



# Portal for ArcGIS: An Introduction

Derek Law  
Esri Product Management

Technical Workshop

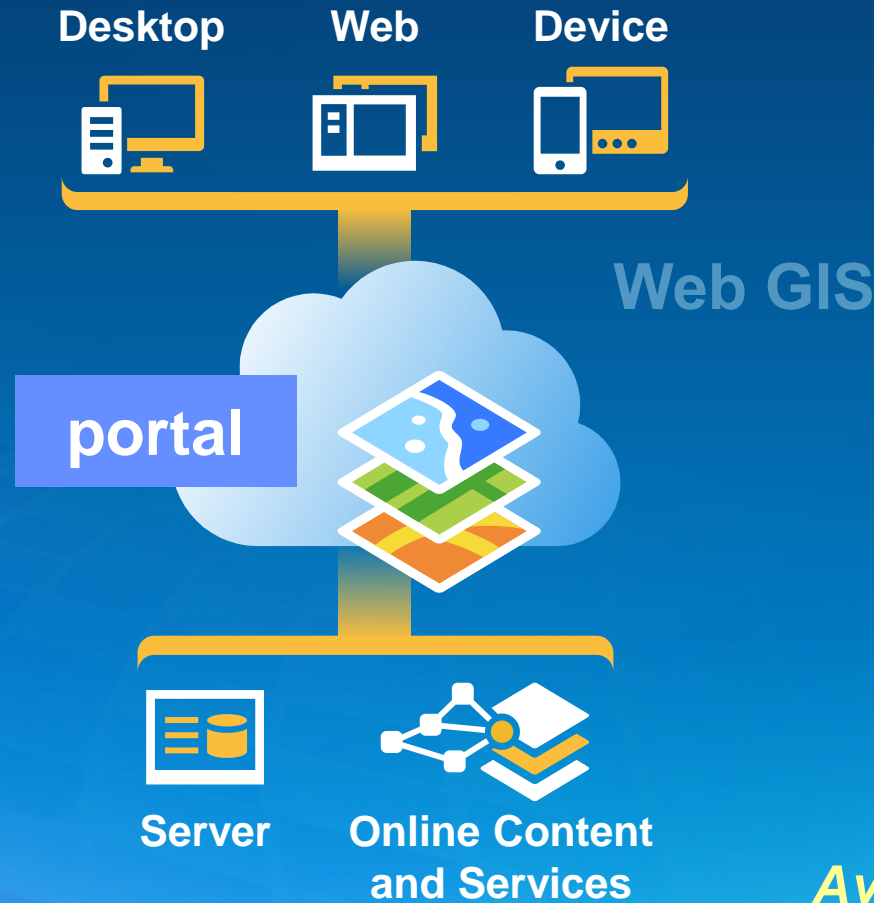
# Agenda

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

# ArcGIS Is a Platform

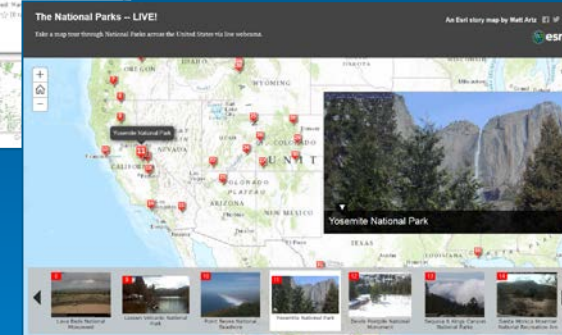
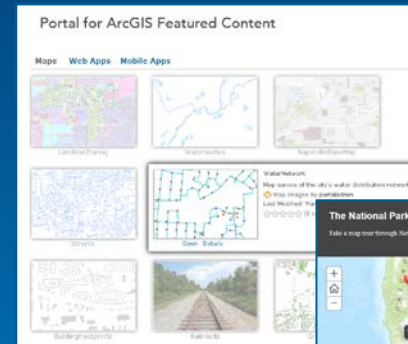
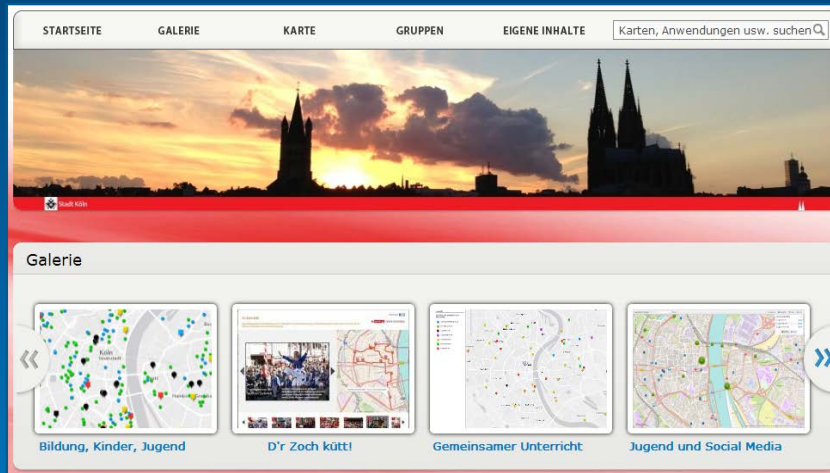
Enabling GIS Everywhere

Simple  
Integrated  
Open



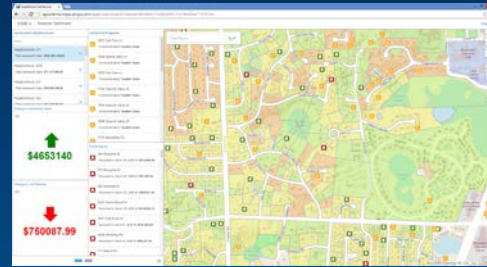
*Available in the Cloud . . .  
. . . and On-Premises*

