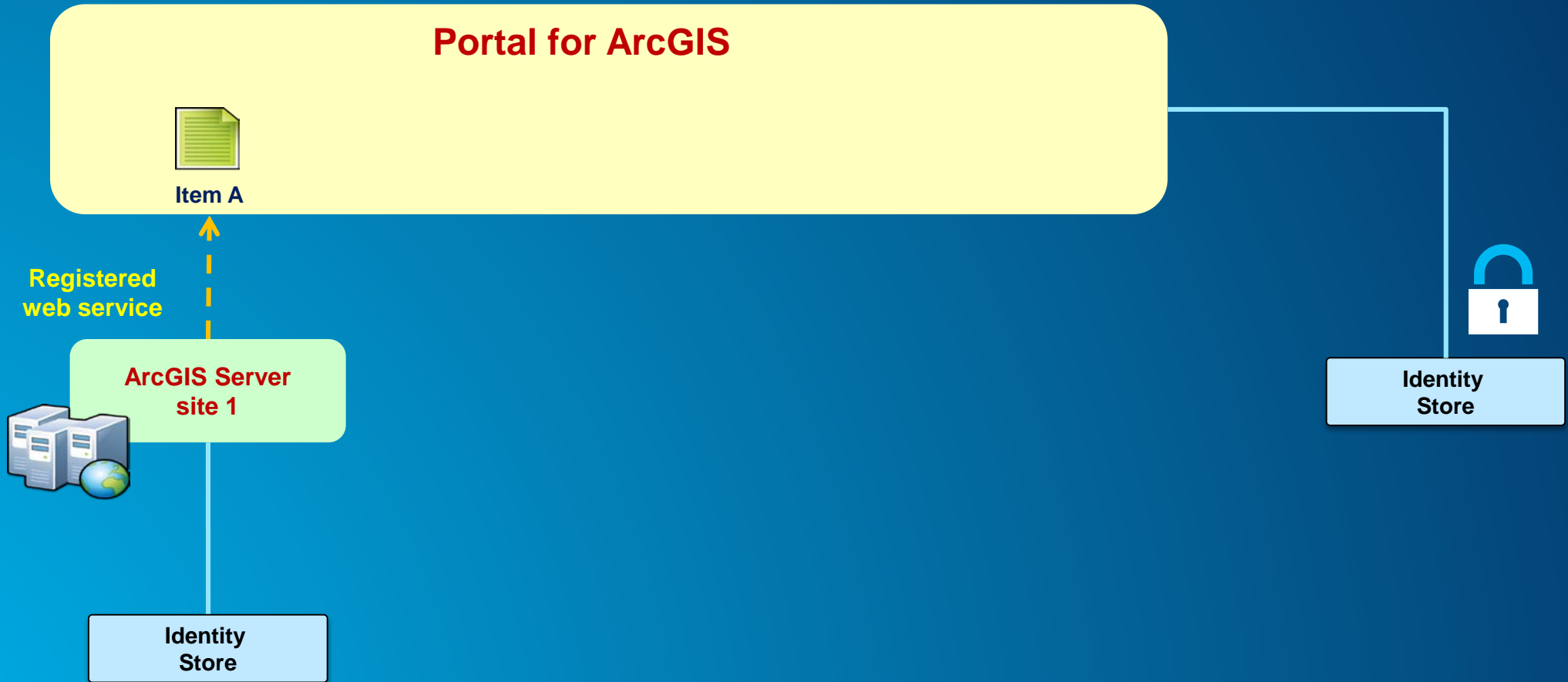
Three Integration Approaches

1. **Registering services**
2. **Federating a Server**
3. **Designating a hosting Server**



