

# ArcGIS Enterprise: Administering your Deployment

Derek Law

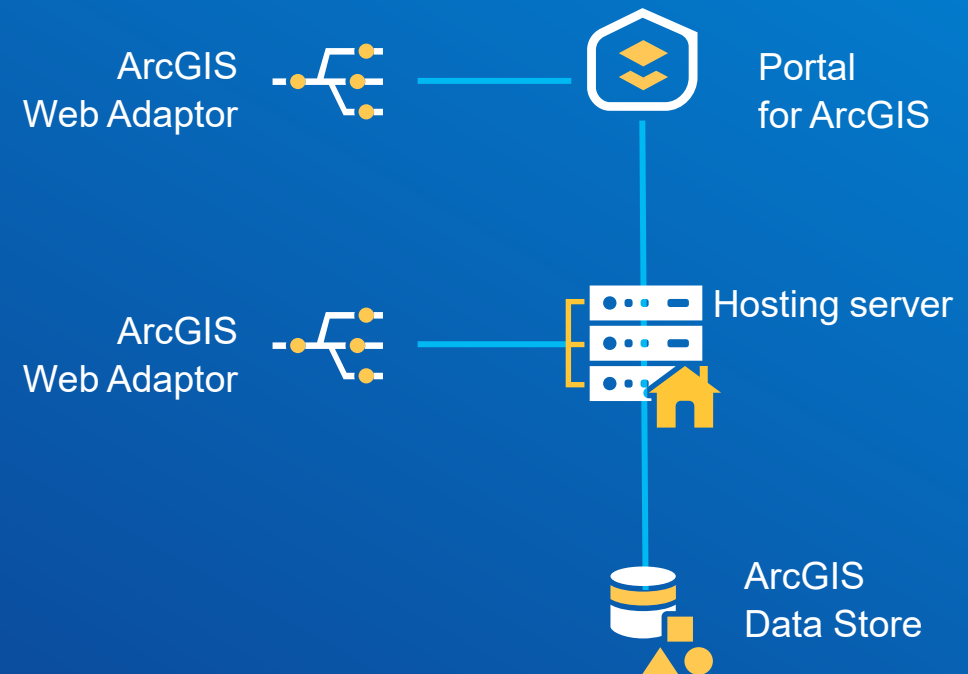


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# Introduction - Assumptions

- Familiarity with the ArcGIS Enterprise base deployment
- Base deployment is installed and configured



# Agenda

- Administrative Endpoints
- Securing Your Deployment
- Managing Services
- Managing Users
- Monitoring your Deployment
- Summary

# Administrative Endpoints

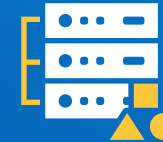


# Administrative Endpoints Overview

- Portal Home Page: <https://host.domain.com/portal/home>
- Portal Admin: <https://host.domain.com/portal/portaladmin>
- ArcGIS Portal Directory: <https://host.domain.com/portal/sharing/rest>
- Server Manager: <https://host.domain.com/server/manager>
- Server Admin: <https://host.domain.com/server/admin>
- Services URL: <https://host.domain.com/server/rest>



Portal  
for ArcGIS

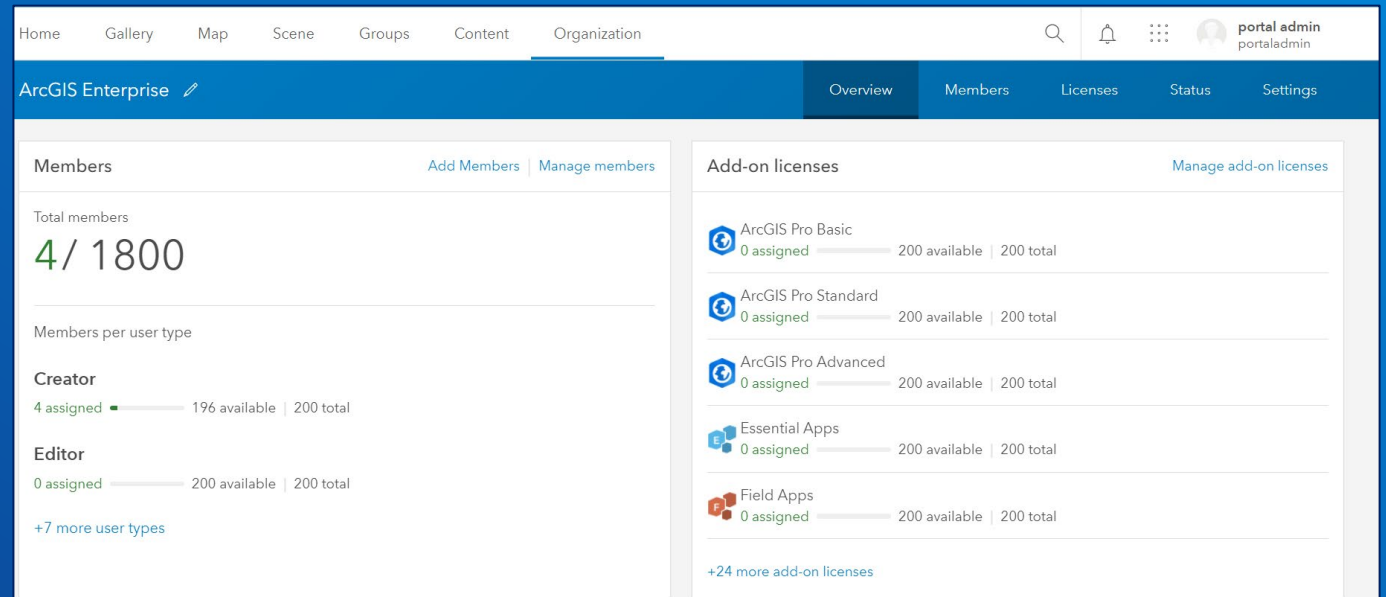


ArcGIS  
Server



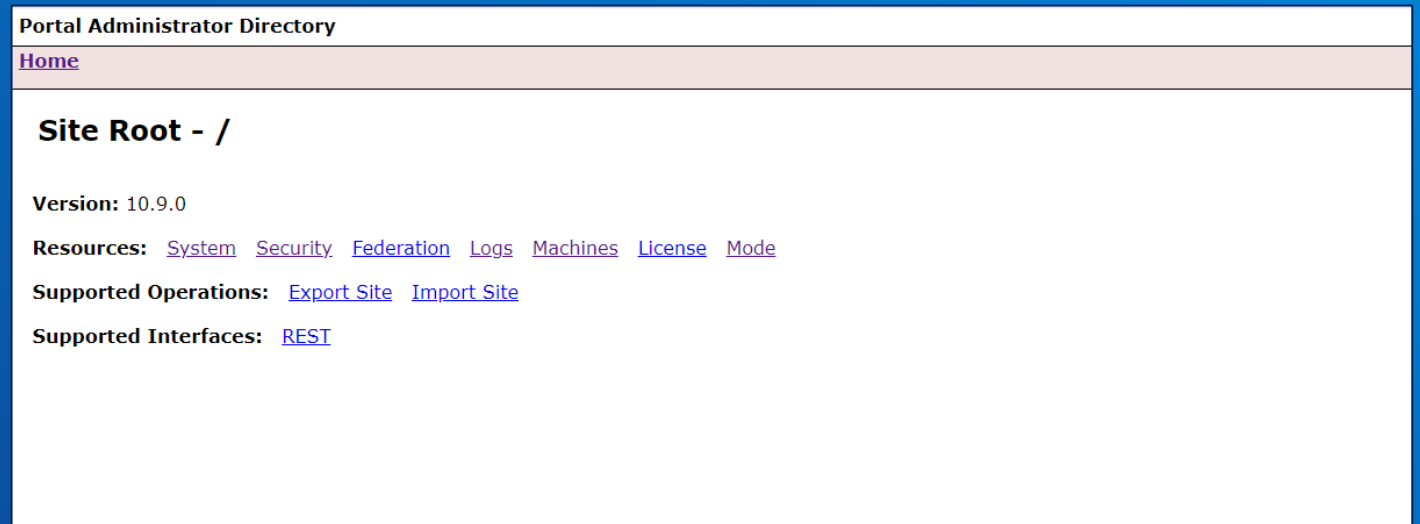
# ArcGIS Enterprise Portal Home Page

- Content, User, and License Management
- Workflows include:
  - Assigning roles to users
  - Assigning licenses to users
  - Configuring groups
  - Configuring site layout
  - Configuration of Utility Services
  - Configuring security and email settings



# Portal Administrator Directory

- Advanced Administrative Tsks
- Workflows include:
  - Configuring WebContextURL
  - Configuring SSL certificates
  - Configuring portal's identity store
  - Configuring Log level
  - Configuring Read Only mode



# ArcGIS Portal Directory

- API used to access and manage:
  - Users
  - Groups
  - Content
  - Sharing
- Most workflows can be accessed via user interface of the Enterprise portal website
- Ultimately what the ArcGIS Python for API references when running administrative tasks

**ArcGIS Portal Directory** | [Home](#)

**Root**

[API Reference](#)

**Current Version:** 8.4

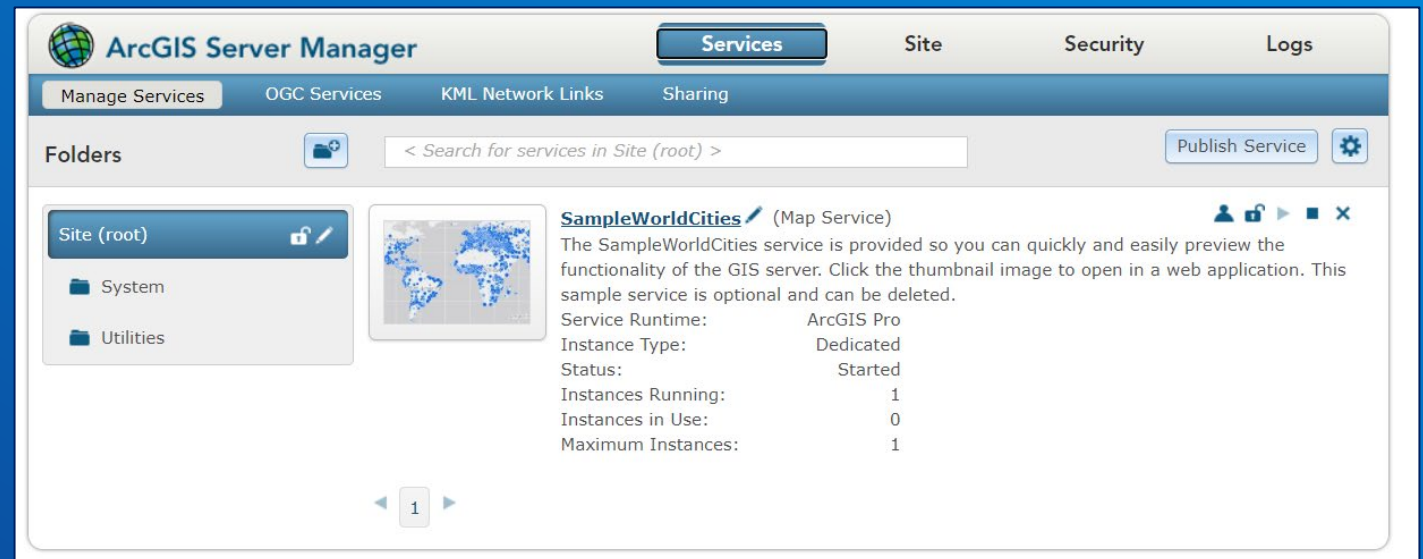
**Child Resources:** [Search](#) [Community](#) [Content](#) [Portals](#) [OAuth2](#)

**Supported Operations:** [Generate Token](#)



# ArcGIS Server Manager

- Manage Services
- Workflows include:
  - Tuning and configuring services
  - Registering data stores
  - Changing server directories
  - Reviewing logs



# ArcGIS Server Administrator Directory

- Advanced Administrative tasks
- Workflows include:
  - Configuring WebContextURL
  - Configuring SSL certificates
  - Configuring log settings
  - Configuring usage reports

**ArcGIS Server Administrator Directory**

[Home](#)

You should use [ArcGIS Server Manager](#) for managing services and GIS servers.  
The Administrator Directory is intended for advanced, programmatic access to the server, likely through the use of scripts.