# Organize your maps and apps



enable discovery

# More apps



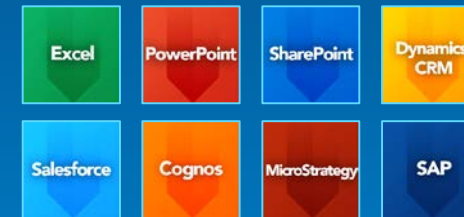
Operations Dashboard for ArcGIS



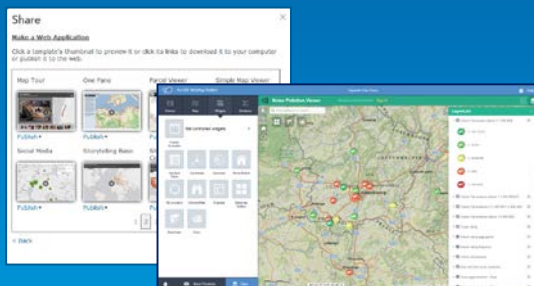
Explorer for ArcGIS



Collector for ArcGIS



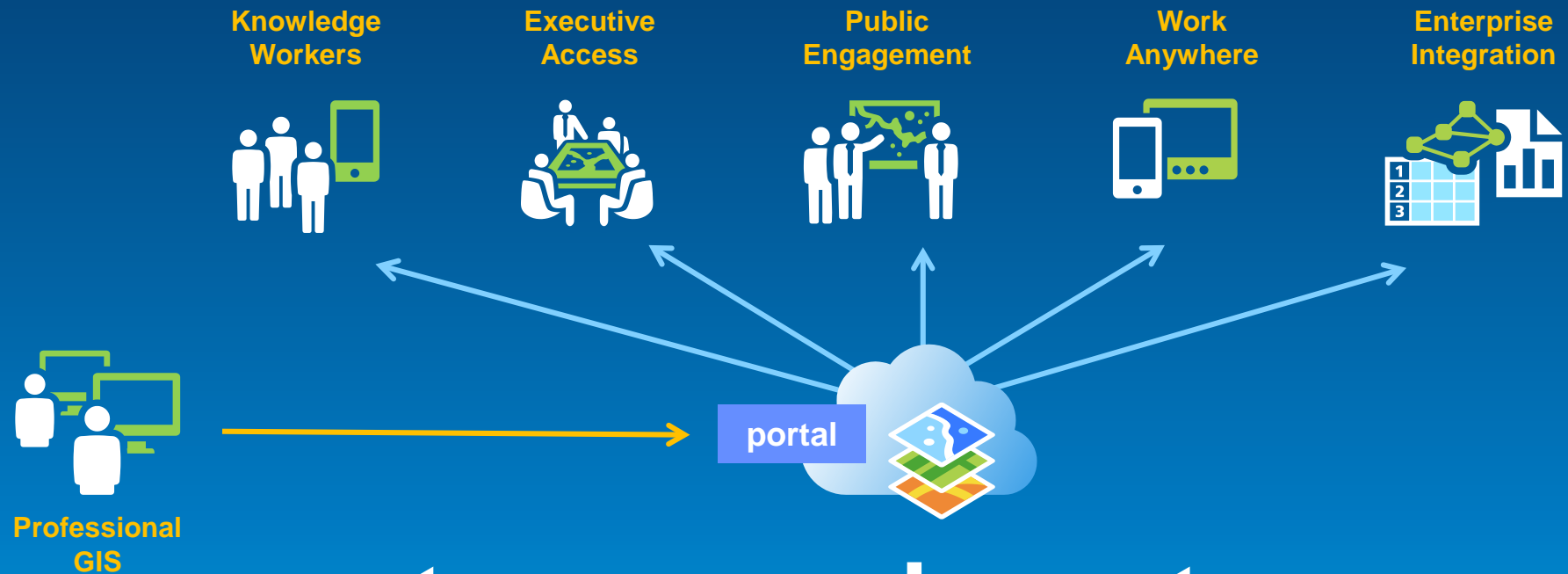
Esri Maps for ... Apps



Web Application Templates  
10.3: Web AppBuilder for ArcGIS

# Maps everywhere

# Empower people



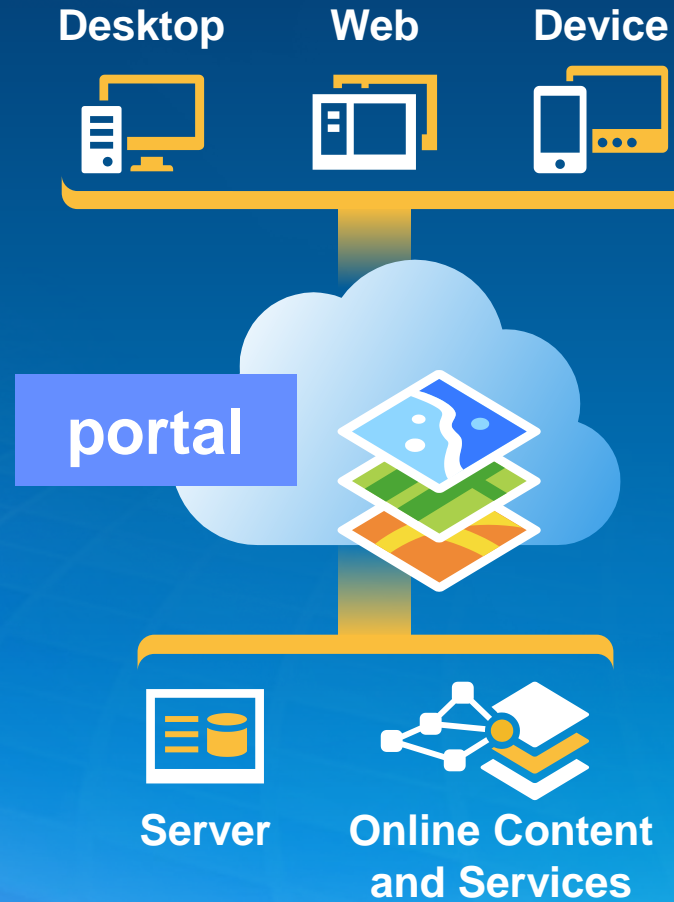
# to use and create maps



# The ArcGIS Platform enables Web GIS

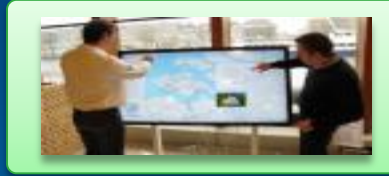
Enabling GIS Everywhere

Simple  
Integrated  
Open



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

# Key ArcGIS components for Web GIS



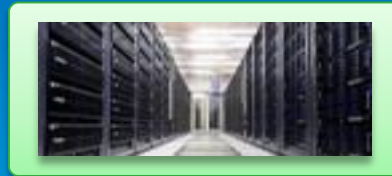
Apps

- Information Products
- Access Control



portal

- Web Services
- Data



GIS Servers  
Authoring tools



Ready to use  
Content



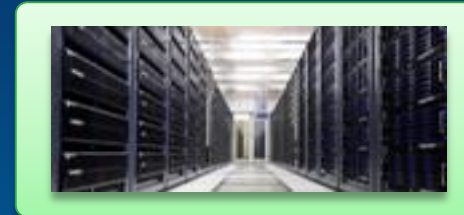
# Web GIS Deployment Patterns



**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



Ready to use Content

SaaS

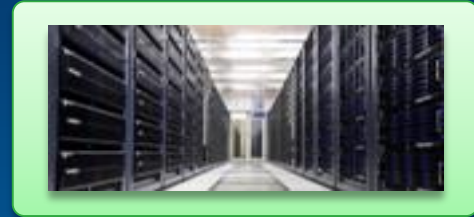
Software



# Web GIS Deployment Patterns



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



Ready to use Content

SaaS

ArcGIS Online  
(portal)

ArcGIS Online  
(Hosted Servers)

ArcGIS Online  
Services

Software

Portal  
for ArcGIS

ArcGIS  
Server

ArcGIS Data  
Appliance

# Portal for ArcGIS

Web GIS in your infrastructure option

- **Map-centric content management system 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: Standard and Advanced**



# Portal for ArcGIS

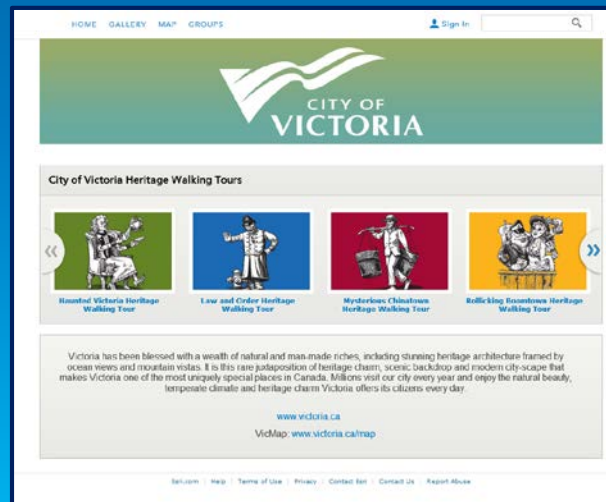
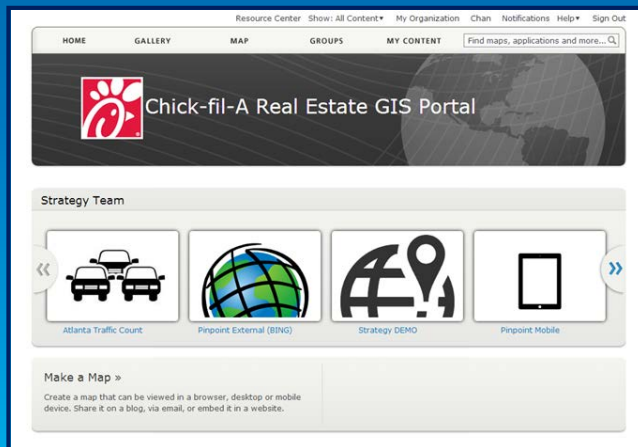
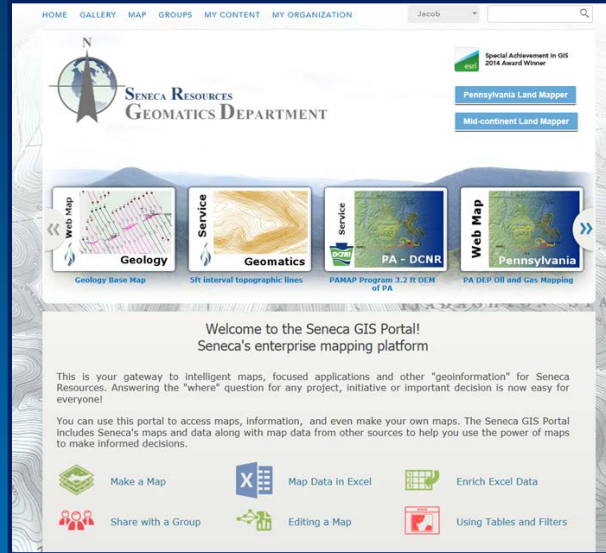
Is it right for me?