Implementation Patterns

Portal for ArcGIS + ArcGIS Server

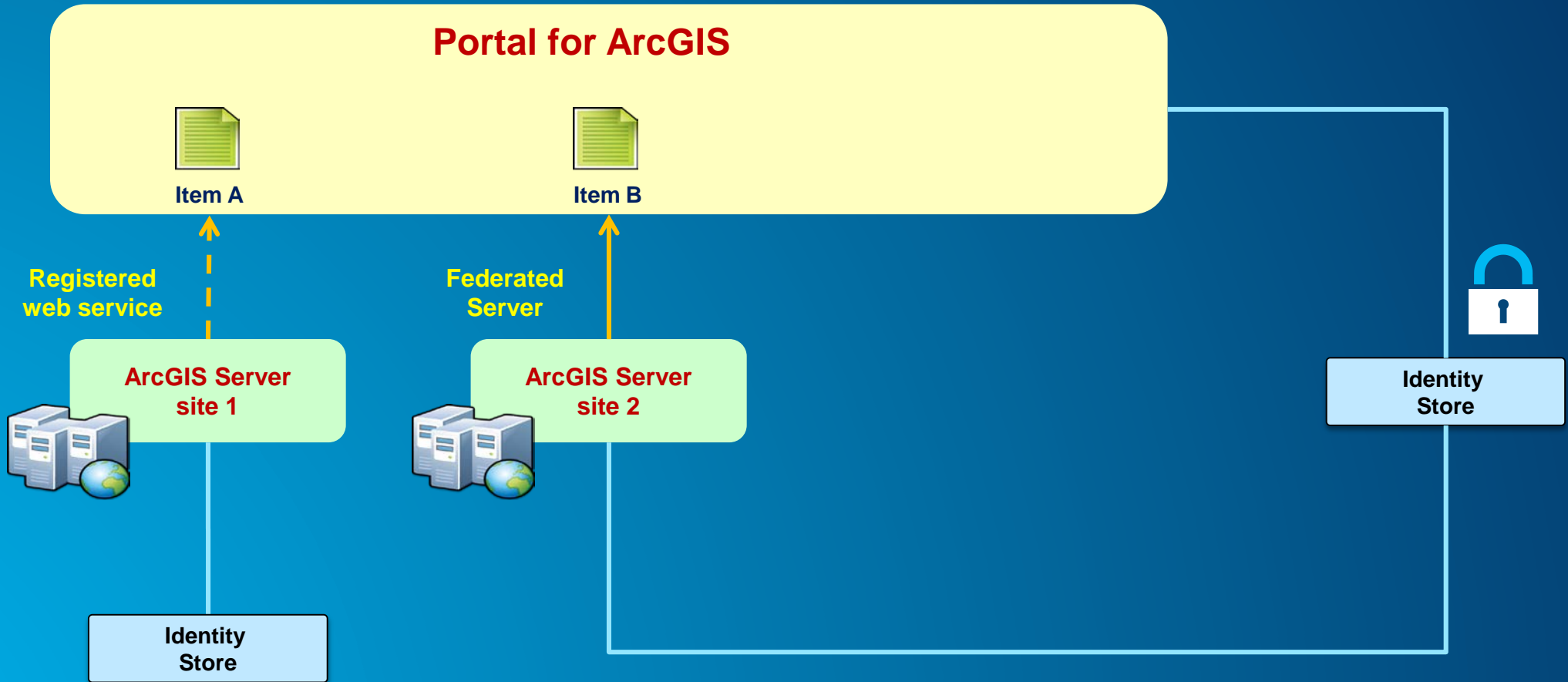


Demo

Register a service with Portal

Implementation Patterns

Portal for ArcGIS + ArcGIS Server



Portal – Server Federation

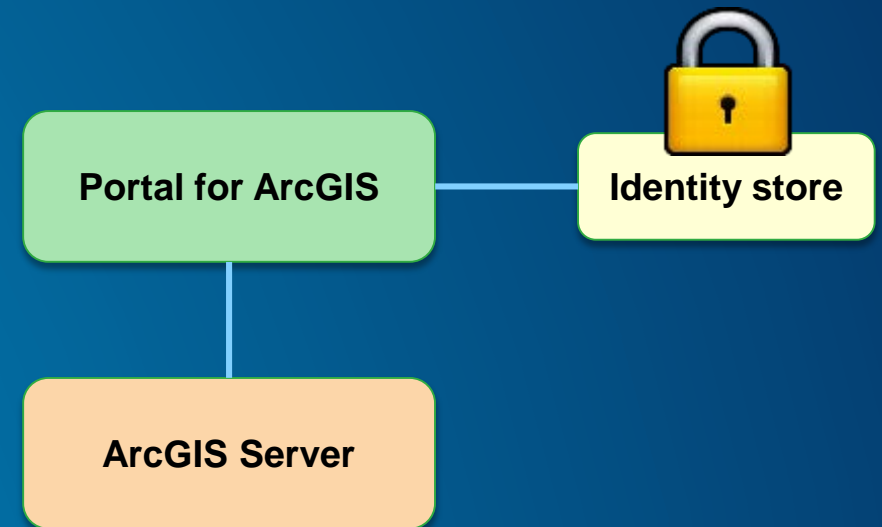
- Allows a single sign-on (SSO) experience between Portal and Server
- Permissions are all managed in Portal
- ArcGIS Server site must be HTTPS enabled

When to use:

