Introduction to Portal for ArcGIS

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Product Management

March 10th, 2015

Esri Developer Summit 2015

Agenda

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

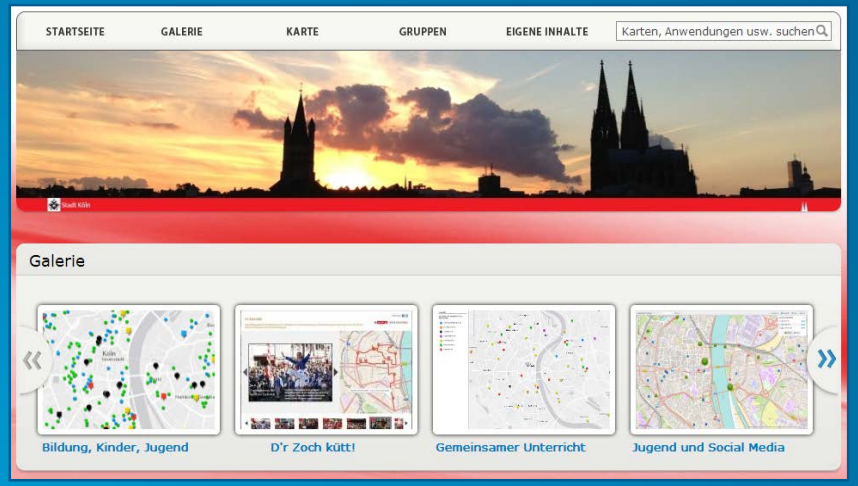
ArcGIS Is a Platform

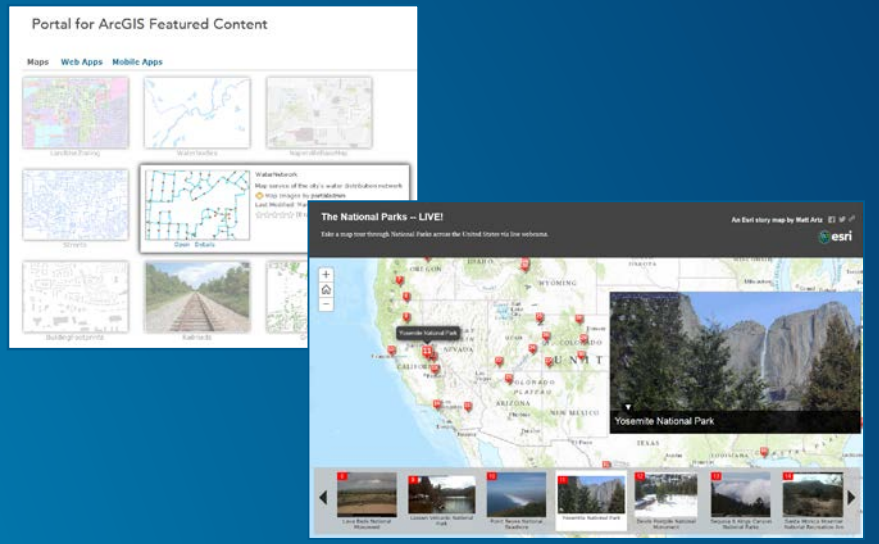
Enabling GIS Everywhere

- Simple
- Integrated
- Open

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

Organize your maps and apps





enable discovery

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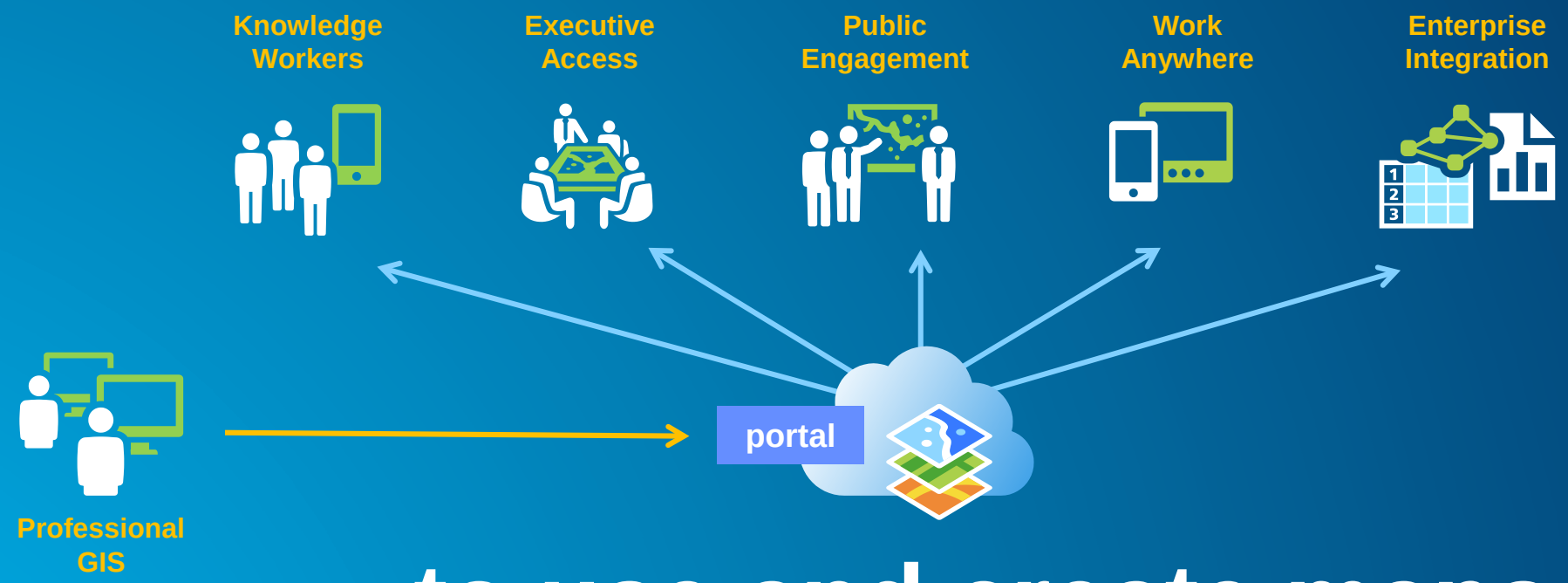
Empower people



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

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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 Included with Standard and Advanced**

Portal for ArcGIS

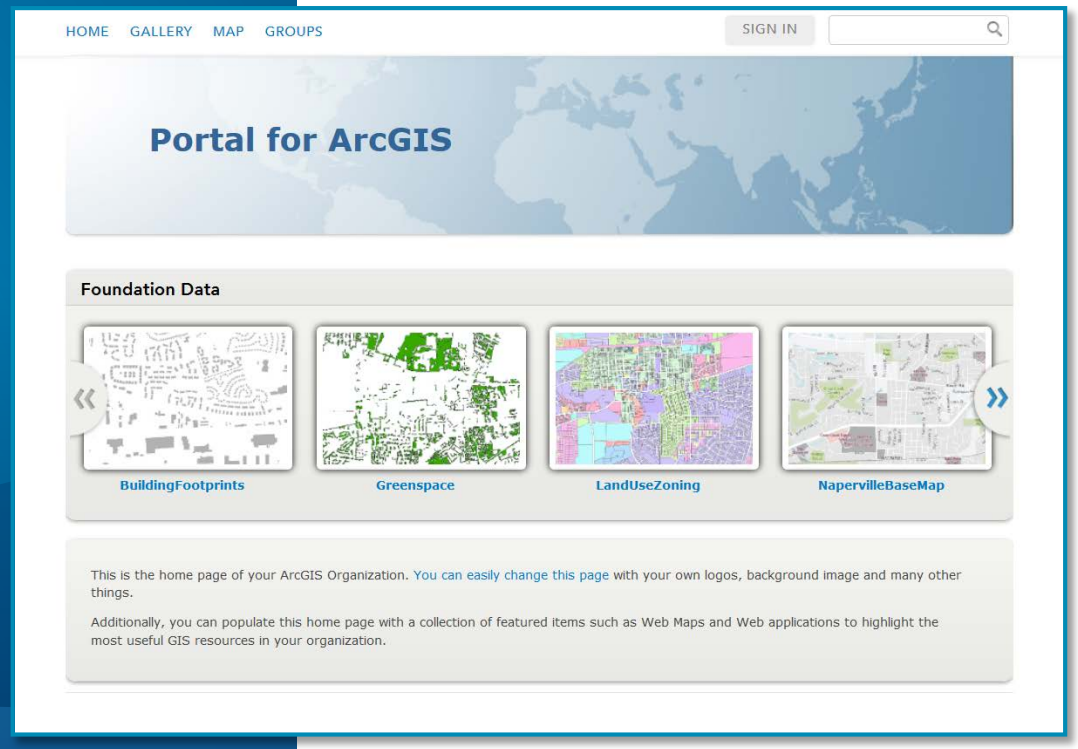
Is it right for me?