**Site Root - /**

**Current Version: 10.9.0**

**Resources:** [machines](#) [services](#) [security](#) [system](#) [data](#) [uploads](#) [logs](#) [kml](#) [info](#) [mode](#) [usagereports](#) [publicKey](#)

**Supported Operations:** [generateToken](#) [exportSite](#) [importSite](#) [deleteSite](#)

**Supported Interfaces:** [REST](#)

# Securing Your Deployment



# Policies and Best Practices



- Configure HTTPS only
  - Disable anonymous access
  - Configure CA-signed server certificates
  - Disable the ArcGIS Portal Directory
  - Configure a password policy
  - Restrict the portal's proxy capability
  - Use a group Managed Service Account
  - Specify token expiration time
  - Restrict file permissions
- 
- Visit the ArcGIS Enterprise web help and <https://trust.arcgis.com> for the latest security announcements and documentation regarding best practices

# Portal Authentication Options

- Identity stores

- Built-in

- Multifactor authentication (New at 10.9)

- Organization-Specific

- IWA or LDAP

- SAML

- OpenID Connect (New at 10.9)

### Multifactor authentication

Multifactor authentication provides all members with built-in portal accounts in your organization with an extra level of security by requesting an additional verification code at the time of login. Email settings must be configured to enable Multifactor authentication. [Learn more](#)

Allow members to choose whether to set up multifactor authentication for their individual accounts.

Designated administrators

Designate at least two administrators who will receive email requests to troubleshoot members' multifactor authentication issues.

Add

DJ	derek jeter djeter	×
PA	portal admin portaladmin	×

<input type="checkbox"/>	Member	Last login	User type	Role
<input type="checkbox"/>	derek jeter djeter	<div><div>✓</div><div>May 18, 2021</div><div>Multifactor authentication enabled</div></div>	Creator	Administrator
<input type="checkbox"/>	mia hamm mihamm	Never	Creator	User
<input type="checkbox"/>	barry bonds bbonds	Never	Creator	User
<input type="checkbox"/>	portal admin portaladmin	Yesterday	Creator	Administrator

# Communicating Changes to the Enterprise portal

- **Access Notice**

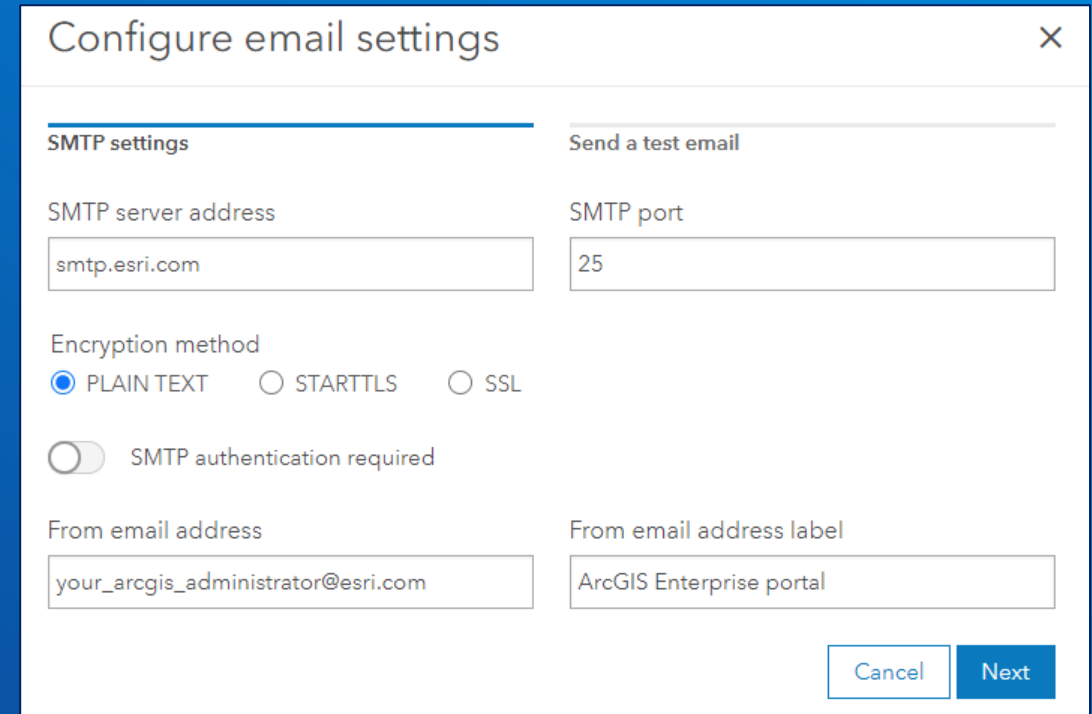
- Notice of terms before gaining access to the home page

- **Information banner**

- Upcoming maintenance
- Classified information alerts
- Read only mode alerts

- **Email settings**

- Now configurable in the ArcGIS Enterprise portal home page
- Reset passwords
- Disable multifactor authentication
- Disk space notifications
- Comments on items



The screenshot shows a 'Configure email settings' dialog box with a close button (X) in the top right corner. The dialog is divided into two main sections: 'SMTP settings' and 'Send a test email'. Under 'SMTP settings', there are fields for 'SMTP server address' (containing 'smtp.esri.com') and 'SMTP port' (containing '25'). Below these is the 'Encryption method' section with three radio buttons: 'PLAIN TEXT' (selected), 'STARTTLS', and 'SSL'. There is also a toggle switch for 'SMTP authentication required' which is currently turned off. At the bottom, there are fields for 'From email address' (containing 'your\_arcgis\_administrator@esri.com') and 'From email address label' (containing 'ArcGIS Enterprise portal'). In the bottom right corner, there are two buttons: 'Cancel' and 'Next'.



# Security Scan Tools

- serverScan.py
- portalScan.py
- Scan for common security issues and provide detailed reports

## ArcGIS Server Security Scan Report - 05/21/21

ps0010872.esri.com (10.9)

### Potential security items to review

<u><b>Id</b></u>	<u><b>Severity</b></u>	<u><b>Property Tested</b></u>	<u><b>Scan Results</b></u>
SS08	Important	Cross-domain requests	Cross-domain requests are unrestricted. To reduce the possibility of an unknown application sending malicious commands to your web services, it is recommended to restrict the use of your services to applications hosted only in domains that you trust. <a href="#">More information</a>
SS07	Important	Rest services directory	The Rest services directory is accessible through a web browser. Unless being actively used to search for and find services by users, this should be disabled to reduce the chance that your services can be browsed, found in a web search, or queried through HTML forms. This also provides further protection against cross-site scripting (XSS) attacks. <a href="#">More information</a>
SS11	Recommended	PSA account status	The primary site administrator account is enabled. It is recommended that you disable this account to ensure that there is not another way to administer ArcGIS Server other than the group or role that has been specified in your configuration. <a href="#">More information</a>

## Portal for ArcGIS Security Scan Report - 05/21/21

ps0010872.esri.com (10.9)

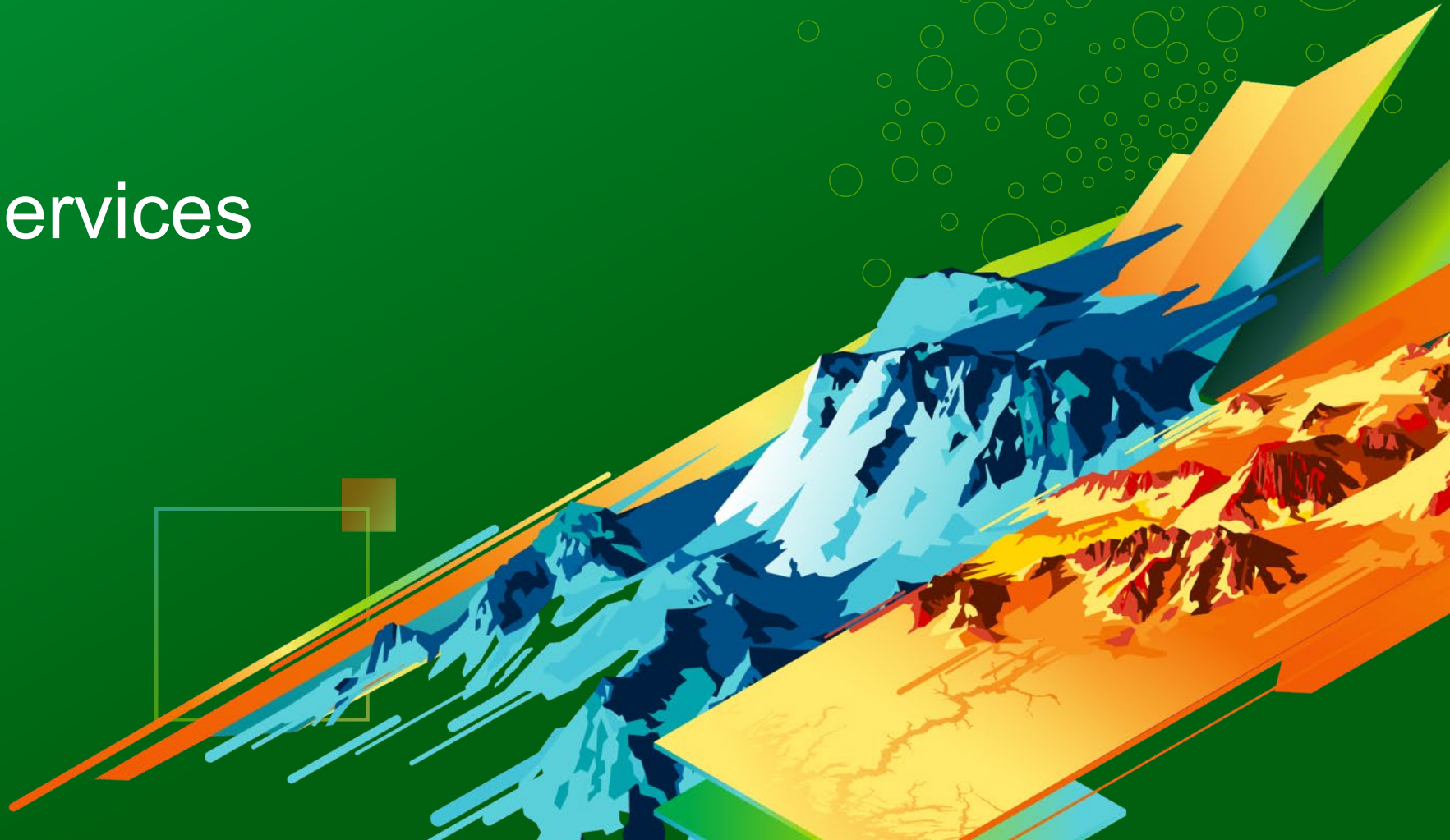
### Potential security items to review

<u><b>Id</b></u>	<u><b>Severity</b></u>	<u><b>Property Tested</b></u>	<u><b>Scan Results</b></u>
PS01	Critical	Proxy restrictions	The portal proxy capability is unrestricted. This should be limited to trusted web addresses. <a href="#">More information</a>
PS03	Important	Portal services directory	The portal services directory is accessible through a web browser. This should be disabled to reduce the chances that your portal items, services, web maps, groups, and other resources can be browsed, found in a web search, or queried through HTML forms. <a href="#">More information</a>
PS06	Recommended	Anonymous access	To prevent any user from accessing the Home application without first providing credentials to the portal, it is recommended that you configure your portal to disable anonymous access. <a href="#">More information</a>
PS09	Recommended	Cross-domain requests	Cross-domain (CORS) requests are unrestricted. To reduce the possibility of an unknown application accessing a shared portal item, it is recommended to restrict cross-domain requests to applications hosted only in domains that you trust. <a href="#">More information</a>

# Security Scan tools

- **Server scan**
- **C:\Program Files\ArcGIS\Server\tools\admin**
- **Portal scan**
- **C:\Program Files\ArcGIS\Portal\tools\security**

# Managing Services



# Capabilities

- Depends on the service
- Turn on/off Map, Query, Data, etc.

The screenshot shows the ArcGIS Server Manager interface for configuring the capabilities of a service. The breadcrumb path is 'Editing: Site (root) > Counties'. The left sidebar contains a menu with 'Capabilities' selected. The main content area is titled 'Select and configure capabilities' and includes several sections: 'Mapping (always enabled)' is checked; other capabilities like WCS, Network Analysis, Version Management, Trace Network, Linear Referencing, Utility Network, Feature Access, Validation, WFS, Topographic Production, Network Diagrams, KML, WMS, and Parcel Fabric are unchecked. The 'Mapping Configuration' section shows REST and SOAP URLs. The 'Operations Allowed' section has 'Map', 'Query', and 'Data' all checked. The 'Dynamic Workspaces' section has 'Allow per request modification of layer order and symbology' checked. At the bottom, there is an 'Add' button and a table header for workspace management.