- Desire for SSO user experience

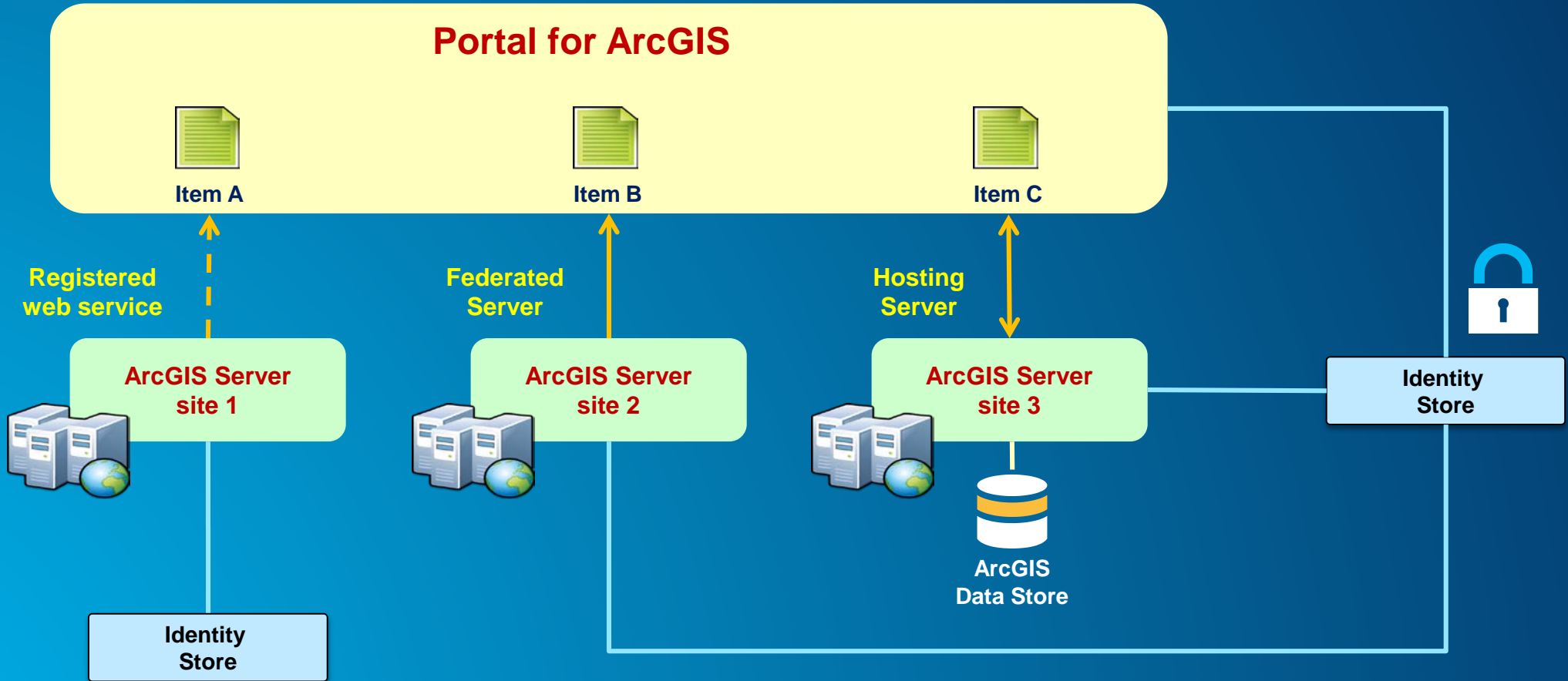
When NOT to use

- When Portal/Server are in different physical locations
- Portal and Server are different releases



