



ESRI DEVELOPER SUMMIT

10-12 November | Berlin, Germany

Introduction to Portal for ArcGIS

Hao LEE
November 12, 2015



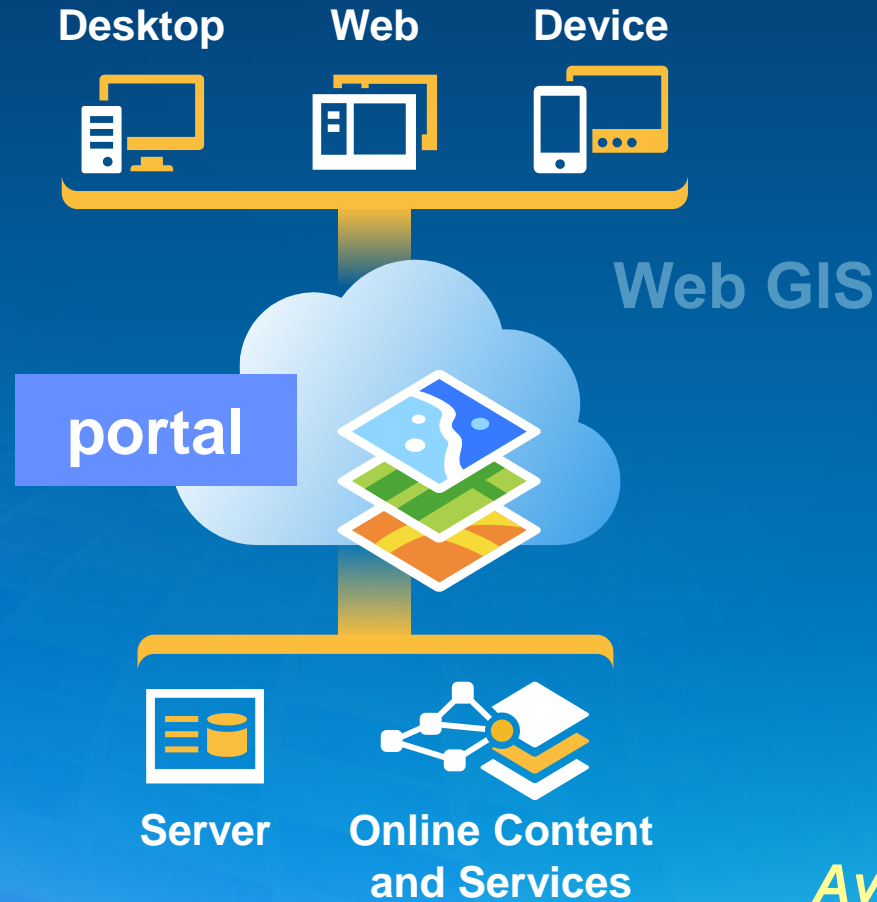
Agenda

- **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

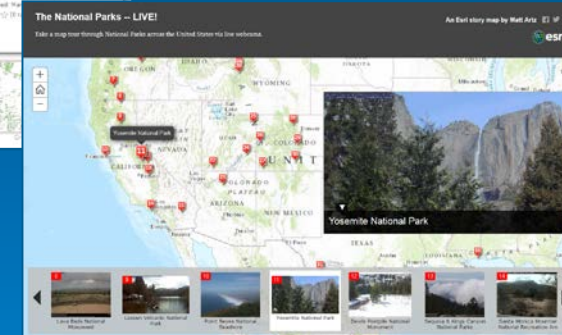
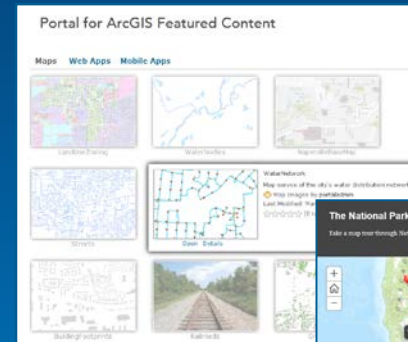
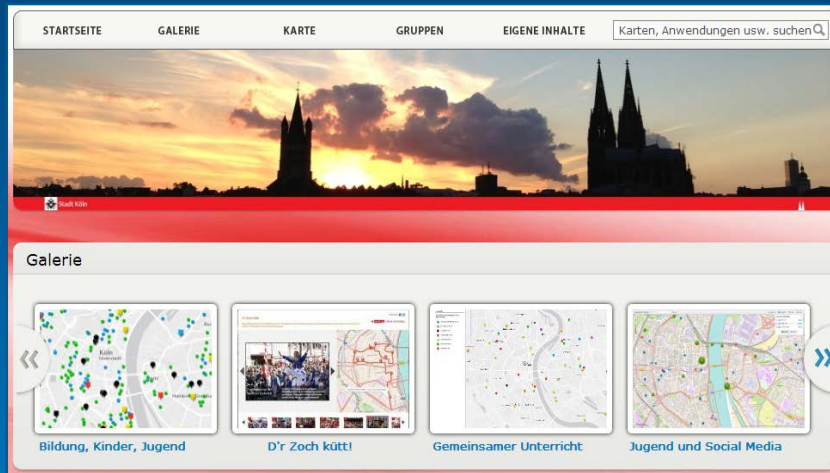
Enabling GIS Everywhere

Simple
Integrated
Open



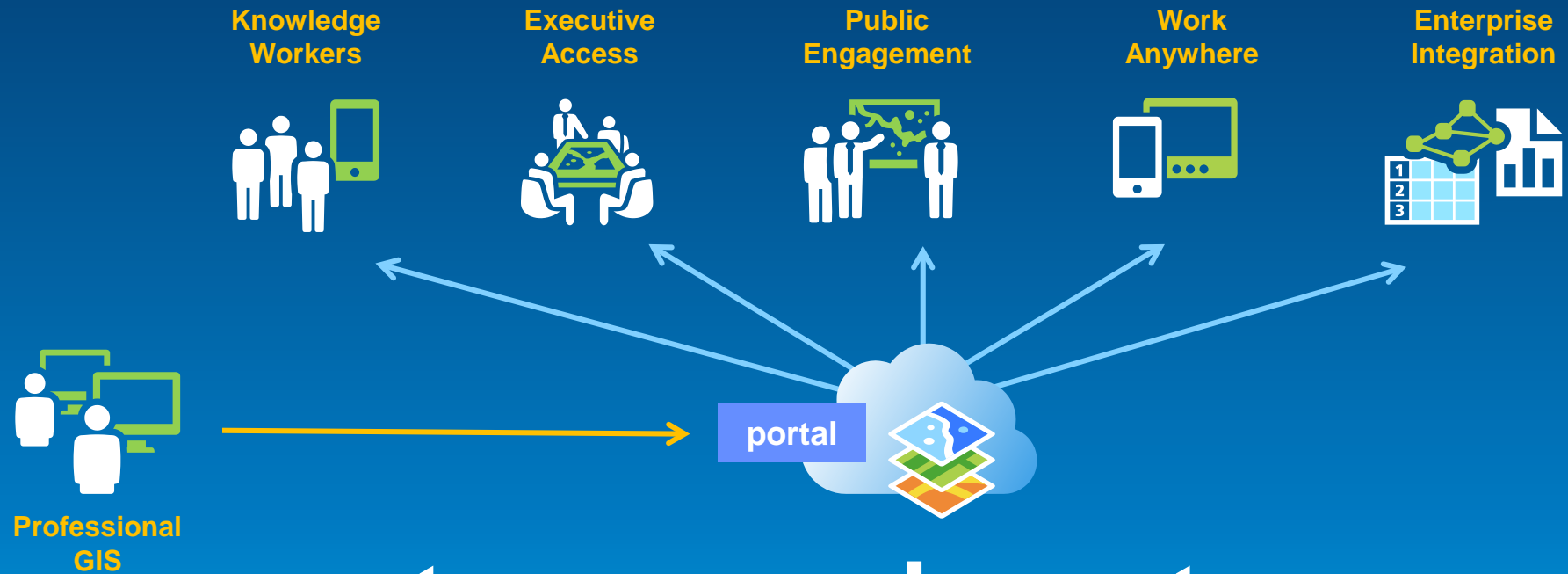
*Available in the Cloud . . .
. . . and On-Premises*