ArcGIS Server Manager

Services Site Security Logs

Manage Services OGC Services KML Network Links Sharing

Editing: [Site \(root\)](#) > Counties [Help](#) [Save and Restart](#) [Cancel](#)

General  
Parameters  
**Capabilities**  
Pooling  
Processes  
Caching  
Item Description

**Select and configure capabilities**

☒ Mapping (always enabled) ☐ Validation

☐ WCS ☐ WFS

☐ Network Analysis ☐ Topographic Production

☐ Version Management ☐ Network Diagrams

☐ Trace Network ☐ KML

☐ Linear Referencing ☐ WMS

☐ Utility Network ☐ Parcel Fabric

☐ Feature Access

**Mapping Configuration**

**URLs**

REST URL: <https://ps0010872.esri.com/server/rest/services/Counties/MapServer>

SOAP URL: <https://ps0010872.esri.com/server/services/Counties/MapServer>

**Operations Allowed**

☒ Map ☒ Query ☒ Data

**Dynamic Workspaces**

☒ Allow per request modification of layer order and symbology

To register a database, file geodatabase, shapefile or raster workspace, click [Add](#)

Workspace ID	Type	Connection String	Action
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# Dedicated vs. Shared Instances

Shared instances	Dedicated instances
<ul style="list-style-type: none"><li>• Conserves computer memory by using a shared pool of ArcSOC.exe processes for multiple services</li><li>• Low-traffic services</li><li>• All services using shared instance pool have same configuration.</li><li>• Qualified service types: Map services published from ArcGIS Pro. Certain capabilities of map service supported: feature access, WFS, WMS, and KML</li></ul>	<ul style="list-style-type: none"><li>• Each instance for each service has its own ArcSOC.exe process</li><li>• High-traffic services</li><li>• Tuning and configuring for each services without affecting other services' pools.</li><li>• All service types</li></ul>

# Introducing Shared Instances

- Blog link

<https://www.esri.com/arcgis-blog/products/arcgis-enterprise/administration/shared-instances-arcgis-server-107/>



# Tuning and Configuring Instances

- Pooling Settings
  - Dedicated
  - Shared
- Number of Instances
  - Min/Max
  - Based on demand
  - Monitoring
- Service Timeouts

The screenshot shows the ArcGIS Server Manager web interface. The top navigation bar includes 'Services', 'Site', 'Security', and 'Logs'. Below this, a sub-navigation bar shows 'Manage Services', 'OGC Services', 'KML Network Links', and 'Sharing'. The main content area is titled 'Editing: Site (root) > Counties'. On the left, a sidebar lists configuration options: General, Parameters, Capabilities, Pooling (selected), Processes, Caching, and Item Description. The 'Pooling' section is active, showing three settings: 'Instance Type' with radio buttons for 'Dedicated instance pool' (selected) and 'Shared instance pool'; 'Specify Number of Instances' with input fields for 'Minimum number of instances per machine' (set to 1) and 'Maximum number of instances per machine' (set to 2); and 'Specify Service Timeouts' with input fields for 'The maximum time a client can use a service' (600 seconds), 'The maximum time a client will wait to get a service' (60 seconds), and 'The maximum time an idle instance can be kept running' (1800 seconds). Buttons for 'Help', 'Save and Restart', and 'Cancel' are located at the top right of the configuration area.

ArcGIS Server Manager

Services Site Security Logs

Manage Services OGC Services KML Network Links Sharing

Editing: Site (root) > Counties

Help Save and Restart Cancel

General  
Parameters  
Capabilities  
Pooling  
Processes  
Caching  
Item Description

**Instance Type**

Make this service available using:

☒ Dedicated instance pool  
☐ Shared instance pool

**Specify Number of Instances**

Minimum number of instances per machine: 1

Maximum number of instances per machine: 2

**Specify Service Timeouts**

The maximum time a client can use a service: 600 seconds

The maximum time a client will wait to get a service: 60 seconds

The maximum time an idle instance can be kept running: 1800 seconds

# Migrating To the ArcGIS Pro Service Runtime

- ArcGIS Server web services only
  - **Not applicable to hosted services**
- ArcGIS Enterprise 10.9.x is the last release cycle to support ArcMap service runtime
- Transition publishers to ArcGIS Pro
- Migrate existing services that are supported

The screenshot shows the ArcGIS Server Manager interface. At the top, there are tabs for 'Services', 'Site', 'Security', and 'Logs'. Below these are sub-tabs: 'Manage Services', 'OGC Services', 'KML Network Links', and 'Sharing'. A yellow warning banner at the top states: 'This service is currently configured to use the ArcMap service runtime. Please migrate this service to use the newer ArcGIS Pro service runtime. Future versions of ArcGIS Enterprise will require services to be migrated to the ArcGIS Pro service runtime.'

The main content area is titled 'Editing: Site (root) > US\_Counties'. On the left is a sidebar with a 'General' tab selected, and other tabs like 'Parameters', 'Capabilities', 'Pooling', 'Processes', 'Caching', and 'Item Description'. The main panel shows the configuration for the 'US\_Counties' service. It includes fields for 'Name' (US\_Counties), 'Type' (Map Service), 'Machine Name' (Dshaw1), and 'Path' (Untitled). The 'Service Runtime' section is highlighted with a red box, showing 'ArcMap (deprecated)'.

General	
Name:	US_Counties
Type:	Map Service

Original Document	
Machine Name:	Dshaw1
Path:	Untitled

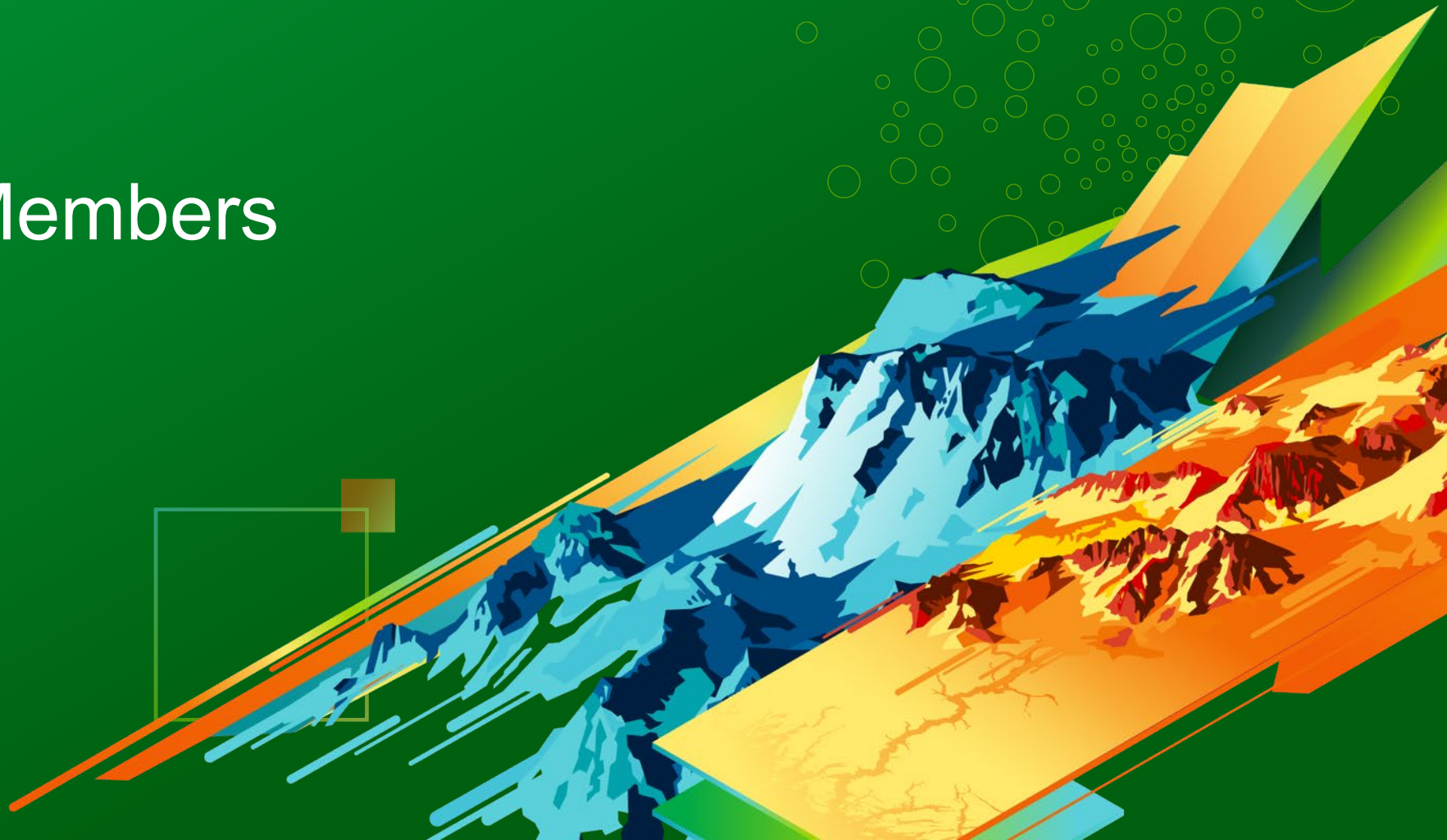
  

Service Runtime	
Runtime:	ArcMap (deprecated)

# Migrating services to the ArcGIS Pro-based runtime

- Blog link
- <https://www.esri.com/arcgis-blog/products/arcgis-enterprise/administration/migrating-services-to-the-arcgis-pro-based-runtime-in-arcgis-enterprise-10-9/>

# Managing Members

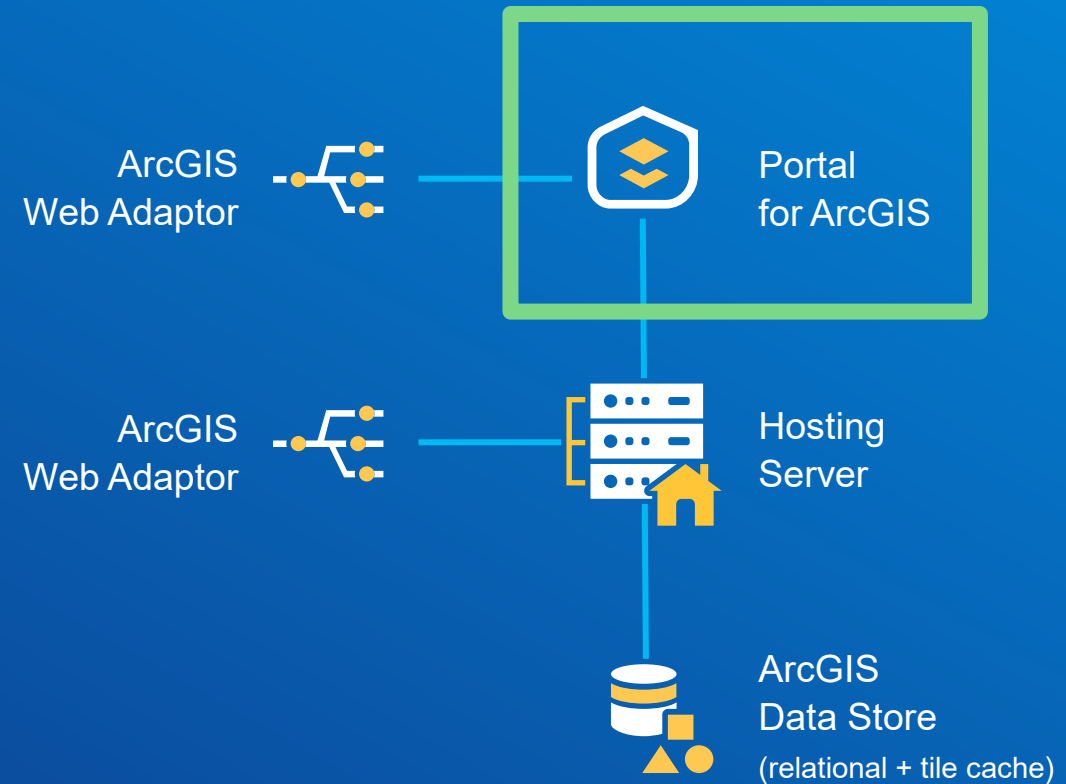


# Managing Members

## Assumptions:

- Some existing members already added.
- ArcGIS Server is federated with Portal for ArcGIS.

