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

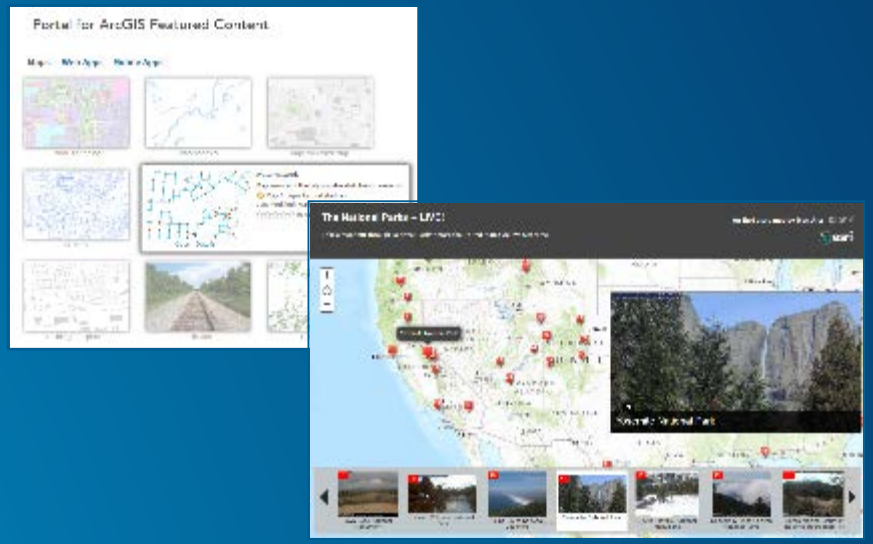
ArcGIS Is a Platform

Enabling GIS Everywhere

- Simple
- Integrated
- Open

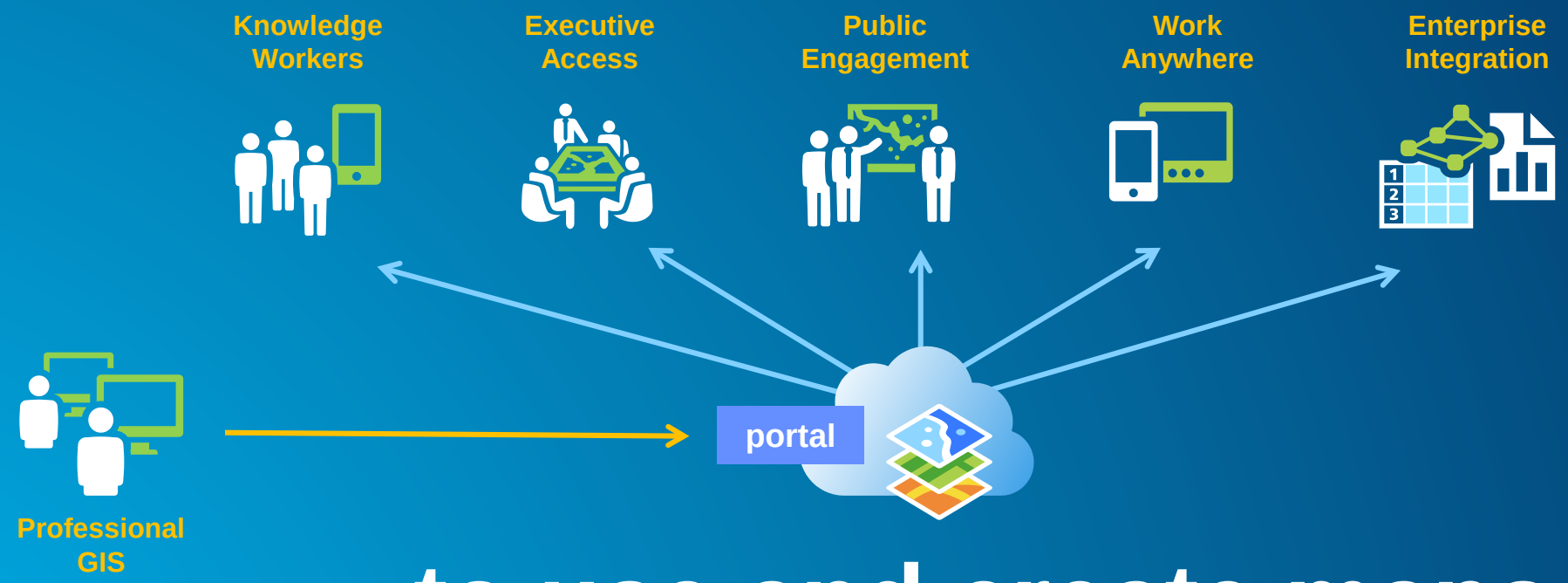
Available in the Cloud . . .
. . . and On-Premises

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

A

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

ArcGIS Online (portal)	ArcGIS Online (Hosted Servers)	ArcGIS Online Services
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Web GIS Deployment Patterns

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Web GIS Deployment Patterns

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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

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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

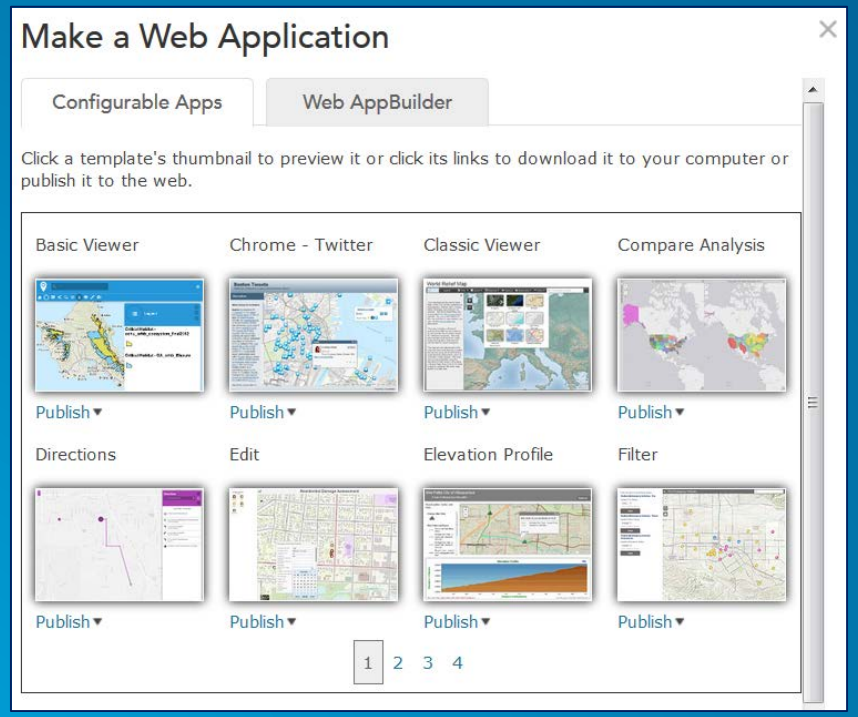
Portal for ArcGIS – Some User Success Stories