- 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

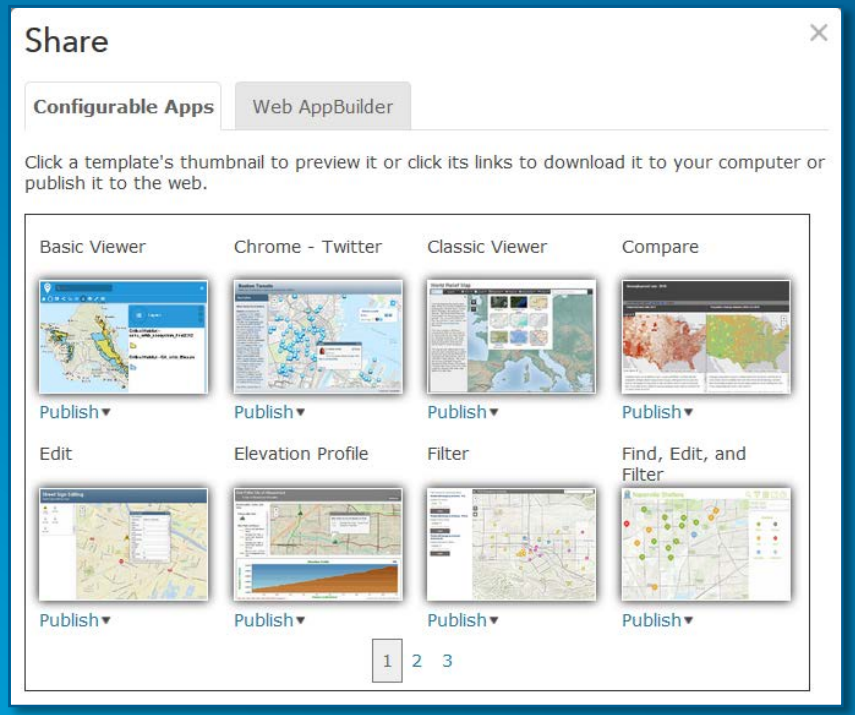
Demo

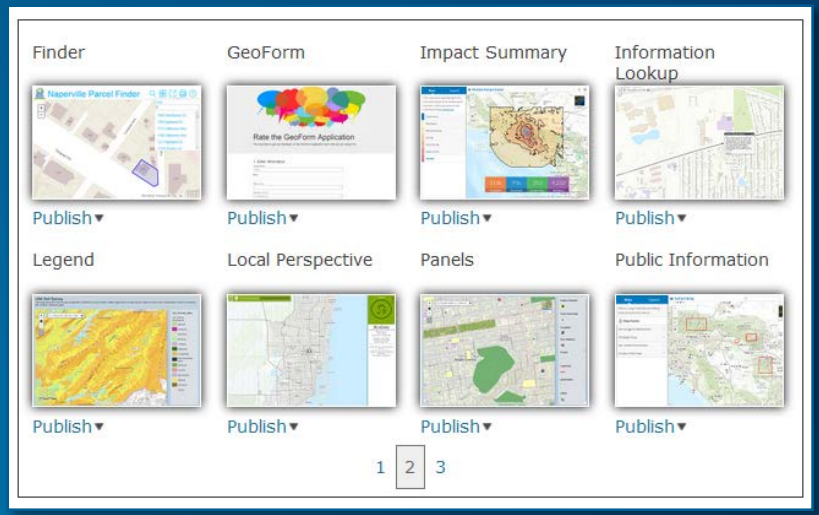
Web GIS
On-premises

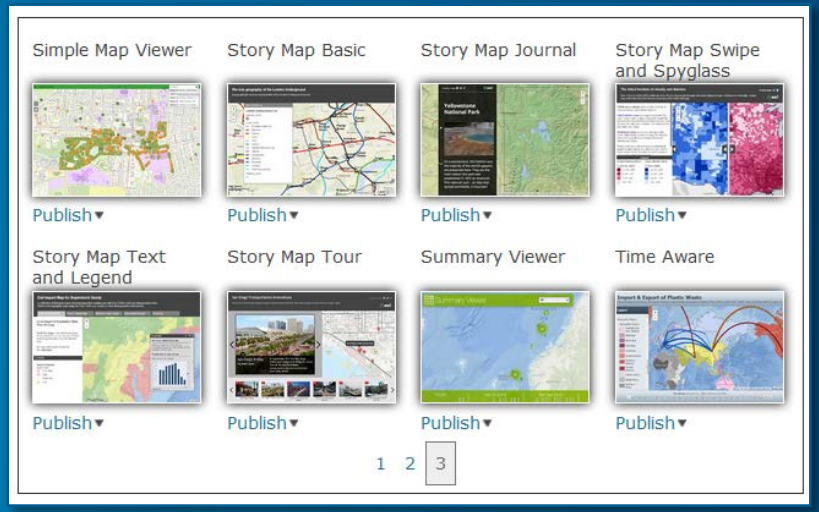


Portal for ArcGIS Capabilities

- 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

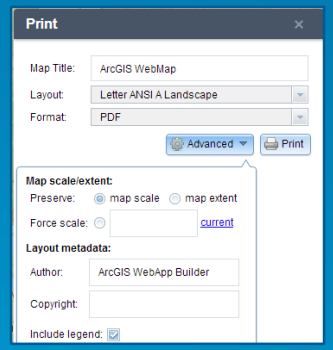


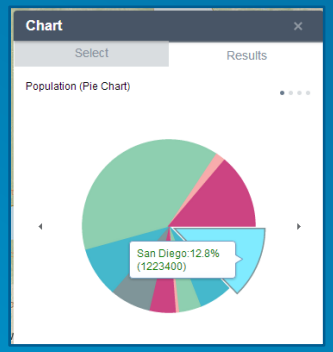




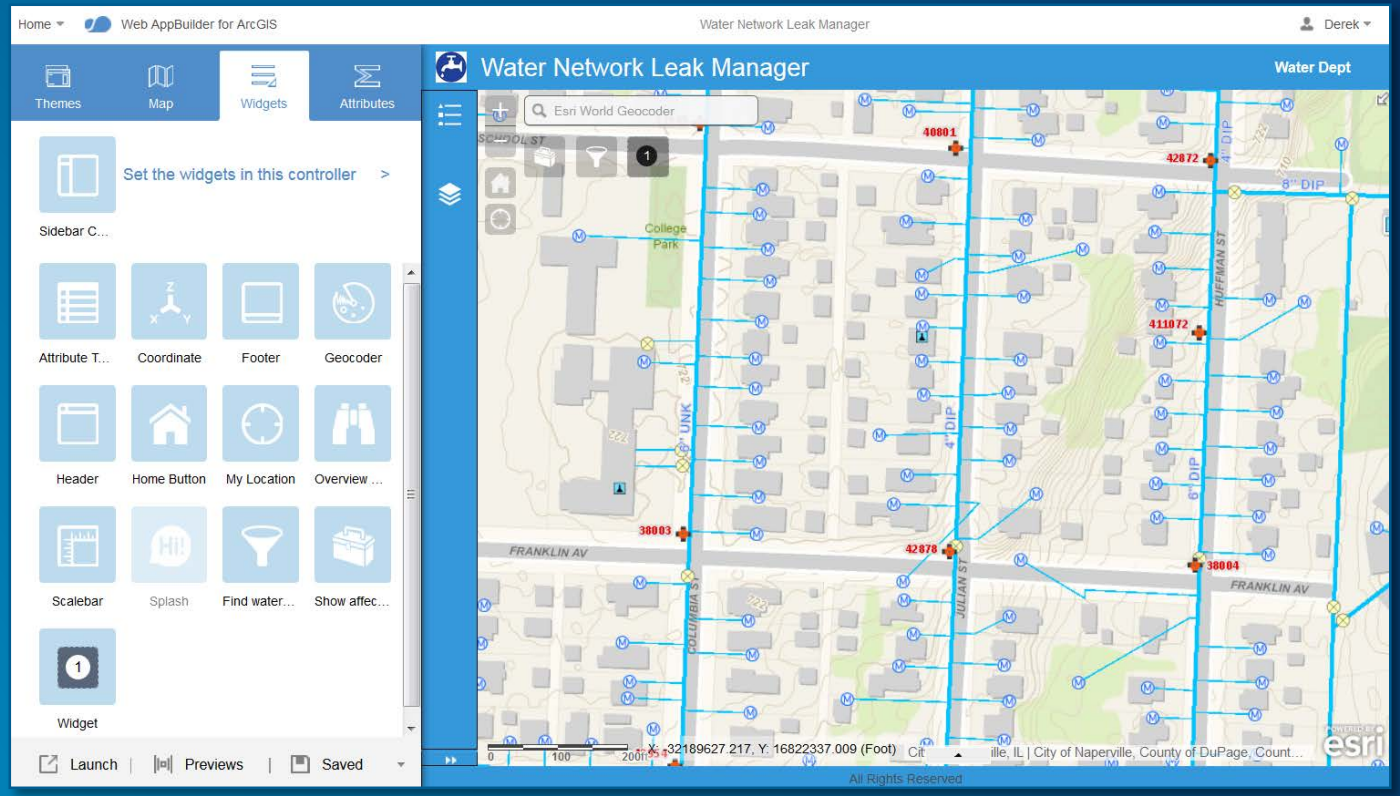
Web Application Templates

Each designed for a specific use



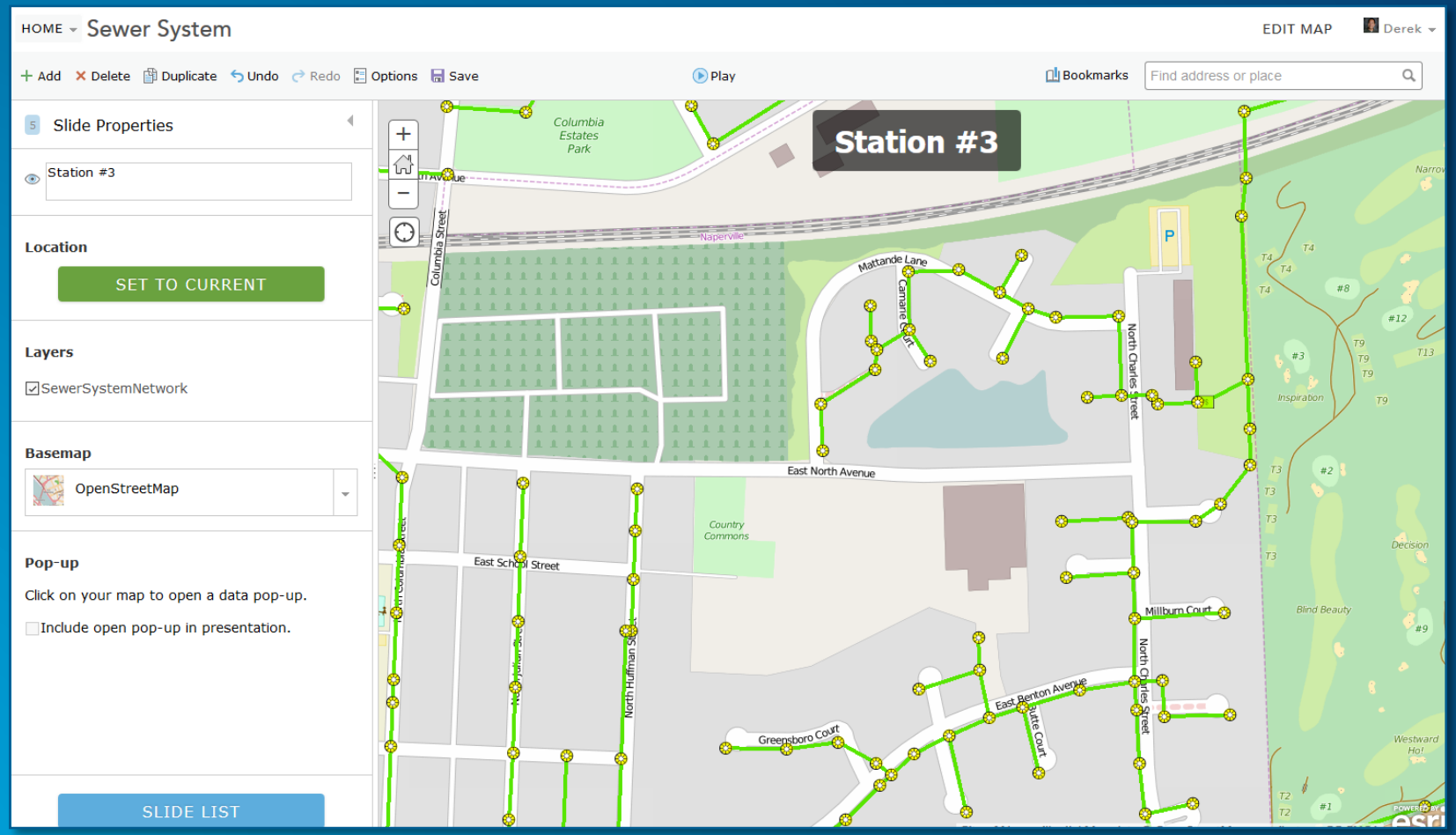


20+ widgets



Web AppBuilder for ArcGIS

Create new web apps without programming



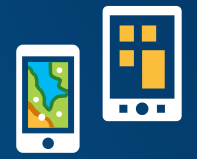
Creating Presentations

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