Users are managed and authenticated through Portal for ArcGIS



# Managing Members

The screenshot displays the ArcGIS Enterprise Admin console interface. At the top, a navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, and Organization. The Organization tab is active, showing sub-tabs for Overview, Members, Licenses, Status, and Settings. The Members tab is selected. Below the navigation bar, there is a search bar labeled 'Search members' and a table view selector. The main content area shows a list of members with columns for checkboxes, member names, last login, user type, and role. A filters sidebar on the left allows filtering by User type, Role, Last login, App, and Organization's groups. The Role filter is currently selected.

Home Gallery Map Scene Groups Content Organization

ArcGIS Enterprise - Administering Your Deployment Demo Overview Members Licenses Status Settings

Add Members Search members Table Last login Filter

Filters

- > User type
- > Role
- > Last login
- > App
- > Organization's groups








1 - 20 of 45

<input type="checkbox"/>	Member	Last login	User type	Role
<input type="checkbox"/>	Denise Vachon admin	Today	Creator	Administrator
<input type="checkbox"/>	Anna Hildrew ahildrew17	Today	Creator	MemberManager
<input type="checkbox"/>	Pier Dunmuir pdunmuir15	Today	Creator	Administrator
<input type="checkbox"/>	Will Fassam wfassam14	Today	GIS Professional Standard	ServerManager
<input type="checkbox"/>	Carmine Joris cjoris13	Today	GIS Professional Advanced	Publisher

Member List page, Under the Organization tab  
in Portal for ArcGIS



# Managing Members

<input type="checkbox"/>	Member	Last login	User type	Role	
<input type="checkbox"/>	 <b>Denise Vachon</b> admin	Today	Creator	Administrator	▼ ...
<input type="checkbox"/>	 <b>Anna Hildrew</b> ahildrew17	Today	Creator	MemberManager	▼ ...
<input type="checkbox"/>	 <b>Pier Dunmuir</b> pdunmuir15	Today	Creator		
<input type="checkbox"/>	 <b>Will Fassam</b> wfassam14	Today	GIS Professional Standard		
<input type="checkbox"/>	 <b>Carmine Joris</b> cjoris13	Today	GIS Professional Advanced		
<input type="checkbox"/>	 <b>Michaela Charkham</b> mcharkham12	Today	Field Worker		
<input type="checkbox"/>	 <b>Bree Garthshore</b> bgarthshoret	Today	Viewer		

## Managing Members Means Managing:

- User Types
- User Roles
- Account Settings
- Member Content
- Password Resets
- Disabling Accounts
- Deleting Accounts
- Monitoring Activity

# Managing Members

## Privileges

- **General Privileges:**
  - **Members**
  - **Groups**
  - **Content**
  - **Sharing**
  - **Content and Analysis**
  - **Features**
  - **Version Management**
- **Administrative Privileges:**
  - **Members**
  - **Groups**
  - **Content**
  - **Portal Settings**

Administrative privileges Enabled: 12/26 Enable all

Members Enabled: 7/7 Disable all

View all	<input checked="" type="checkbox"/>
Allow member to view full member account information within your portal.	
Update	<input checked="" type="checkbox"/>
Allow member to reset passwords and update member account information within your portal.	
Delete	<input checked="" type="checkbox"/>
Allow member to delete member accounts within your portal.	
Add	<input checked="" type="checkbox"/>
Allow member to invite members to your portal.	
Disable	<input checked="" type="checkbox"/>
Allow member to enable and disable member accounts within your portal.	
Change roles	<input checked="" type="checkbox"/>
Allow member to change the role a member account is assigned. Note, only members with the Administrator role can assign or unassign the Administrator role to other accounts.	
Manage licenses	<input checked="" type="checkbox"/>
Allow member to assign licenses to members of your portal.	

# Managing Members

## Principle of Least Privilege

- The principle of least privilege is a concept in computer security that limits users' access rights to only what are strictly required to do their jobs.
- **Non-Software Example: You hire Larry to clean your office kitchen.**



- **Larry needs a very specific and limited set of keys to do his job. You do not need to give him the full ring of office keys.**

# Managing Members

- **General Privileges:**
  - **Members**
  - **Groups**
  - **Content**
  - **Sharing**
  - **Content and Analysis**
  - **Features**
  - **Version Management**
- **Administrative Privileges:**
  - **Members**
  - **Groups**
  - **Content**
  - **Portal Settings**
- Privileges are dictated by **User Types** and **User Roles**

<https://enterprise.arcgis.com/en/portal/latest/administer/windows/roles.htm>

# Managing Members

## User Types

- Viewer
- Editor
- Field Worker
- Insights Analyst
- Storyteller
- Creator
- GIS Professional Basic
- GIS Professional Standard
- GIS Professional Advanced

The screenshot shows the ArcGIS Enterprise Administration console. The top navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, and Organization. The 'Organization' tab is selected, and the 'Members' sub-tab is active. Below the navigation bar, there is a search bar and a 'Search add-on licenses' button. The main content area is divided into three tabs: 'User types', 'Add-on licenses', and 'Organization extensions'. The 'User types' tab is selected, and it displays a list of user types with their respective license counts. A red box highlights the license status for the 'Creator', 'Editor', and 'Field Worker' roles.

User type	Assigned	Available	Total
Creator	16	184	200
Editor	0	200	200
Field Worker	9	191	200

# Managing Members

## User Roles

- User Types:
  - Dictate a subset of possible privileges
- User Roles:
  - Refine the scope of privileges further

The screenshot shows the ArcGIS Enterprise Administration interface. The top navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, and Organization. The 'Organization' link is active. The user profile 'Denise Vachon admin' is in the top right. Below the navigation bar, the 'Settings' link is highlighted with a red box. The main content area shows the 'Member roles' page, which includes a 'Manage roles' section with a 'Create role' button and a table of existing roles.

Role Name	Info Icon	Person Icon	Count	Template	More Icon
Administrator			10	Default	
Data Editor			8	Default	
Member Manager			1	Custom	...
Publisher			2	Default	



# Managing Members















## User Roles

### Manage roles

Create, edit, and manage member roles in your organization. You can create a role based on an existing role or role template by enabling or disabling associated privileges as needed. [Learn more](#)

Create role

Search roles

Administrator	  10	Default
Data Editor	  8	Default
Member Manager	  1	Custom
Publisher	  8	Default
Server Manager	  1	Custom
User	  6	Default
Viewer	  11	Default

### Create role

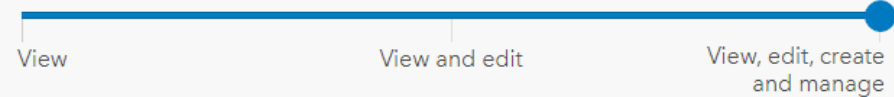
Role name

Custom Role

Description

A customized user role in ArcGIS Enterprise.

Privilege compatibility



Compatible with Creator user type and [5 others](#)

### Role privileges

Set from existing role

Expand all

#### > General privileges

Enabled: 17/26

Enable all

#### ▼ Administrative privileges

Enabled: 21/26

Enable all

Save

Cancel

# Managing Members

## Profile and Account Settings

- Privileges required: Administrative privileges > Members > View All + Update

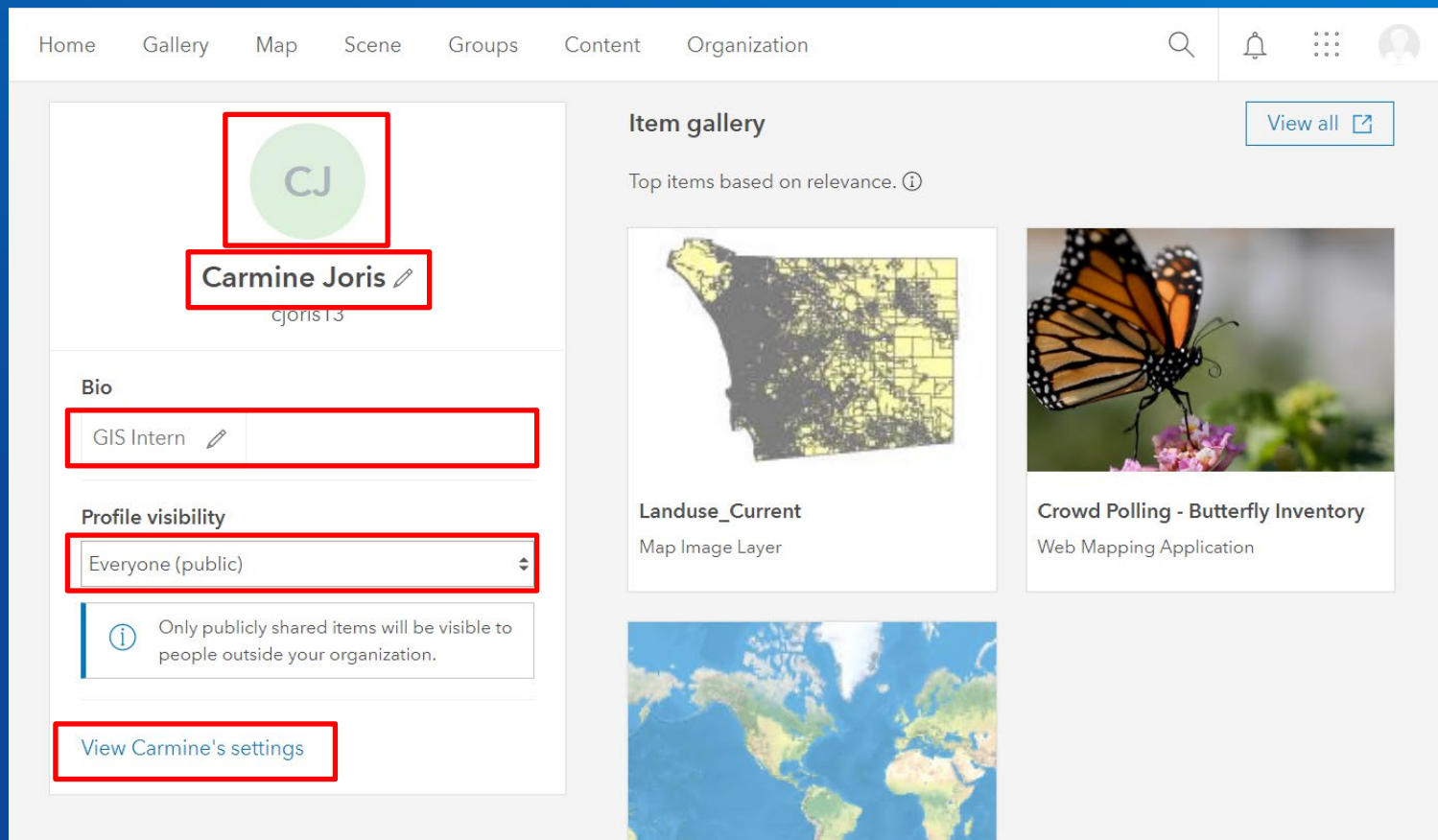
The screenshot shows the ArcGIS Enterprise Admin console interface. The top navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, and Organization. The 'Members' tab is selected and highlighted with a red box. Below the navigation bar, there is a search bar and a table of members. The table has columns for Member, Last login, User type, and Role. A red box highlights the 'View profile' link for Carmine Joris in the table. Another red box highlights the 'Carmine Joris' entry in the table. A third red box highlights the 'Carmine Joris' entry in the 'Items' section below the table.