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



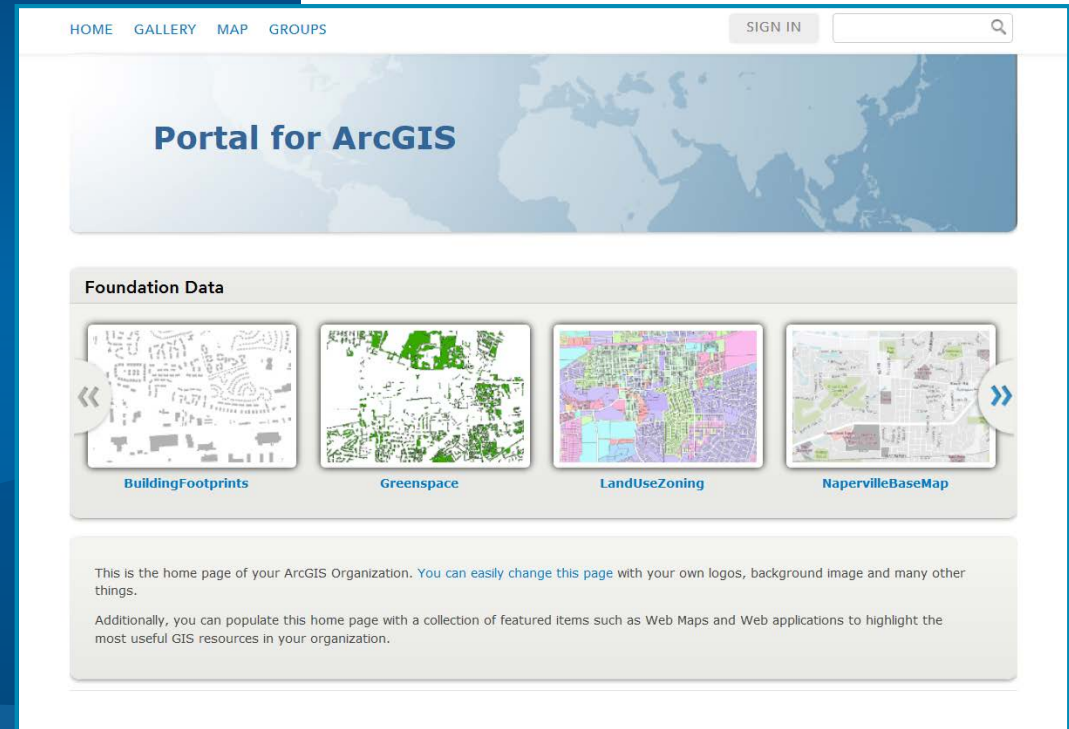


# Some Portal for ArcGIS Customer sites



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**



# Apps included with Portal for ArcGIS

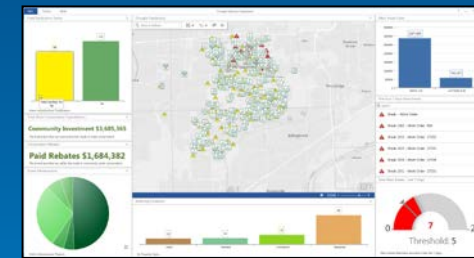
- Web application templates
- Collector for ArcGIS
- Operations Dashboard for ArcGIS
- Explorer for ArcGIS
- Esri Maps for ... Apps (7 different apps)
- **10.3: Web App Builder for ArcGIS**



Web Application Templates



Collector for ArcGIS



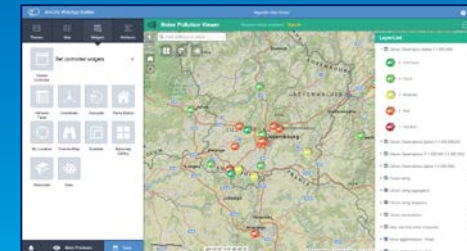
Operations Dashboard for ArcGIS



Explorer for ArcGIS



Esri Maps for ... Apps



10.3: Web App Builder for ArcGIS

A

# Portal for ArcGIS – System Requirements

Same Supported Operating Systems as ArcGIS for 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:

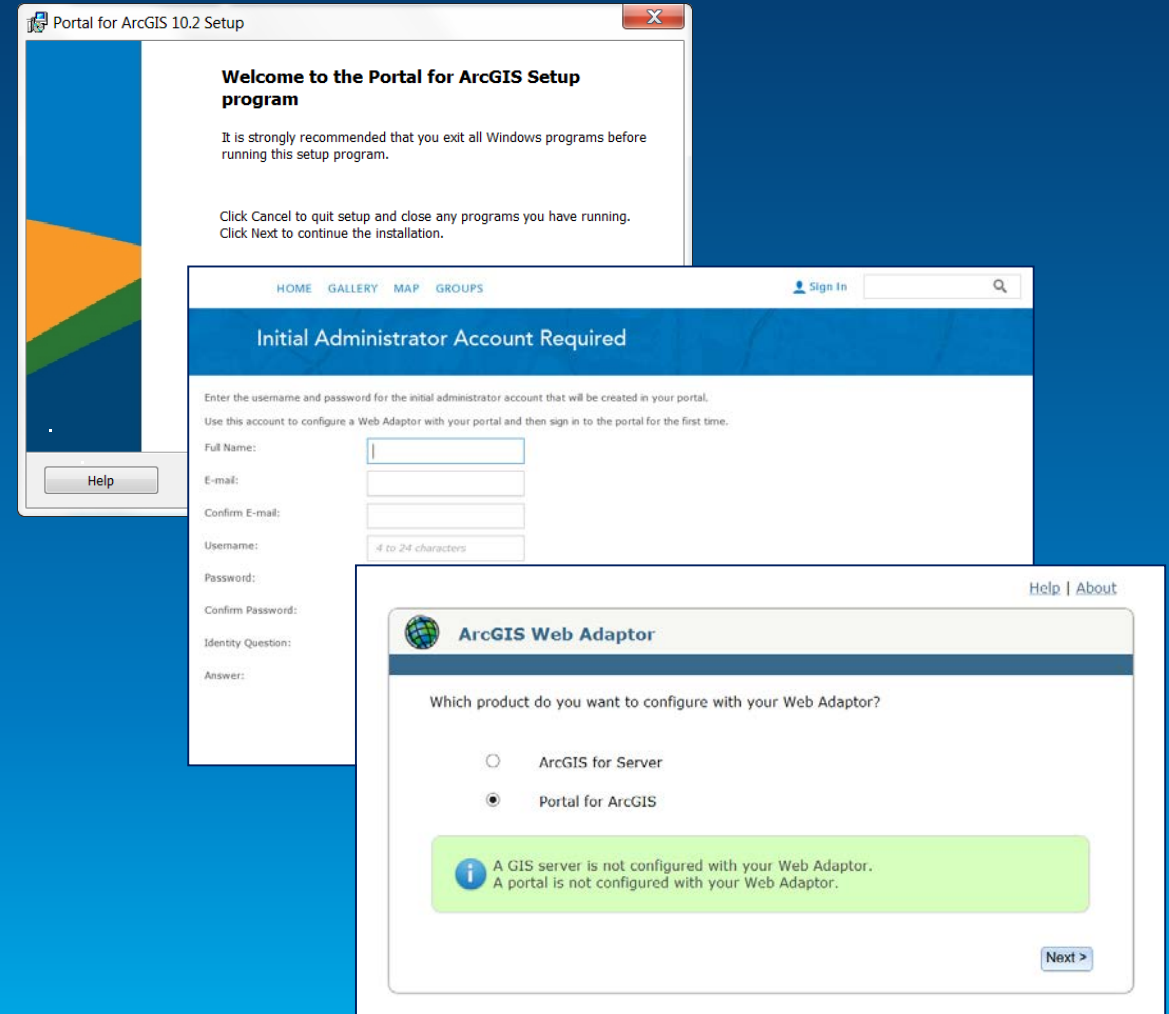
- Red Hat Enterprise Linux Server 6
- Red Hat Enterprise Linux Server 5 Update 7 with [libX11 patch](#)
- SUSE Linux Enterprise Server 11 Service Pack 1

