



Portal for ArcGIS: An Introduction

Derek Law
Esri Product Management

Technical Workshop

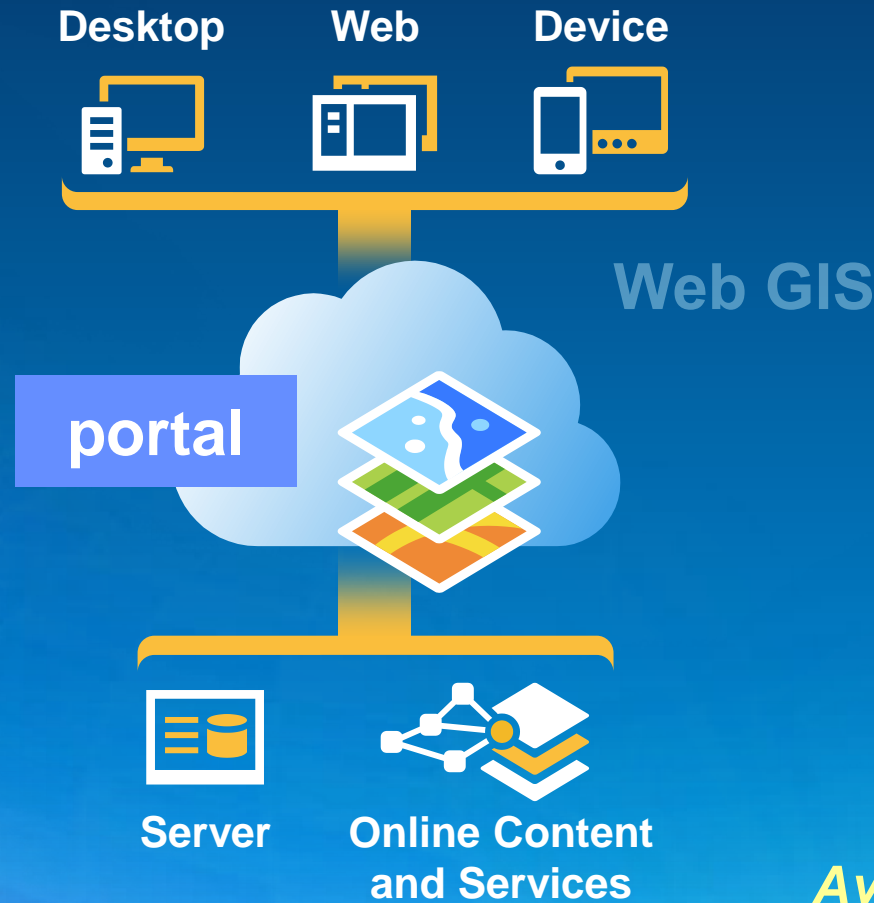
Agenda

- **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

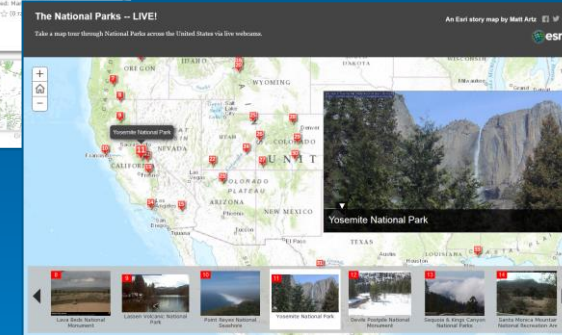
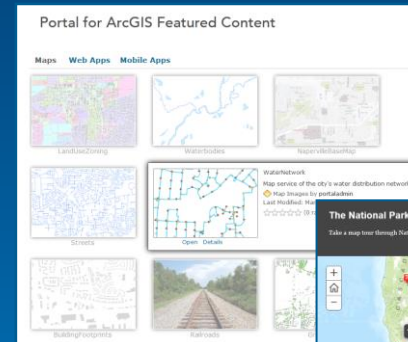
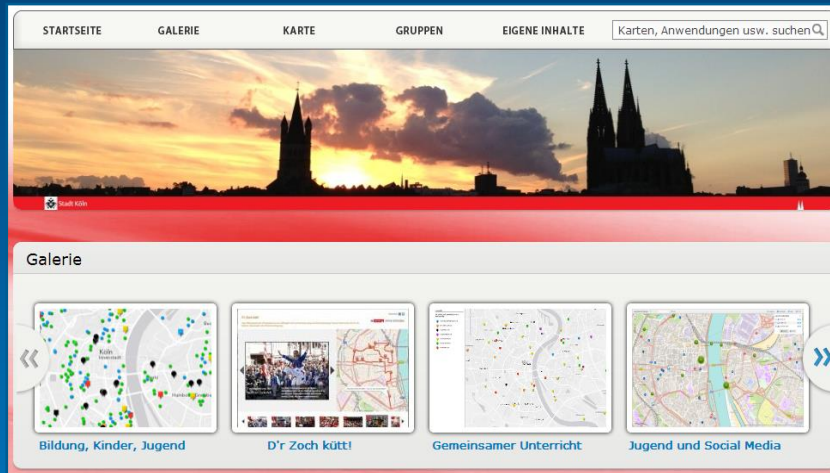
Enabling GIS Everywhere

Simple
Integrated
Open



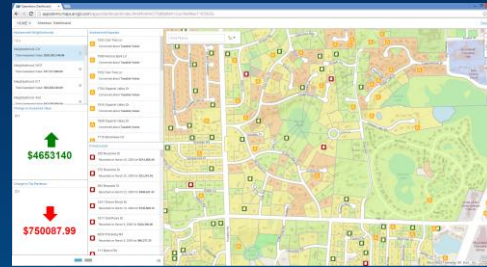
*Available in the Cloud . . .
. . . and On-Premises*