Member	Last login	User type	Role
<input type="checkbox"/> DV Denise Vachon admin	Yesterday	Creator	Administrator
<input type="checkbox"/> AH Carmine Joris cjoris13			Member Manager
<input type="checkbox"/> PD GIS Intern			Administrator
<input type="checkbox"/> WF Items 5			Server Manager
<input type="checkbox"/> CJ Carmine Joris cjoris13	Yesterday	GIS Professional Advanced	Publisher

# Managing Members

## Profile and Account Settings

- Privileges required: Administrative privileges > Members > View All + Update

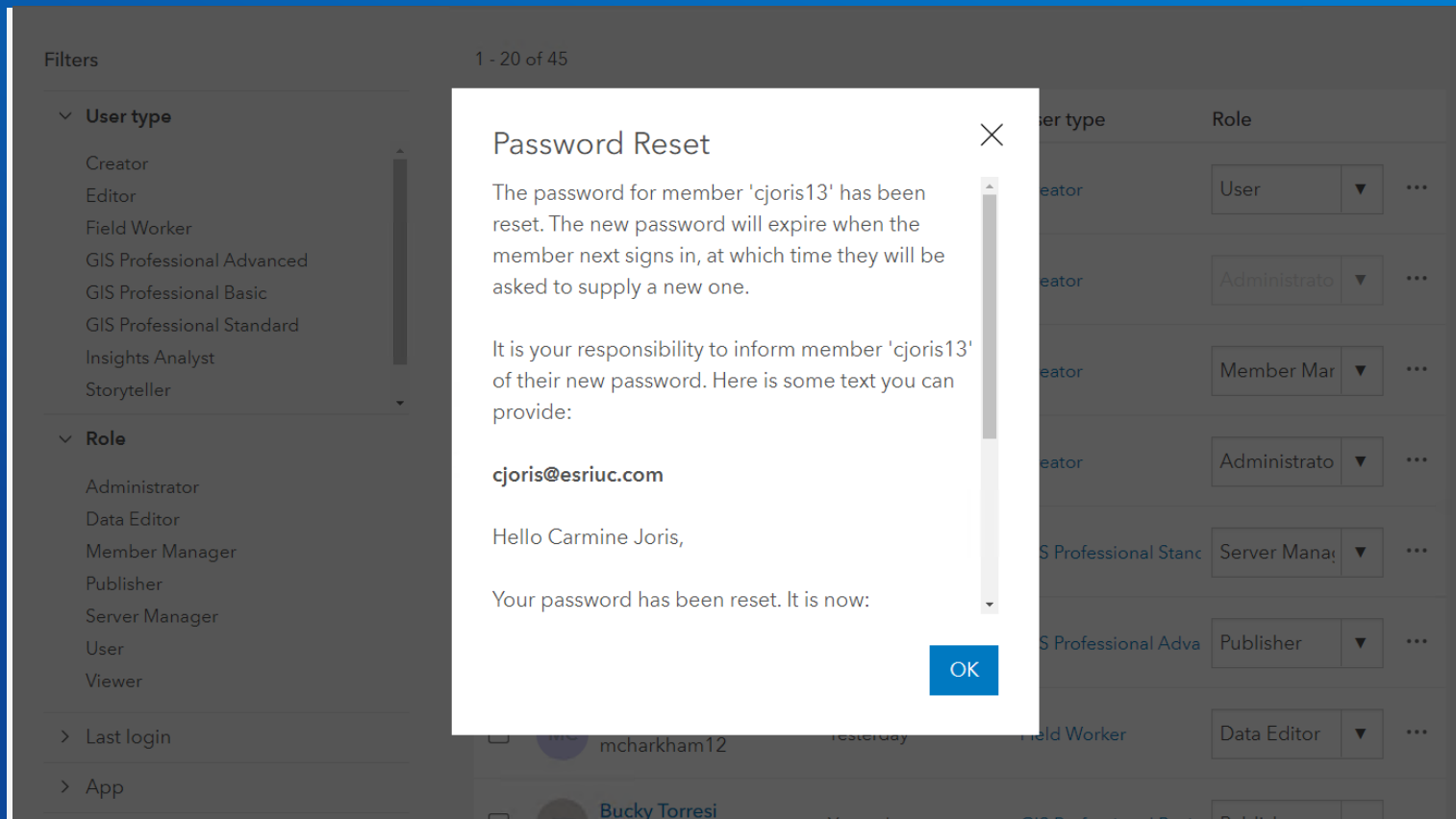


Member Profile page in Portal for ArcGIS

# Managing Members

## Reset Passwords

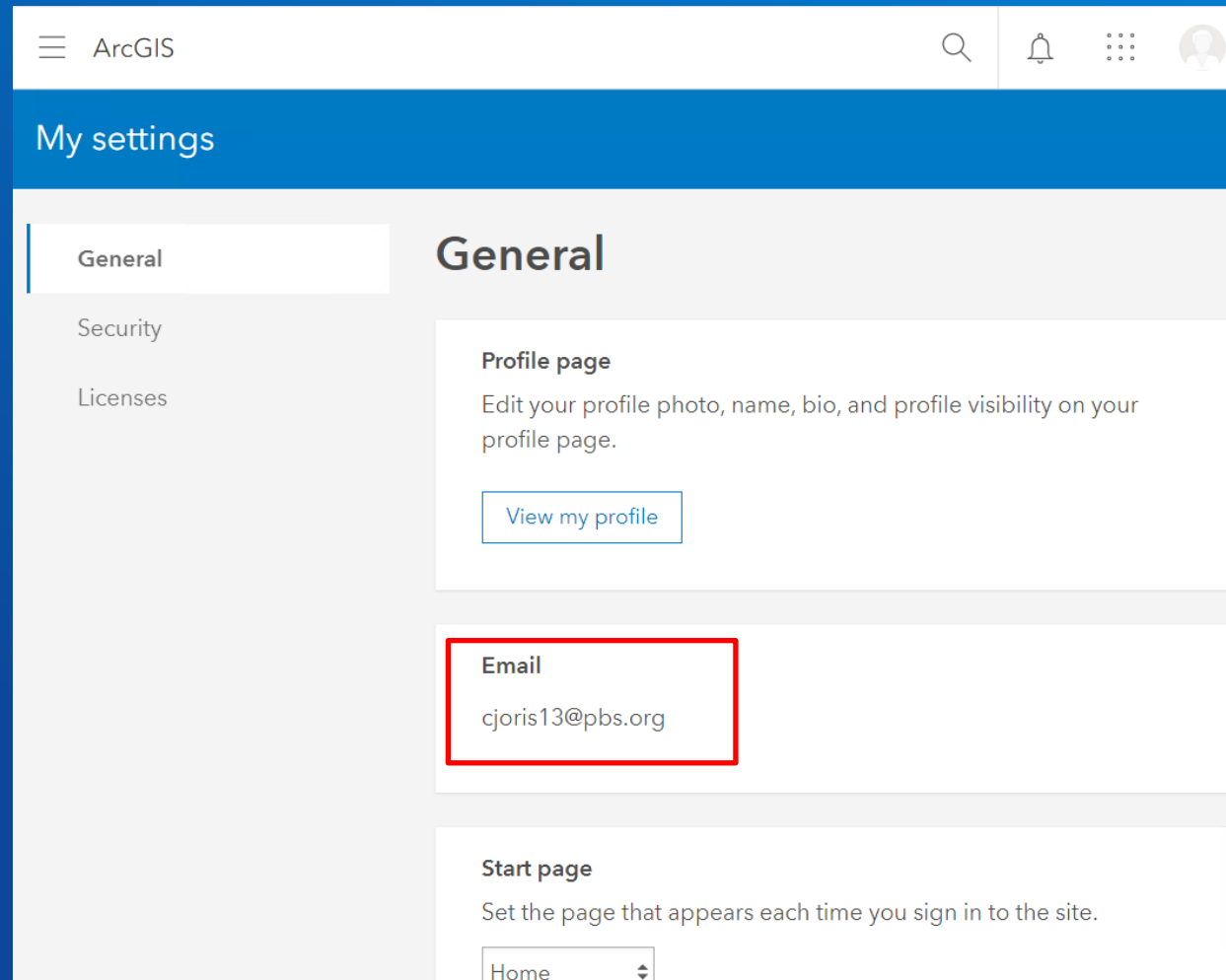
- Privileges required: Administrative privileges > Members > View All + Update



**Member List page, Under the Organization tab  
in Portal for ArcGIS**

# Managing Members

Profile and Account Settings - Limit

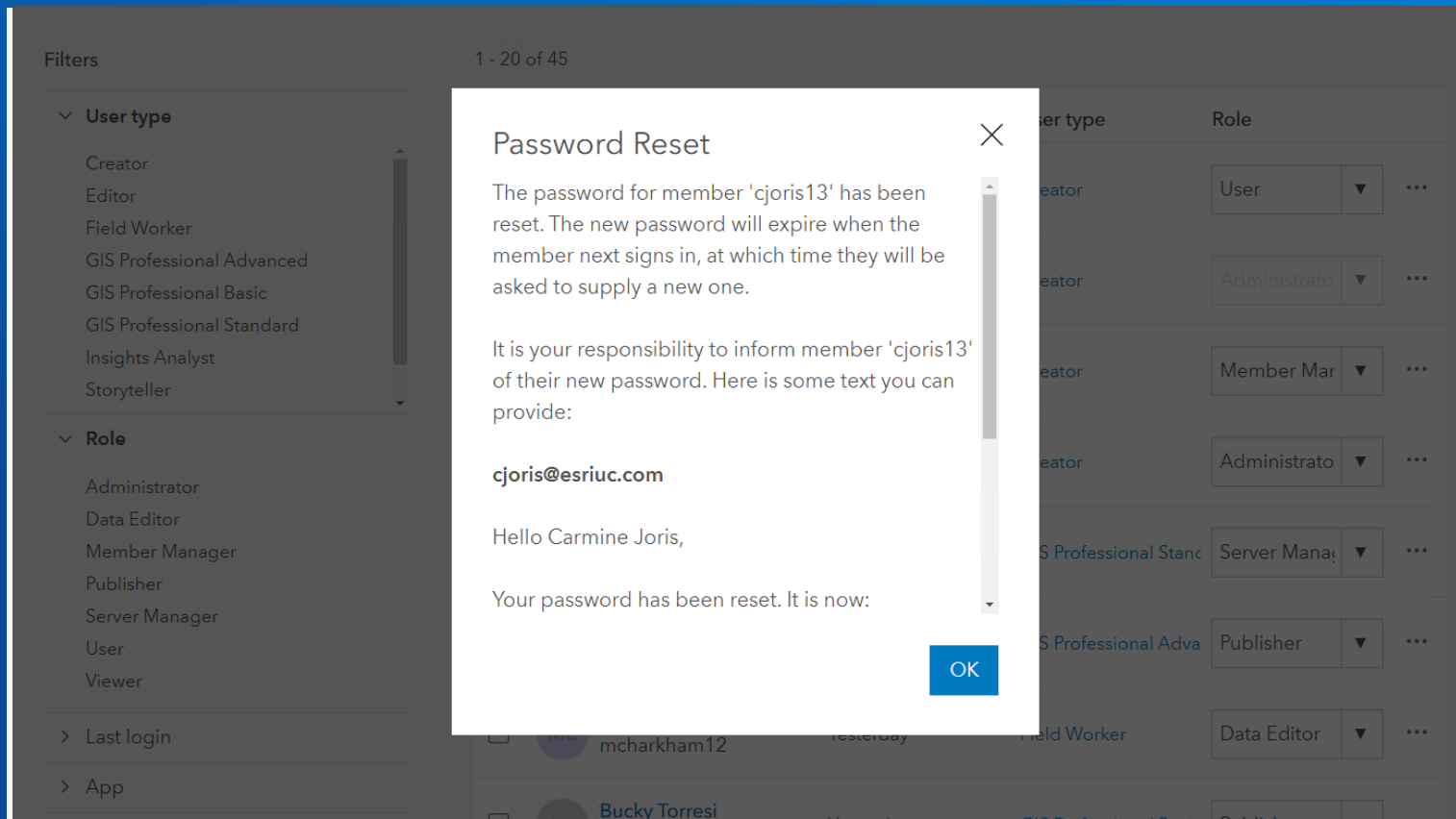


**Member Settings page,  
in Portal for ArcGIS**

# Managing Members

## Reset Passwords

- Privileges required: Administrative privileges > Members > View All + Update









**Password Reset Dialogue, Under the Organization tab  
in Portal for ArcGIS**



# Managing Members

## Disabling Accounts

- Privileges required: Administrative privileges > Members > Disable

<input type="checkbox"/>	Member	Last login	User type	Role	
<input type="checkbox"/>	 <b>Carmine Joris</b> cjoris13	Today	GIS Professional Adv	Publisher	▼ ...
<input type="checkbox"/>	 <b>Denise Vachon</b> admin	Today	Creator	Administratc	▼ ...
<input type="checkbox"/>	 <b>Anna Hildrew</b> ahildrew17	Today	Creator	Member Ma	▼ ...
<input type="checkbox"/>	 <b>Anders Eyeington</b> aeyeington10	Today	Creator	User	▼ ...
<input type="checkbox"/>	 <b>Pier Dunmuir</b> pdunmuir15	Yesterday	Creator	Administratc	▼ ...
<input type="checkbox"/>	 <b>Will Fassam</b> wfassam14	Yesterday	GIS Professional Stan	Server Mana	▼ ...