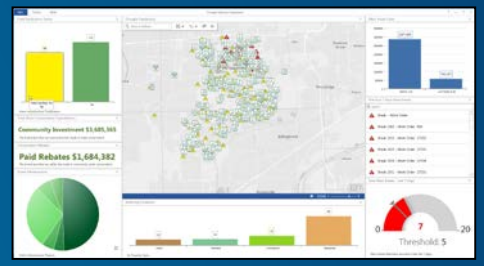
Apps included with Portal for ArcGIS

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

Web Application Templates



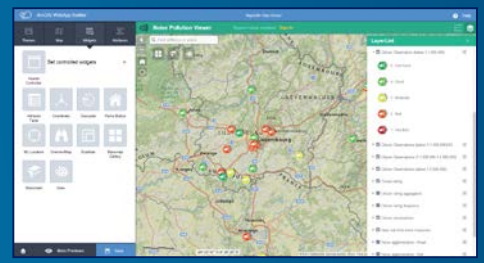
Collector for ArcGIS



Operations Dashboard for ArcGIS

Explorer for ArcGIS

Esri Maps for … Apps



10.3: Web App Builder for ArcGIS

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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 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

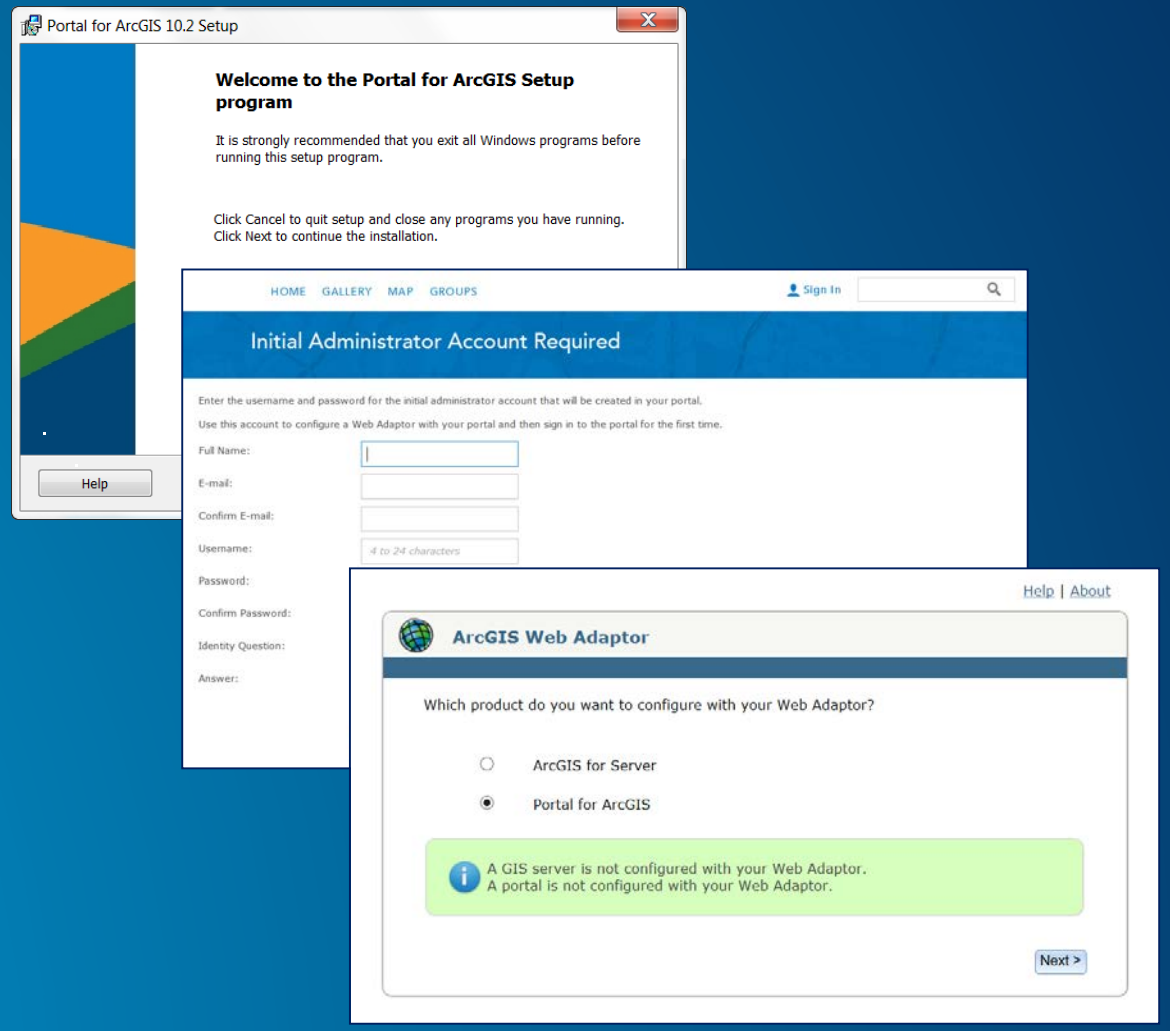
The Portal for ArcGIS setup will only proceed if the operating system is 64-bit; 32-bit operating systems are not supported. The operating sy