Organize your maps and apps

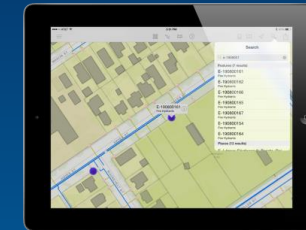


enable discovery

More apps



Operations Dashboard for ArcGIS



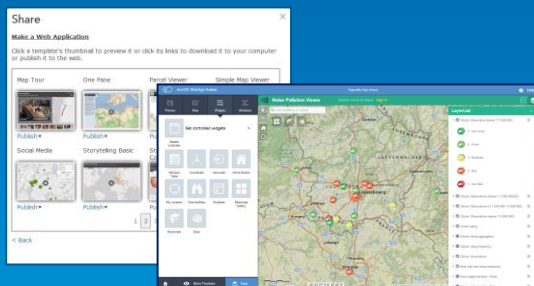
Explorer for ArcGIS



Collector for ArcGIS



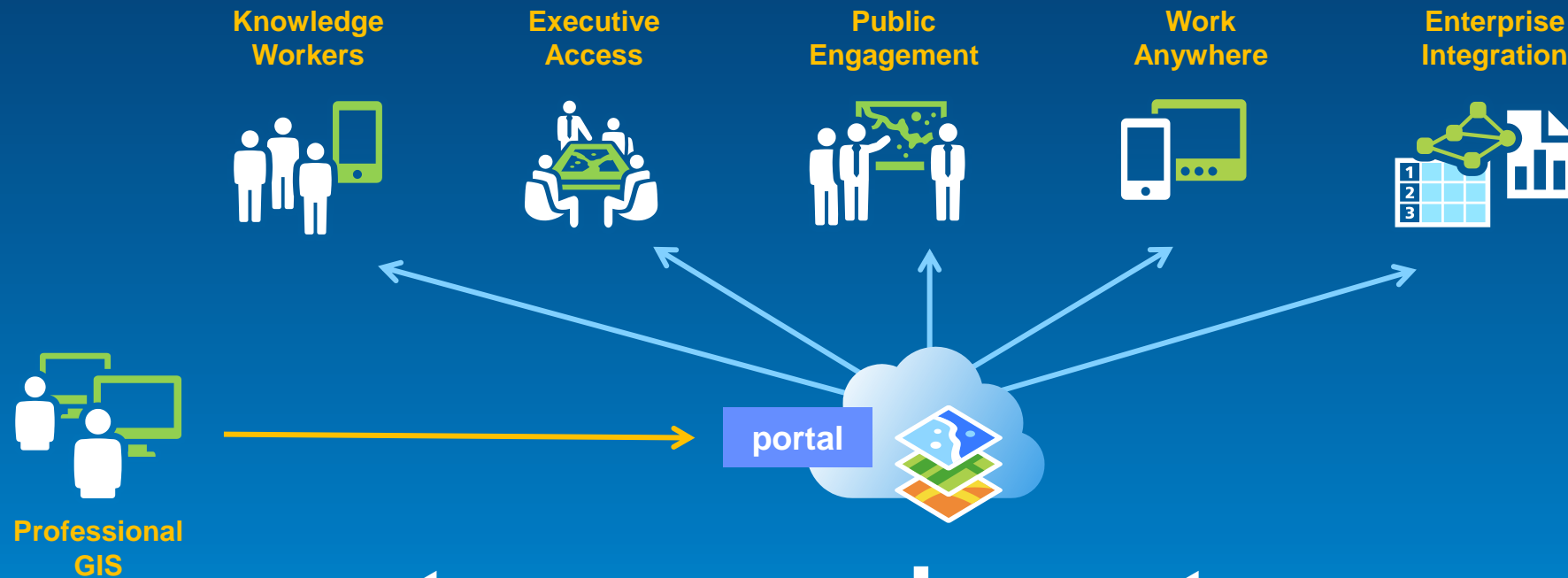
Esri Maps for ... Apps



Web Application Templates
10.3: Web AppBuilder for ArcGIS

Maps everywhere

Empower people

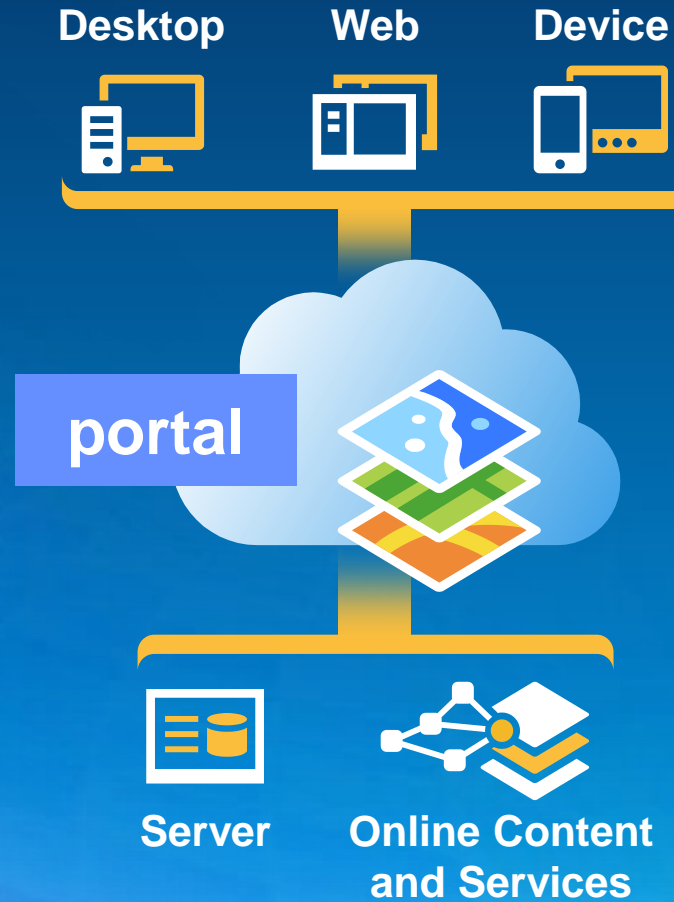


to use and create maps

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



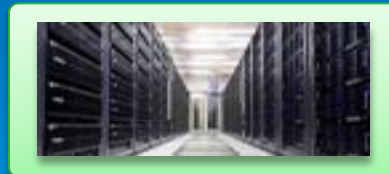
Apps

- Information Products
- Access Control

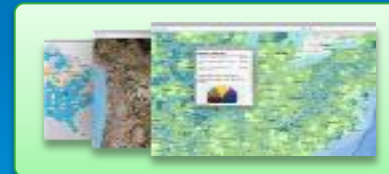


portal

- Web Services
- Data



GIS Servers
Authoring tools



Ready to use
Content

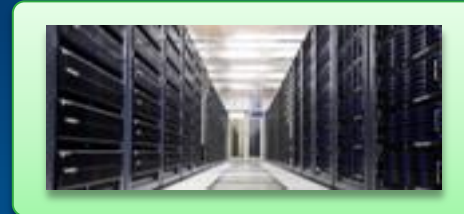
Web GIS Deployment Patterns



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



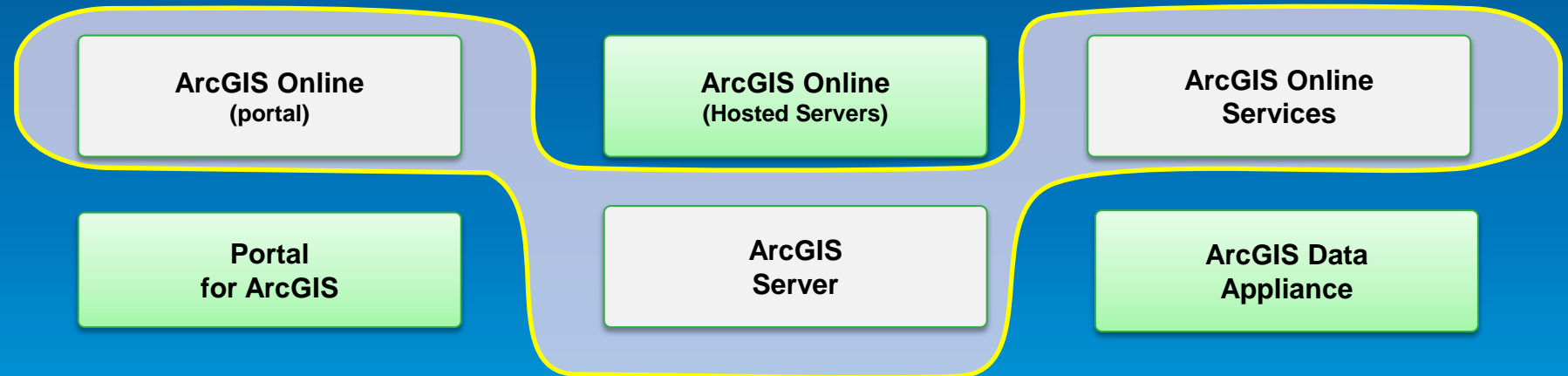
GIS Servers



Ready to use Content

SaaS

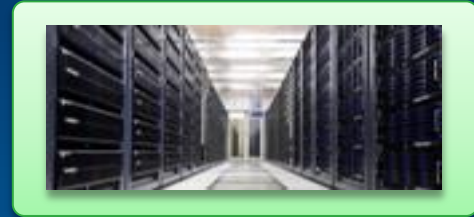
Software



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

HOME GALLERY MAP GROUPS MY CONTENT MY ORGANIZATION aafcguest

Agriculture and Agri-Food Canada
SELF-SERVE MAPPING PLATFORM

PLATE-FORME DE CARTOGRAPHIE LIBRE-SERVICE
d'Agriculture et Agroalimentaire Canada

Soils of Canada
Canada Land Inventory - 1:250 000 Land Capability
SAMPLE
AAFC Crop Inventory (2009-2013)

The Self-Serve Mapping Platform (UMAP) provides AAFC staff with access to easy-to-use software tools and geospatial data needed to create and manage maps, integrate geospatial data from a wide variety of sources, and perform basic geospatial analysis to better understand and portray location-based features & phenomena, relationships, trends, and other geographic functions.

HOME GALLERY MAP GROUPS MY CONTENT MY ORGANIZATION Jacob

Special Achievement in GIS
2014 Award Winner

Pennsylvania Land Mapper
Mid-continent Land Mapper

Web Map Geology
Service Geomatics
Service PA - DCNR
Web Map Pennsylvania

Geology Base Map
SIT Interval topographic lines
PAMAP Program 3.2 FT DEM of PA
PA DEP Oil and Gas Mapping of PA

Welcome to the Seneca GIS Portal!
Seneca's enterprise mapping platform

This is your gateway to intelligent maps, focused applications and other "geoinformation" for Seneca Resources. Answering the "where" question for any project, initiative or important decision is now easy for everyone!

You can use this portal to access maps, information, and even make your own maps. The Seneca GIS Portal includes Seneca's maps and data along with map data from other sources to help you use the power of maps to make informed decisions.

Make a Map
Map Data in Excel