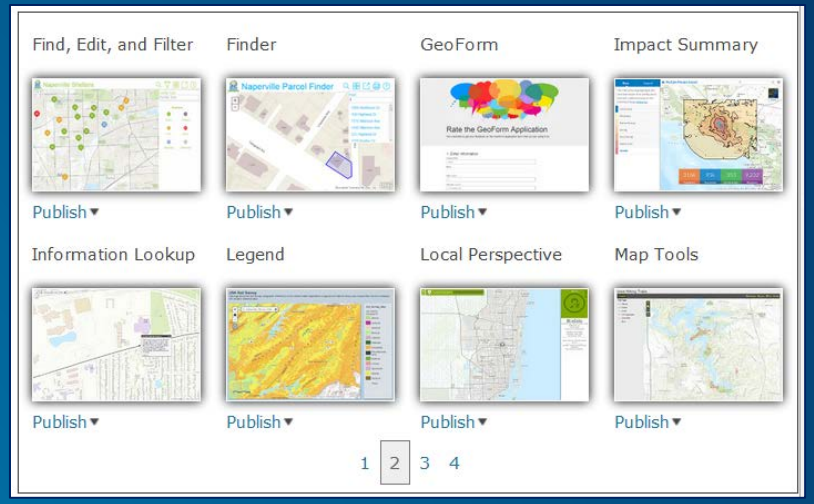
Demo

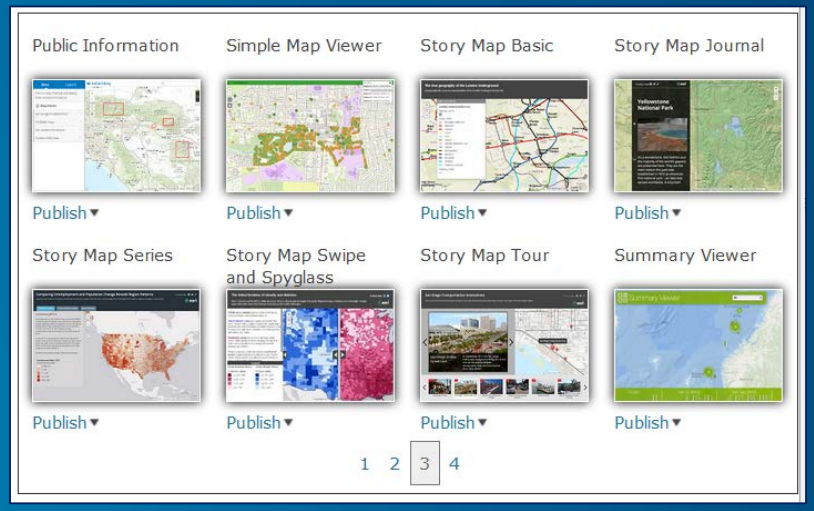
Web GIS On-Premises

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

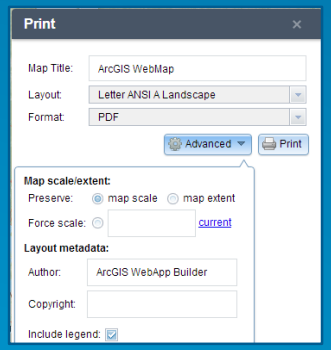


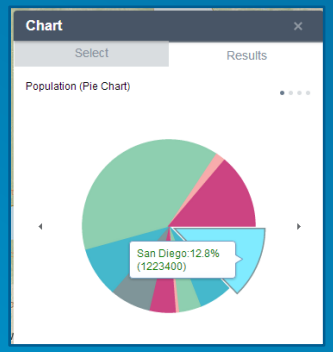




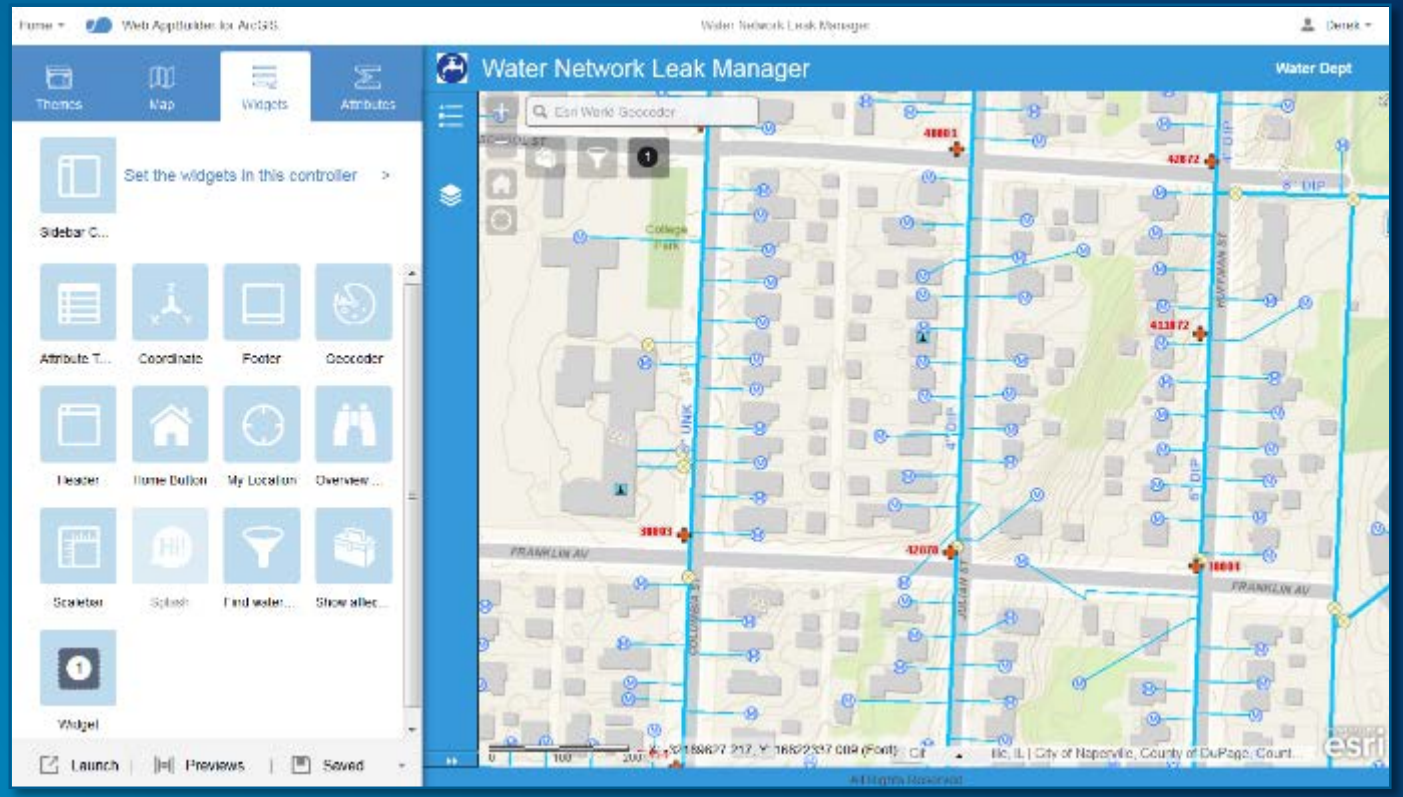
Web Application Templates

Each designed for a specific use



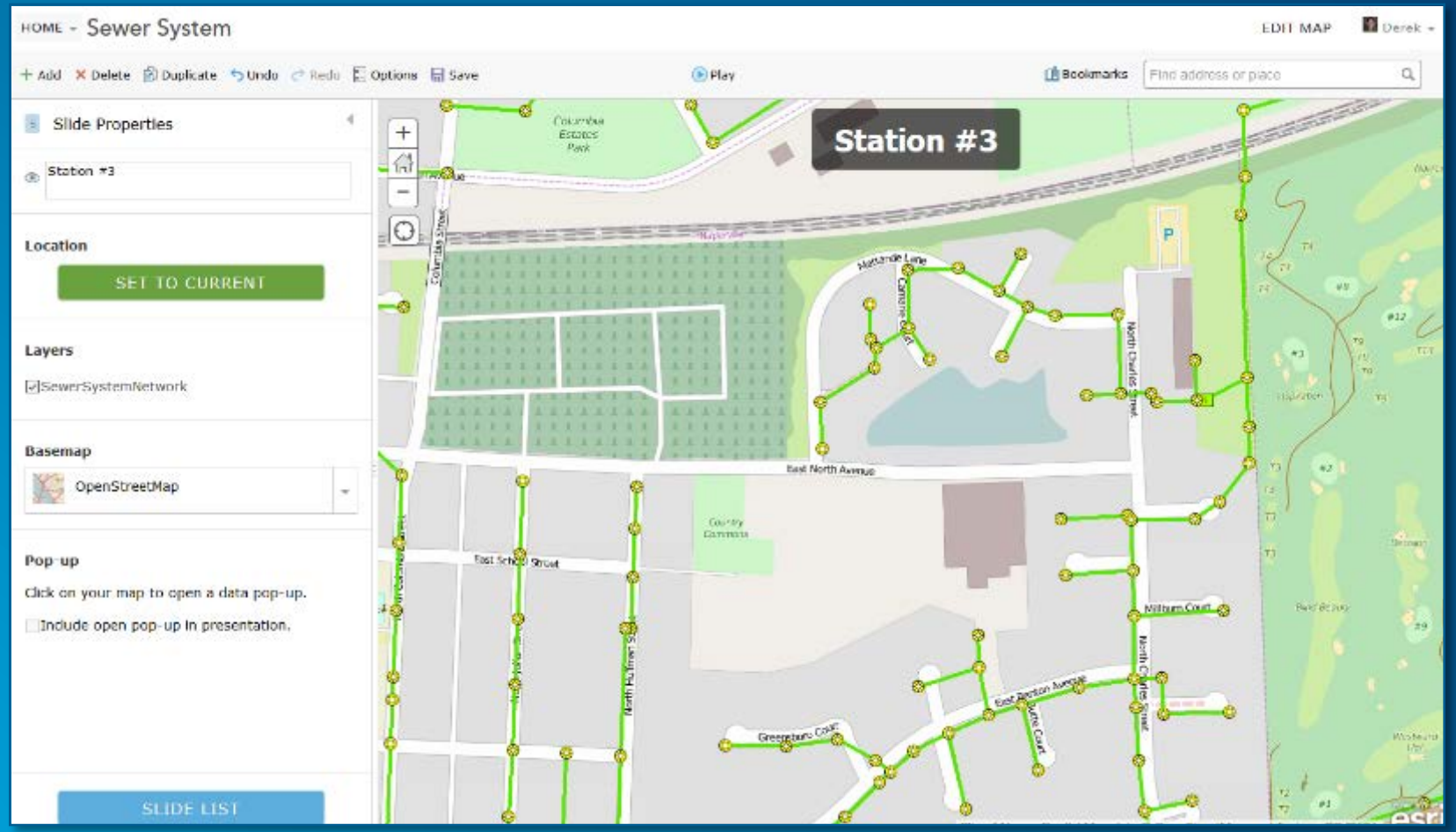


20+ widgets



Web AppBuilder for ArcGIS

Create new web apps without programming



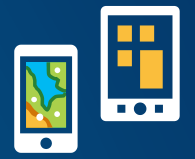
Creating Presentations

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

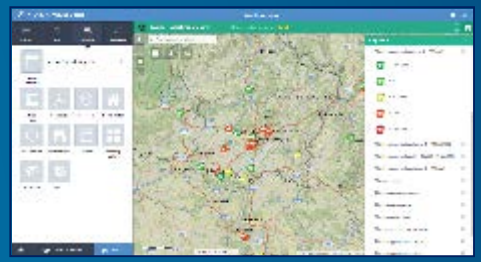


Collector for ArcGIS

Operations Dashboard for ArcGIS

Explorer for ArcGIS

Esri Maps for … Apps



10.3.x Web App Builder for ArcGIS

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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 operati