# Installing Portal for ArcGIS

Can be scripted for silent installs

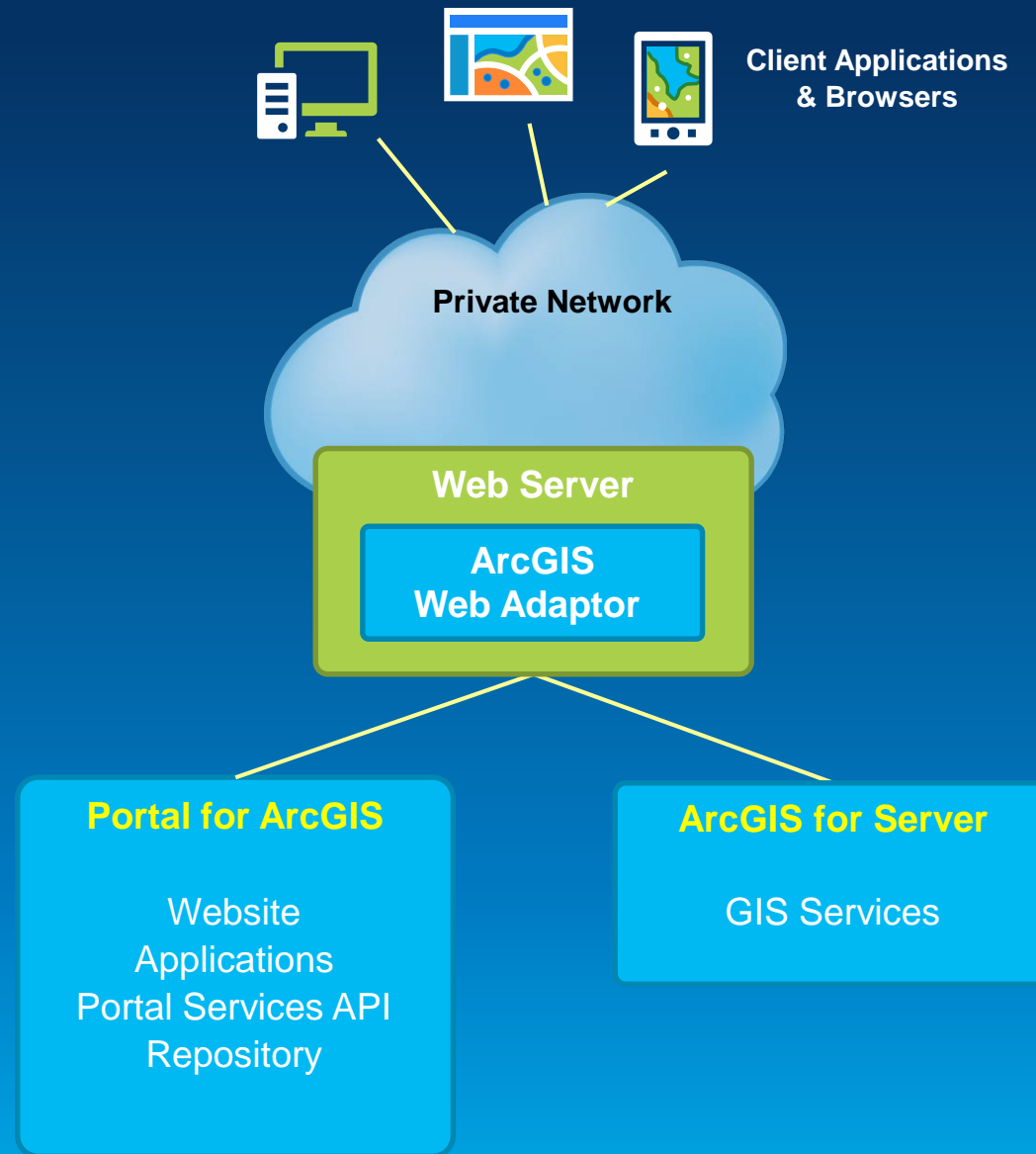
- Simple 4 step workflow

1. Run installer
2. Authorize software
3. Create initial admin account
4. Configure Web Adapter

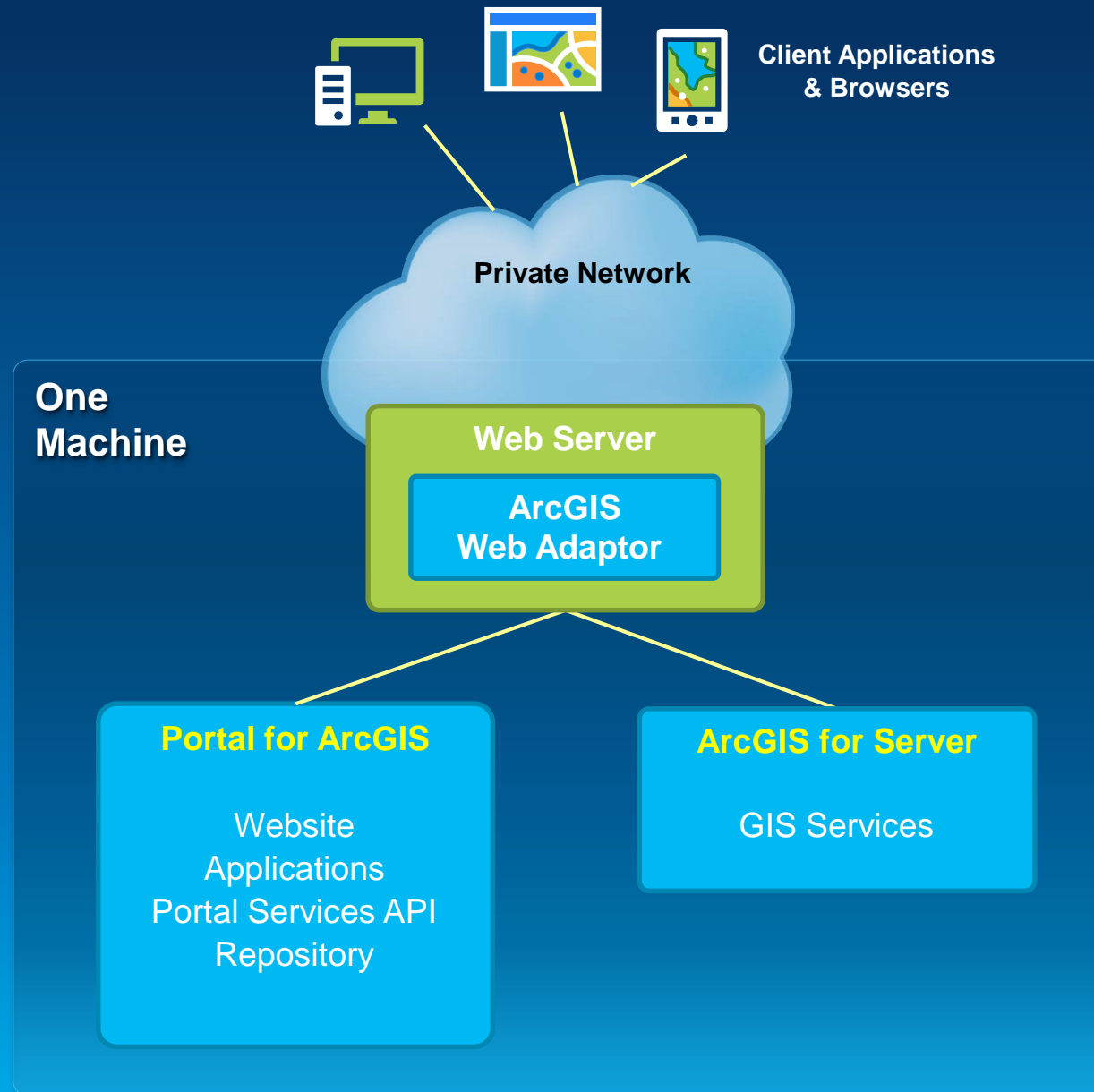




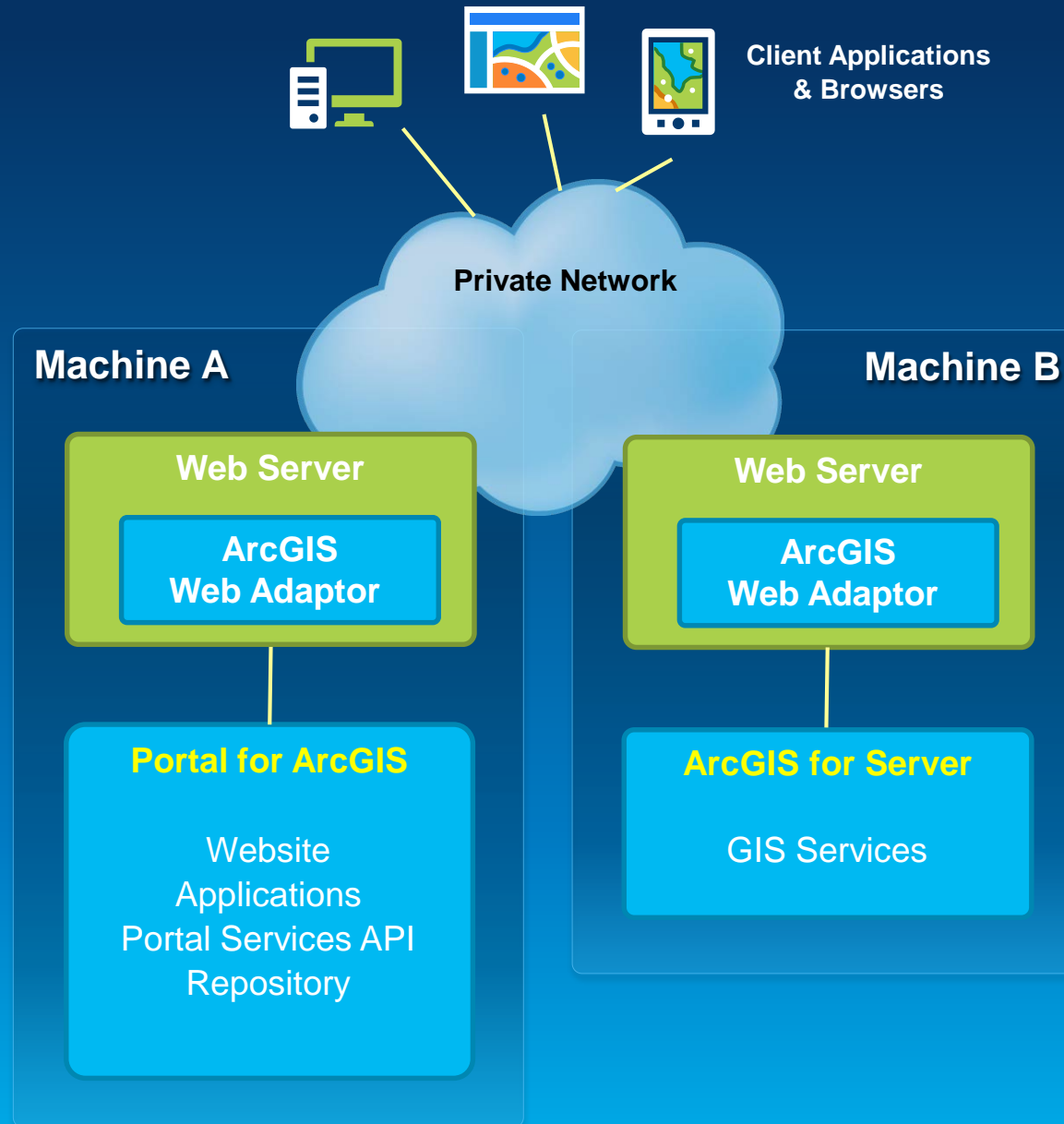
# Deployment



# Deployment



# Deployment



# Security

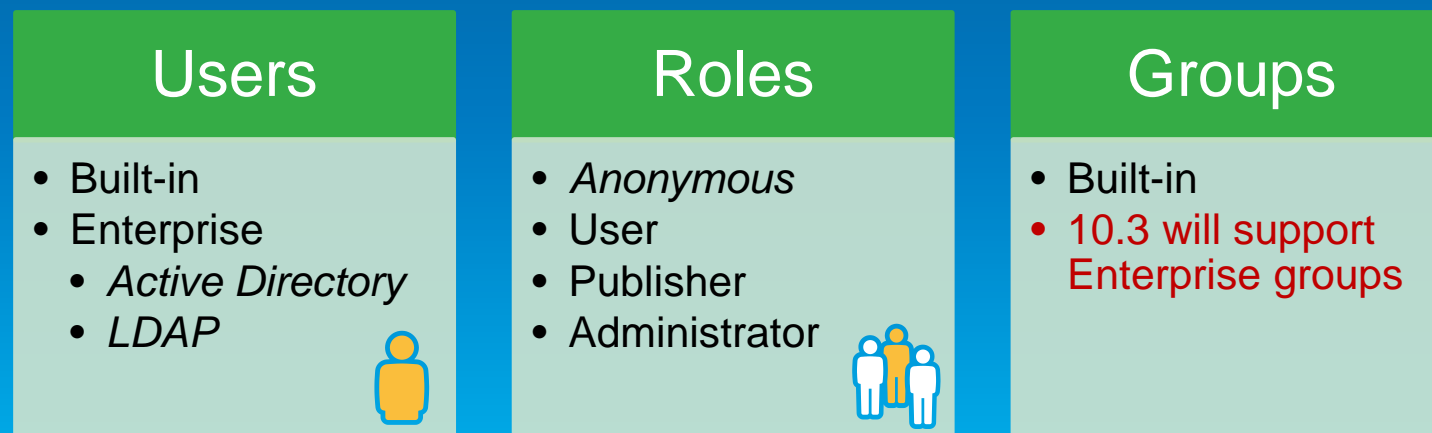
Integrates with Your Enterprise Security Infrastructure



- **Authentication**

- Supports web tier authentication, including Windows Authentication & PKI
- Supports SSO to your ArcGIS Servers (*federated servers*)
- **10.3: Web SSO with SAML**

- **Users, Roles, and Groups**



# Portal for ArcGIS: 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 Esri Maps for ... Apps, Collector, Operations Dashboard, and Explorer	✓	✓	✓	

# Portal security tech session

- **Securing your Portal for ArcGIS**
  - **Wed**      **8:30 am**      **Room 14B**
  - **Thurs**     **1:30 pm**      **Room 4**