Enrich Excel Data
Share with a Group
Editing a Map
Using Tables and Filters

Resource Center Show: All Content My Organization Chan Notifications Help Sign Out

HOME GALLERY MAP GROUPS MY CONTENT Find maps, applications and more...

Chick-fil-A Real Estate GIS Portal

Strategy Team

Atlanta Traffic Count
Pinpoint External (BIVG)
Strategy DEMO
Pinpoint Mobile

Make a Map »

Create a map that can be viewed in a browser, desktop or mobile device. Share it on a blog, via email, or embed it in a website.

HOME GALLERY MAP GROUPS Sign In

CITY OF VICTORIA

City of Victoria Heritage Walking Tours

Haunted Victoria Heritage Walking Tour
Law and Order Heritage Walking Tour
Mysterious Chinatown Heritage Walking Tour
Rolling Back Downtown Heritage Walking Tour

Victoria has been blessed with a wealth of natural and man-made riches, including stunning heritage architecture framed by ocean views and mountain vistas. It is this rare juxtaposition of heritage charm, scenic backdrop and modern city-scape that makes Victoria one of the most uniquely special places in Canada. Millions visit our city every year and enjoy the natural beauty, temperate climate and heritage charm Victoria offers its citizens every day.

www.victoria.ca
VicMap: www.victoria.ca/map

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Demo

Web GIS On-premises



The screenshot shows the Portal for ArcGIS homepage. At the top, there is a navigation bar with links for HOME, GALLERY, MAP, and GROUPS, and a search bar with a "SIGN IN" button. Below the navigation bar is a large banner with a world map background and the text "Portal for ArcGIS". Underneath the banner is a section titled "Foundation Data" which contains four map thumbnails: "BuildingFootprints", "Greenspace", "LandUseZoning", and "NapervilleBaseMap". Below the thumbnails is a text box that reads: "This is the home page of your ArcGIS Organization. You can easily change this page with your own logos, background image and many other things. Additionally, you can populate this home page with a collection of featured items such as Web Maps and Web applications to highlight the most useful GIS resources in your organization."

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

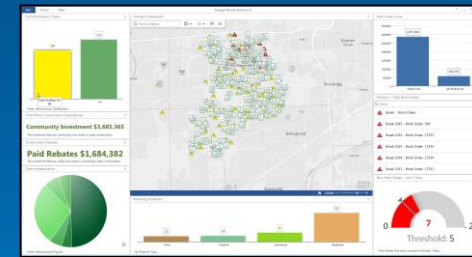
- Web application templates
- Collector for ArcGIS
- Operations Dashboard for ArcGIS
- Explorer for ArcGIS
- Esri Maps for ... Apps (7 different apps)
- **10.3: Web App Builder for ArcGIS**



Web Application Templates



Collector for ArcGIS



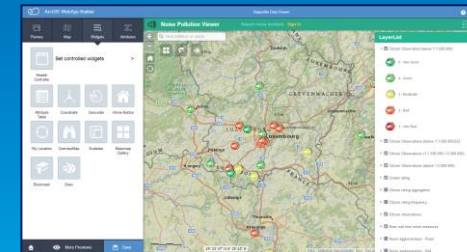
Operations Dashboard for ArcGIS



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:

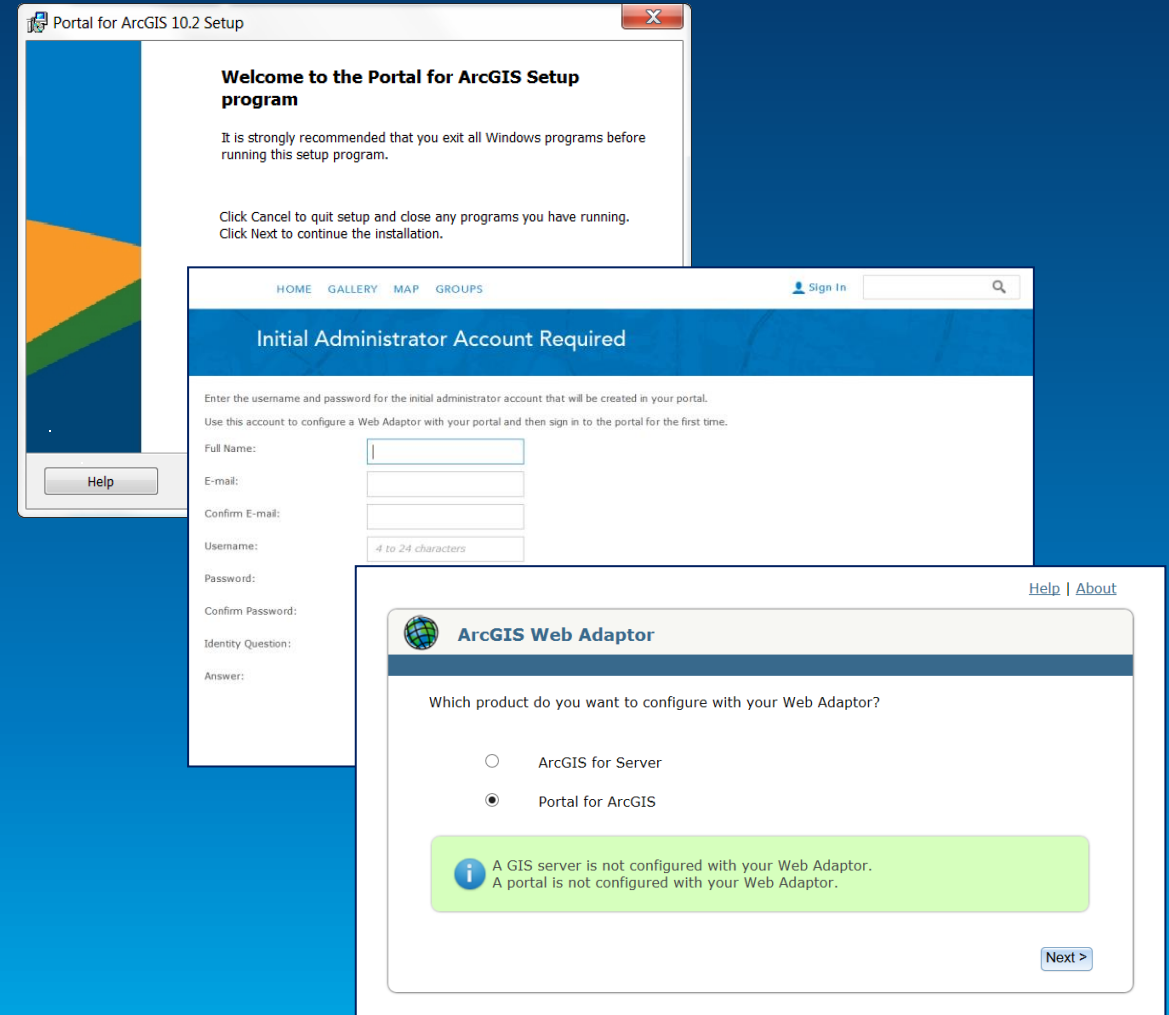
- Red Hat Enterprise Linux Server 6
- Red Hat Enterprise Linux Server 5 Update 7 with [libX11 patch](#)
- SUSE Linux Enterprise Server 11 Service Pack 1