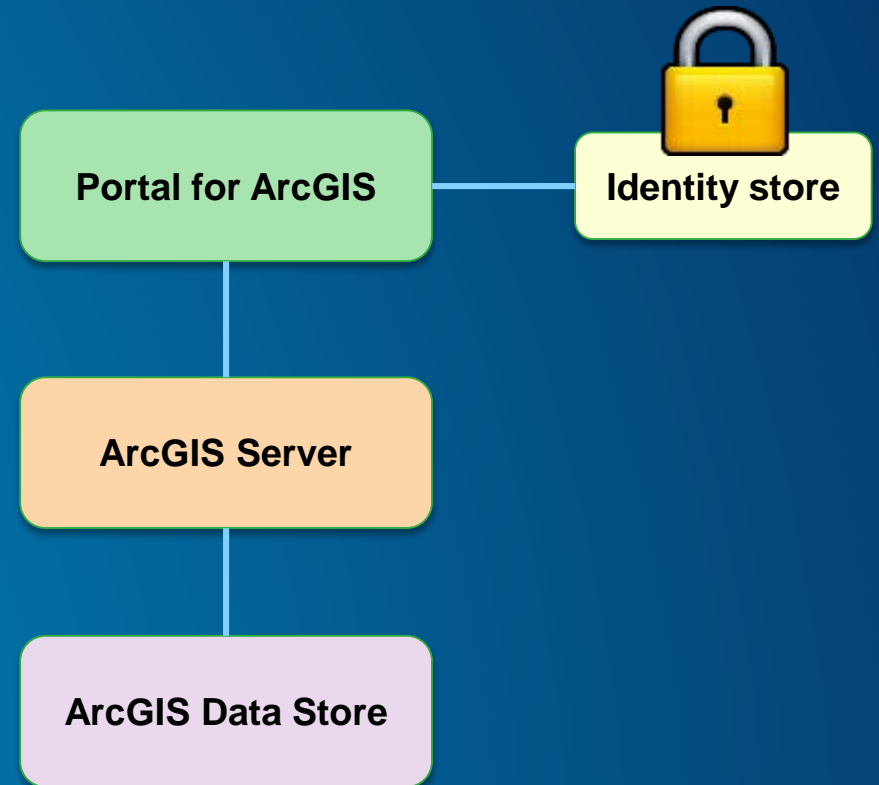
Implementation Patterns

Portal for ArcGIS + ArcGIS Server



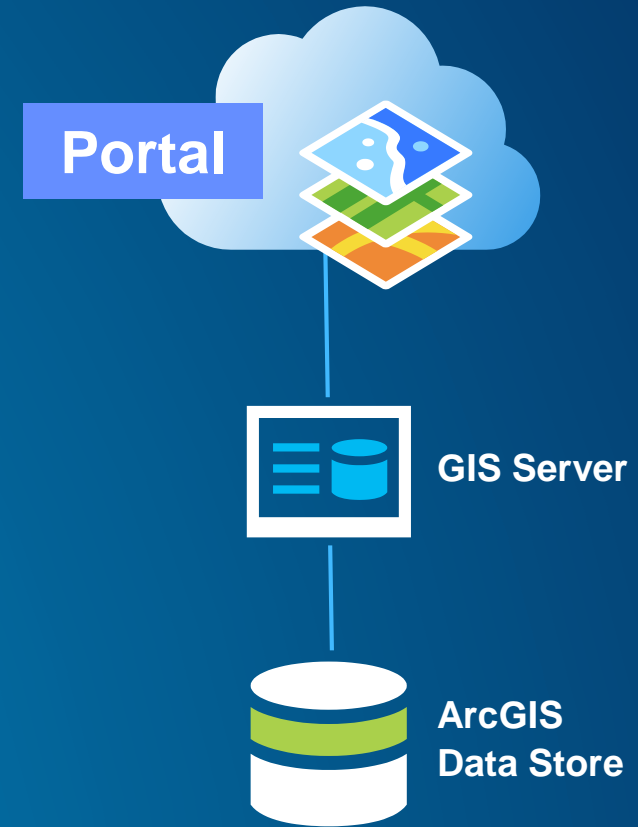
Portal for ArcGIS + Hosting Server

- **Required when you want to enable hosted services in Portal**
 - Feature services
 - Tiled services
 - 3D scene services (10.3.1)
- **Example workflows**
 - Publish content to Portal
 - Share content from Esri Maps for ... Apps
- **Uses ArcGIS Server with ArcGIS Data Store**



ArcGIS Data Store – Available at 10.3.x

- **Designed to support hosting servers in Portal**
 - Enables scalable hosted feature services
 - Enables 3D scene services (10.3.1)
- **Enterprise friendly**
 - Supports high availability
 - Automatic backup and recovery
- **Component of ArcGIS for Server**
 - Separate software install