- 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 sy

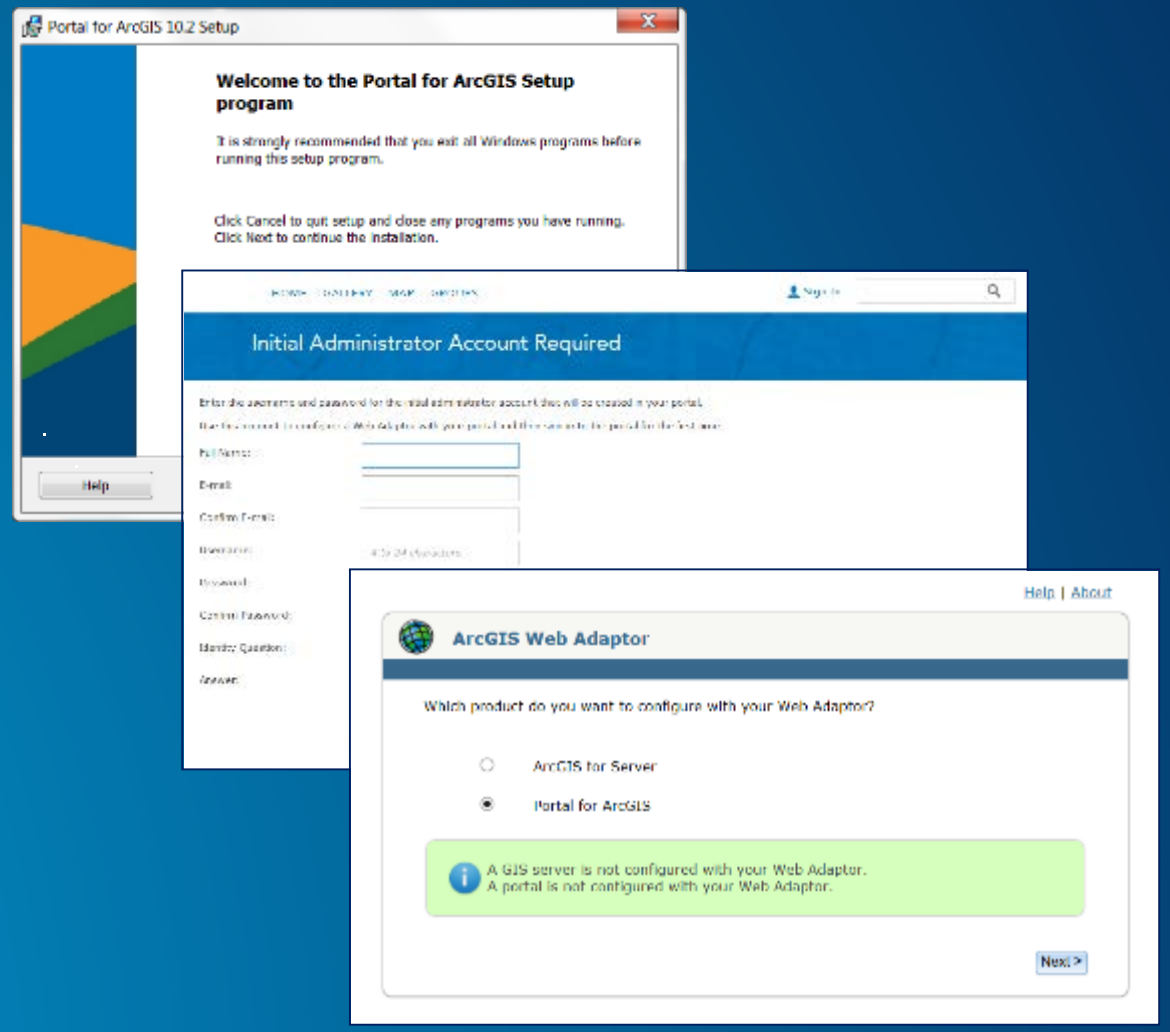
- Red Hat Enterprise Linux Server 6
- Red Hat Enterprise Linux Server 5 Update 7 with libX11 patch
- SUSE Linux Enterprise Server 11 Service Pack 1

Installing Portal for ArcGIS

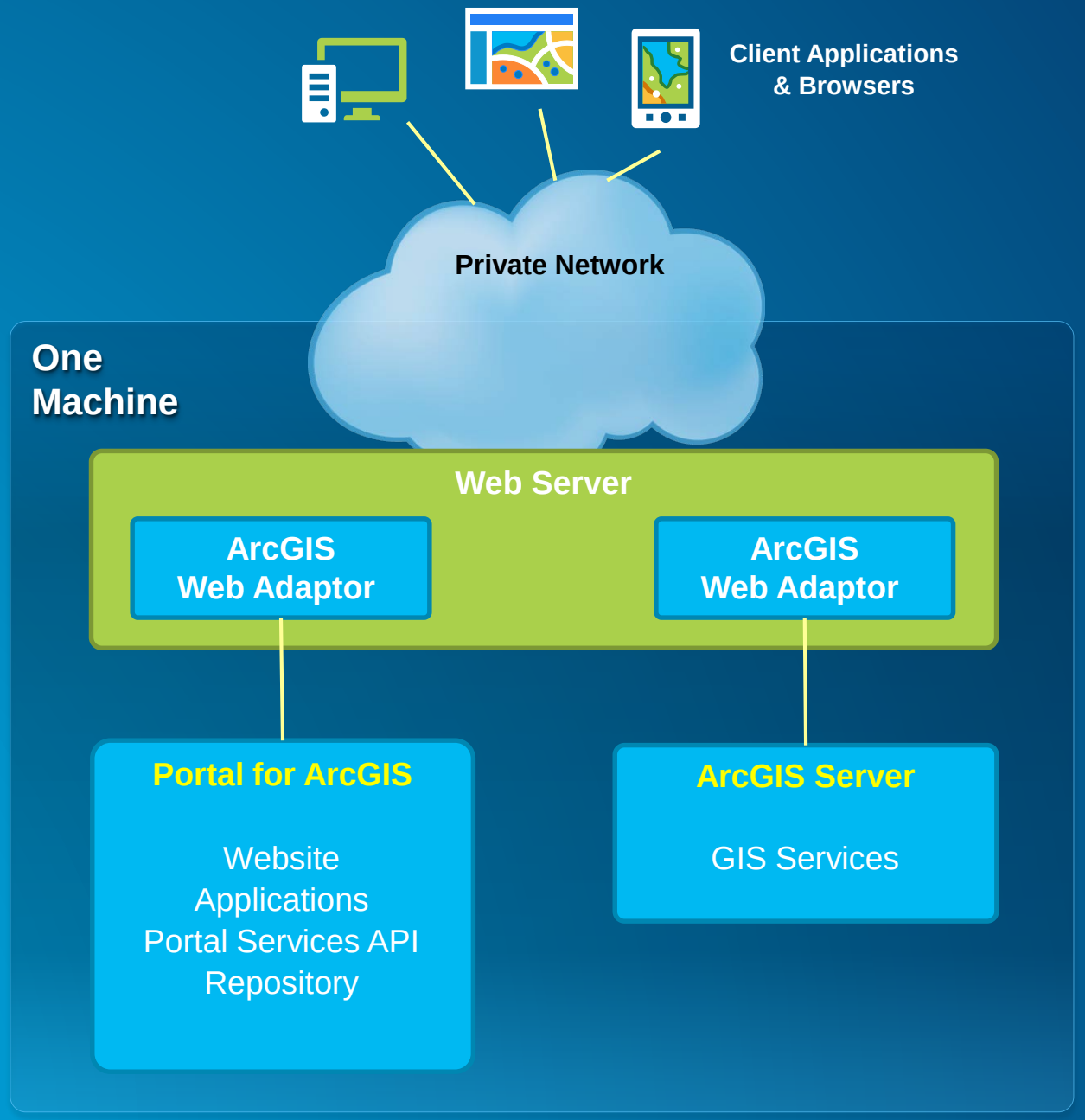
Can be scripted for silent installs

- **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

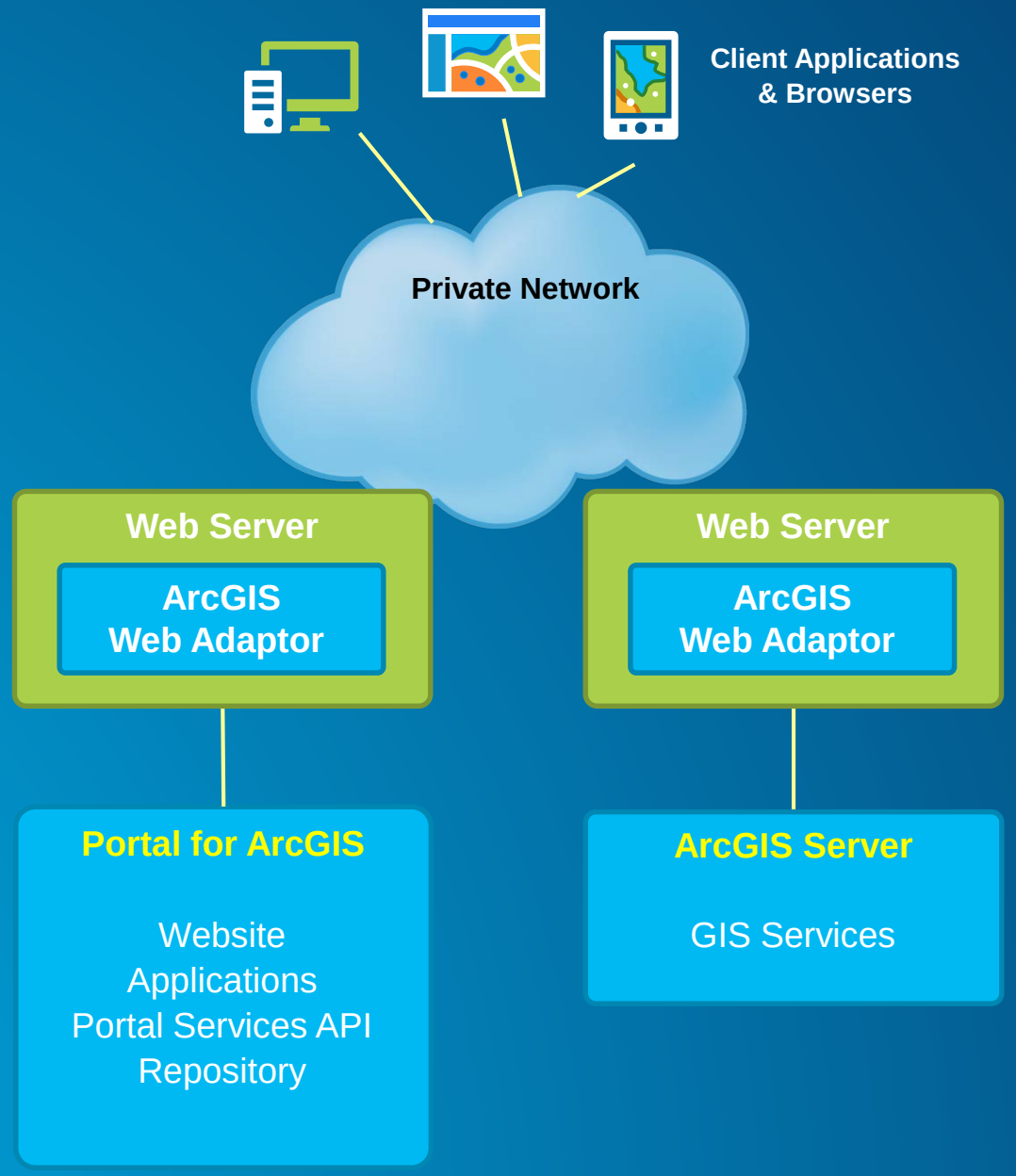
- **Review help documentation**
- **Helpful to have**
  - IT knowledge
  - Understand security, SSL, etc.