Installing Portal for ArcGIS

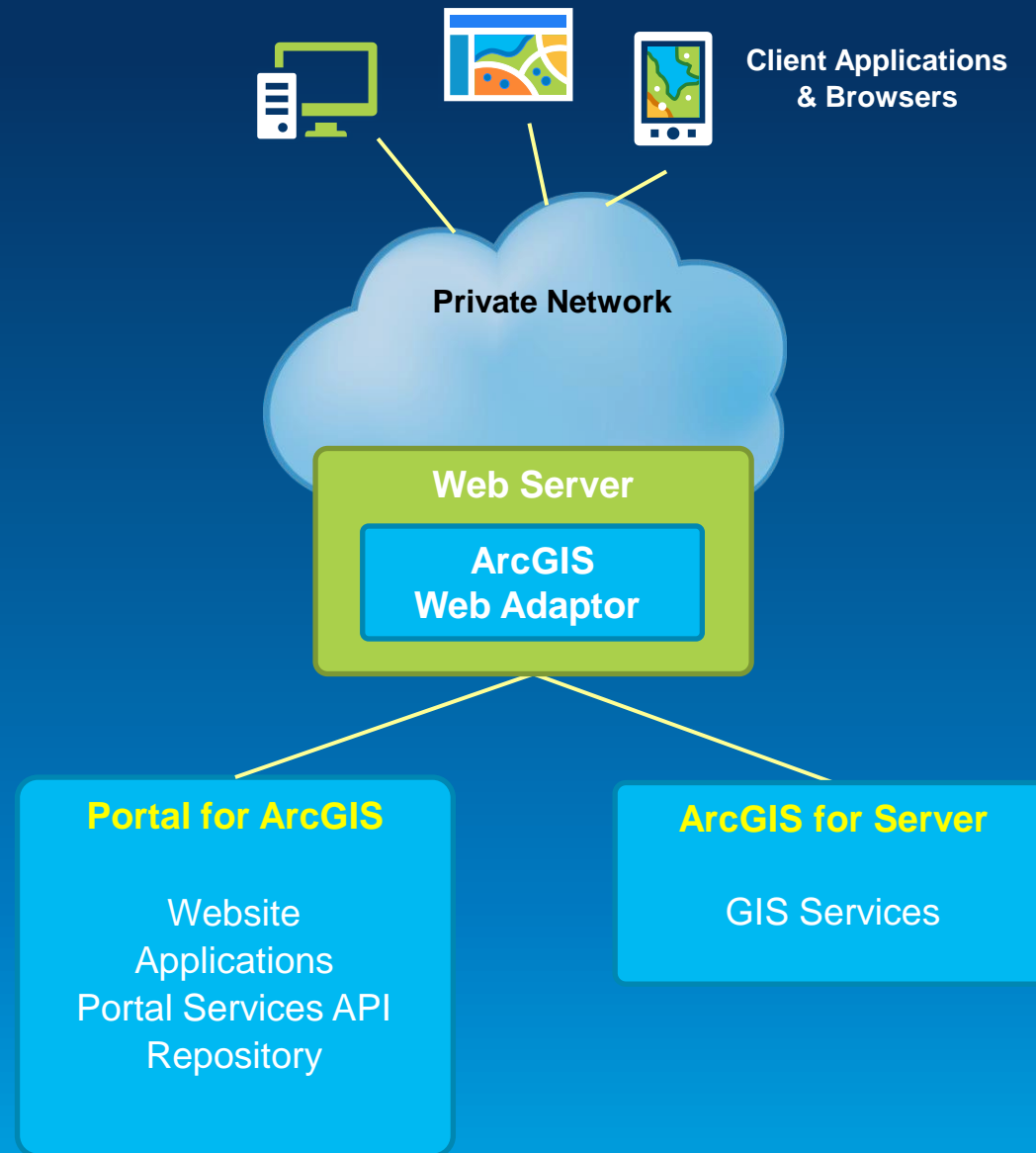
Can be scripted for silent installs

- Simple 4 step workflow

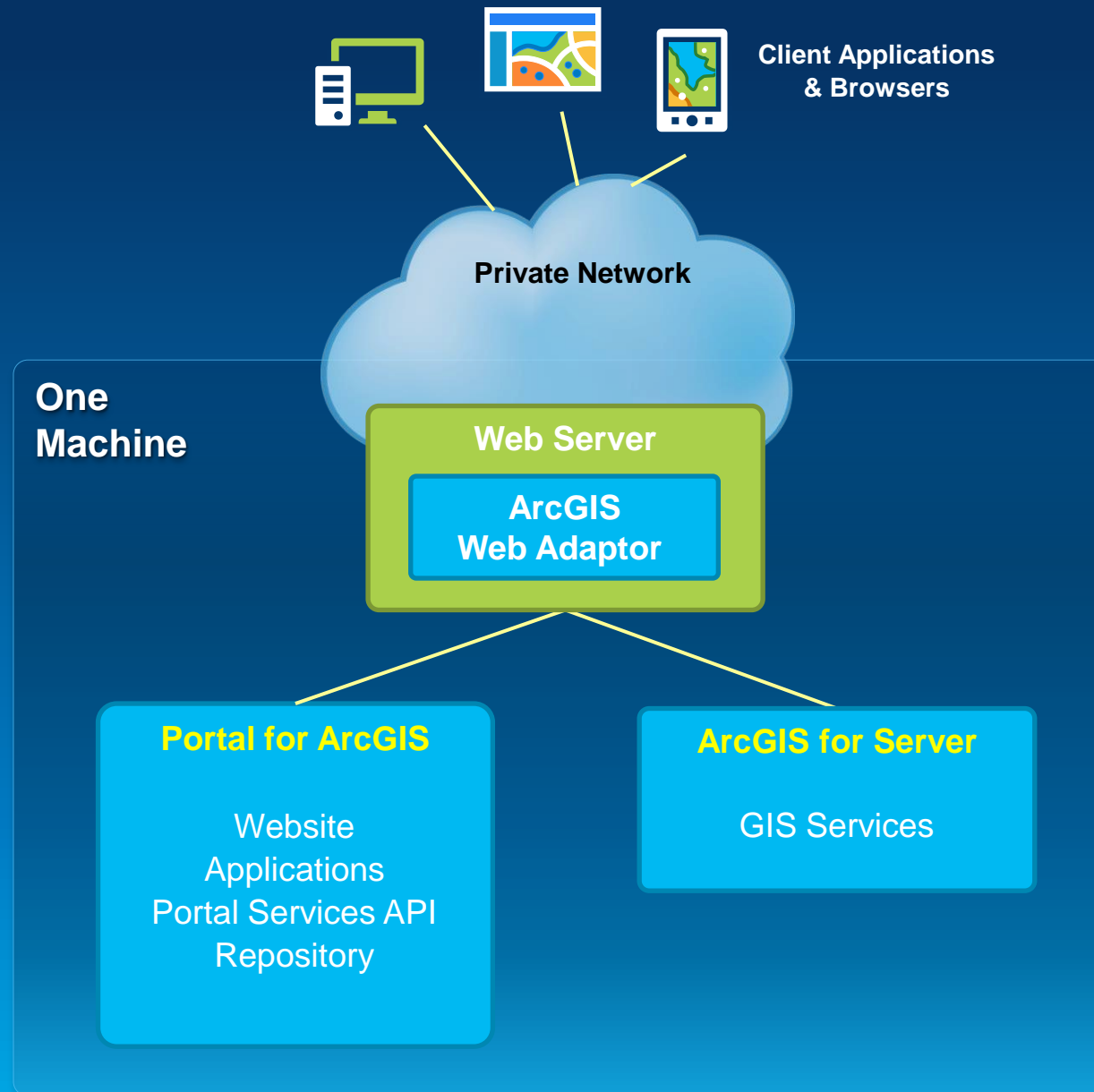
1. Run installer
2. Authorize software
3. Create initial admin account
4. Configure Web Adapter