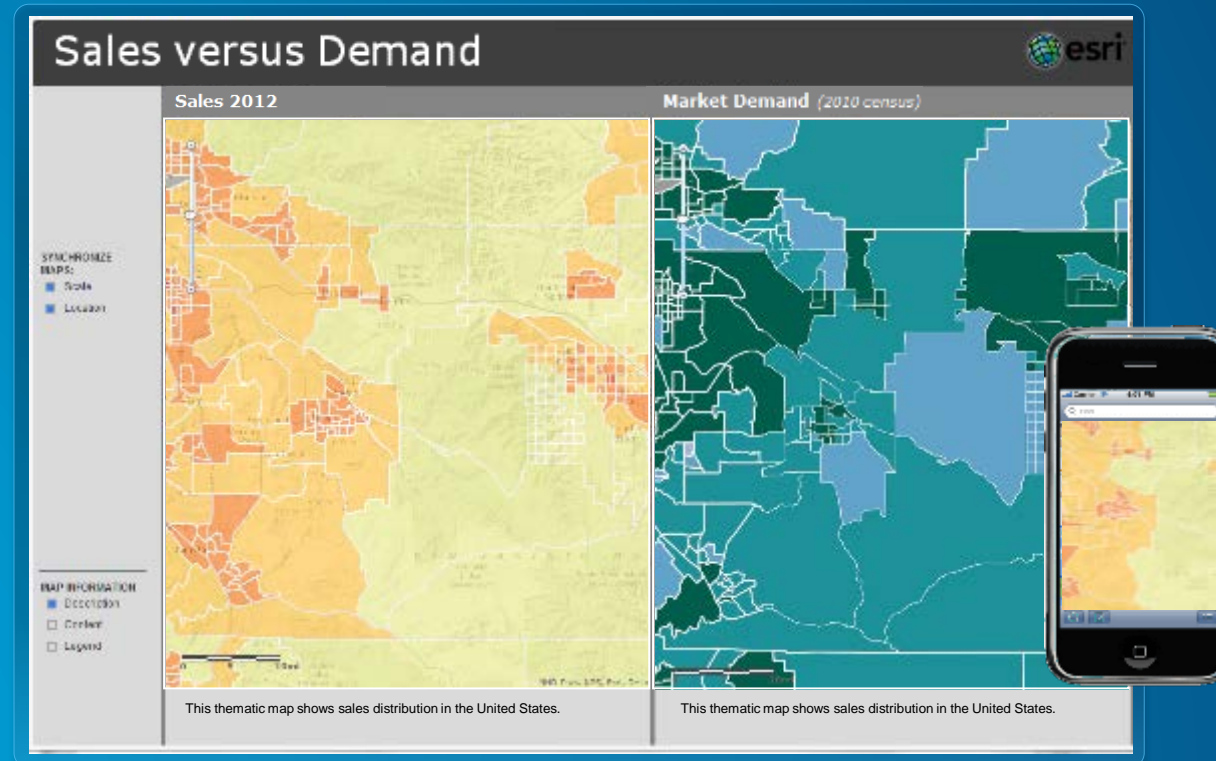
Implementing Web GIS

Typical activities

- **Assessment & planning**
- **Installation & configuration**
- **Security integration**
- **Deployment** (*staging, production*)
- **End user engagement, socialization**
- **IT training & support planning**
- **Operations, maintenance, and support**
- **Designing & building information products**

Keys to Success

- Stay focused on the information products



Keys to Success

- Stay focused on the information products
- Embrace the idea of maps everywhere
- Model Portal for ArcGIS after your organization's structure & workflows
- Consider the Web GIS Launch Kits