Deployment


Client Applications
& Browsers
Private Network
One
Machine
Web Server
ArcGIS
Web Adaptor
ArcGIS
Web Adaptor
Portal for ArcGIS
Website
Applications
Portal Services API
Repository
ArcGIS Server
GIS Services

Deployment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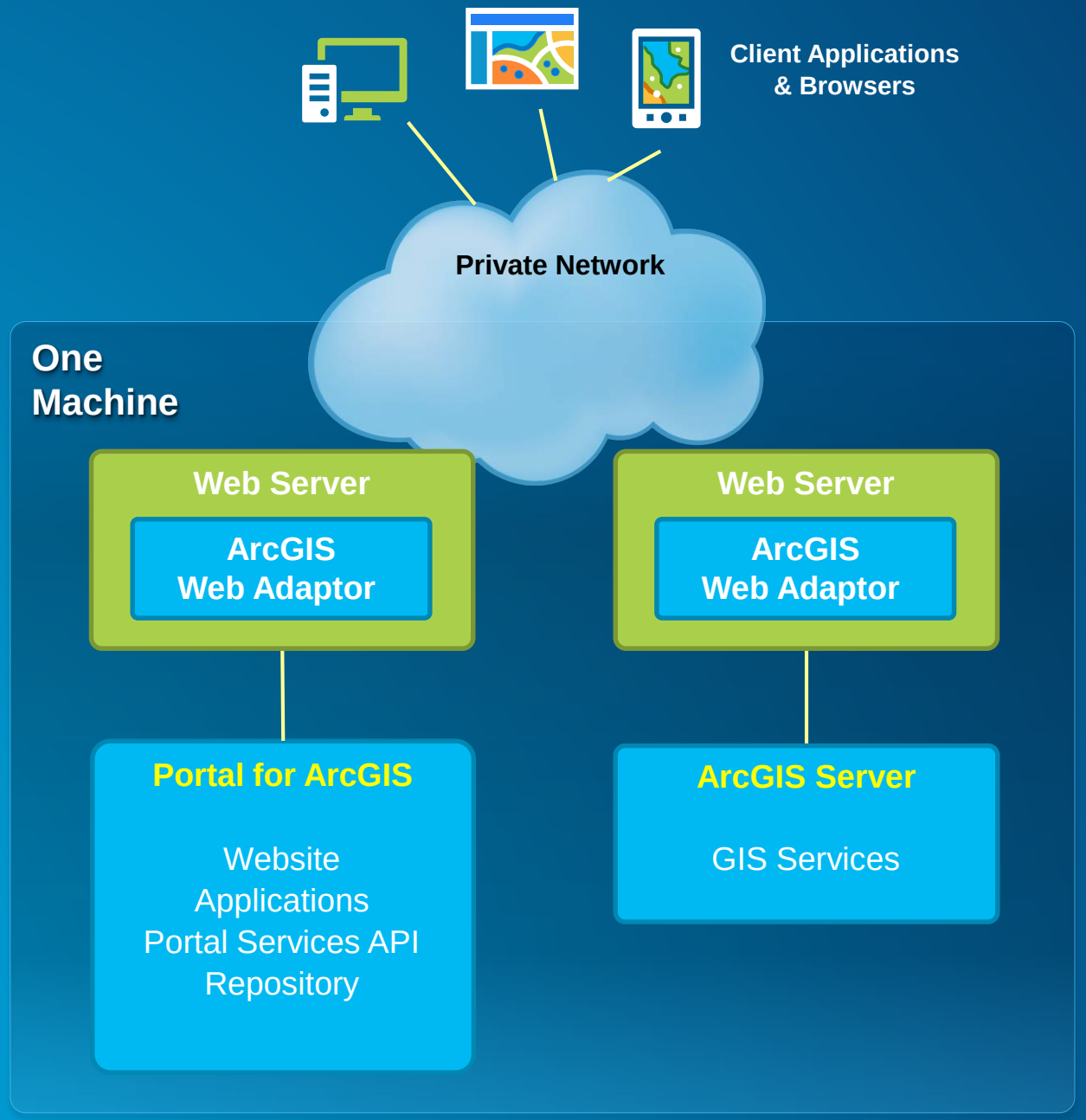

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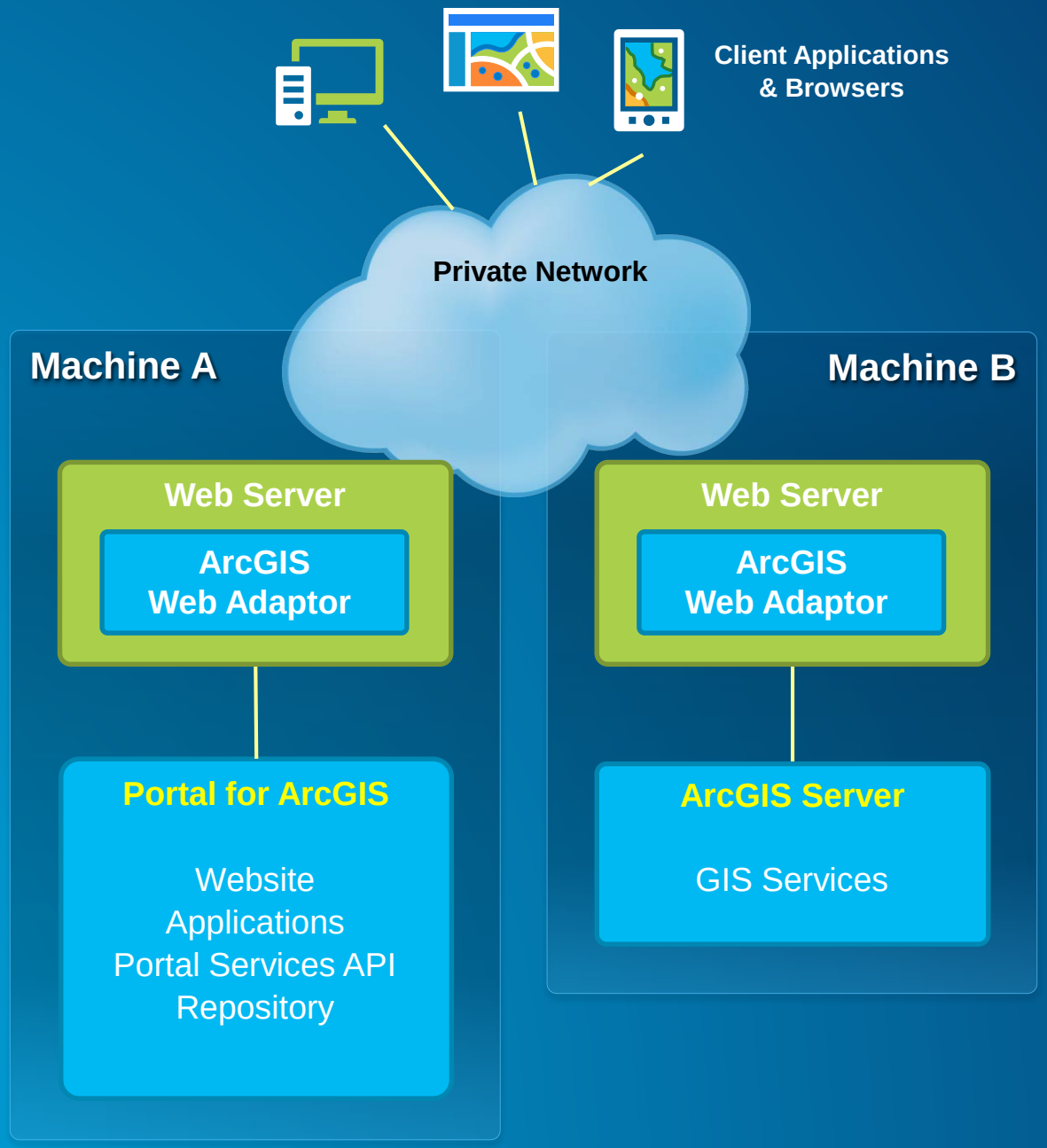
Deployment