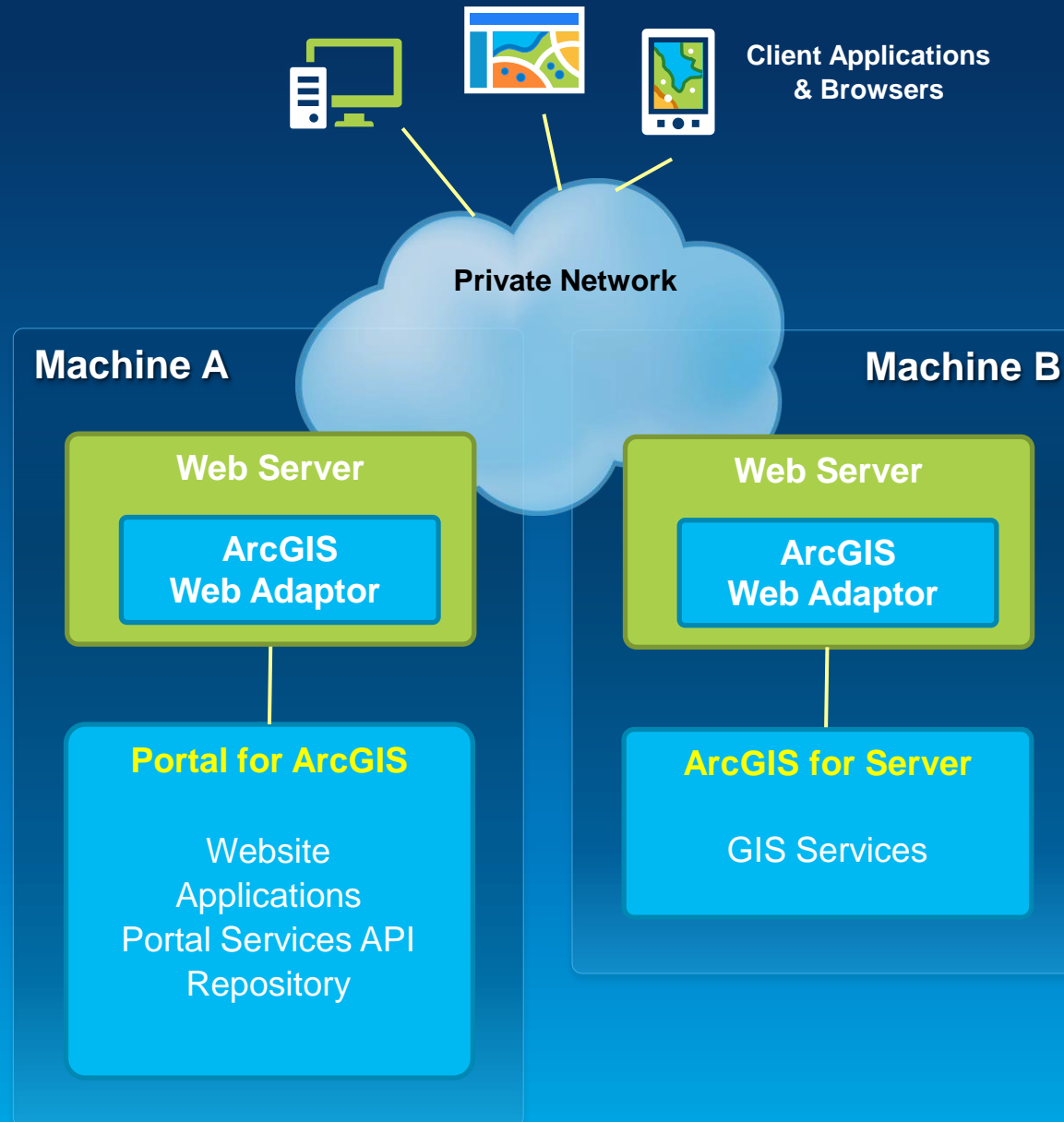
Deployment



Deployment



Deployment



Security

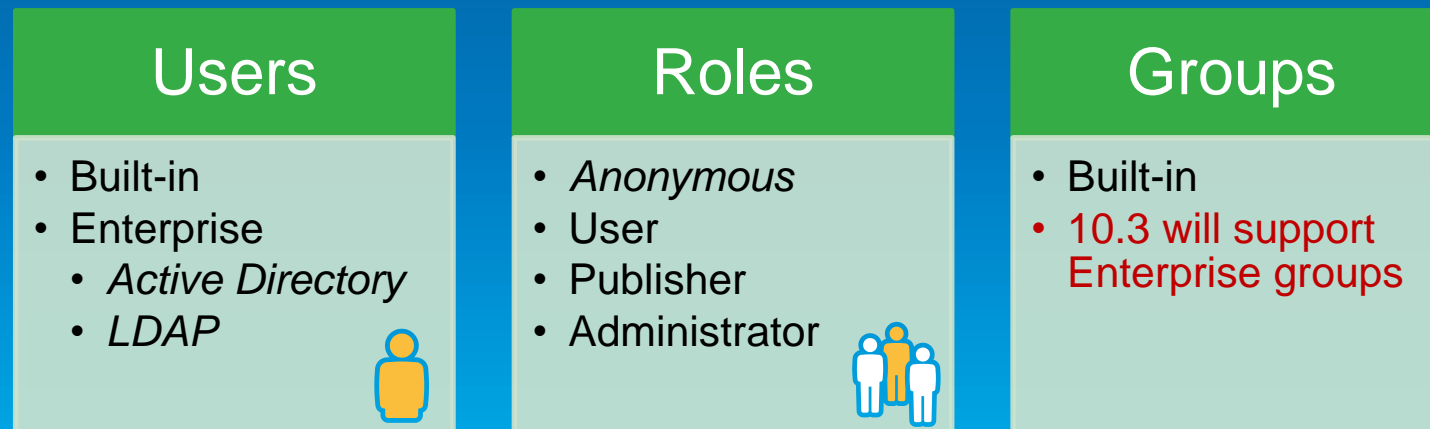
Integrates with Your Enterprise Security Infrastructure