- 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

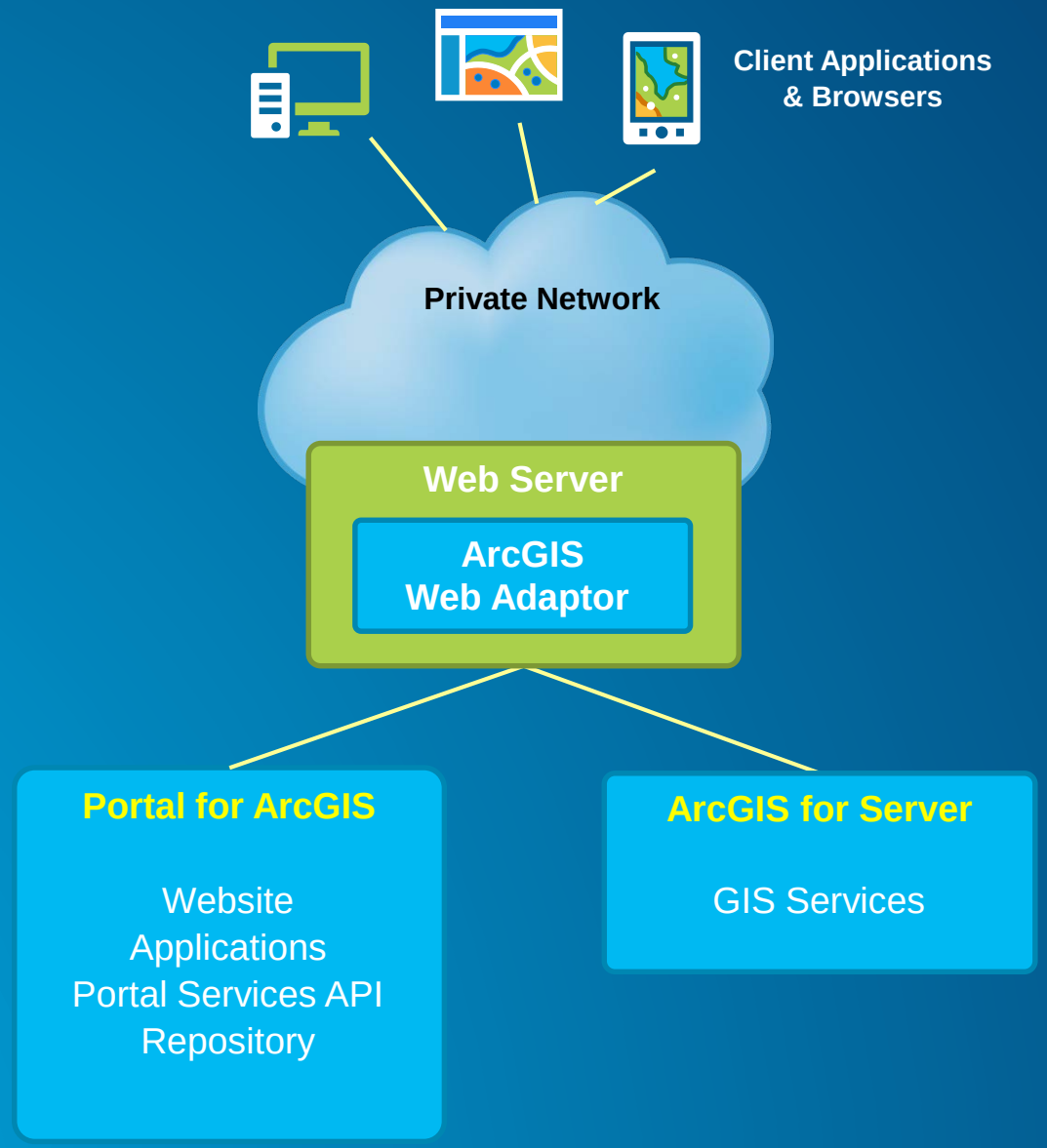
Installing Portal for ArcGIS

Can be scripted for silent installs

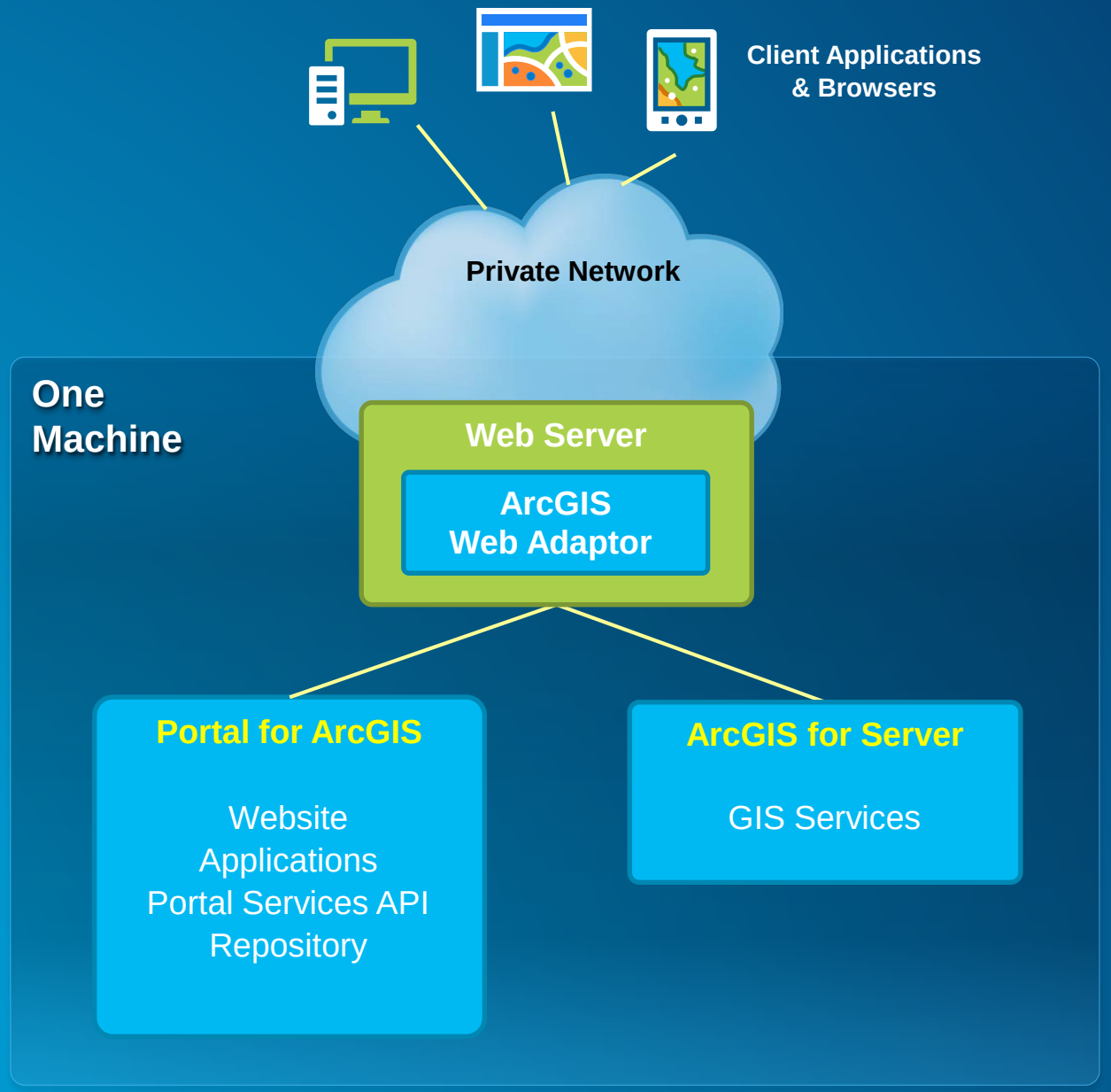
- **Simple 4 step workflow**
  1. **Run installer**
  2. **Authorize software**
  3. **Create initial admin account**
  4. **Configure Web Adapter**



Deployment


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

Deployment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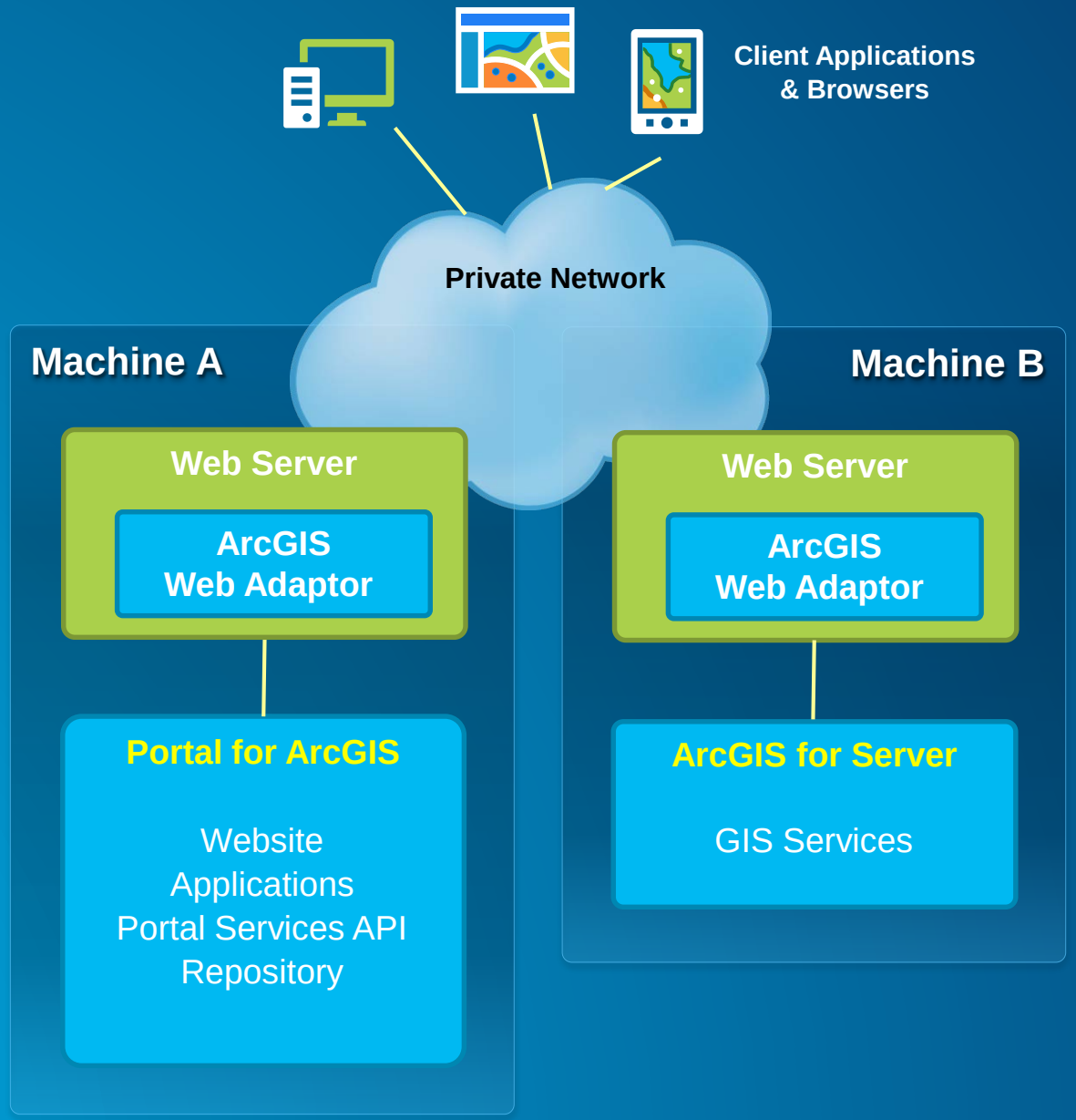
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GIS Services