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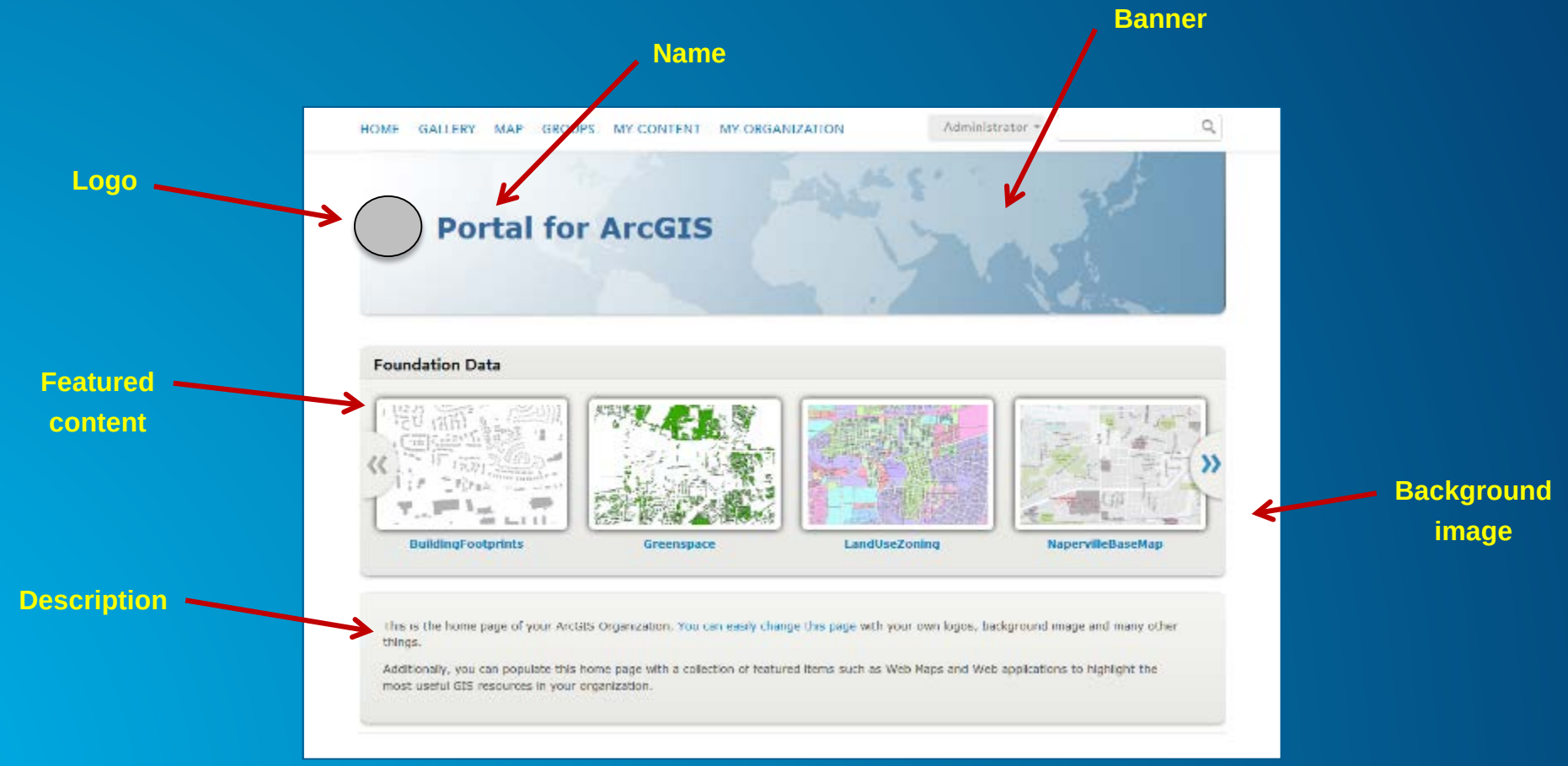
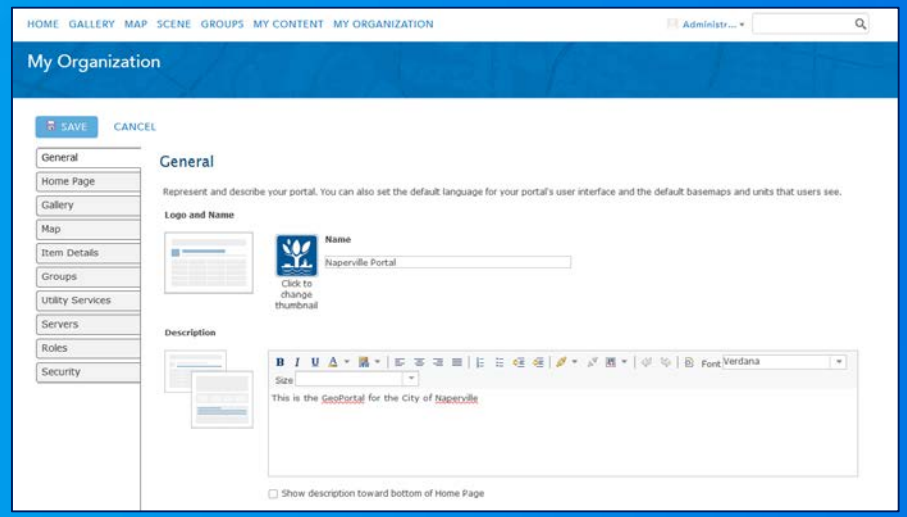
Configuring Portal for ArcGIS

- **Must have Administrator privileges**



Demo

Configuring Portal for ArcGIS



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**

Users	Roles	Groups

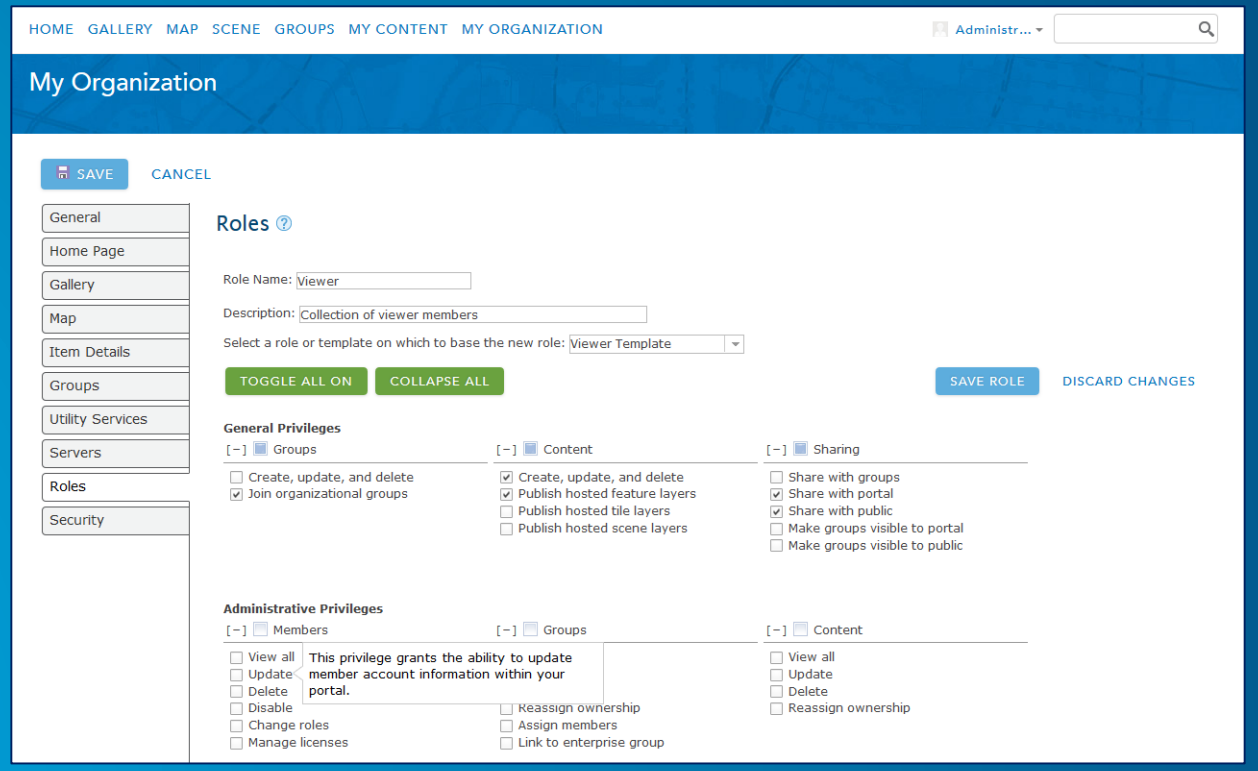
• Built-in
• Enterprise
  • *Active Directory*
  • *LDAP*
	• *Anonymous*
	• User
	• Publisher
	• Administrator
	• Custom roles (10.3)
		• Built-in
		• Enterprise groups (10.3)

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**



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)