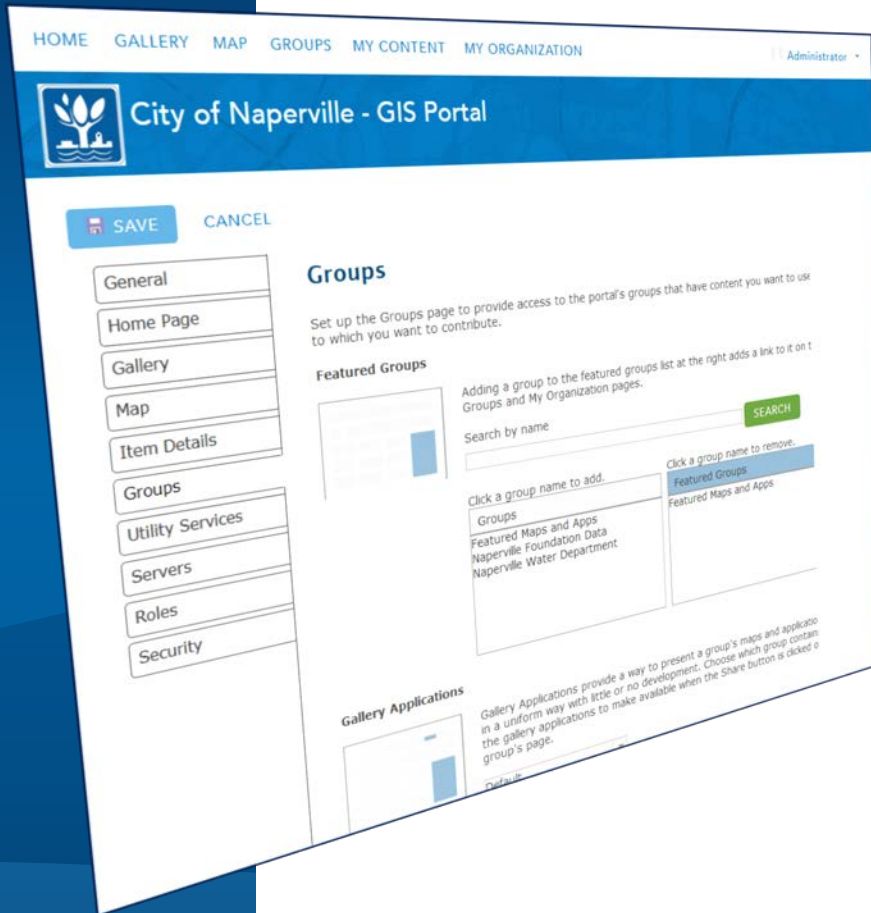
# Leverage Groups in Portal

- 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 will support Enterprise Groups**

  
Foundation  
data

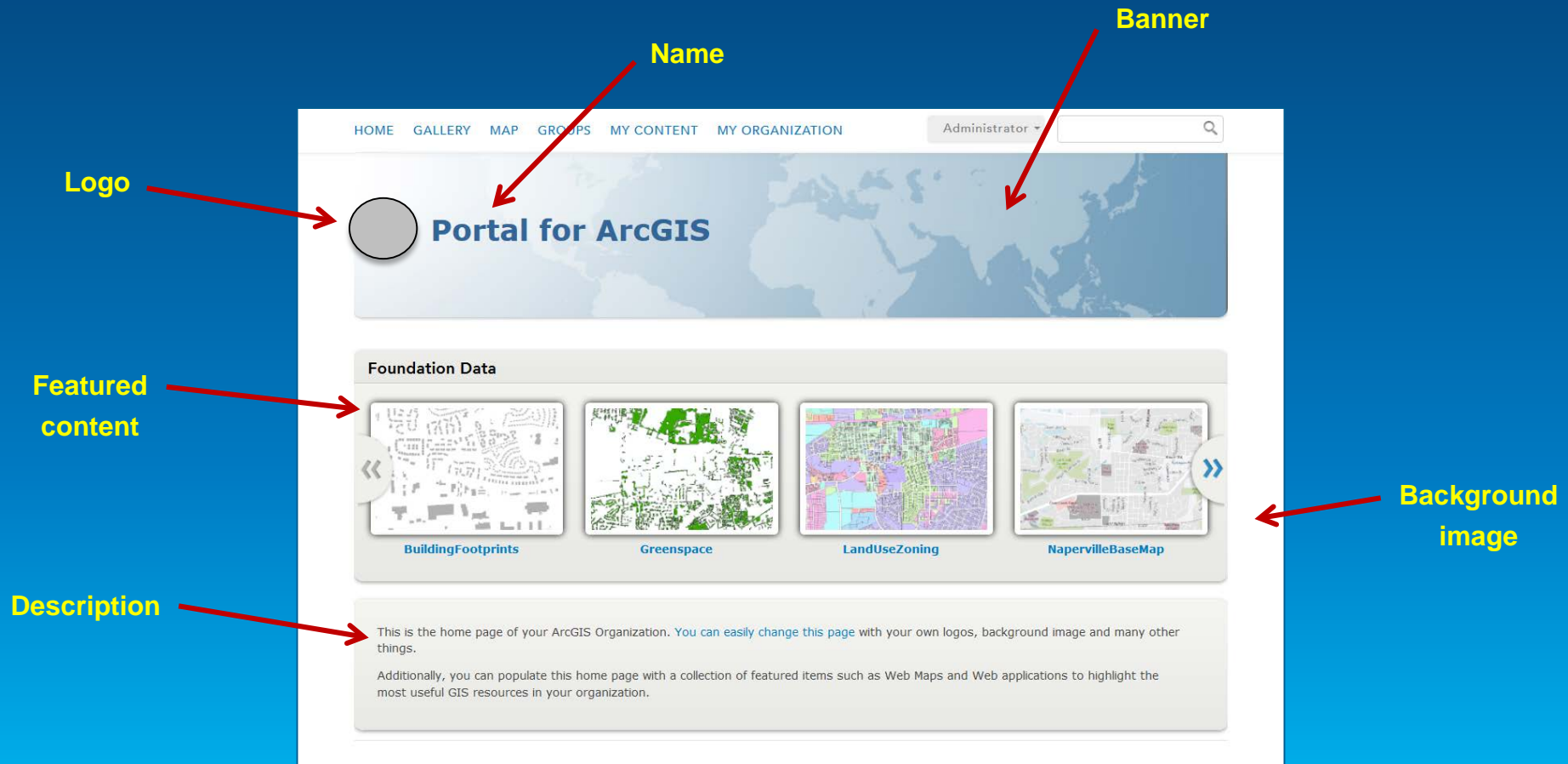


# Groups in Portal



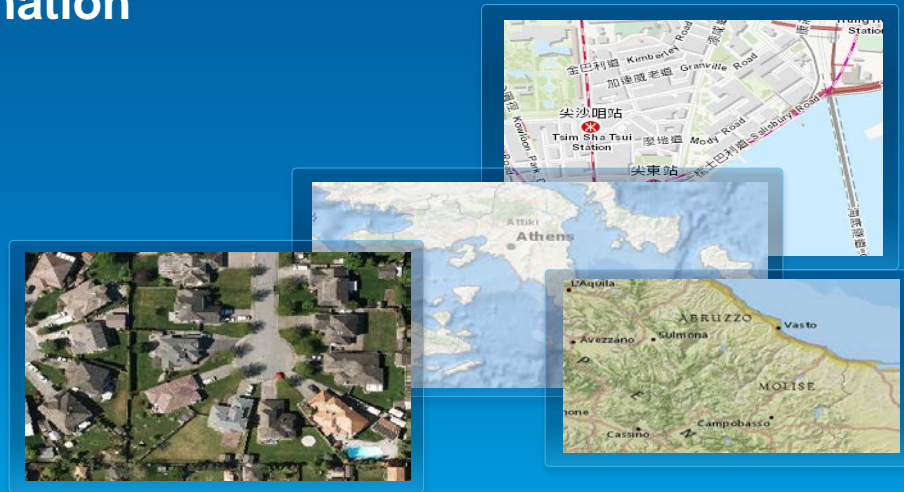
# Configuring Portal for ArcGIS

- Must have Administrator privileges



# Basemaps & Utility Services

- Important part of Portal's resources
- Can be hosted:
  - Online (*by Esri*)
  - On-premises (*by you*)
  - Combination



Basemaps

## Printing



## Geocoding



## Geometry



## Route



Utility services

Demo

# Configuring Portal for ArcGIS

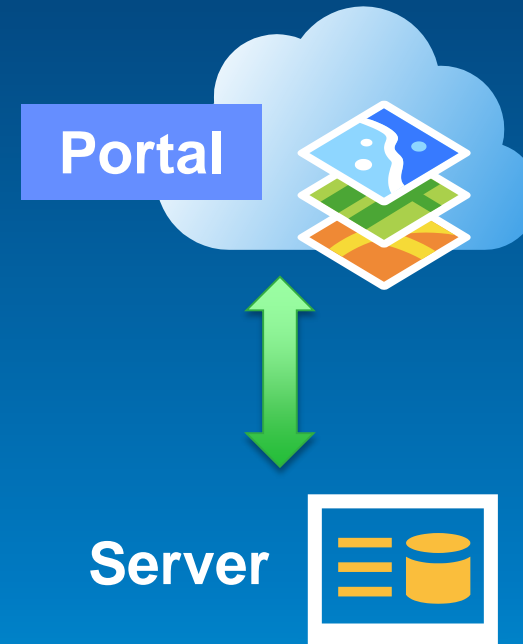
A screenshot of the ArcGIS Portal configuration interface. The top navigation bar includes links for HOME, GALLERY, MAP, GROUPS, MY CONTENT, and MY ORGANIZATION, along with a user profile for Administrator and a search icon. Below the navigation, there are buttons for SAVE and CANCEL. A left-hand sidebar contains a list of configuration categories: General, Home Page, Gallery, Map, Item Details, Groups, Utility Services, Servers, and Security. The main content area is titled "General" and contains the following sections:

- General:** A descriptive text area with the instruction: "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."
- Logo and Name:** A section with a thumbnail placeholder and a text input field for the portal's name, which is currently set to "Portal for ArcGIS". A tooltip indicates "Click to change thumbnail".
- Description:** A rich text editor with a toolbar containing various formatting options like bold, italic, underline, and font color, and a text area for the portal's description.