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**

Users	Roles	Groups

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

Portal for ArcGIS: Users and Roles

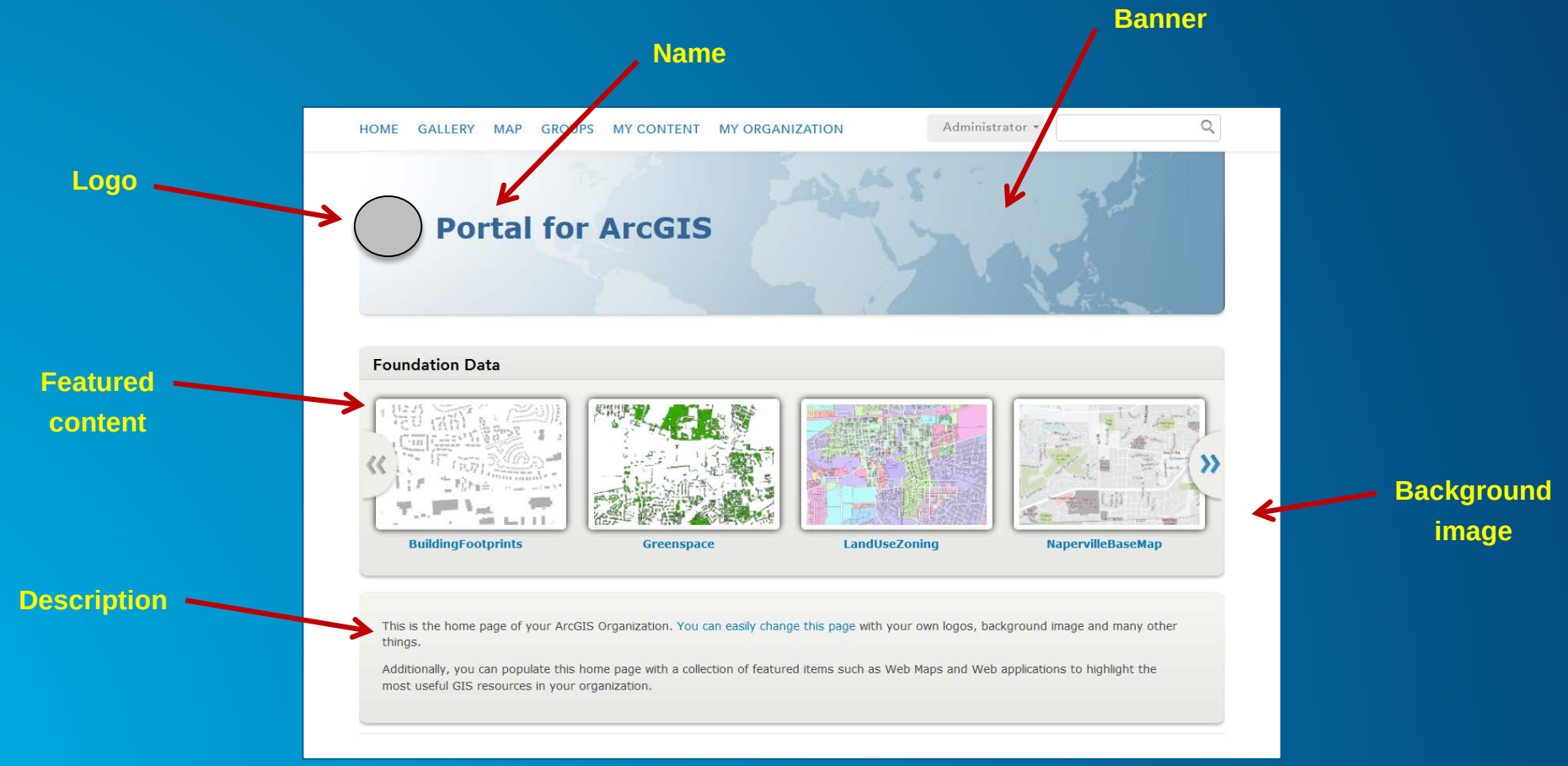
	With an ArcGIS organizational account			Without account
	User role	Publisher role	Administrator role	
Search and use public items	✓	✓	✓	✓
Search and use private items	✓	✓	✓	
Create and share items	✓	✓	✓	
Publish new content as tiled or feature services		✓	✓	
Administer the ArcGIS organization			✓	
Manage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