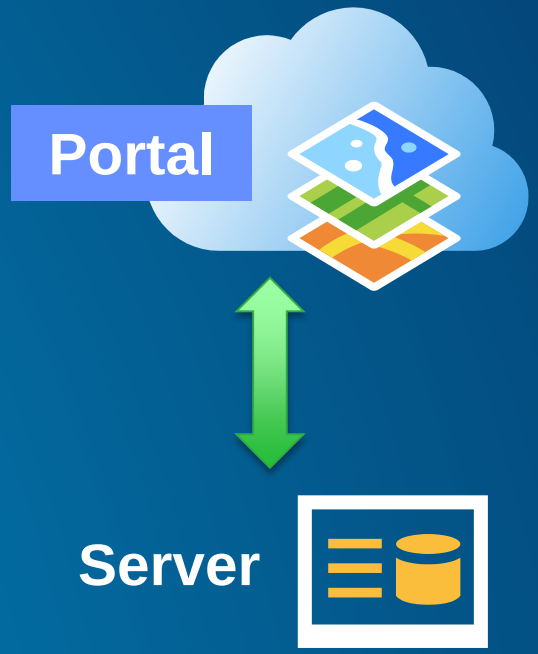
Demo

Leveraging Groups

Using Portal with ArcGIS Server

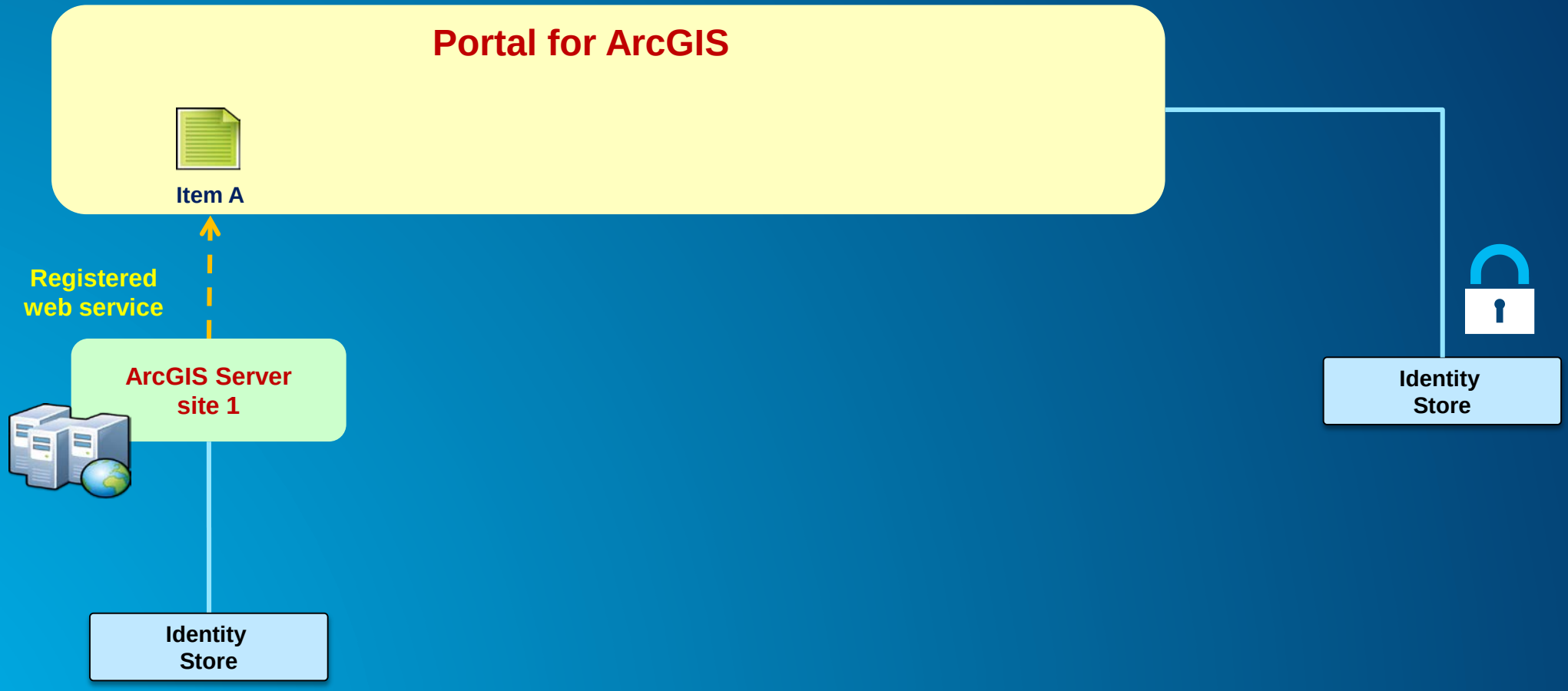
Three Integration Approaches

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



Implementation Patterns

Portal for ArcGIS + ArcGIS Server



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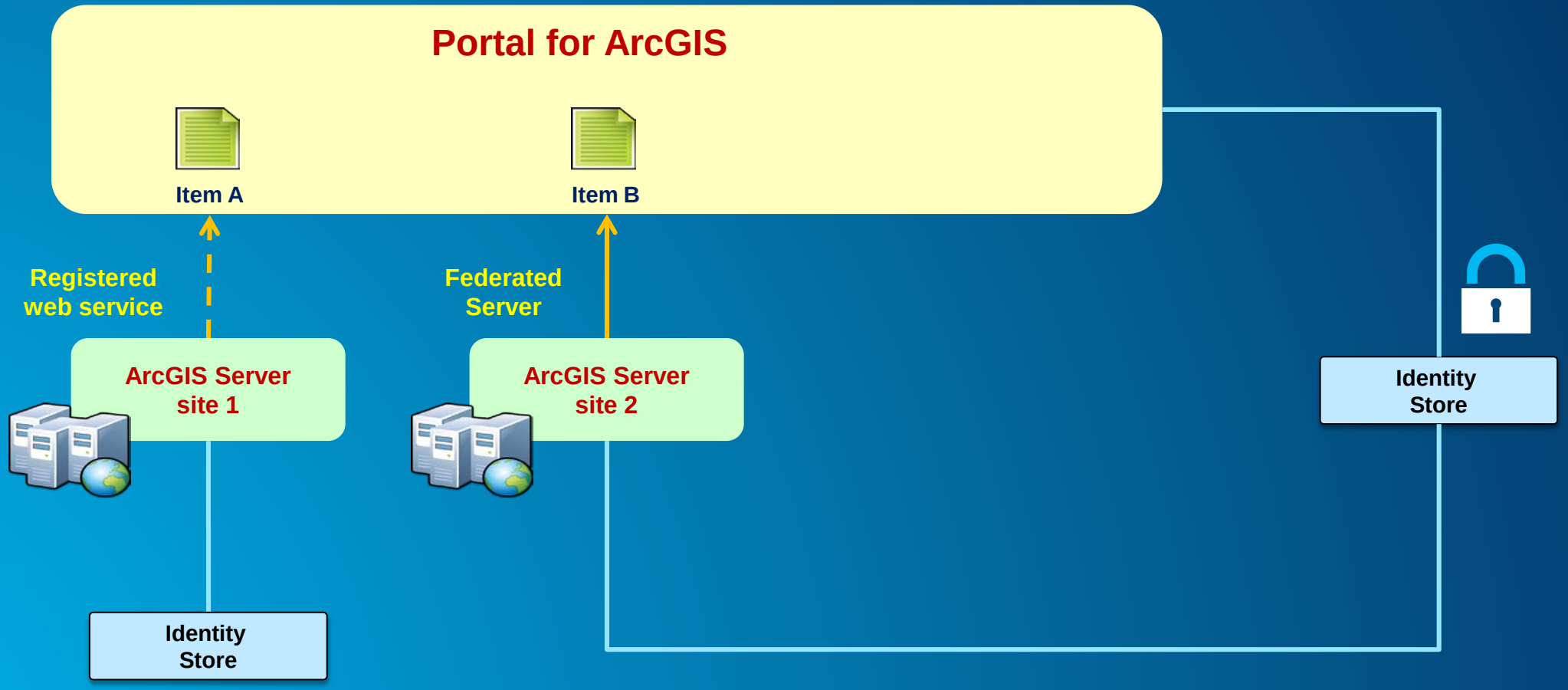
Demo

Register a service with Portal

Implementation Patterns

Portal for ArcGIS + ArcGIS Server



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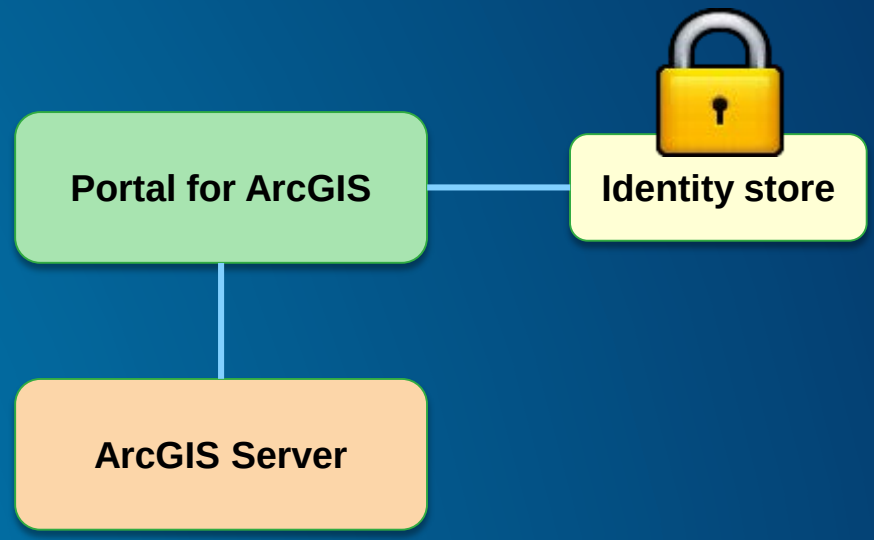
Portal – Server Federation