- **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**

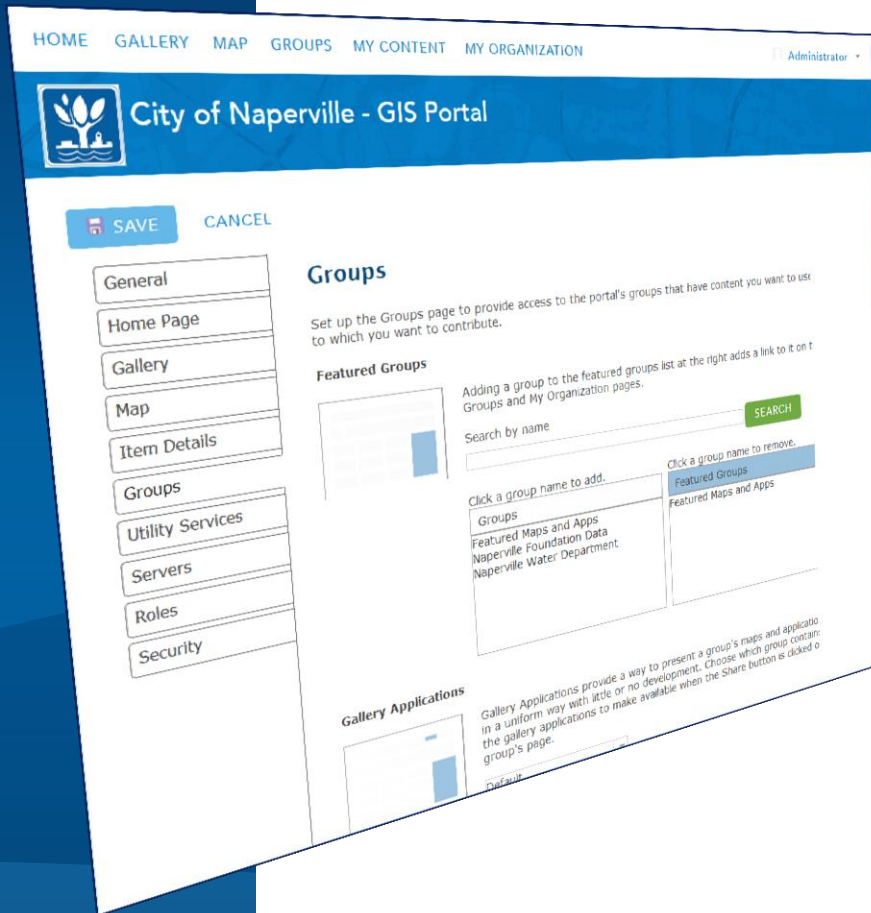
Leverage Groups in Portal

- 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

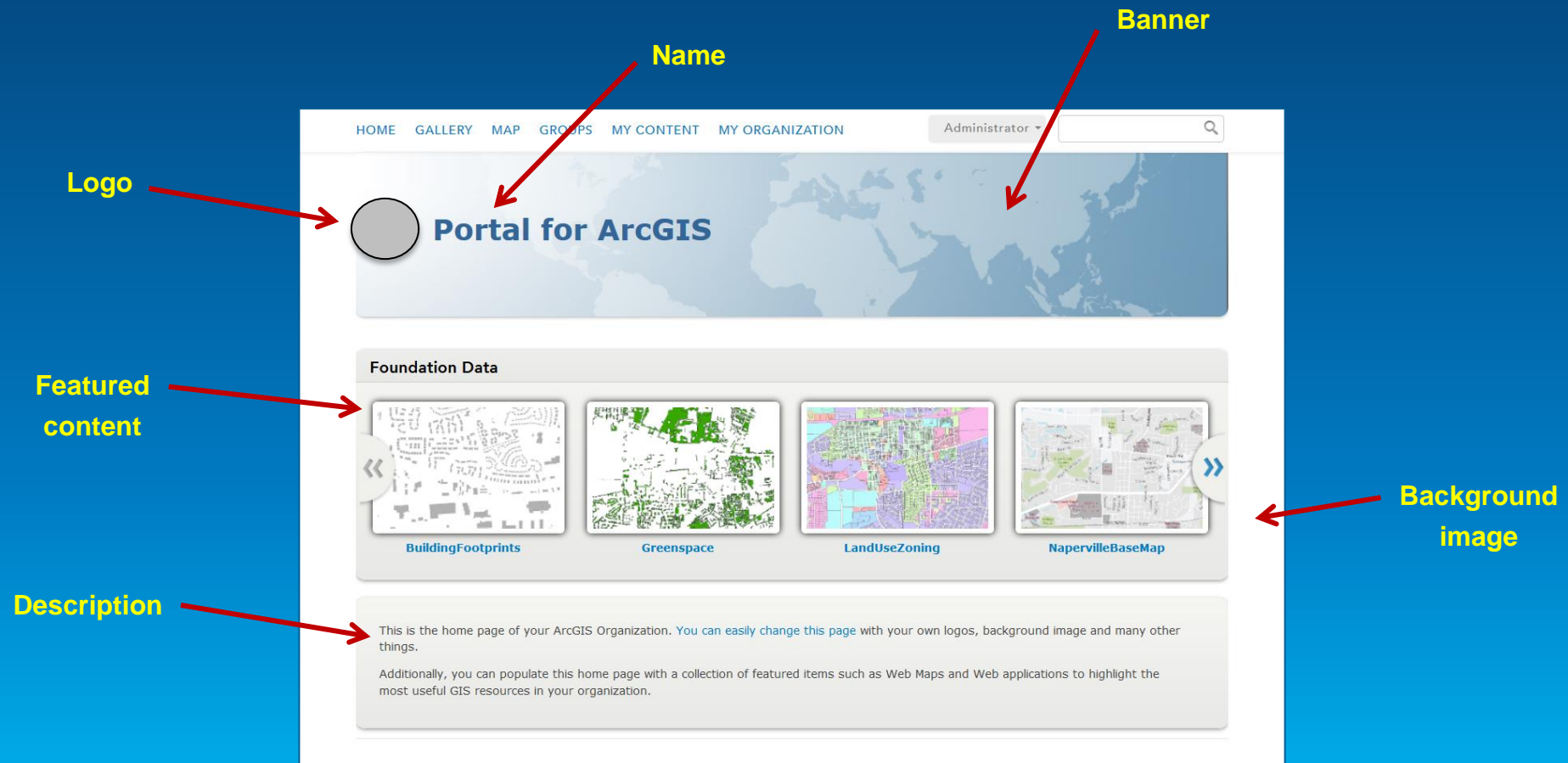


Groups in Portal



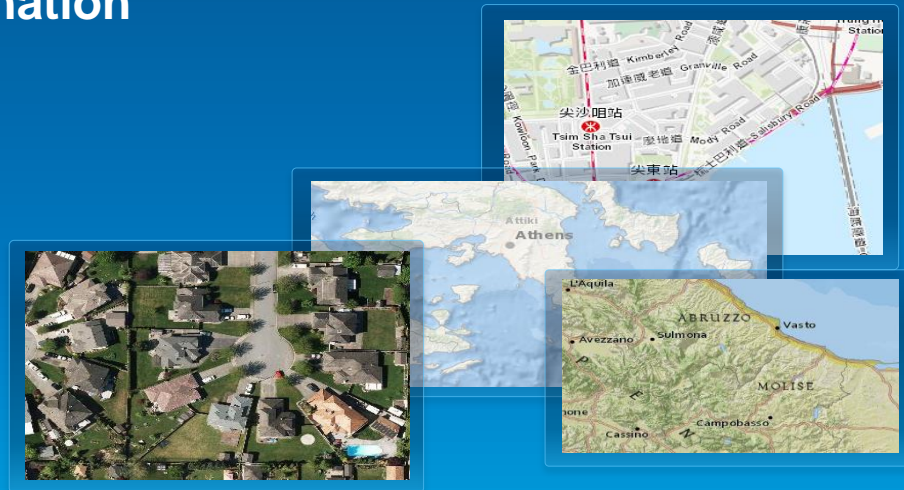
Configuring Portal for ArcGIS

- 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



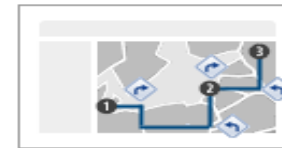
Geocoding



Geometry



Route



Utility services

Demo

Configuring Portal for ArcGIS

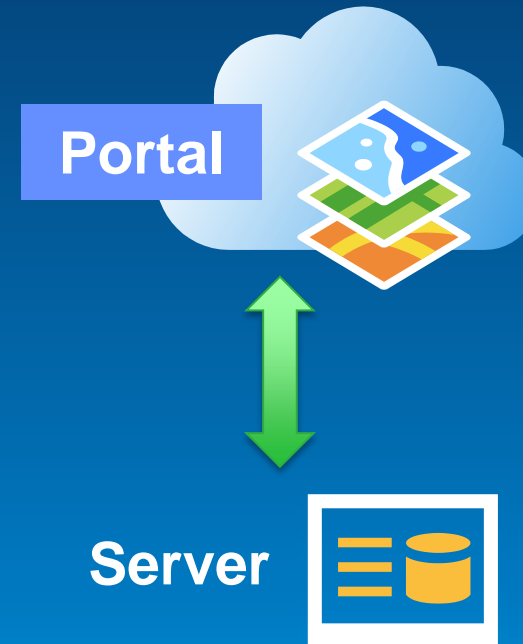
A screenshot of the ArcGIS Portal configuration interface. The top navigation bar includes links for HOME, GALLERY, MAP, GROUPS, MY CONTENT, and MY ORGANIZATION, along with a user profile dropdown for 'Administrator' and a search icon. Below the navigation, there are 'SAVE' and 'CANCEL' buttons. A left-hand 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 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 on the left and a text input field on the right. The input field contains the text "Portal for ArcGIS". A tooltip above the input field says "Click to change thumbnail".
- Description:** A section with a thumbnail placeholder on the left and a rich text editor on the right. The rich text editor includes a toolbar with icons for bold, italic, underline, text color, background color, font size, bulleted list, numbered list, link, unlink, and insert image. Below the toolbar, there are dropdown menus for "Font" and "Size".