**Member List page, Under the Organization tab  
in Portal for ArcGIS**

# Managing Members

## Disabling Accounts

- Privileges required: Administrative privileges > Members > Disable

The screenshot displays the 'Member List' page in the ArcGIS Portal. At the top, there's a header bar with '1 member selected', 'Clear selection', 'Manage add-on licenses', 'Manage user types', and a 'More' dropdown. Below this is a table with columns: 'Member', 'Last login', and 'User type'. The table lists several members, with 'Anna Hildrew' (ahildrew17) selected. A context menu is open for the selected member, showing options: 'Enable member', 'Assign groups', and 'Transfer content'. The table also includes a 'More' dropdown for each member row, which is open for Anna Hildrew, showing 'Administratc' and 'Member Ma' options.

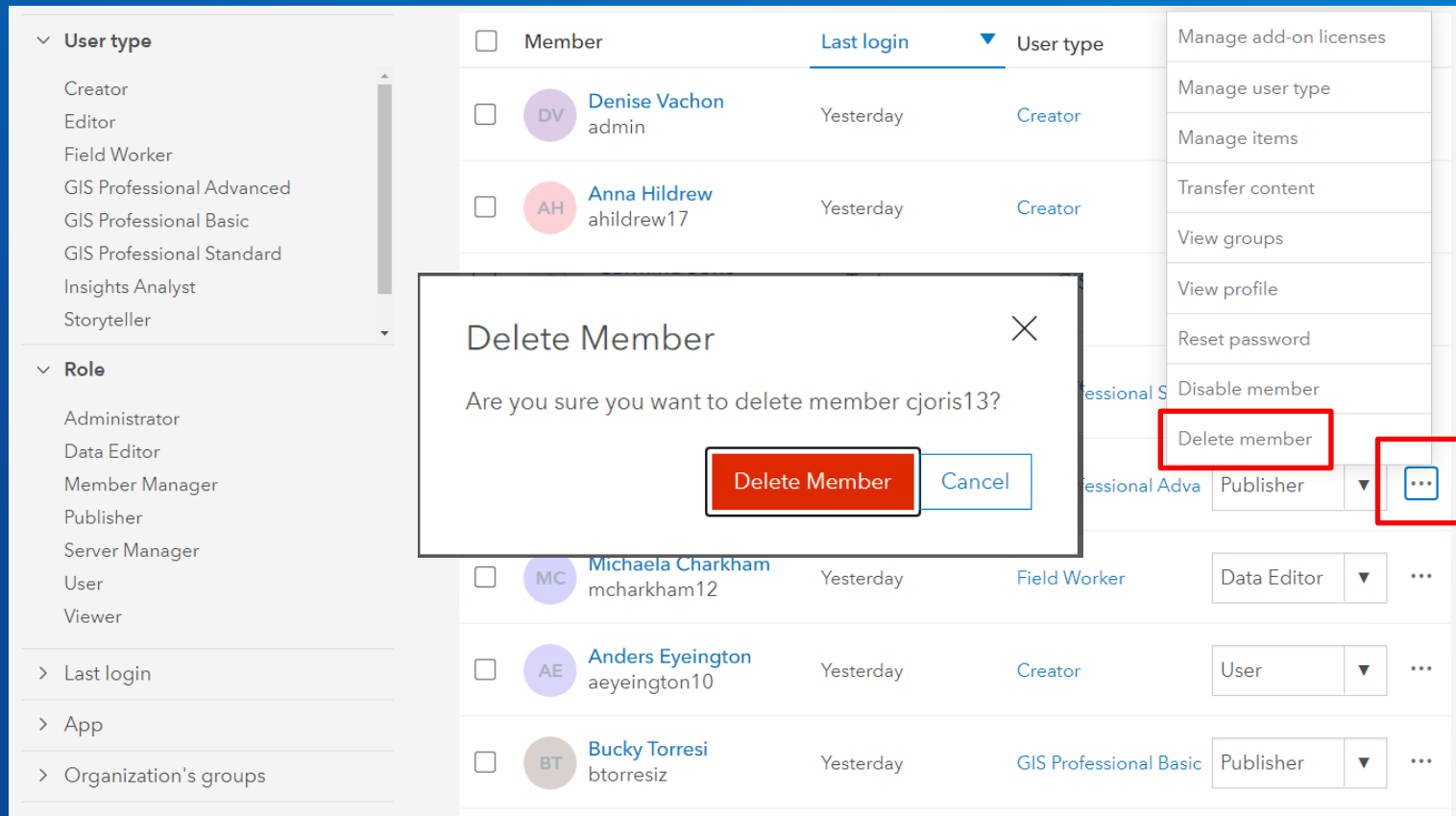
Member	Last login	User type
<input type="checkbox"/> Carmine Joris cjoris13	Today	GIS Professional Ac
<input type="checkbox"/> Denise Vachon admin	Today	Creator
<input checked="" type="checkbox"/> Anna Hildrew ahildrew17	Today	Creator
<input type="checkbox"/> Anders Eyeington aeyeington10	Today	Creator
<input type="checkbox"/> Pier Dunmuir pdunmuir15	Yesterday	Creator
<input type="checkbox"/> Will Fassam wfassam14	Yesterday	GIS Professional Stan

Member List page, Under the Organization tab  
in Portal for ArcGIS

# Managing Members

## Deleting Members

- Privileges required: Administrative privileges > Members > Delete



**Deleting a Member  
is Not Reversible\***

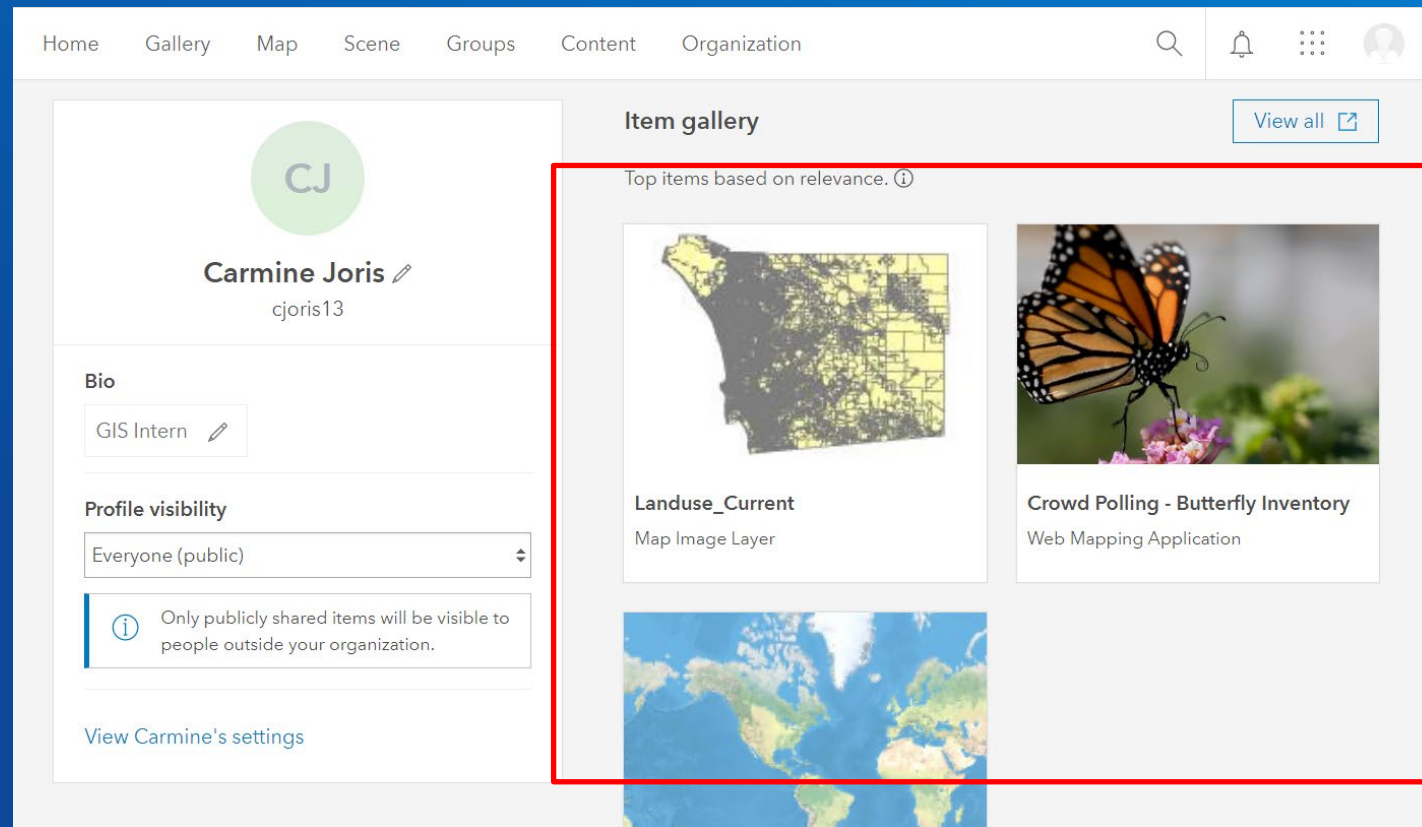
**\* Unless you  
restore a backup!**

**Member List page, Under the Organization tab  
in Portal for ArcGIS**

# Managing Members

## Handling Content before Deleting Members

- Privileges required: Administrative privileges > Content > View All, Delete OR Reassign Ownership



Member Profile page in Portal for ArcGIS

# Managing Members

Handling Content before Deleting Members

- **Privileges required: Administrative privileges > Content > View All, Delete OR Reassign Ownership**

The screenshot displays the 'Member List' page in the ArcGIS Portal. On the left, there are filters for 'User type' (Creator, Editor, Field Worker, GIS Professional Advanced, GIS Professional Basic, GIS Professional Standard, Insights Analyst, Storyteller) and 'Role' (Administrator, Data Editor, Member Manager, Publisher, Server Manager, User, Viewer). The main table lists members with columns for selection, name, last login, and user type. A context menu is open for Carmine Joris (cjoris13), showing options like 'Manage items', 'Transfer content', 'View groups', 'View profile', 'Reset password', 'Disable member', and 'Delete member'. The 'Manage items' option is highlighted with a red box, and the context menu itself is also highlighted with a red box.

	Member	Last login	User type	
<input type="checkbox"/>	Denise Vachon admin	Yesterday	Creator	Manage add-on licenses Manage user type <b>Manage items</b> Transfer content View groups View profile Reset password Disable member Delete member
<input type="checkbox"/>	Anna Hildrew ahildrew17	Yesterday	Creator	
<input type="checkbox"/>	Pier Dunmuir pdunmuir15	Yesterday	Creator	
<input type="checkbox"/>	Will Fassam wfassam14	Yesterday	GIS Professional S	
<input type="checkbox"/>	<b>Carmine Joris</b> cjoris13	Yesterday	GIS Professional Adva	<b>Publisher</b> ...
<input type="checkbox"/>	Michaela Charkham mcharkham12	Yesterday	Field Worker	Data Editor ...
<input type="checkbox"/>	Anders Eyeington aeyeington10	Yesterday	Creator	User ...
<input type="checkbox"/>	Bucky Torresi btorresiz	Yesterday	GIS Professional Basic	Publisher ...

Member List page, Under the Organization tab  
in Portal for ArcGIS

# Managing Members

Handling Content before Deleting Members

- **Privileges required: Administrative privileges > Content > View All, Update, Delete, Reassign Ownership**

The screenshot displays the 'Carmine Joris - Content' page in the ArcGIS Portal. The navigation bar at the top includes 'Home', 'Gallery', 'Map', 'Scene', 'Groups', 'Content' (selected), and 'Organization'. A search bar and notification icons are on the right. Below the header, a search bar contains 'Search cjoris13'. To the right of the search bar are tabs for 'Table', 'Date Modified', and 'Filter'. On the left, a 'Folders' section shows 'All of cjoris13's Content' and 'cjoris13'. Below that, a 'Filters' section is expanded to 'Item Type', showing 'Maps', 'Layers', 'Scenes', and 'Apps'. The main content area shows a table of items. The first item, 'Invasive Species Public Reports', is selected, indicated by a blue checkmark and a green '1 selected' badge. The action bar above the table, highlighted by a red box, contains 'Move', 'Change Owner', 'Share', and 'Delete' buttons. The table columns are 'Title', 'Type', 'Owner', 'Status', 'Actions', and 'Modified'.