Organize your maps and apps



enable discovery

Empower people

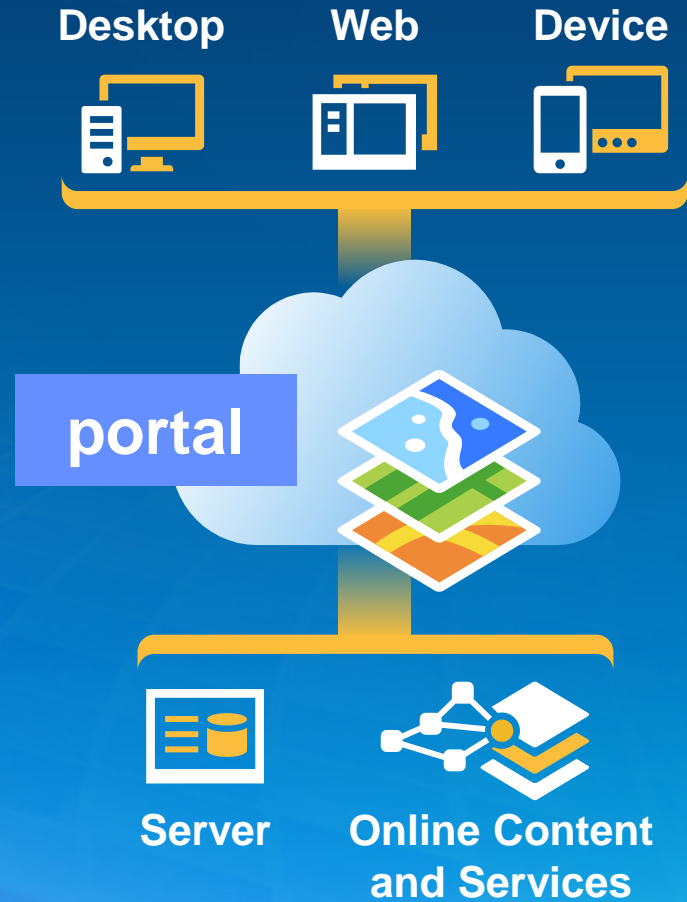


to use and create maps

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



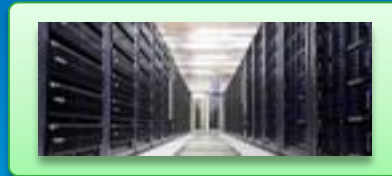
Apps

- 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

ArcGIS Online (portal)

ArcGIS Online (Hosted Servers)

ArcGIS Online Services

Software

Portal for ArcGIS

ArcGIS Server

ArcGIS Data Appliance

Web GIS Deployment Patterns



portal



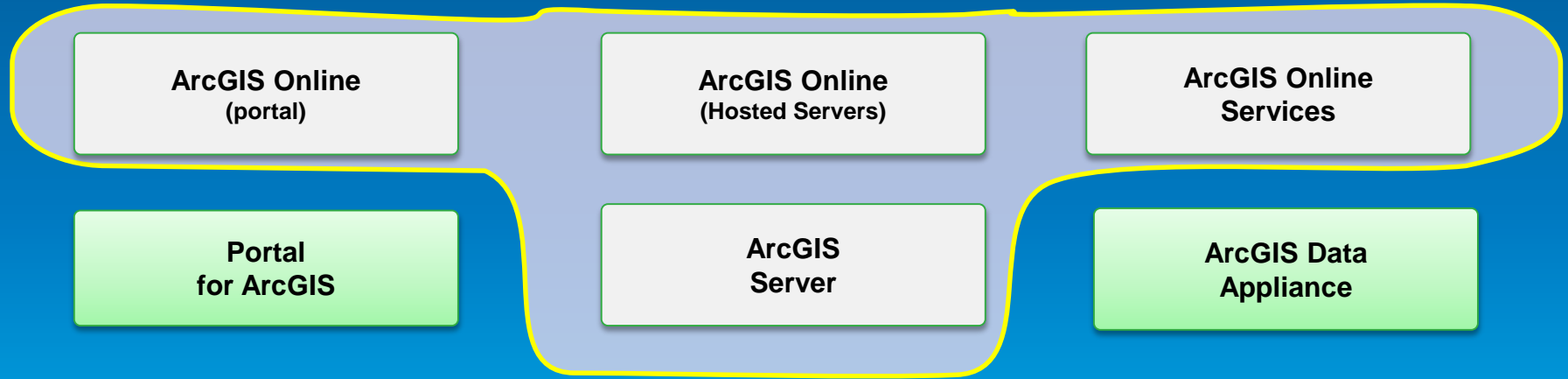
GIS Servers



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

Software

ArcGIS Online (portal)

ArcGIS Online (Hosted Servers)

ArcGIS Online Services

Portal for ArcGIS

ArcGIS Server

ArcGIS Data Appliance

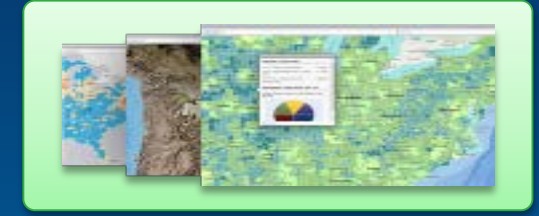
Web GIS Deployment Patterns



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

- **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 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 for the cloud yet
- Typical reasons for choosing **ArcGIS Online**
 - Lower overall cost (faster start, less admin costs)
 - Continuous updates and improvements
 - Elasticity



Demo

Web GIS On-premises

A screenshot of the ArcGIS Portal for ArcGIS homepage. The page has a navigation bar with links for HOME, GALLERY, MAP, and GROUPS, and a SIGN IN button with a search icon. The main header area features a world map background with the text "Portal for ArcGIS". Below this is a "Foundation Data" section with a carousel of four map thumbnails: "BuildingFootprints", "Greenspace", "LandUseZoning", and "NapervilleBaseMap". A yellow text overlay "Explorer for ArcGIS" is positioned over the "NapervilleBaseMap" thumbnail. At the bottom, a text box explains that this is the home page of the organization and can be customized with logos and featured items.