Using Portal with ArcGIS Server

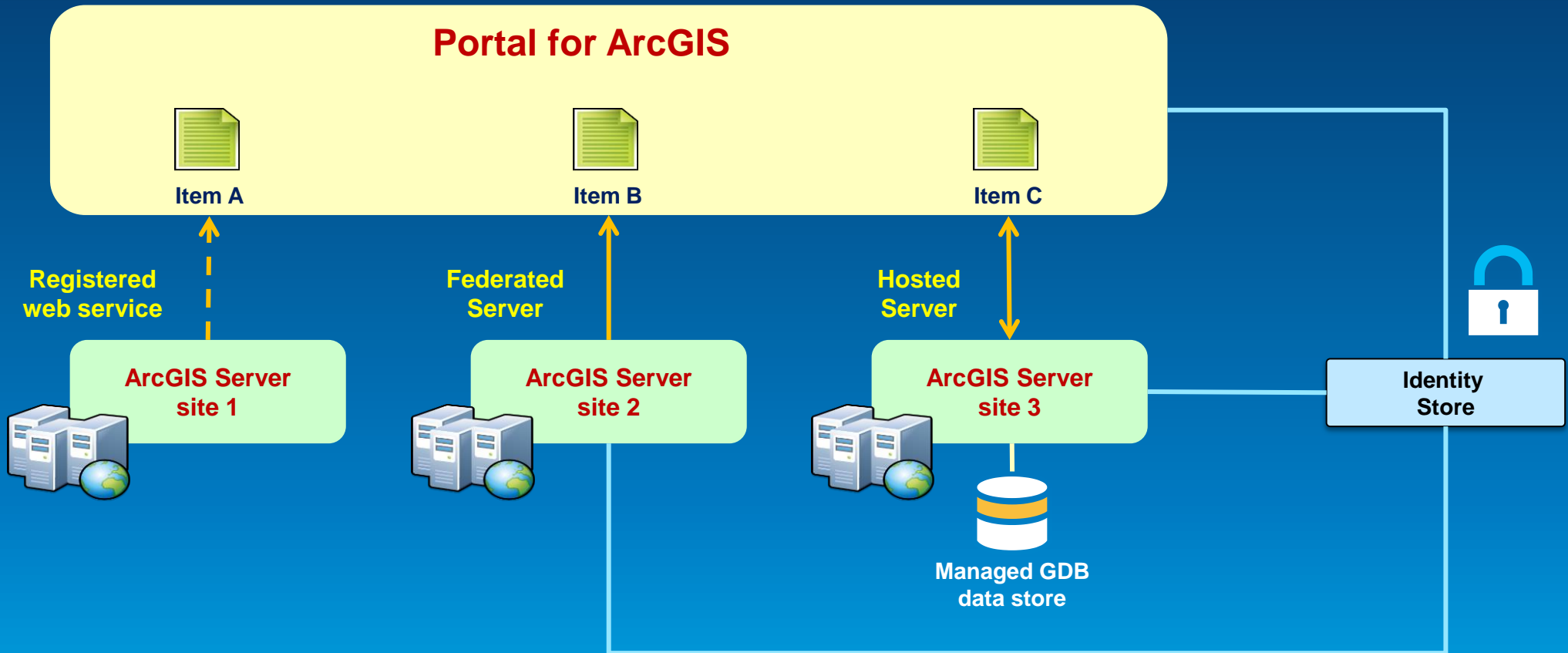
Three Integration Approaches

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 top navigation bar includes 'ArcGIS', 'FEATURES', 'PLANS', 'GALLERY', 'MAP', and 'HELP', along with a 'Sign In' button and a search field. The main header reads 'Activity Dashboard for ArcGIS (Portal for ArcGIS)'. Below this, there is a featured item card for 'Activity Dashboard' by 'esri labs', which includes a description, a code sample link, a rating of 1 star, and 219 downloads. A blue 'OPEN' button is located at the bottom of the card.

On the right, a detailed view of the 'Activity Dashboard for ArcGIS' is shown. The user 'Derek Law' is logged in. The dashboard features a navigation menu with 'ITEMS', 'USERS', and 'GROUPS'. The main content area displays an 'Items Report for 6/4/2014 - 6/25/2014' with a time filter set to 'Today'. The 'Content Summary' shows 49 items and 8 contributors. The 'Items Summary Chart' shows 12 Maps, 30 Layers, 1 File, 4 Apps, and 2 Tools. The 'Top Contributors' table lists users and their contributions: Jian Lange (18), Gert van Maren (9), Cody Benkelman (8), Rob Elkins (5), and Cody Benkelman (3). The 'Items Sharing Summary' pie chart shows 26 Public Items, 2 Organization Items, and 21 Private Items.

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

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

Category	Count
Public Items	26
Organization Items	2
Private Items	21

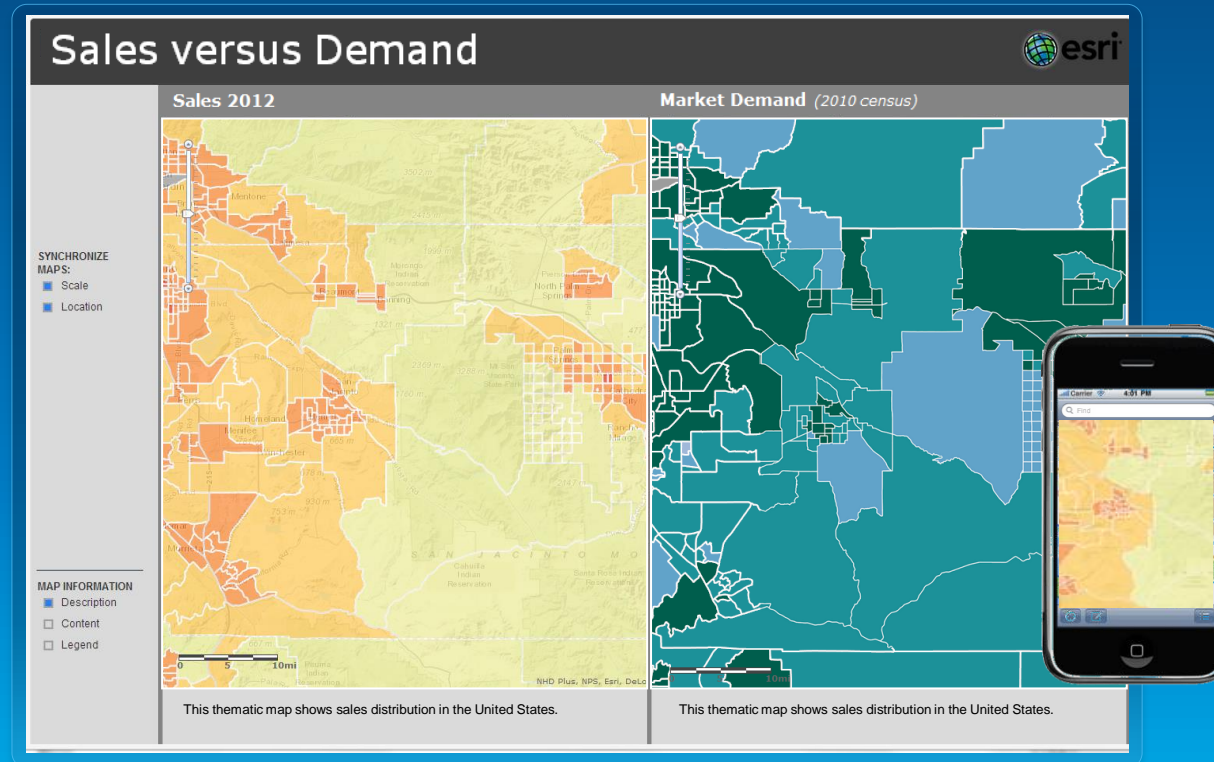
Implementing Web GIS

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, 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 Authored by Esri. A short description follows, and there are tags for Audience, Learn How To, and Software.

The screenshot shows the title page of the article 'Portal for ArcGIS 101' by Derek Law, Esri Product Manager. It features a concept diagram for Web GIS. The diagram illustrates a central 'Portal' cloud connected to 'Desktop', 'Web', and 'Device' clients. Below the Portal are 'Server' and 'Online Content and Services'. To the right, 'GIS Servers' and 'Ready-to-Use Content' are shown, with a double-headed arrow indicating interaction between the Portal and these components. The article text below the diagram discusses the fundamental concepts of Portal for ArcGIS, its capabilities, and how it integrates with existing GIS investments to make them more accessible and discoverable.

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:**

First Offering ID: 523

Second Offering ID: 1143



Online – www.esri.com/ucsessionsurveys

Paper – pick up and put in drop box



Understanding our world.

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