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



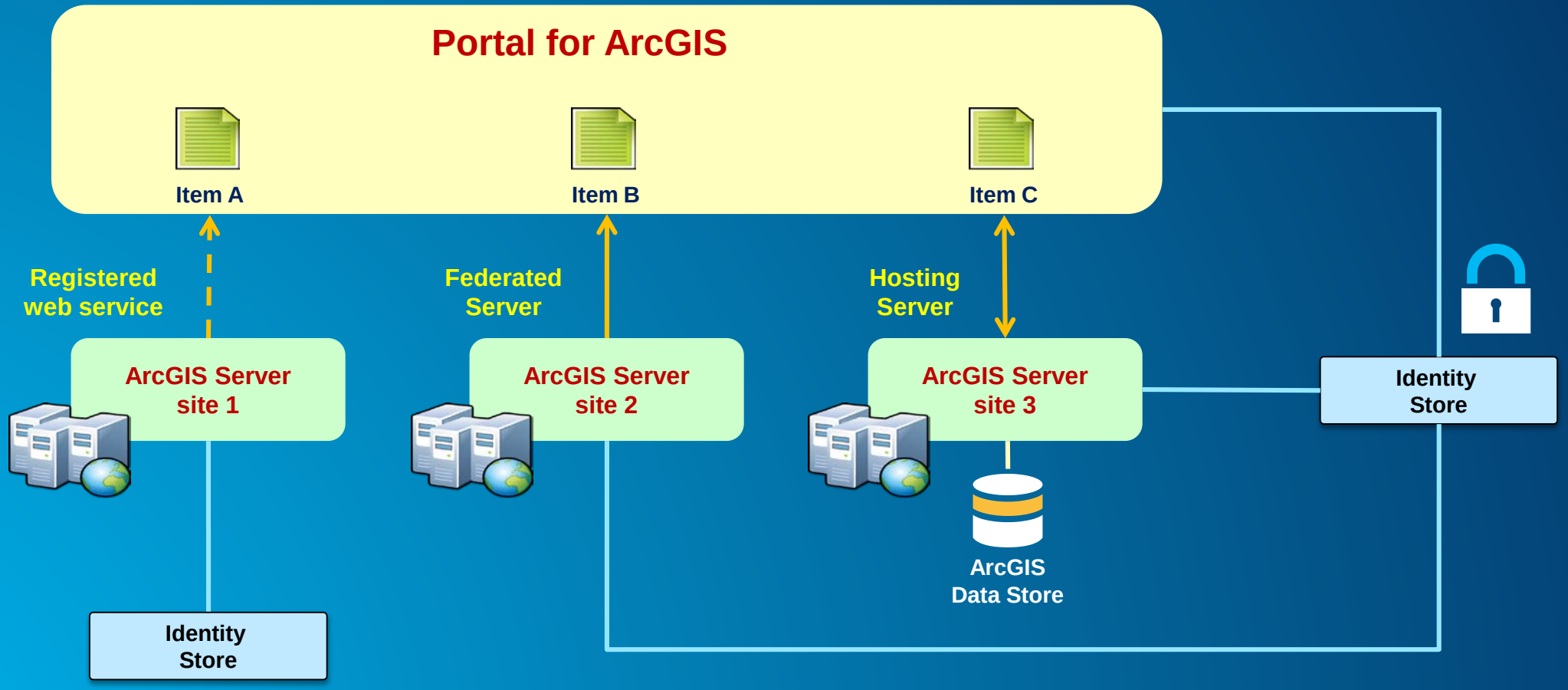
When to use:

- 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



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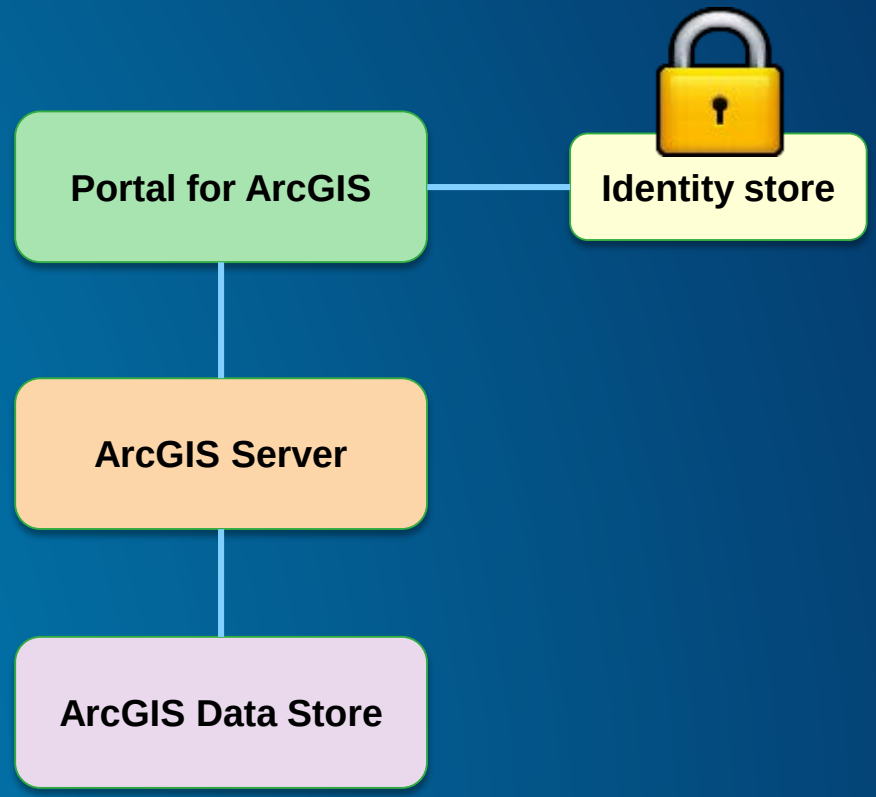
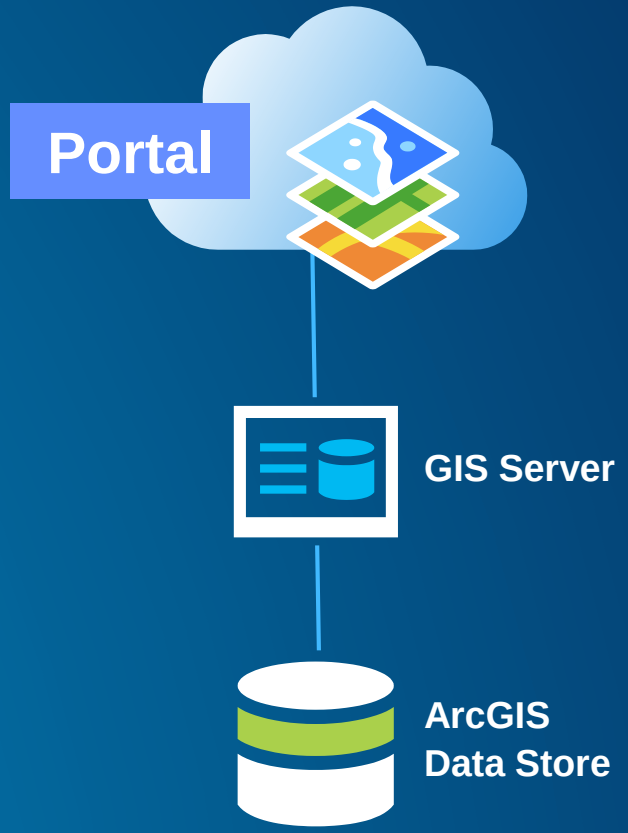
Portal for ArcGIS + Hosting Server