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 supports Enterprise Groups

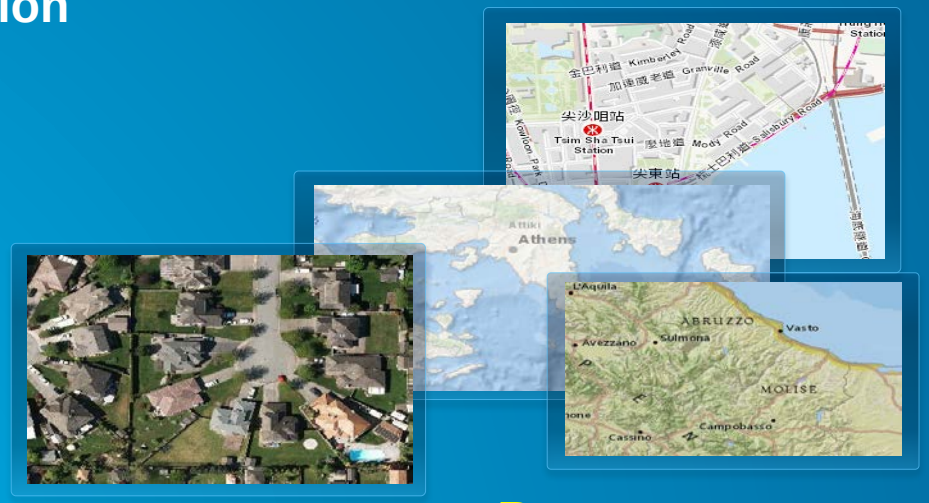
Configuring Portal for ArcGIS

- Must have Administrator privileges



Basemaps & Utility Services

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

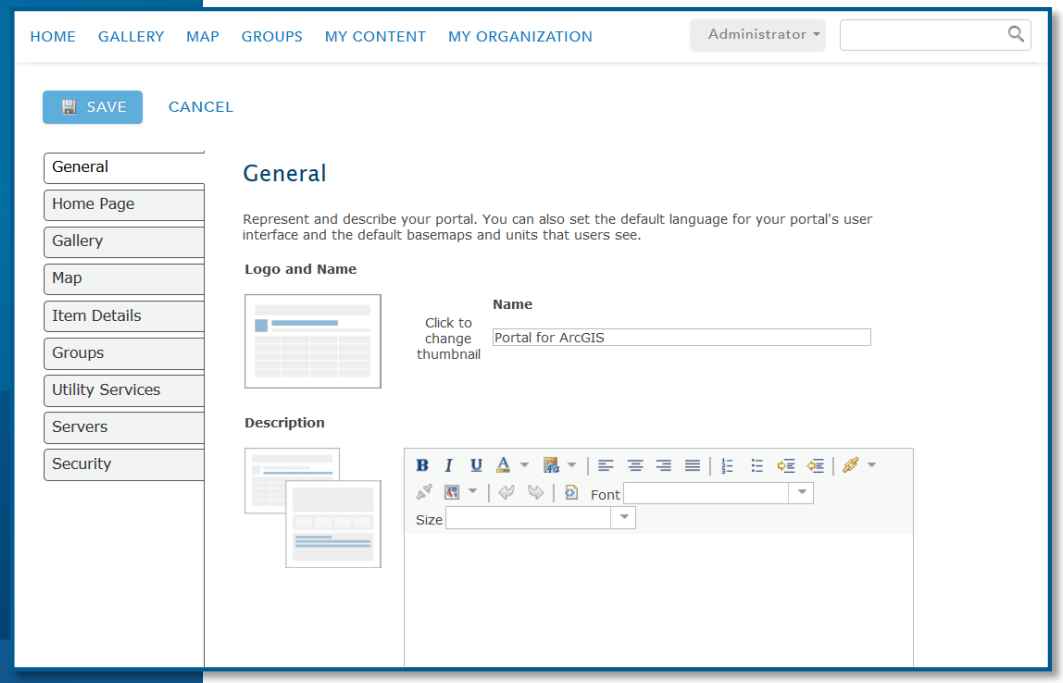


Basemaps

Utility services

Demo

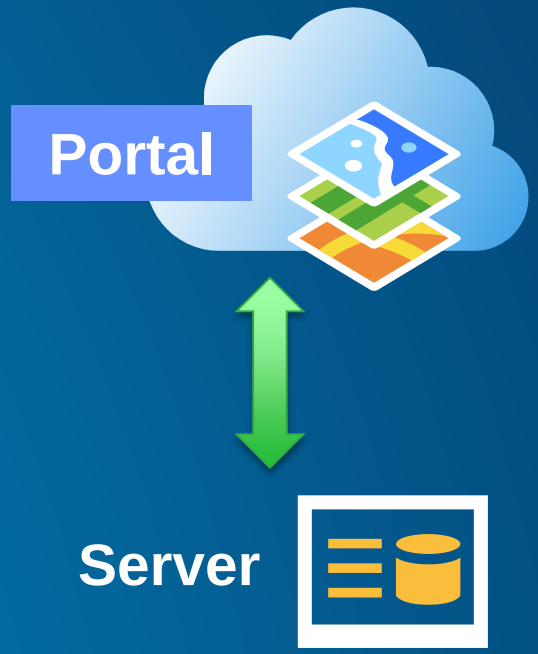
Configuring Portal for ArcGIS



Using Portal with ArcGIS Server

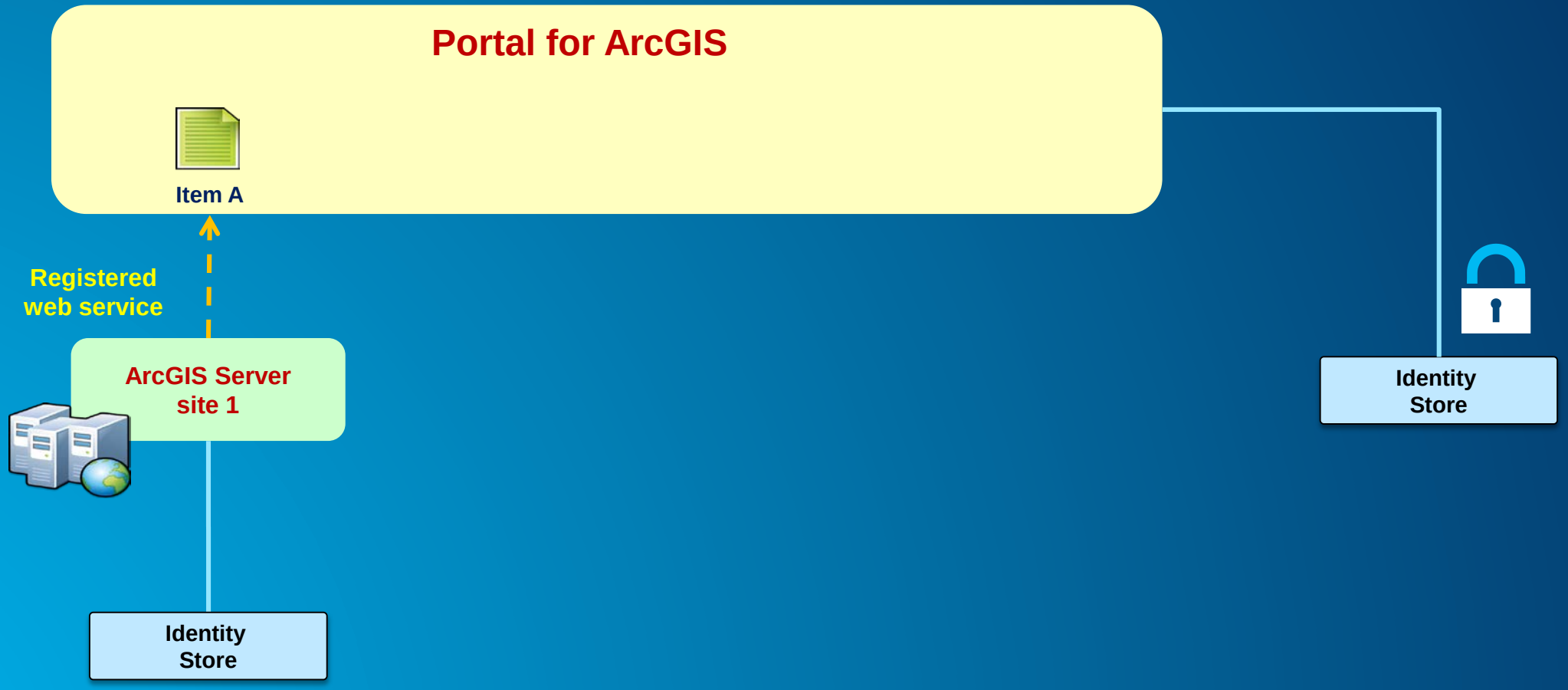
Three Integration Approaches

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



Implementation Patterns

Portal for ArcGIS + ArcGIS for Server



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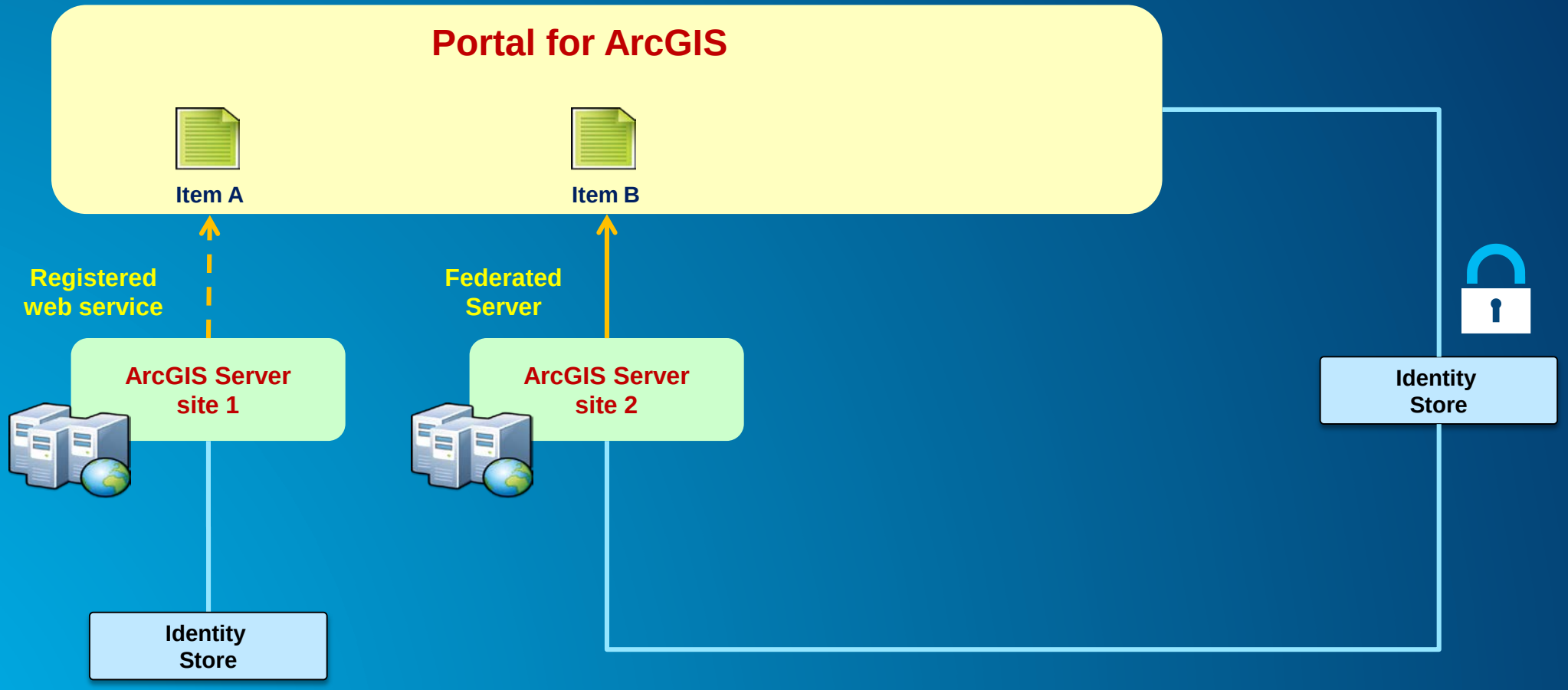
Implementation Patterns

Portal for ArcGIS + ArcGIS for Server



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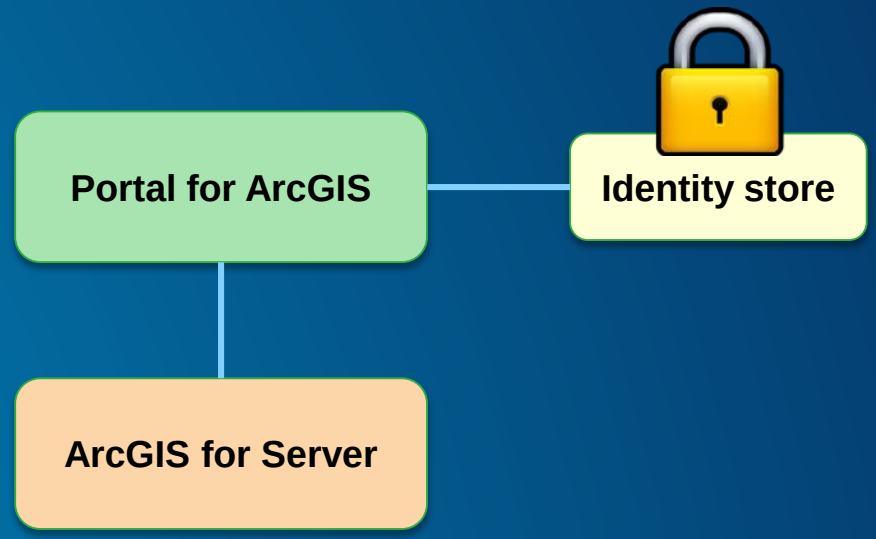
Portal – Server Federation