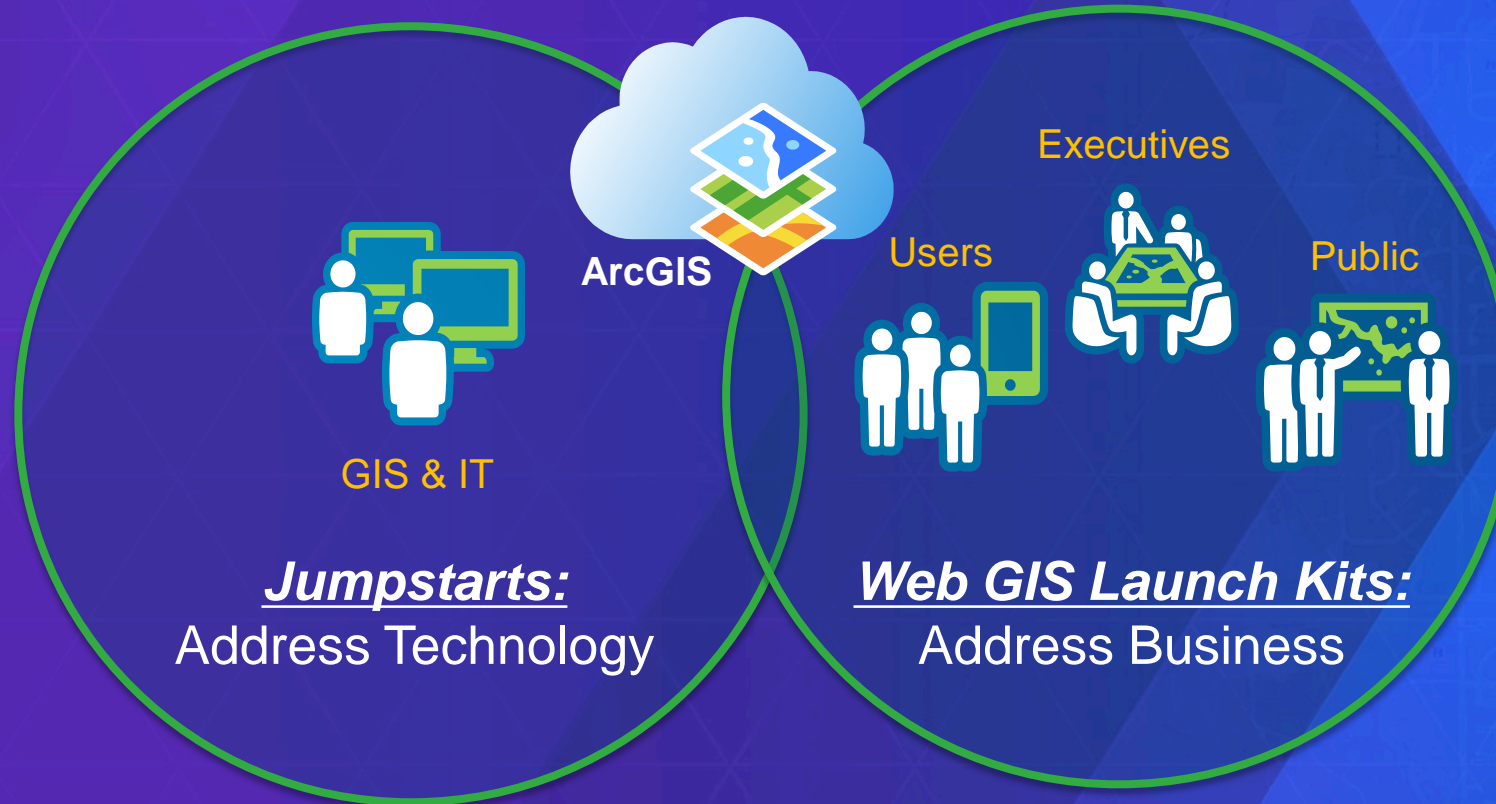


Jumpstart Your Technology & Launch Your Business

Rapidly Enabling Initial Operating Capability



Rent-a-Tech



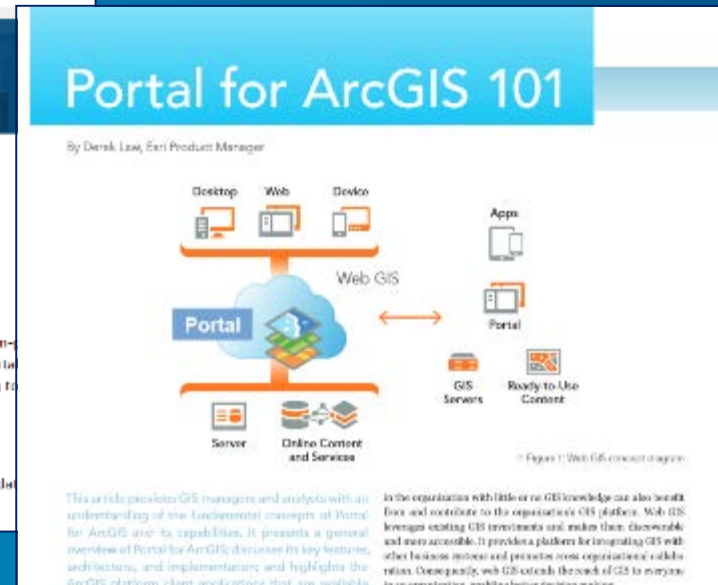
Supported by
Technical Consultants

Supported by
Business & Industry Consultants

Resources

- **Online help documentation** <http://server.arcgis.com/en/portal/>
- **Extending Access to GIS Maps and Apps with Portal for ArcGIS**
60 min training seminar - Free
- **Portal for ArcGIS 101** ArcUser Technical article

The screenshot shows the Esri Training Catalog page. At the top, there is the Esri logo and navigation links for Industries, Products, Support & Services, About, and Community. Below this is a 'Training' header with tabs for Main, Training Catalog, My Training, News, Certification, and Common Questions. The main content area features the seminar title 'Extending Access to GIS Maps and Apps with Portal for ArcGIS' with a 'Go to Seminar' button. Details include: Format: Training Seminar, Duration: 60 minutes, Price: Free, ArcGIS Version: 10.2, and Author: Esri. A short description follows, and there are tags for Audience, Learn How To, and Software.