HOME GALLERY MAP GROUPS SIGN IN

Portal for ArcGIS

Foundation Data

BuildingFootprints Greenspace LandUseZoning NapervilleBaseMap

Explorer for ArcGIS

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.

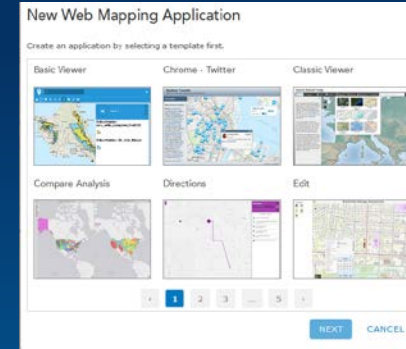
Portal for ArcGIS Capabilities

- Browse, search and discover your GIS assets
- Self-service mapping
- Content creation and management
- Data hosting and mapping
- Visualization, Collection, and Analysis
- Ready to use maps and layers

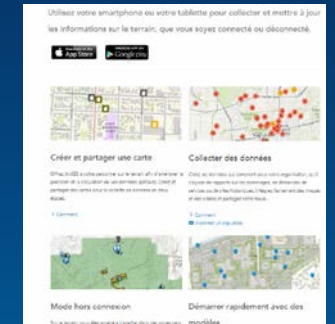


Apps included with Portal for ArcGIS

- 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



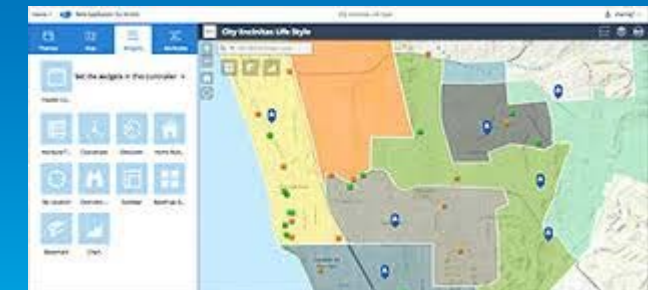
Operation Dashboard for ArcGIS



Explorer for ArcGIS



Esri Maps for ... Apps



Web App Builder for ArcGIS

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:

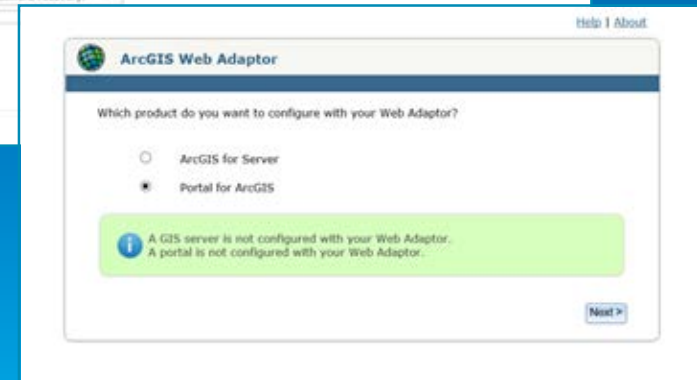
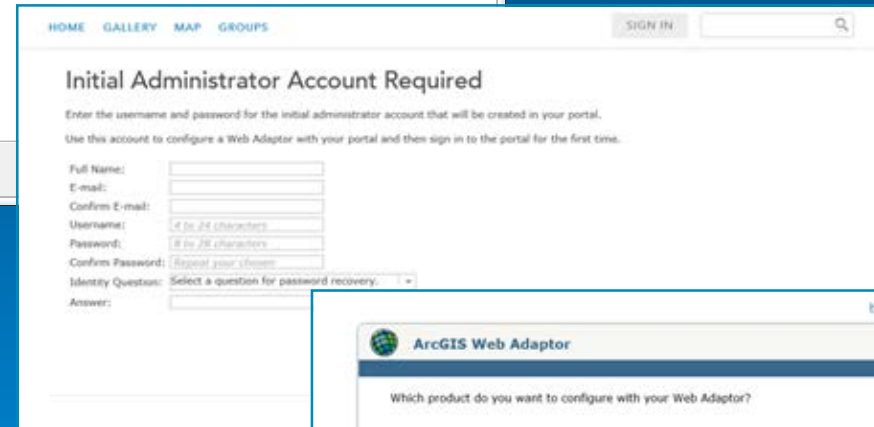
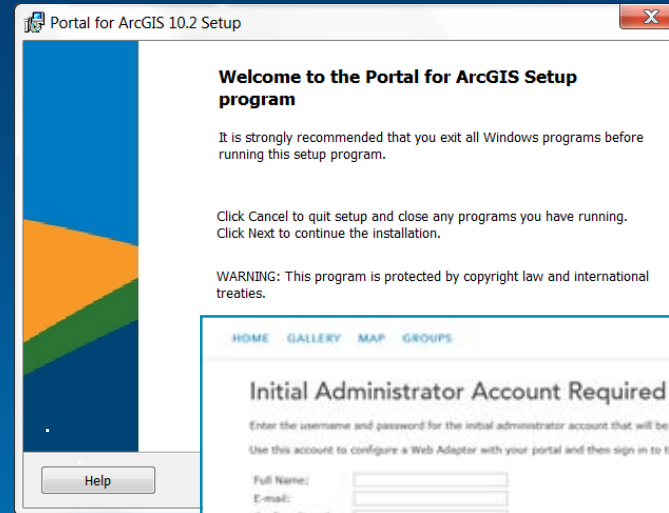
- Red Hat Enterprise Linux Server 6
- Red Hat Enterprise Linux Server 5 Update 7 with [libX11 patch](#)
- SUSE Linux Enterprise Server 11 Service Pack 1