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



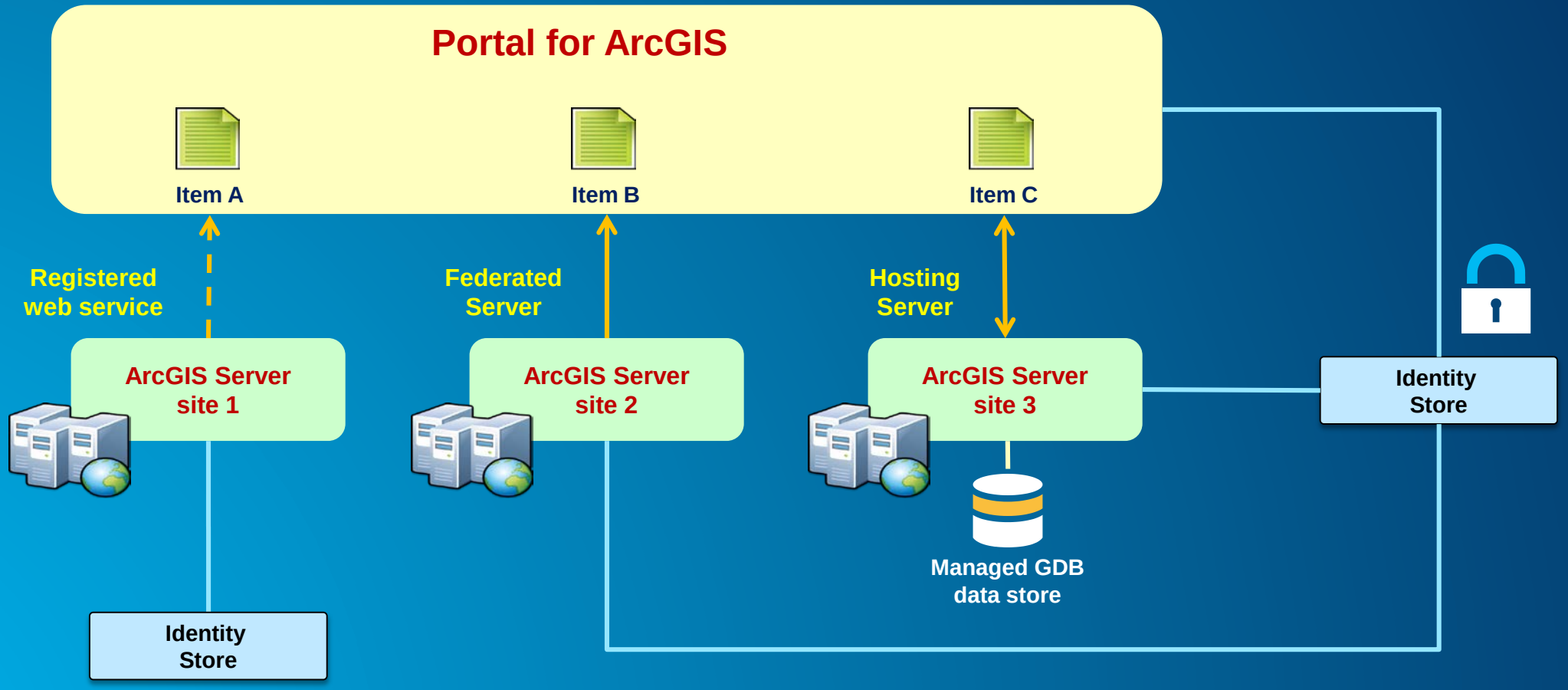
When to use:

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

- When NOT to use
  - When Sever/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



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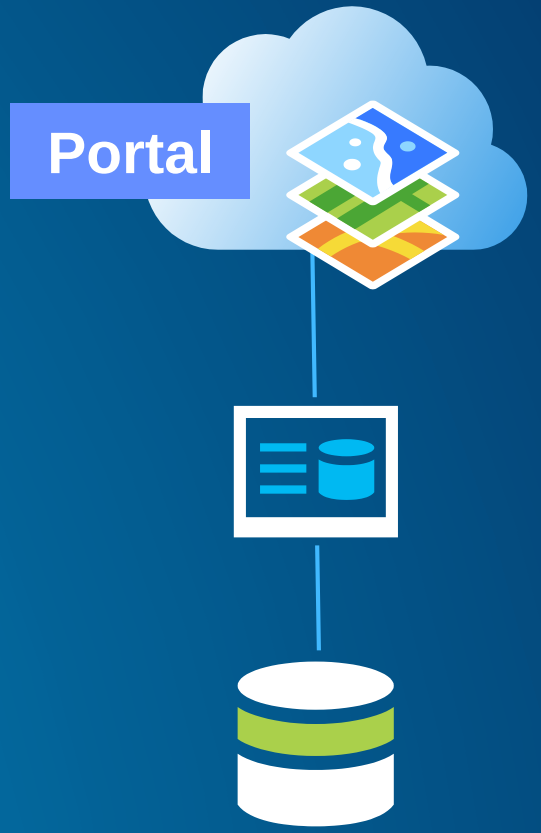
Portal for ArcGIS + Hosting Server

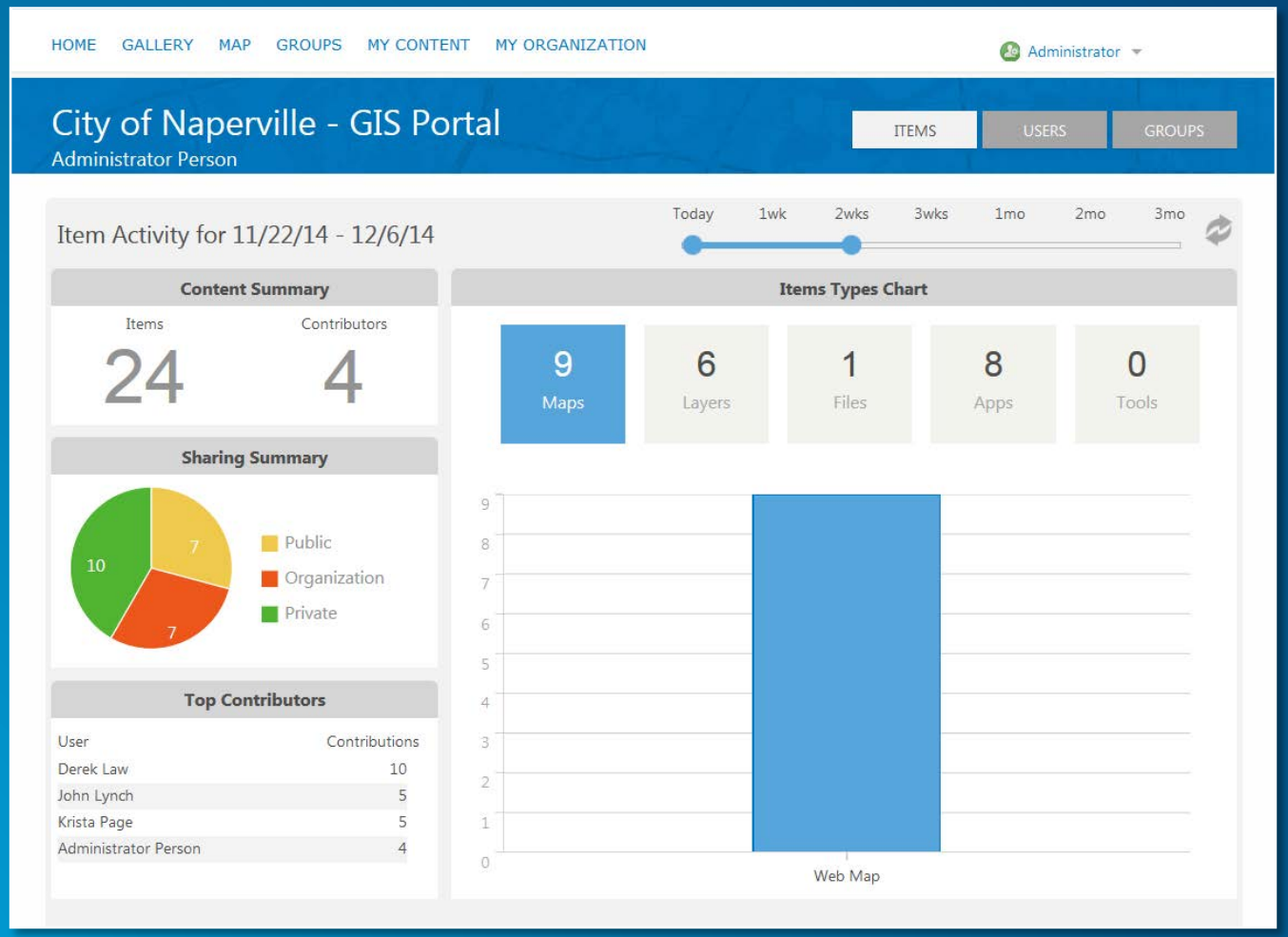
- Required when you want to enable hosted services in Portal
  - Feature services
  - Tiled services
- Example workflows
  - Add content to Portal and create a feature service
  - Share content from Esri Maps for … Apps

- Uses Managed GDB data store or the ArcGIS Data Store (recommended at 10.3) behind-the-scenes

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
  - Separate software install