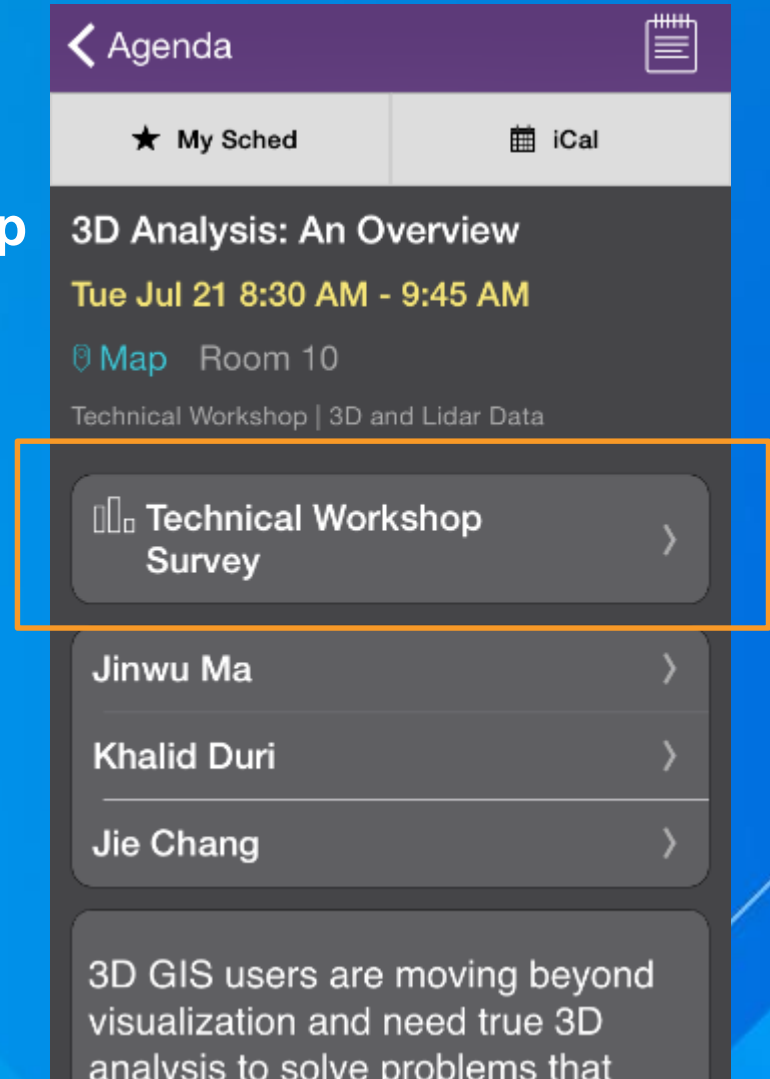
Portal for ArcGIS - Summary

- Central hub for your GIS assets
- **Implements “Web GIS” in your infrastructure**
- Solution when
 - Additional security demands
 - Prefer no public cloud option
- Extension of ArcGIS for Server
 - 10.3.x Included with Standard and Advanced



Thank you...

- Please fill out the session survey in your mobile app
- Select **Portal for ArcGIS: An Introduction** in the Mobile App
 - Use the Search Feature to quickly find this title
- Click “Technical Workshop Survey”
- Answer a few short questions and enter any comments



Other Portal for ArcGIS Tech Workshops



- **Portal for ArcGIS Administration**

- Wed 1:30 pm Room 4
- Thurs 8:30 pm Room 2

- **ArcGIS Server and Portal for ArcGIS: An Introduction to Security**

- Tues 3:15 pm Room 4
- Thurs 1:30 pm Room 4

- **ArcGIS for Server: Reference Implementations**

- Wed 10:15 am Ballroom 6E
- Thurs 1:30 pm Room 1 A/B

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Understanding our world.