Installing Portal for ArcGIS

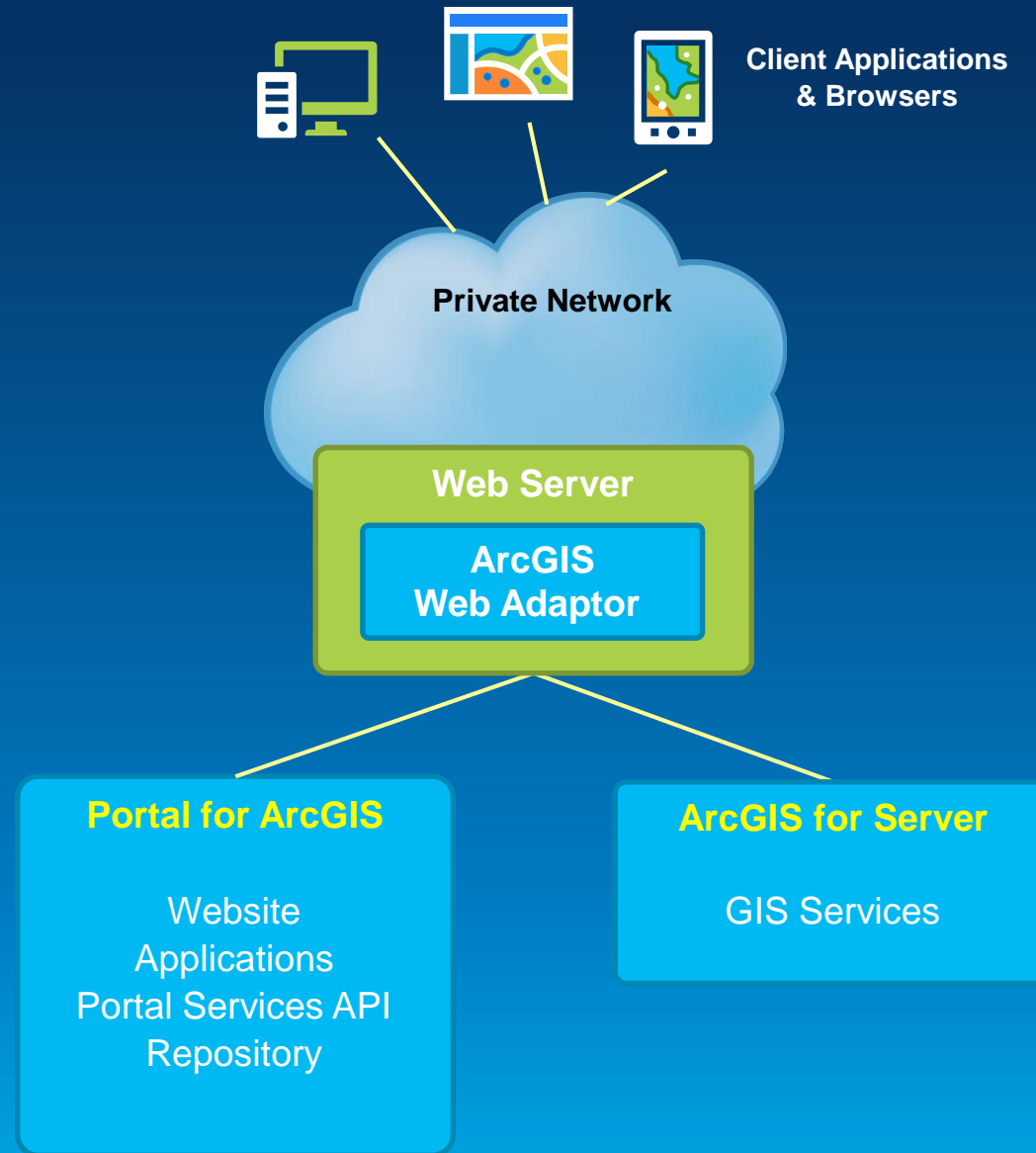
Can be Scripted for Silent Installs

- Simple 4 step workflow

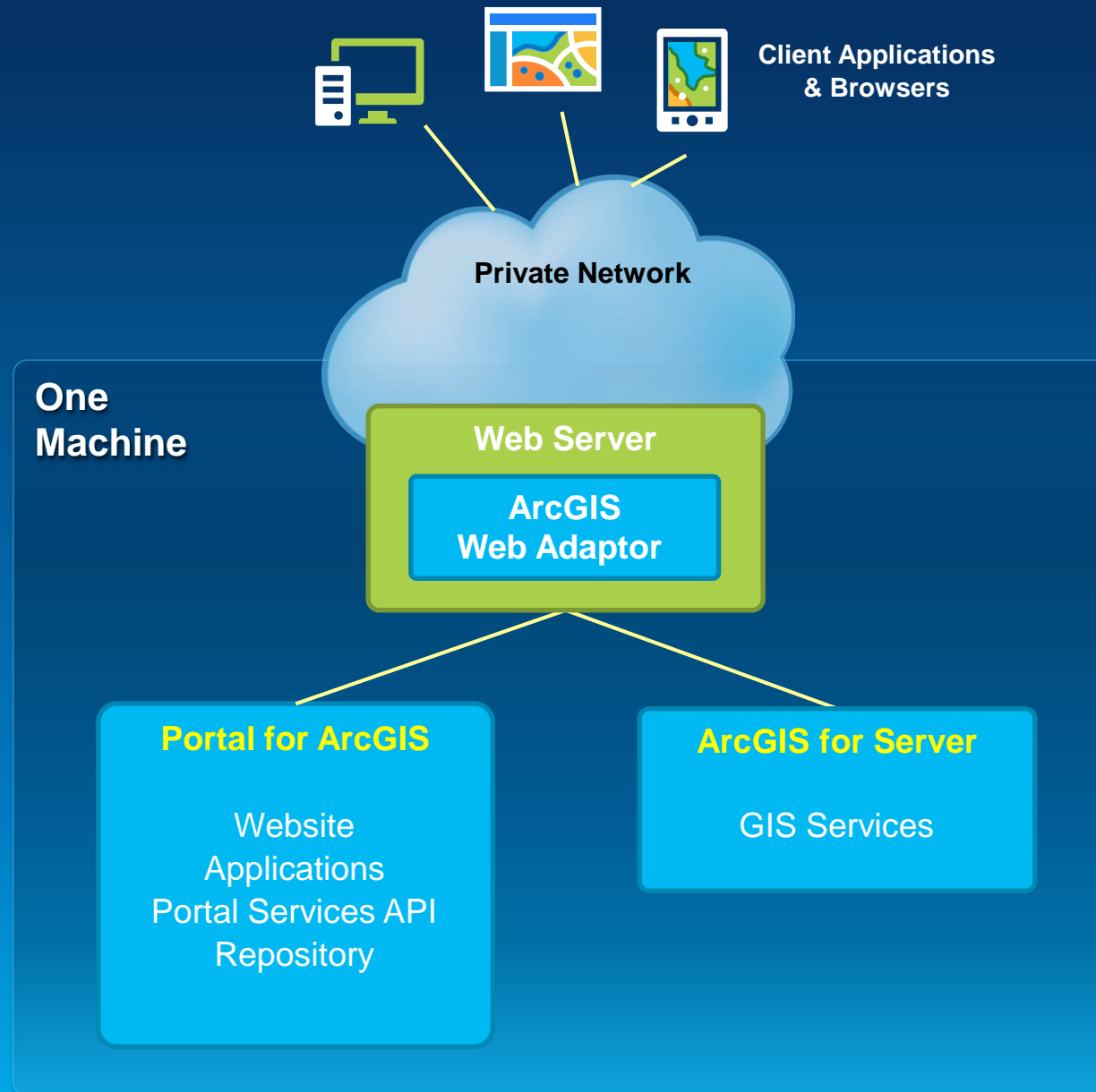
1. Run installer
2. Authorize software
3. Create initial admin account
4. Configure Web Adapter