- 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



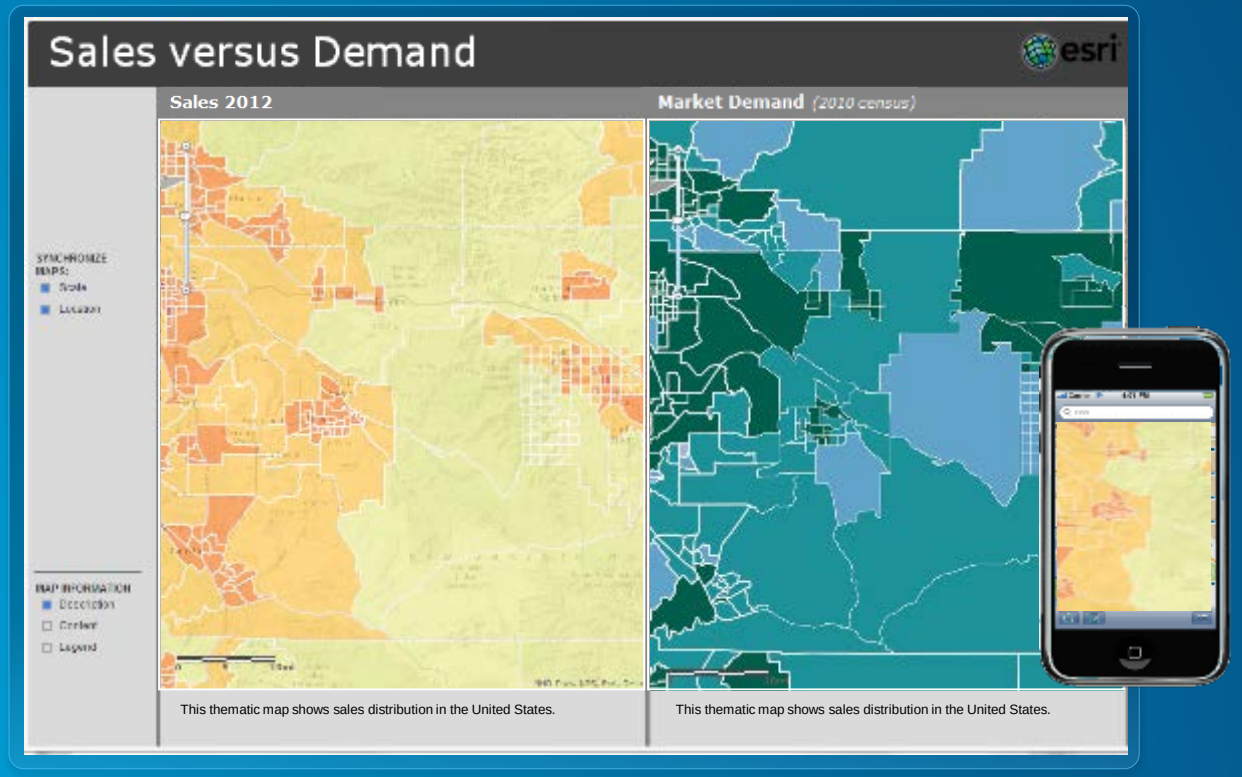
Implementing Web GIS

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**



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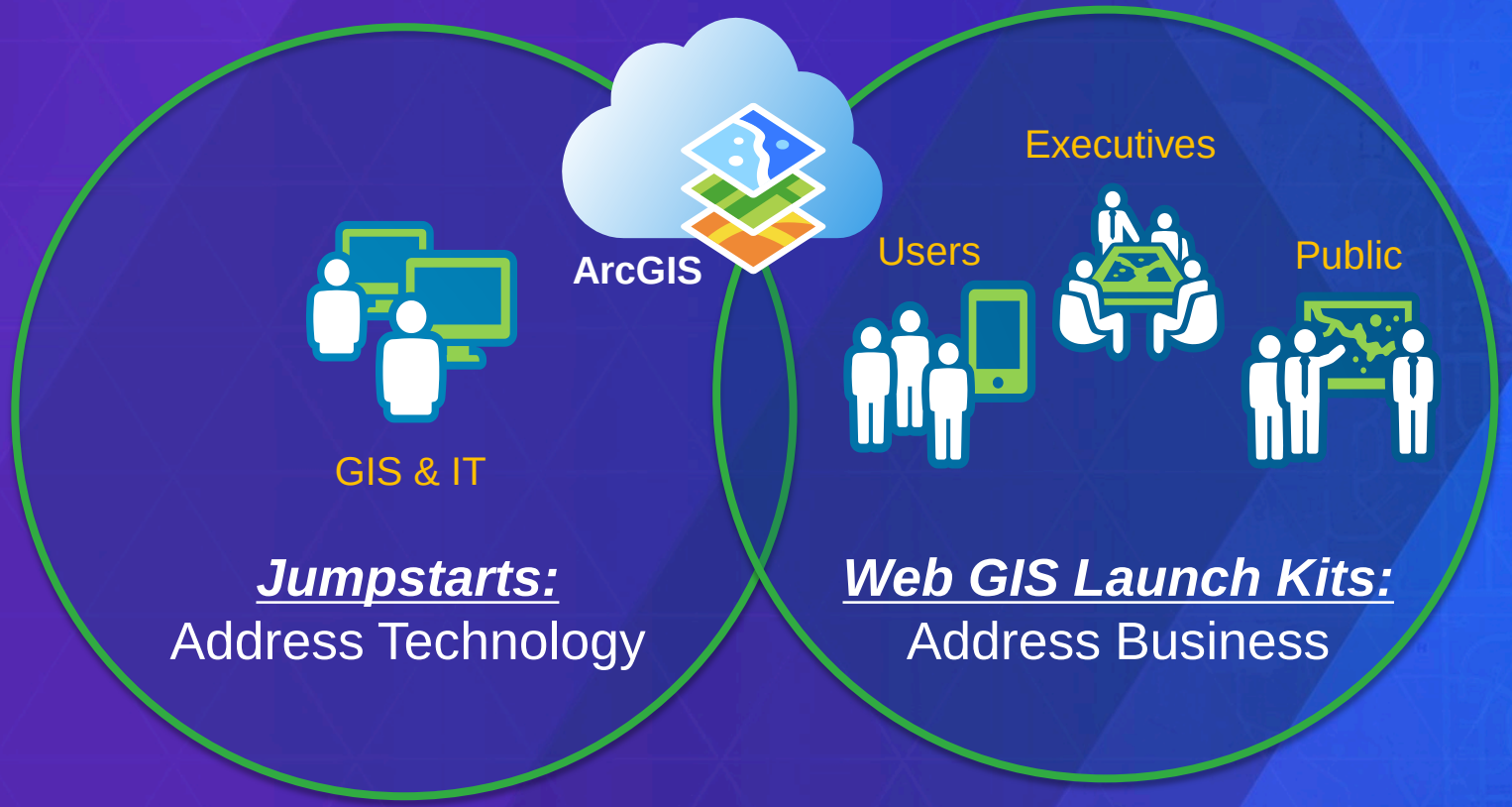
Keys to Success

- 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



Jumpstarts:
Address Technology

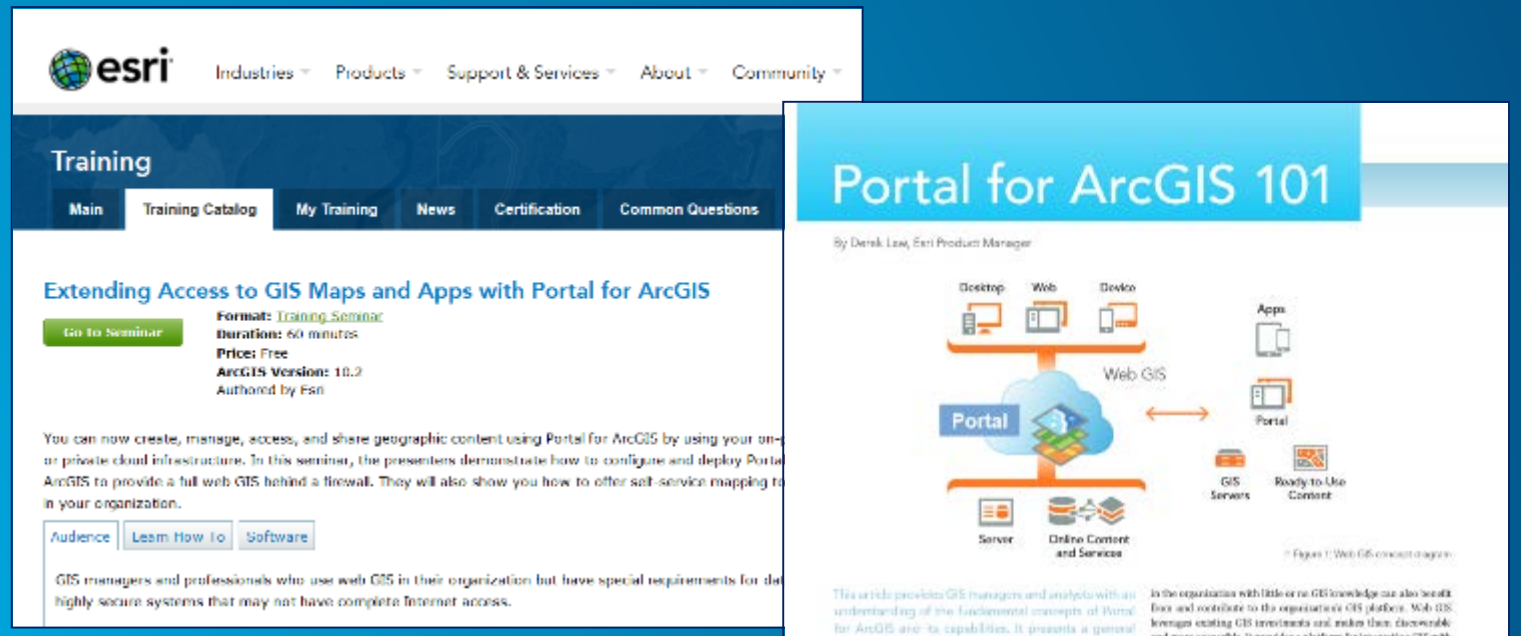
Web GIS Launch Kits:
Address Business

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**

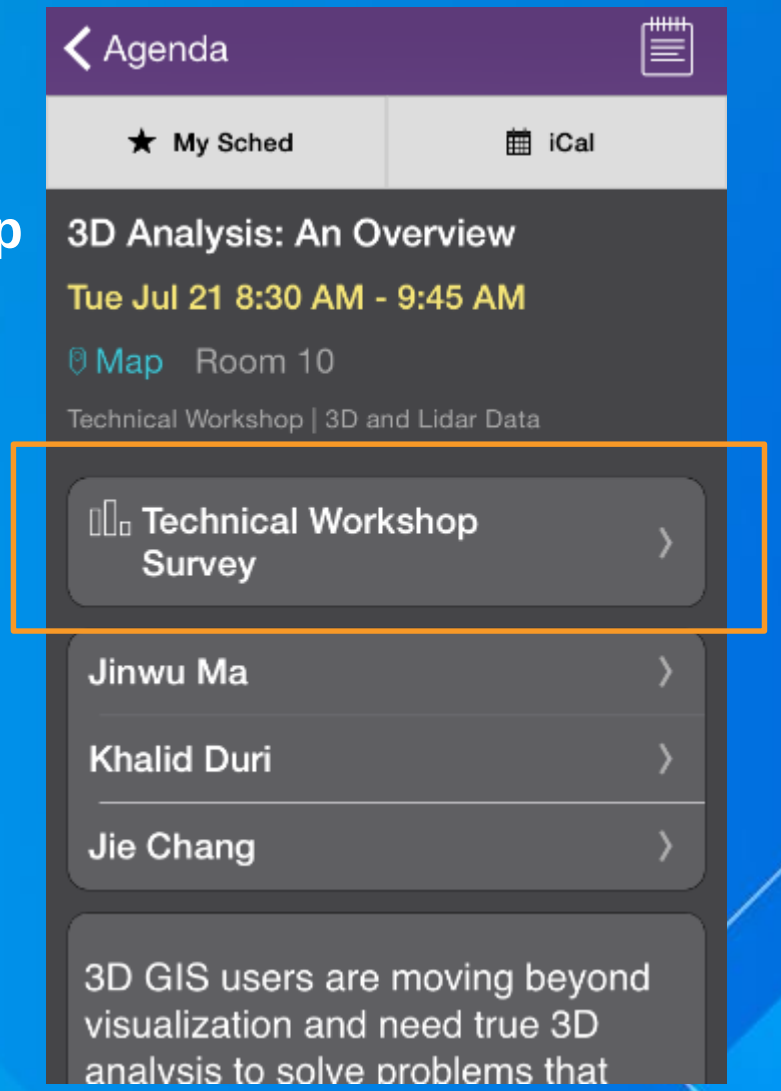


Portal for ArcGIS - Summary

- 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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