# Using Portal with ArcGIS Server

## Three Integration Approaches

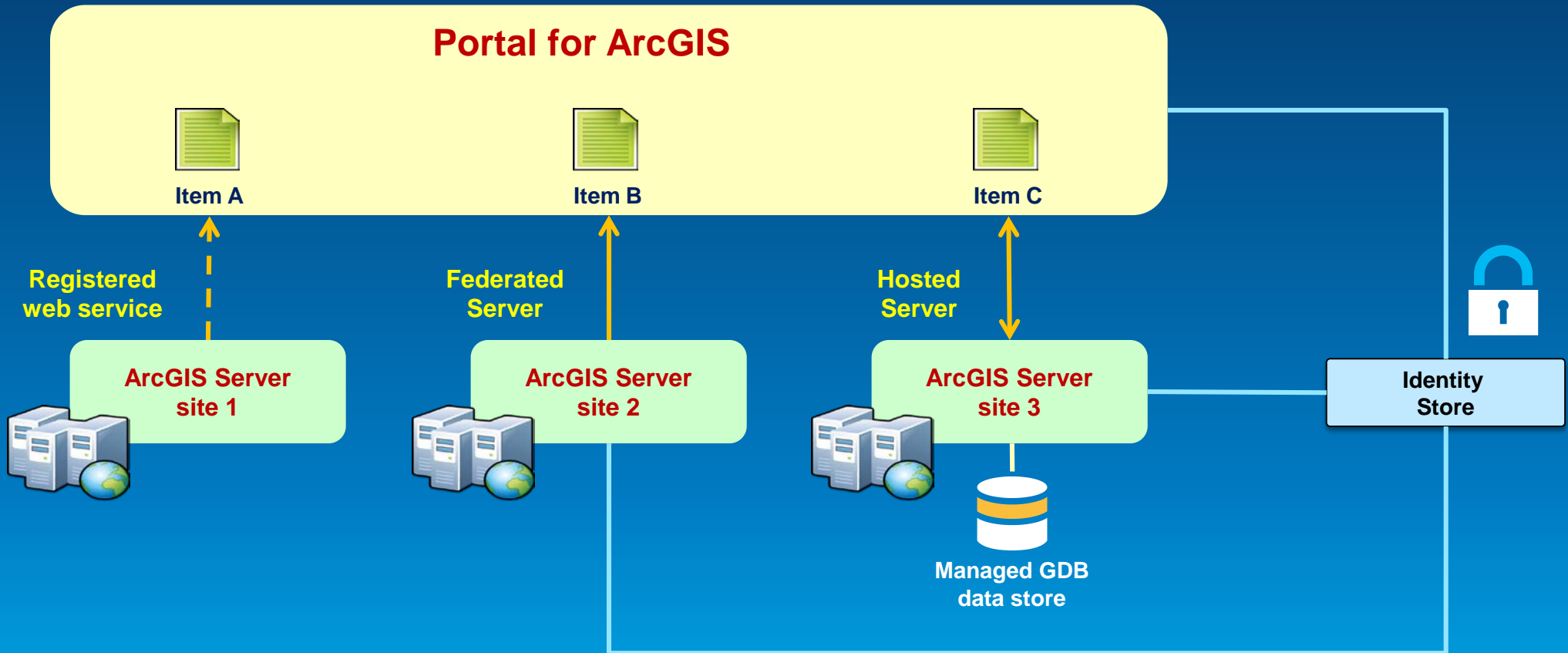
1. **Registering services**
2. **Federating a Server**
3. **Designating a hosting Server**





# Implementation Patterns

## Portal for ArcGIS + ArcGIS for Server



# Scripting Portal for ArcGIS administration

- Portal administration functionality is exposed via REST API
- Execute admin commands with scripts
  - Automate and schedule tasks
- *PortalPy* module available on GitHub
- Scripting languages
  - Python, Java, JavaScript, PowerShell, C#, Ruby, Scala, Perl, etc



# Portal scripting tech session

- **ArcGIS Online: Administring your ArcGIS Organization Through Scripting**
  - **Tues**      **1:30 pm**      **Room 33A**
  - **Thurs**      **10:15 am**      **Room 33A**

# Activity Dashboard for ArcGIS

## For Portal for ArcGIS

- Web app for admins to activity-based metrics and real-time reports

The screenshot displays the Activity Dashboard for ArcGIS web application. The interface is divided into two main sections. The left section shows a search result for the 'Activity Dashboard' by 'esri labs', including a description, a code sample, a rating of 1 star, and 219 downloads. The right section is the main dashboard, titled 'Activity Dashboard for ArcGIS' by 'Derek Law'. It features a navigation bar with 'ITEMS', 'USERS', and 'GROUPS' tabs. The main content area displays an 'Items Report for 6/4/2014 - 6/25/2014' with a time filter set to 'Today'. The report includes a 'Content Summary' showing 49 items and 8 contributors, a 'Top Contributors' table, and an 'Items Sharing Summary' pie chart. The 'Items Summary Chart' is a bar chart showing the number of items for different categories: 12 Maps, 30 Layers, 1 Files, 4 Apps, and 2 Tools. The bar chart also shows the number of items for 'CityEngine Web Scene' (1) and 'Web Map' (10).

**Activity Dashboard for ArcGIS (Portal for ArcGIS)**

ArcGIS FEATURES PLANS GALLERY MAP HELP Sign In

Activity Dashboard for ArcGIS (Portal for ArcGIS)

esri labs  
Activity Dashboard  
Activity Based Reports About Your Organization's Mapping Platform

Activity Dashboard for ArcGIS is a web app for organization administrators that provides other useful information about your online mapping platform.

Code Sample by esri\_labs\_team  
Last Modified: April 16, 2014

★★★★★ (1 rating, 219 downloads)

Sign in to rate this item.