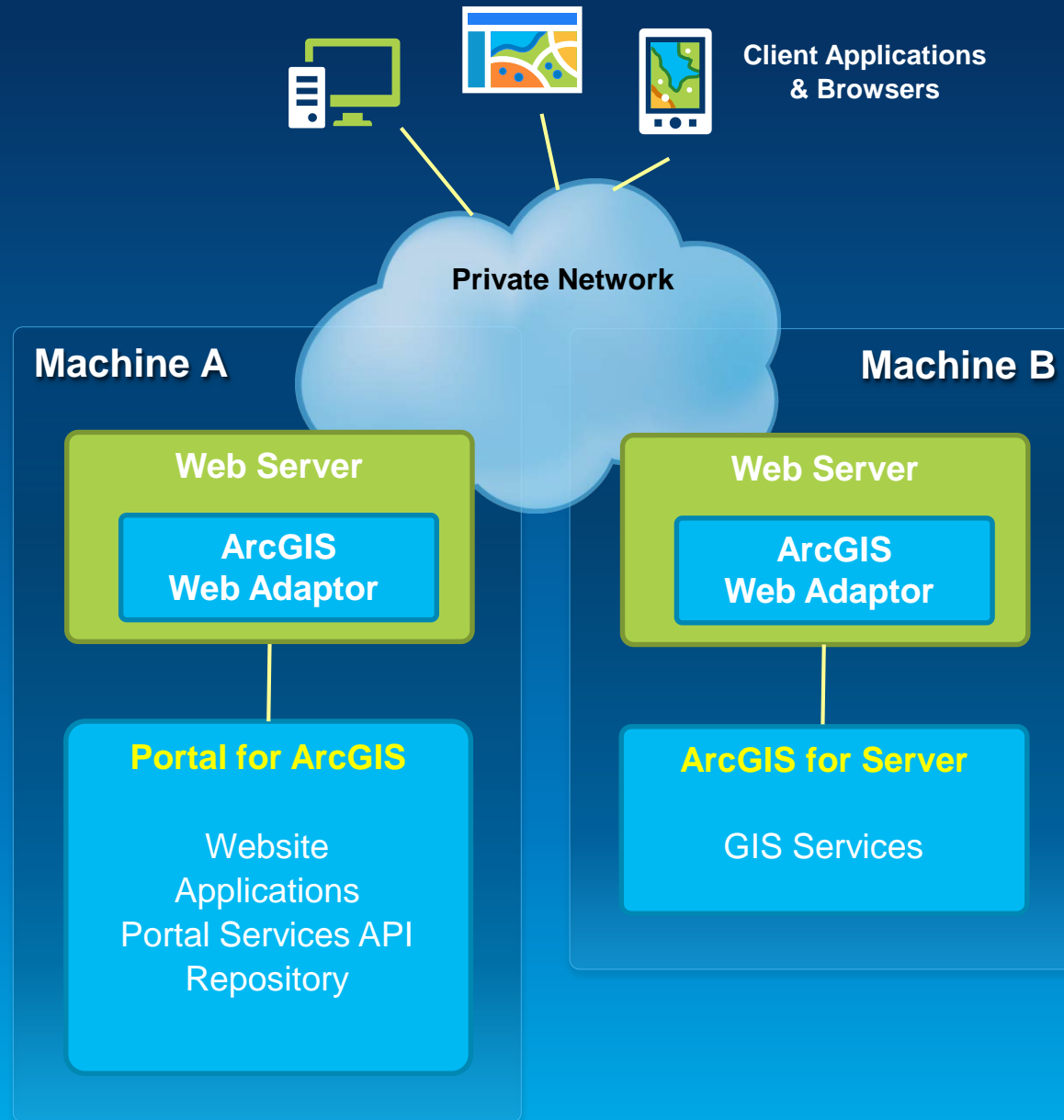
Deployment



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 2.0**
 - <http://server.arcgis.com/en/portal/latest/administer/windows/configuring-a-saml-compliant-identity-provider-with-your-portal.htm>

- **Users, Roles, and Groups**



Users

- Built-in
- Enterprise
 - *Active Directory*
 - *LDAP*



Roles

- *Anonymous*
- User
- Publisher
- Administrator
- **10.3 Custom roles**



Groups

- Built-in
- **10.3 supports Enterprise groups**

Portal for ArcGIS : Role privileges

Privilege	User	Publisher	Administrator	Custom
Use maps and apps	✓	✓	✓	✓
Create content	✓	✓	✓	Optional
Share maps and apps	✓	✓	✓	Optional
Join and create groups	✓	✓	✓	Optional
Edit features	✓	✓	✓	Optional
Publish hosted web layers		✓	✓	Optional
Manage organization resources			✓	Optional
Configure website			✓	
Create custom roles			✓	

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 support Enterprise Groups**


Foundation
data



Configuring Portal for ArcGIS

- Must have Administrator privileges

The screenshot displays the ArcGIS Portal configuration interface. At the top, a 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. The main configuration area is divided into several sections:

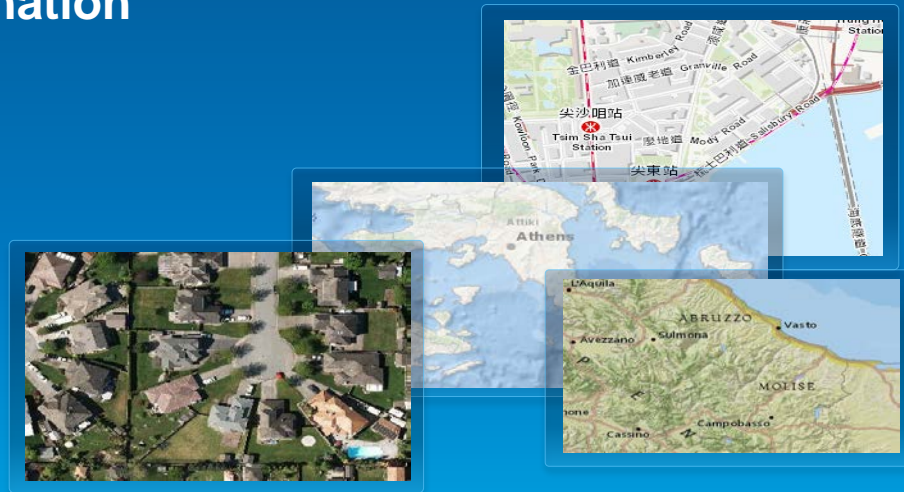
- Logo:** A circular placeholder for the organization's logo.
- Name:** The text 'Portal for ArcGIS' is displayed next to the logo.
- Banner:** A large background image of a world map is used as the banner.
- Featured content:** A carousel titled 'Foundation Data' displays four featured items: 'BuildingFootprints', 'Greenspace', 'LandUseZoning', and 'NapervilleBaseMap'. Navigation arrows are visible on the left and right sides of the carousel.
- Description:** A text area containing the following text:

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.
- Background image:** A red arrow points to the world map banner, indicating it is the background image.