Title	Type	Owner	Status	Actions	Modified
<input checked="" type="checkbox"/> Invasive Species Public Reports	Feature Layer (hosted)	[User Icon]	[Star]	[More]	Jun 7, 2021
<input type="checkbox"/> Infrared - South West	Web Map	[User Icon]	[Star]	[More]	Jun 7, 2021
<input type="checkbox"/> Landuse_Current	Map Image Layer	[User Icon]	[Star]	[More]	Jun 7, 2021
<input type="checkbox"/> CustomGP	Tool	[User Icon]	[Star]	[More]	Jun 7, 2021
<input type="checkbox"/> Crowd Polling - Butterfly Inventory	Web Mapping Application	[User Icon]	[Star]	[More]	Jun 7, 2021

**Member Content page, Under the Content tab  
in Portal for ArcGIS**

# Managing Members

Transferring Content before Deleting Members

- **Privileges required: Administrative privileges > Content > View All & Reassign Ownership**

The screenshot shows the 'Member List' page in the ArcGIS Portal. At the top, there's a header bar with '3 members selected', 'Clear selection', 'Manage add-on licenses', 'Manage user types', and a 'More' dropdown. Below this is a table with columns: Member, Last login, and User type. The table lists six members. A 'More' dropdown menu is open for the first member, 'Carmine Joris', showing options: 'Disable members', 'Assign groups', and 'Transfer content'. The 'Transfer content' option is highlighted with a red box. Below the table, three more members are listed, each with a checkbox in the first column. These checkboxes are also highlighted with a red box.

Member	Last login	User type
<input type="checkbox"/> Carmine Joris cjoris13	Today	GIS Professional Ac
<input type="checkbox"/> Denise Vachon admin	Today	Creator
<input type="checkbox"/> Anna Hildrew ahildrew17	Today	Creator
<input checked="" type="checkbox"/> Anders Eyeington aeyeington10	Today	Creator
<input checked="" type="checkbox"/> Pier Dunmuir pdunmuir15	Yesterday	Creator
<input checked="" type="checkbox"/> Will Fassam wfassam14	Yesterday	GIS Professional Stan

Member List page, Under the Organization tab  
in Portal for ArcGIS



# Managing Members

Transferring Content before Deleting Members

- **Privileges required: Administrative privileges > Content > View All & Reassign Ownership**

Transfer content

Select new owner

Search members

Pier Dunmuir  
pdunmuir15

Anna Hildrew  
ahildrew17

Cortie Gritsaev  
cgritsaev4

Lanni Weatherell  
lweatherellj91

Content to transfer

24








Consists of all items from selected owners.

Transfer Cancel

**Important note:**  
Changing the owner of  
an item does not change  
the location on disk or ID  
of the item

Member List page, Under the Organization tab  
in Portal for ArcGIS

# Managing Members

<input type="checkbox"/>	Member	Last login	User type	Role
<input type="checkbox"/>	 <b>Denise Vachon</b> admin	Today	Creator	Administrator
<input type="checkbox"/>	 <b>Anna Hildrew</b> ahildrew17	Today	Creator	MemberManager
<input type="checkbox"/>	 <b>Pier Dunmuir</b> pdunmuir15	Today	Creator	
<input type="checkbox"/>	 <b>Will Fassam</b> wfassam14	Today	GIS Professional Standard	
<input type="checkbox"/>	 <b>Carmine Joris</b> cjoris13	Today	GIS Professional Advanced	
<input type="checkbox"/>	 <b>Michaela Charkham</b> mcharkham12	Today	Field Worker	
<input type="checkbox"/>	 <b>Bree Garthshore</b> bgarthshore1	Today	Viewer	

## Managing Members Means Managing:

- User Types
- User Roles
- Account Settings
- Member Content
- Password Resets
- Disabling Accounts
- Deleting Accounts

# Managing Members

Edit role

Administrative privileges

Members

View all

Allow member to view full member account information within your portal.

Update

Allow member to reset passwords and update member account information within your portal.

Delete

Allow member to delete member accounts within your portal.

Add

Allow member to invite members to your portal.

Disable

Allow member to enable and disable member accounts within your portal.

Change roles

Allow member to change the role a member account is assigned. Note, only members with the Administrator role can assign or unassign the Administrator role to other accounts.

Manage licenses

Allow member to assign licenses to members of your portal.

Enabled: 12/26

Enable all

Enabled: 7/7

Disable all

Save

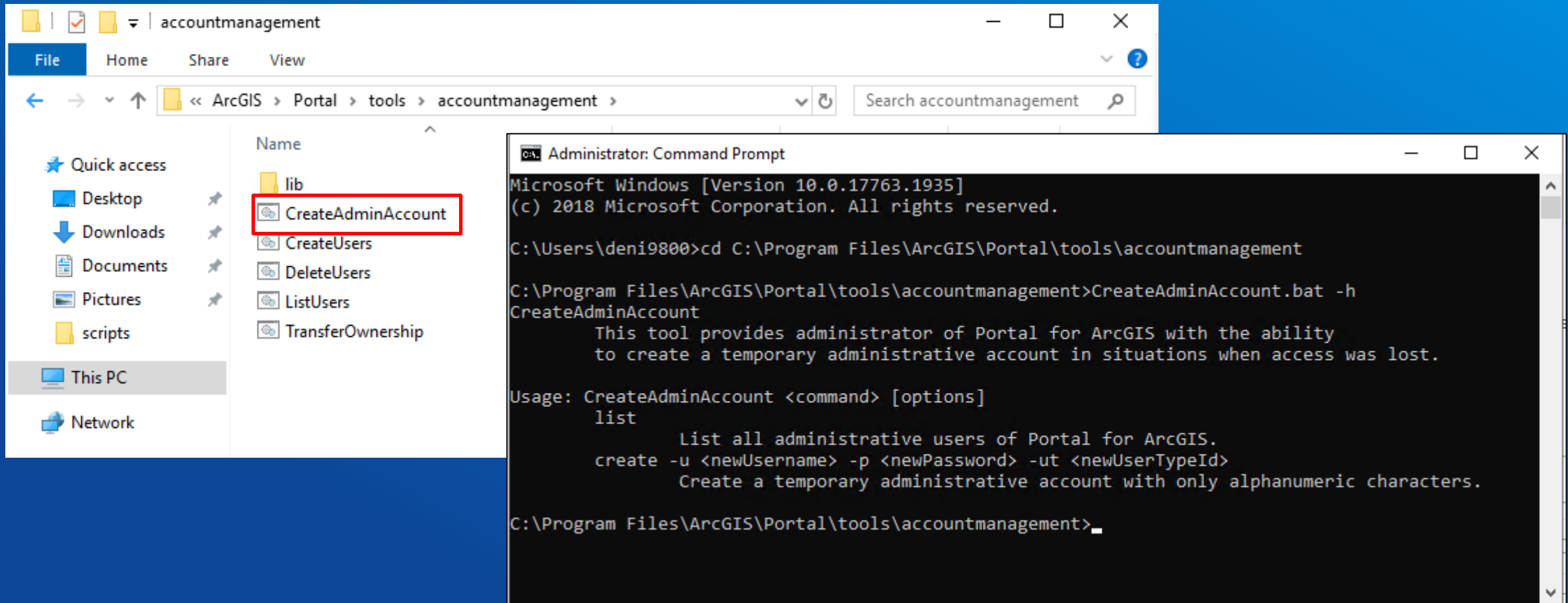
Cancel

## Managing Members Requires Privileges:

- User Types
- User Roles
- Account Settings
- Member Content
- Password Resets
- Disabling Accounts
- Deleting Accounts

# Managing Members

Recovering when no Administrator accounts are available



<https://enterprise.arcgis.com/en/portal/latest/administer/windows/recovering-the-portal-when-no-administrator-accounts-are-available.htm>

# Monitoring Your Deployment



# Monitoring your Deployment

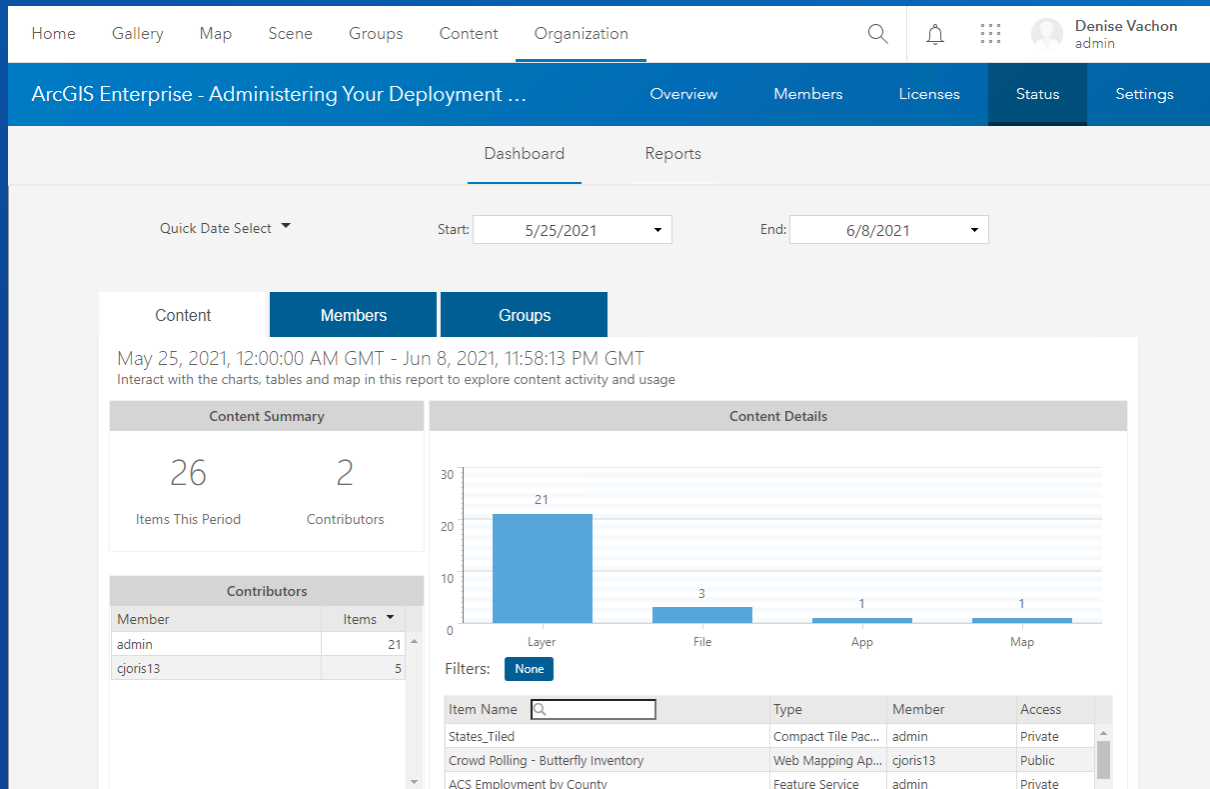
- Portal
  - Usage Reports/Status
    - Activity Dashboard
    - Exportable Reports (New at 10.9)
  - Logs
- Server
  - Usage Statistics
  - Job ID tracking
- ArcGIS Monitor