Facebook Twitter

OPEN

**Activity Dashboard for ArcGIS** Law

Esri Product Management Portal  
Derek Law

ITEMS USERS GROUPS

Items Report for 6/4/2014 - 6/25/2014  
Today 1wk 2wks 3wks 1mo 2mo 3mo

**Content Summary**

Items	Contributors
49	8

**Top Contributors**

User	Contributions
Jian Lange	18
Gert van Maren	9
Cody Benkelman	8
Rob Elkins	5
Cody Benkelman	3

**Items Sharing Summary**

Category	Count
Public Items	21
Organization Items	2
Private Items	26

**Items Summary Chart**

Category	Count
Maps	12
Layers	30
Files	1
Apps	4
Tools	2

CityEngine Web Scene: 1  
Web Map: 10

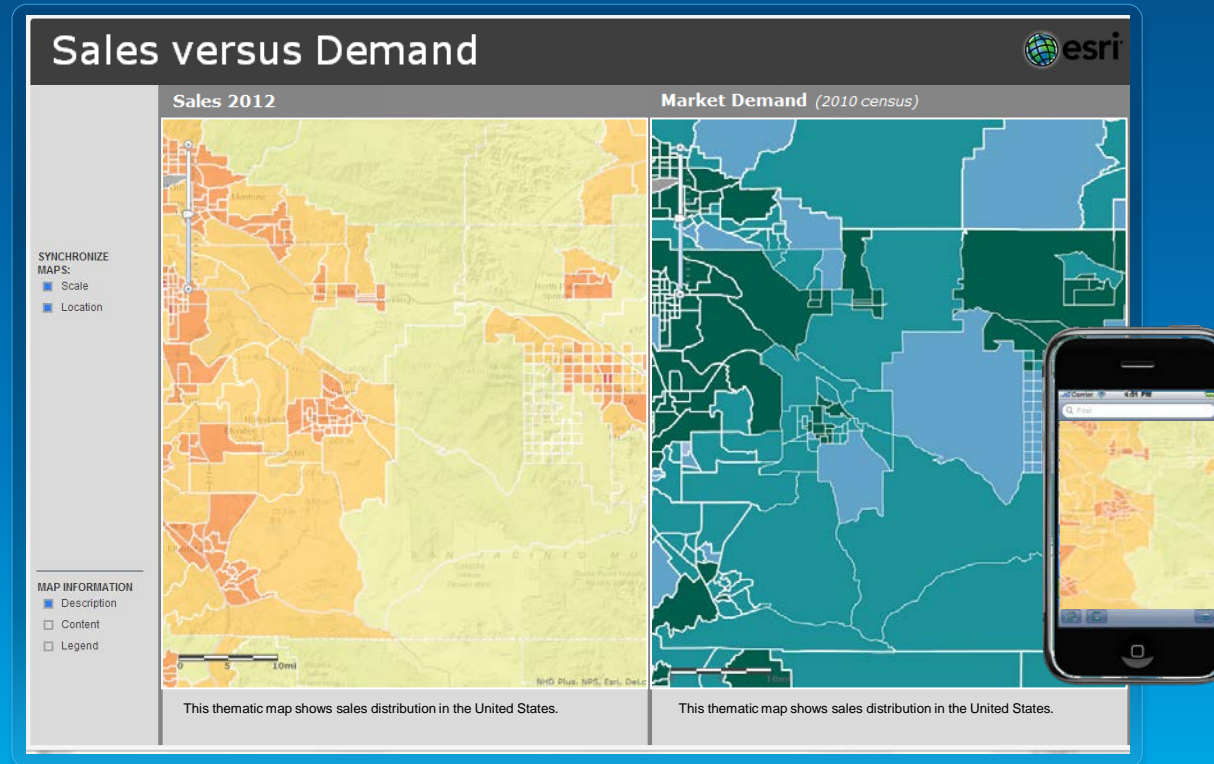
# Implementing Web GIS

## 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



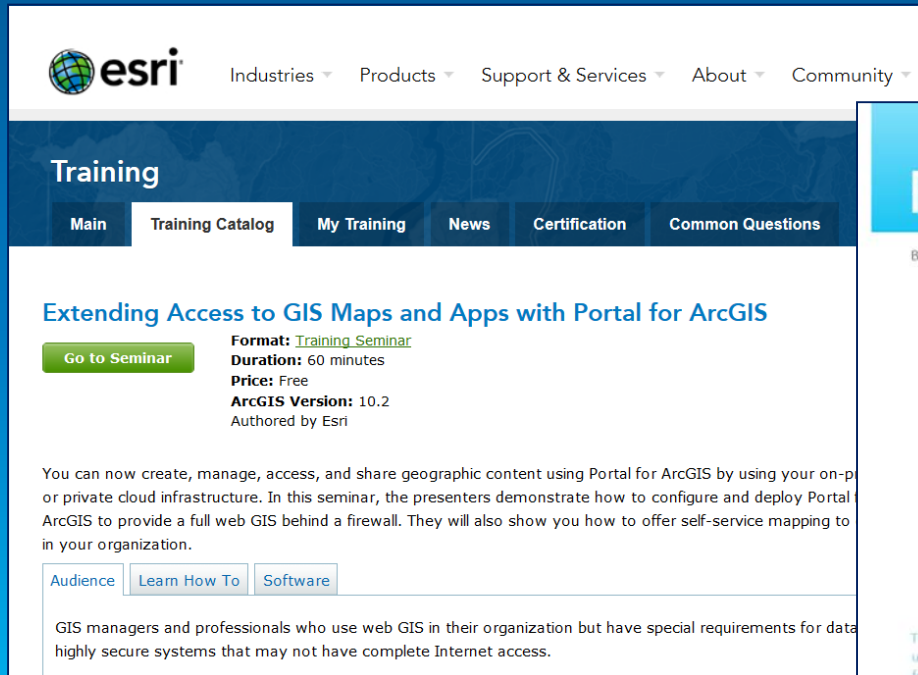
# Keys to Success

- **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**

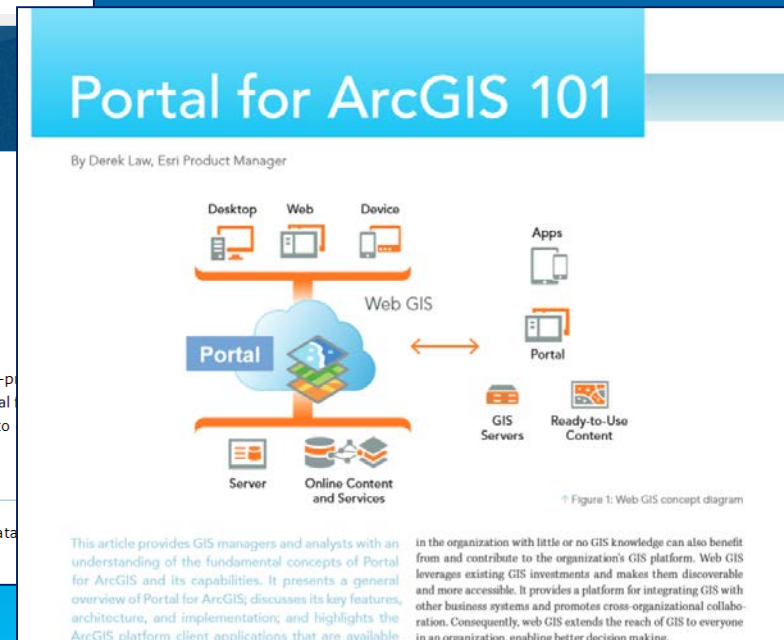


# Resources

- 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 is the Esri logo and navigation links: 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 Authored by Esri. A short description follows, and at the bottom, there are tags for Audience, Learn How To, and Software.



The screenshot shows the title page of the technical article 'Portal for ArcGIS 101' by Derek Law, Esri Product Manager. It features a concept diagram titled 'Web GIS' showing a central 'Portal' cloud icon connected to 'Desktop', 'Web', and 'Device' client applications. Below the cloud are 'Server' and 'Online Content and Services'. To the right, 'GIS Servers' and 'Ready-to-Use Content' are shown connected to the Portal. A caption below the diagram reads 'Figure 1: Web GIS concept diagram'. The article text begins with: 'This article provides GIS managers and analysts with an understanding of the fundamental concepts of Portal for ArcGIS and its capabilities. It presents a general overview of Portal for ArcGIS; discusses its key features, architecture, and implementation; and highlights the ArcGIS platform client applications that are available in the organization with little or no GIS knowledge can also benefit from and contribute to the organization's GIS platform. Web GIS leverages existing GIS investments and makes them discoverable and more accessible. It provides a platform for integrating GIS with other business systems and promotes cross-organizational collaboration. Consequently, web GIS extends the reach of GIS to everyone in an organization, enabling better decision making.'



# Portal for ArcGIS - Summary

- **Map-centric content management system for your GIS assets**
- **Implements “Web GIS” in your infrastructure**
- **Solution when**
  - Additional security demands
  - No public cloud option
- **Extension of ArcGIS for Server**
  - Standard and Advanced



Thank you...

- **Please fill out the session survey:**

**Second Offering ID: 1143**

**Online – [www.esri.com/ucsessionsurveys](http://www.esri.com/ucsessionsurveys)**

**Paper – pick up and put in drop box**





Understanding our world.