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



HOME GALLERY MAP GROUPS MY CONTENT MY ORGANIZATION Administrator

SAVE CANCEL

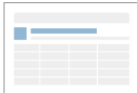
General

Home Page
Gallery
Map
Item Details
Groups
Utility Services
Servers
Security

General

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







 Click to change thumbnail

Name

Portal for ArcGIS

Description



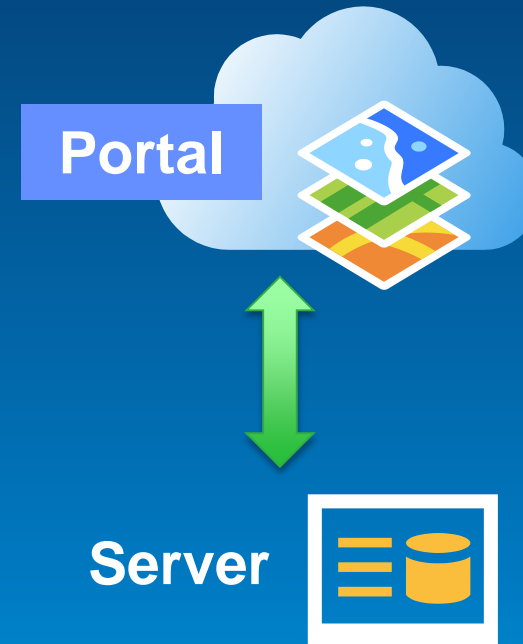
B I U |  |  |  |  |  | **Font** | 

Size

Using Portal with ArcGIS Server

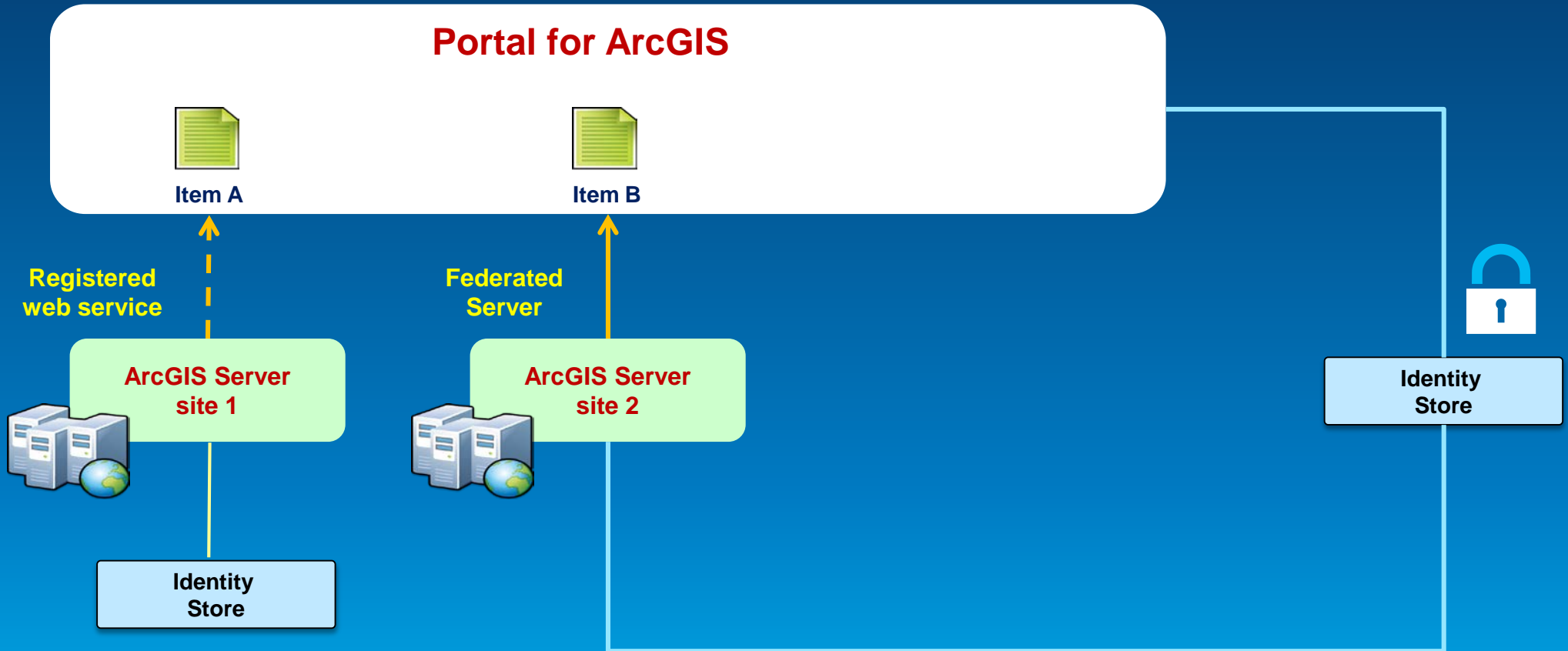
Three Integration Approaches

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



Implementation Patterns

Portal for ArcGIS + ArcGIS for Server



Portal – Server Federation

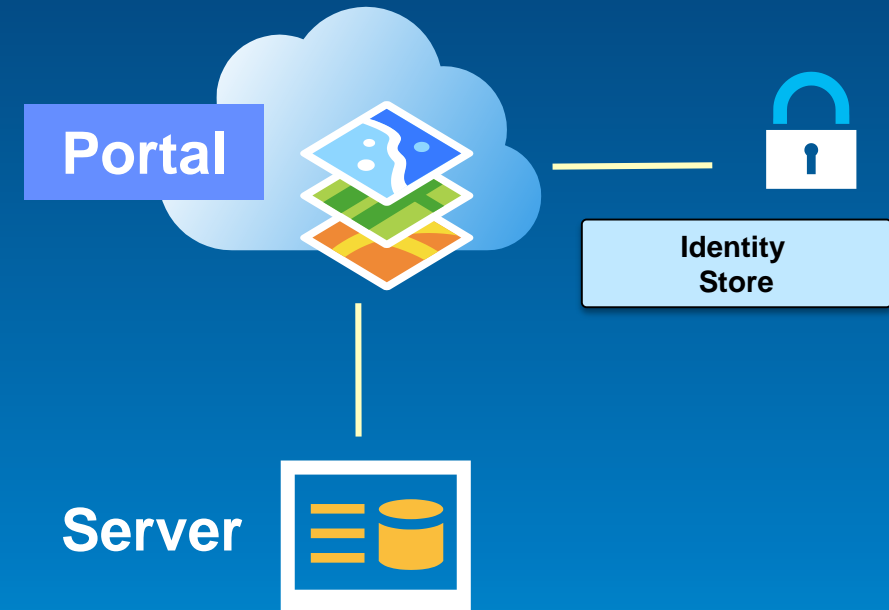
- Allows a single-sign-on experience between Portal and Server
- Permissions are all managed in Portal

When to use :