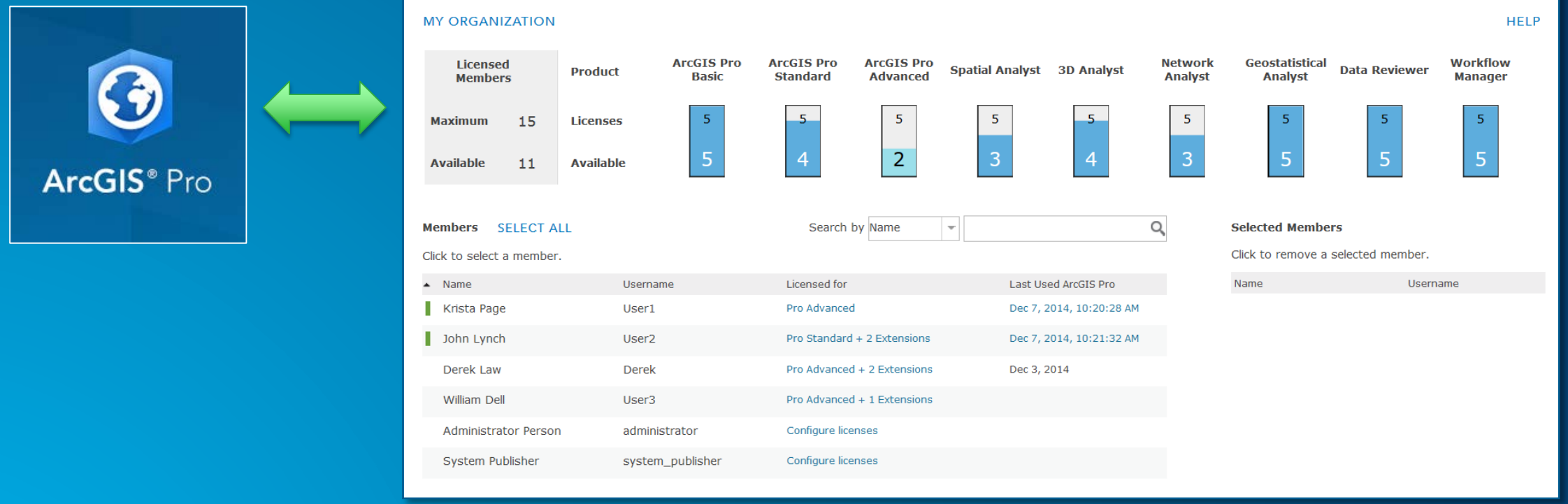


Activity Dashboard

Activity-based metrics and real-time reports about your Portal

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



Licensing ArcGIS Pro with Portal for ArcGIS

Manage ArcGIS Pro licenses for your organization

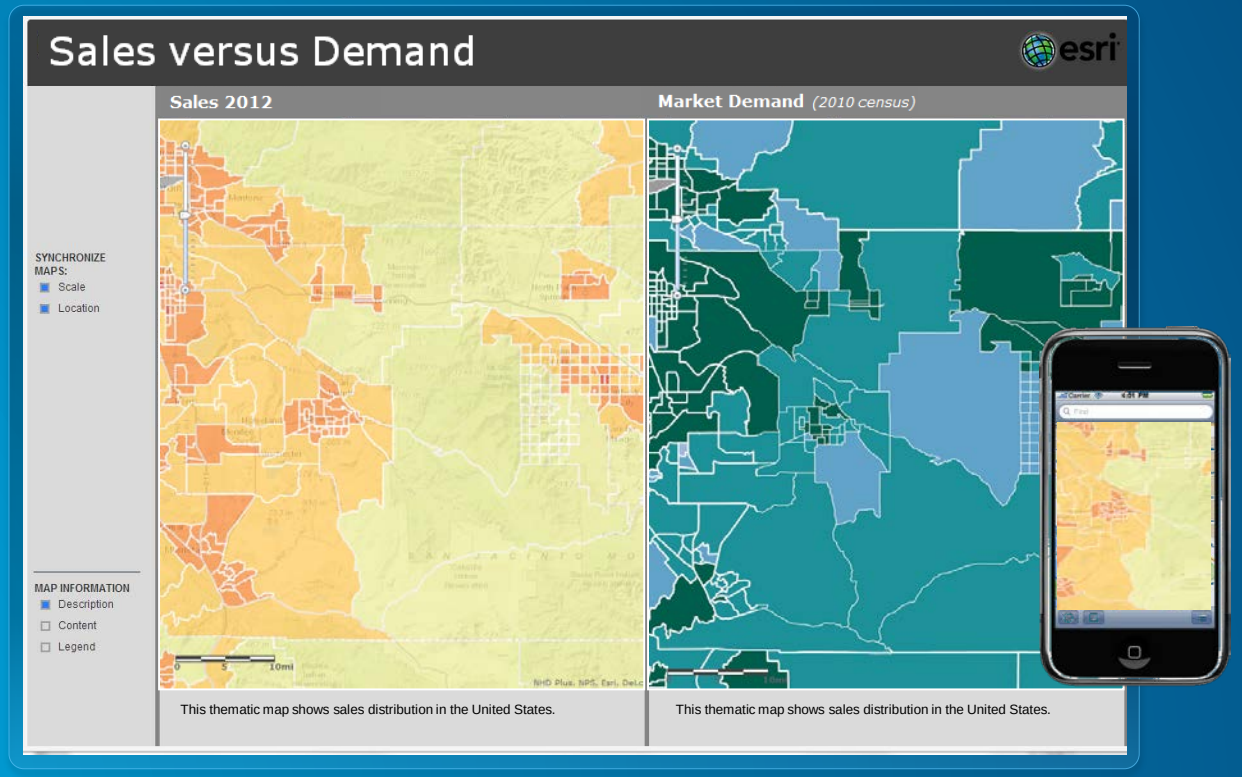
Implementing Web GIS

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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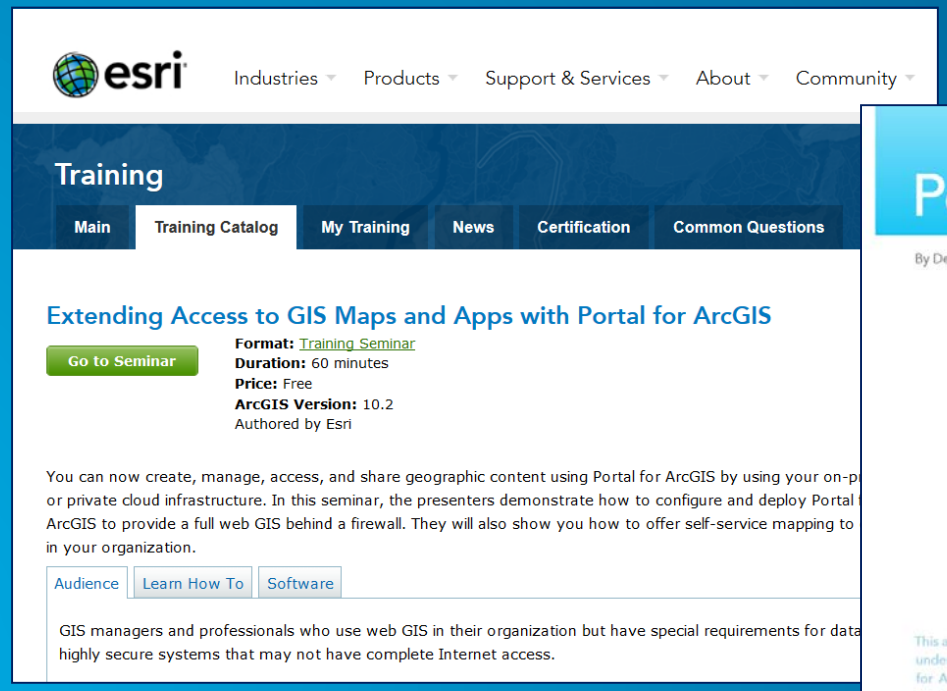
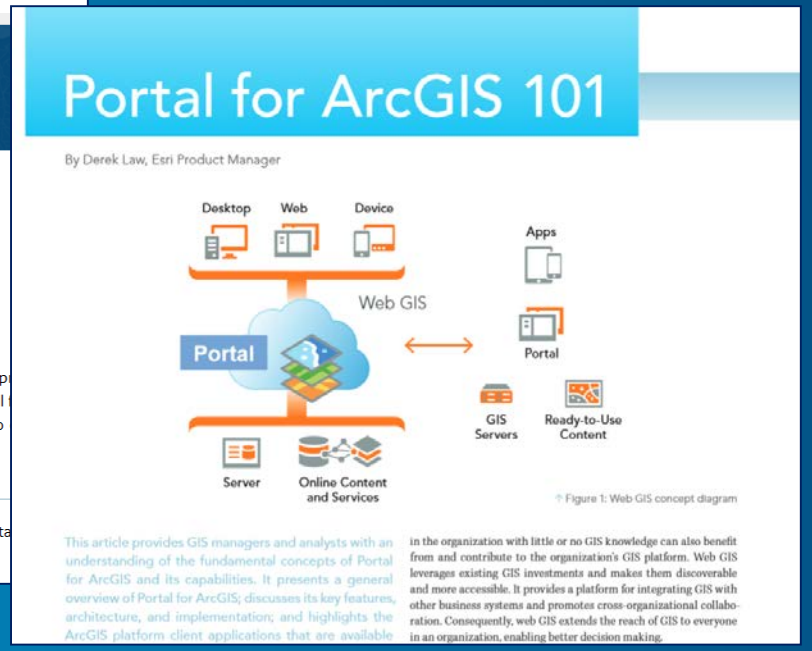
Keys to Success

- 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

Resources

- **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
  - No public cloud option
- Extension of ArcGIS for Server
  - 10.3 Included with Standard and Advanced

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