- Desire for single-sign-on experience
- Allow publishing to Portal

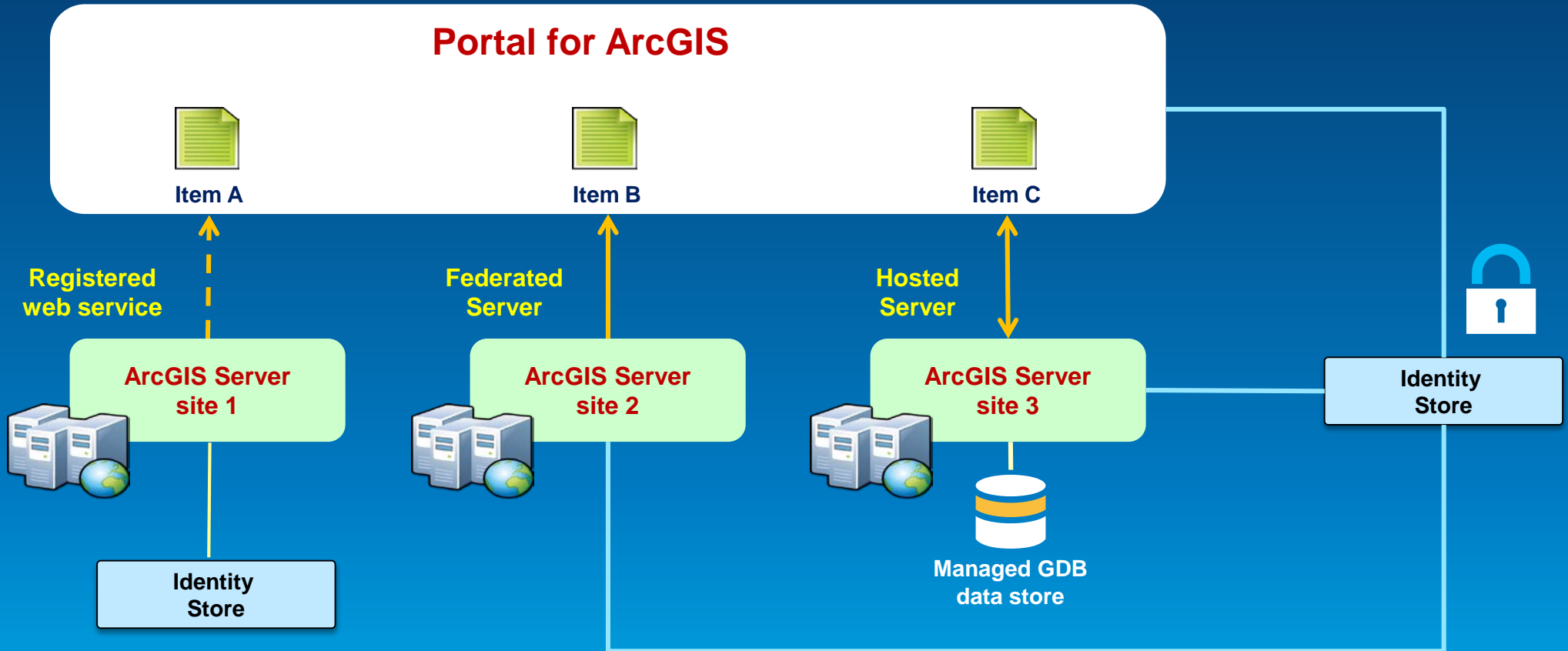
When NOT to use :

- When Server/Portal are in different locations
- When older(pre-10.1) clients access services
- Portal and Server are different releases



Implementation Patterns

Portal for ArcGIS + ArcGIS for Server

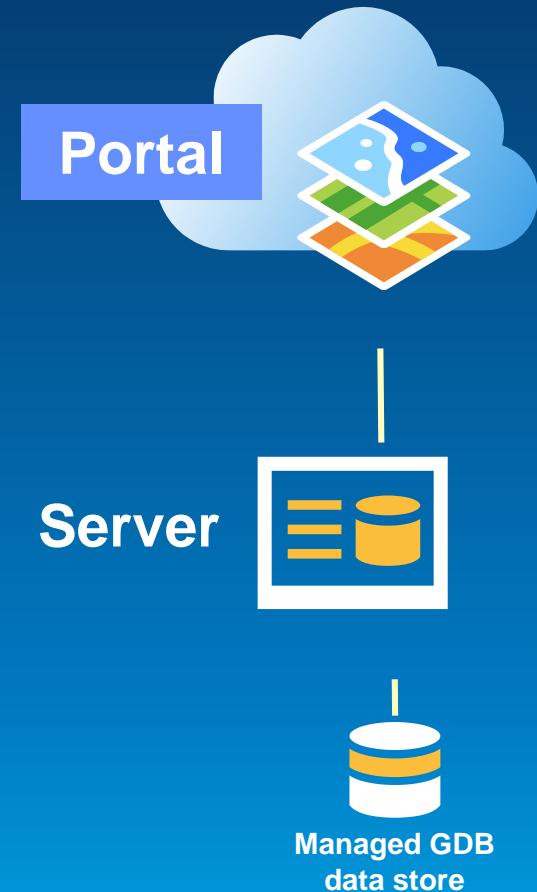


Portal + Hosting server

- **Required when you want to enable hosted services in Portal**
 - **Feature services**
 - **Tiled services**
- **Example workflows**
 - **Add content to Portal and create a feature service**
 - **Share content from Esri Maps forApps**
- **Uses Managed GDB data store or the ArcGIS Data Store (recommended at 10.3)**

ArcGIS Data Store - New at 10.3

- A built-in managed database
- Enables Scalable Hosted Feature Services
- Highly Available
- Automatic Backup and Recovery
- Optional Component of ArcGIS for Server
 - Separated software install



Manager ArcGIS Pro Licenses - New at 10.3



MY ORGANIZATION HELP

Licensed Members		Product	ArcGIS Pro Basic	ArcGIS Pro Standard	ArcGIS Pro Advanced	Spatial Analyst	3D Analyst	Network Analyst	Geostatistical Analyst	Data Reviewer	Workflow Manager
Maximum	15	Licenses	5	5	5	5	5	5	5	5	5
Available	11	Available	5	4	2	3	4	3	5	5	5

Members [SELECT ALL](#) Search by Name

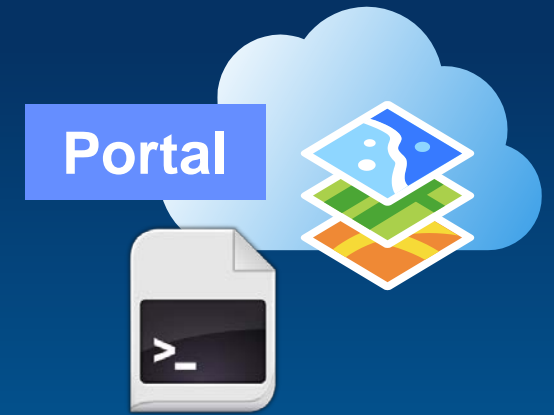
Click to select a member.

Name	Username	Licensed for	Last Used ArcGIS Pro
Krista Page	User1	Pro Advanced	Dec 7, 2014, 10:20:28 AM
John Lynch	User2	Pro Standard + 2 Extensions	Dec 7, 2014, 10:21:32 AM
Derek Law	Derek	Pro Advanced + 2 Extensions	Dec 3, 2014
William Dell	User3	Pro Advanced + 1 Extensions	
Administrator Person	administrator	Configure licenses	
System Publisher	system_publisher	Configure licenses	

Selected Members
Click to remove a selected member.

Name	Username
------	----------

Scripting Portal for ArcGIS Administration



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

<http://server.arcgis.com/en/portal/latest/administer/linux/scripting-administrative-tasks-with-portalpy.htm>

<https://github.com/Esri/portalpy>

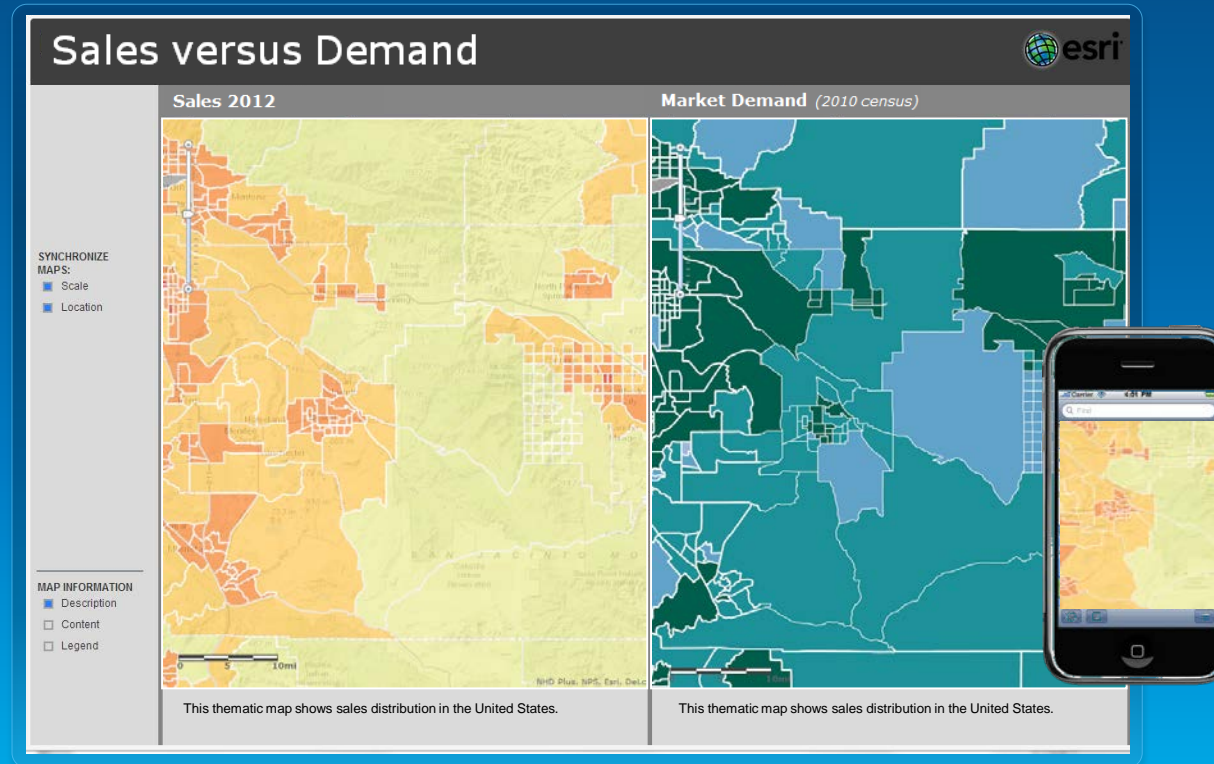
Implementing Web GIS

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



Portal for ArcGIS - Summary

- **Central hub for your GIS assets**
- **Implements “Web GIS” on-premises**
- **Solution when**
 - Additional security demands
 - No public cloud option
- **Extension of ArcGIS for Server**
 - 10.3 included with Standard and Advanced

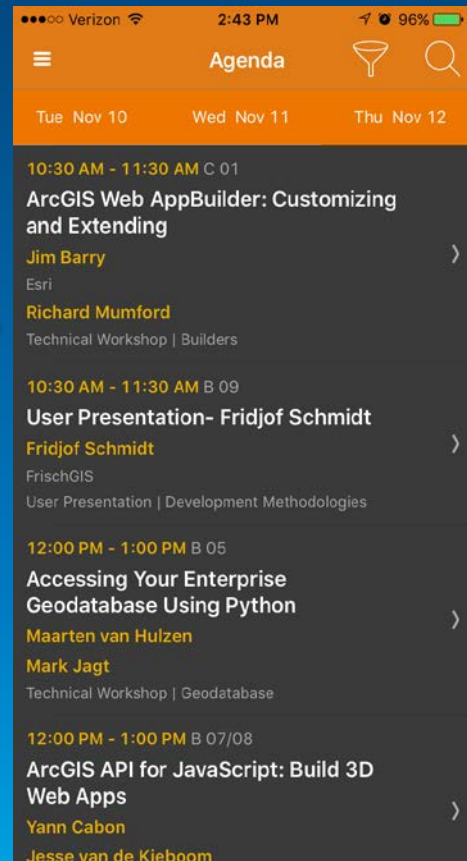


Please Take Our Survey!

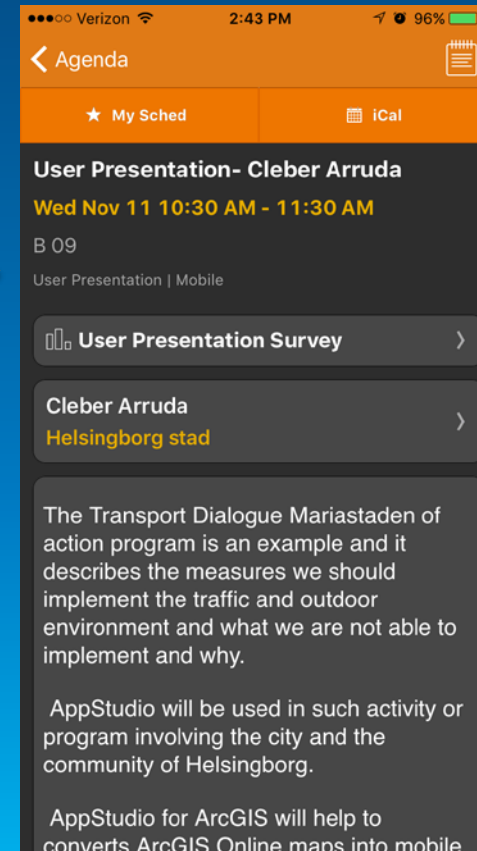
Download the Esri Events app
and find your event



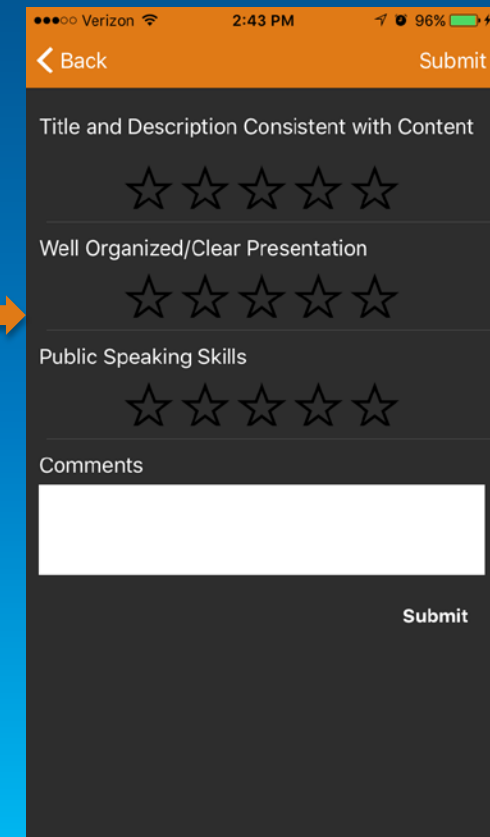
Select the session you
attended



Select
"User Presentation Survey"
or
"Technical Workshop Survey"



Complete Answers
and Select "Submit"





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