# Monitoring your Deployment

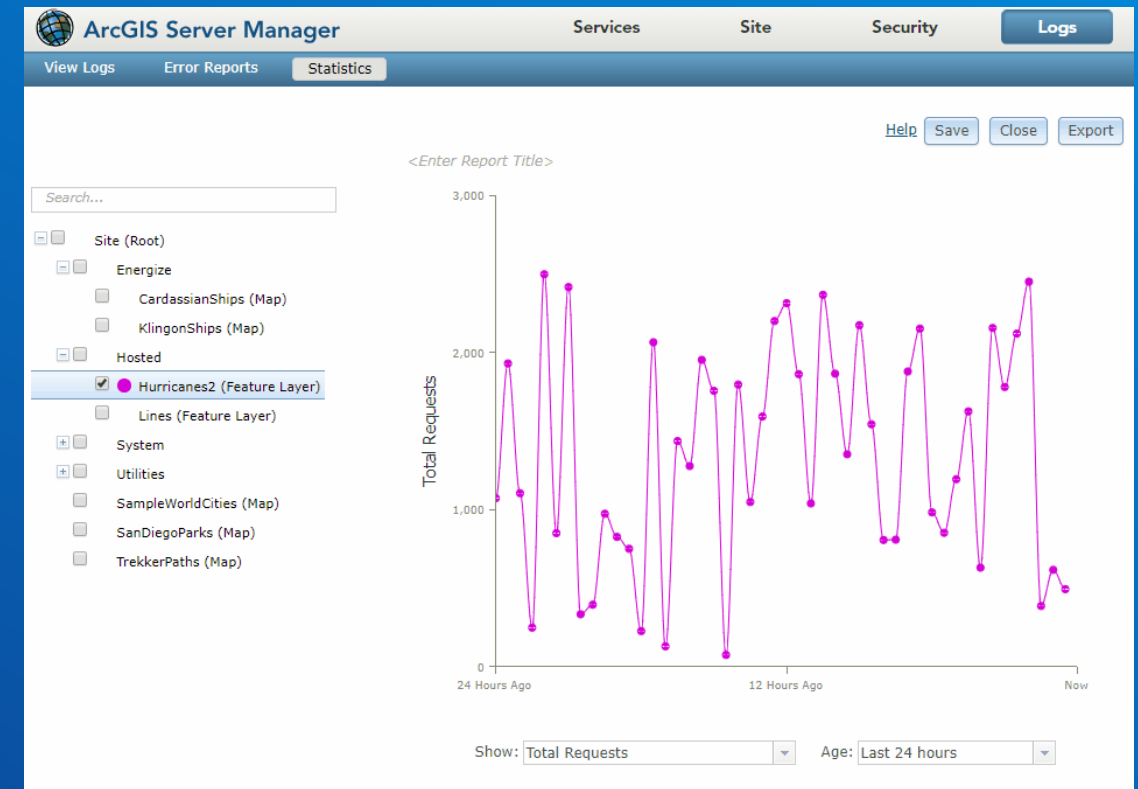
## Usage Reports

Monitor Portal items, members and groups



Activity Dashboard, Under the Organization > Status tab  
in Portal for ArcGIS

Monitor web service requests

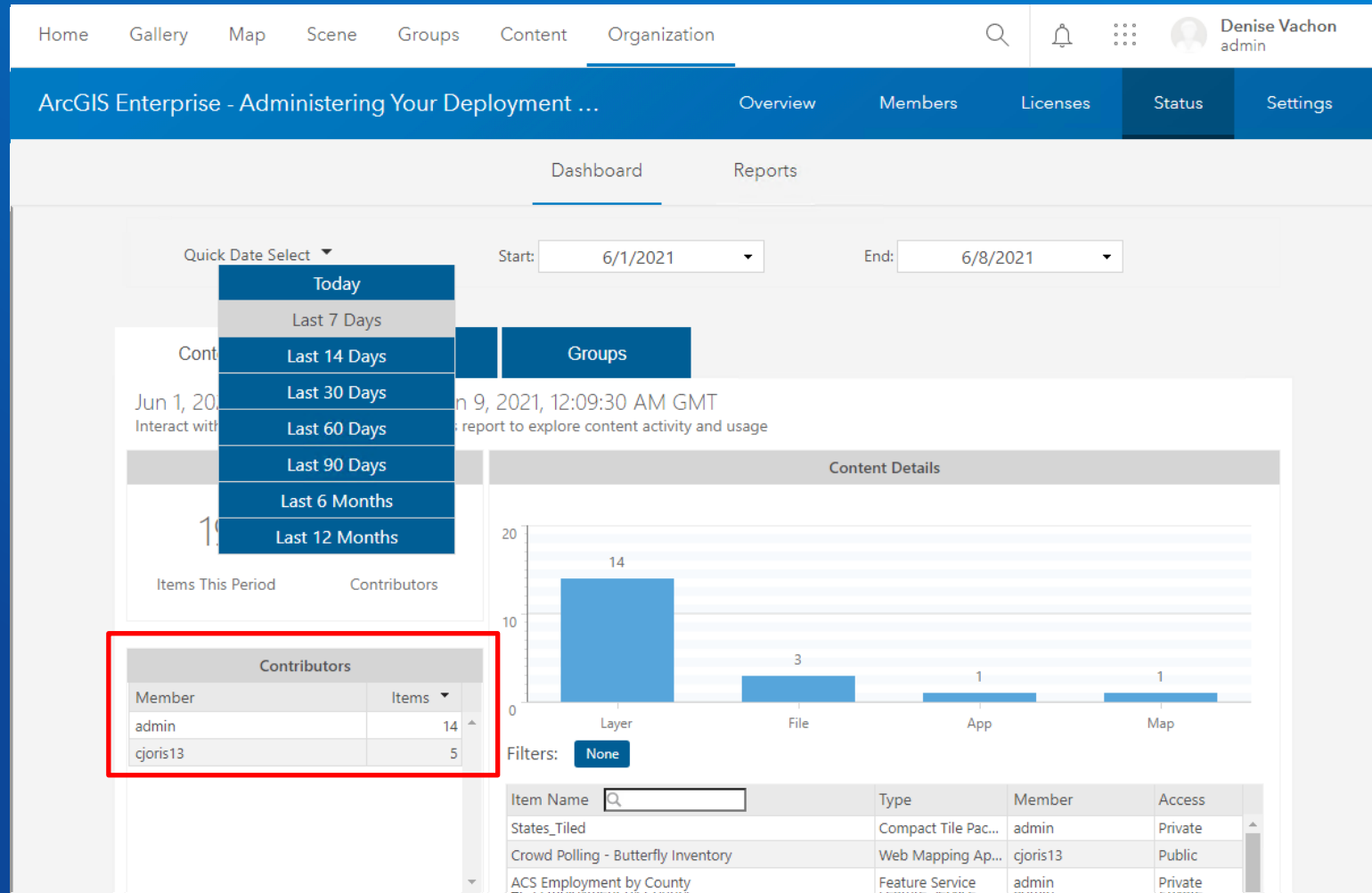


Statistics, Under the Logs tab  
in Server Manager



# Monitoring your Deployment

## Usage Reports in Portal for ArcGIS



**Activity Dashboard, Under the Organization > Status tab  
in Portal for ArcGIS**

# Monitoring your Deployment Usage Reports in Portal for ArcGIS

- Member-based synopsis of:

- Content created
- Groups in
- Groups owned
- Content shared
- Location and extents of GIS content

- Group-based synopsis of:


- Number of Groups
- Owners of Groups
- How Groups are Shared

Quick Date Select ▾ Start: 6/8/2021 ▾ End: 6/8/2021 ▾

Content Members Groups

Jun 8, 2021, 12:00:00 AM GMT - Jun 9, 2021, 12:13:00 AM GMT  
Filter, order and view details by interacting with member charts, tables and map

### Utilization Summary and Statistics Report for Member: Denise Vachon



Denise Vachon  
admin  
a@e.com

Member Role  
Administrator

Member Since  
5/27/2021

Groups In  
2

Total Items Created or Modified This Period  
14

Number of Favorites  
0

Groups Owned  
2


[Change Member](#)

### Content and Collaboration Activity This Period

#### Content Summary

14  
New or Updated Items

#### Sharing Summary

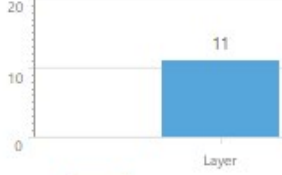


Public  
Private  
Organization  
Group

#### Tags in Items

pro USA shared ontario canada  
emergency services clinics hospitals health  
australia water spout tornado wind rain hail  
lightning storm dedicated test Riverside Canada  
natural england nature reserves Protected sites  
environment City: San Diego OZM base zoning  
Official Zoning Map jobs current year labor force  
Census Bureau American Community Survey Policy  
Survey Community American Demographics  
Unemployment Employment Workforce Hours  
tracts counties states people demographics  
Census ACS germany border borders

#### Content Details




11  
3

Layer File

Filters: [None](#)

Item Name	Type	Access
States_Tiled	Compact Tile Package	Private
ACS Employment by County	Feature Service	Private
Germany	Feature Service	Private
OrganizationMembers_6/8/2021	Administrative Report	Private
CountryBorders	Feature Service	Private

☒ Item Centers ☐ Item Footprints ☐ Density (all items)



+  
-

A

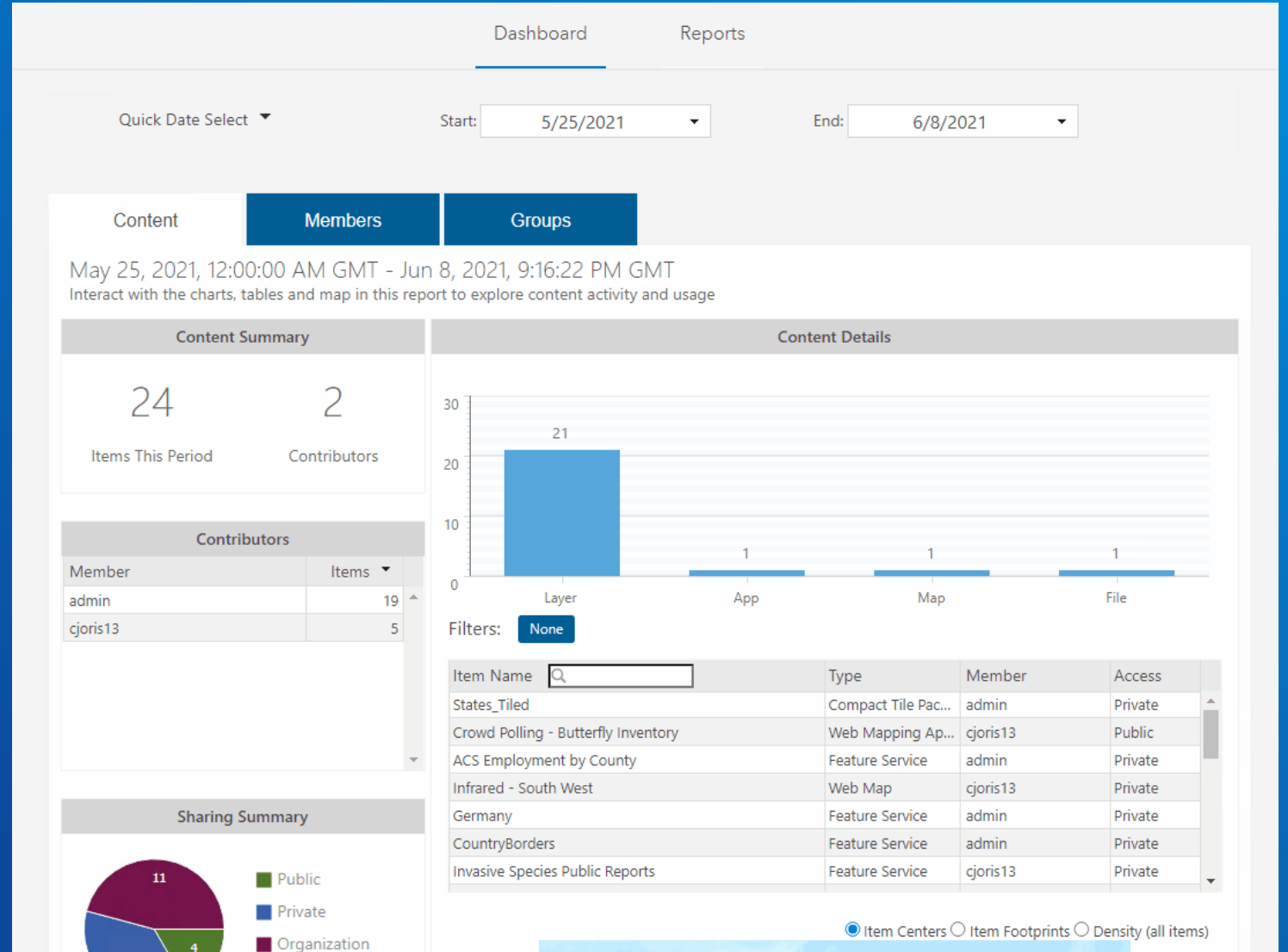
# Monitoring your Deployment

## Usage Reports in Portal for ArcGIS

- **Interactive Filtering By Clicking On:**

- Charts
- Tables
- Maps

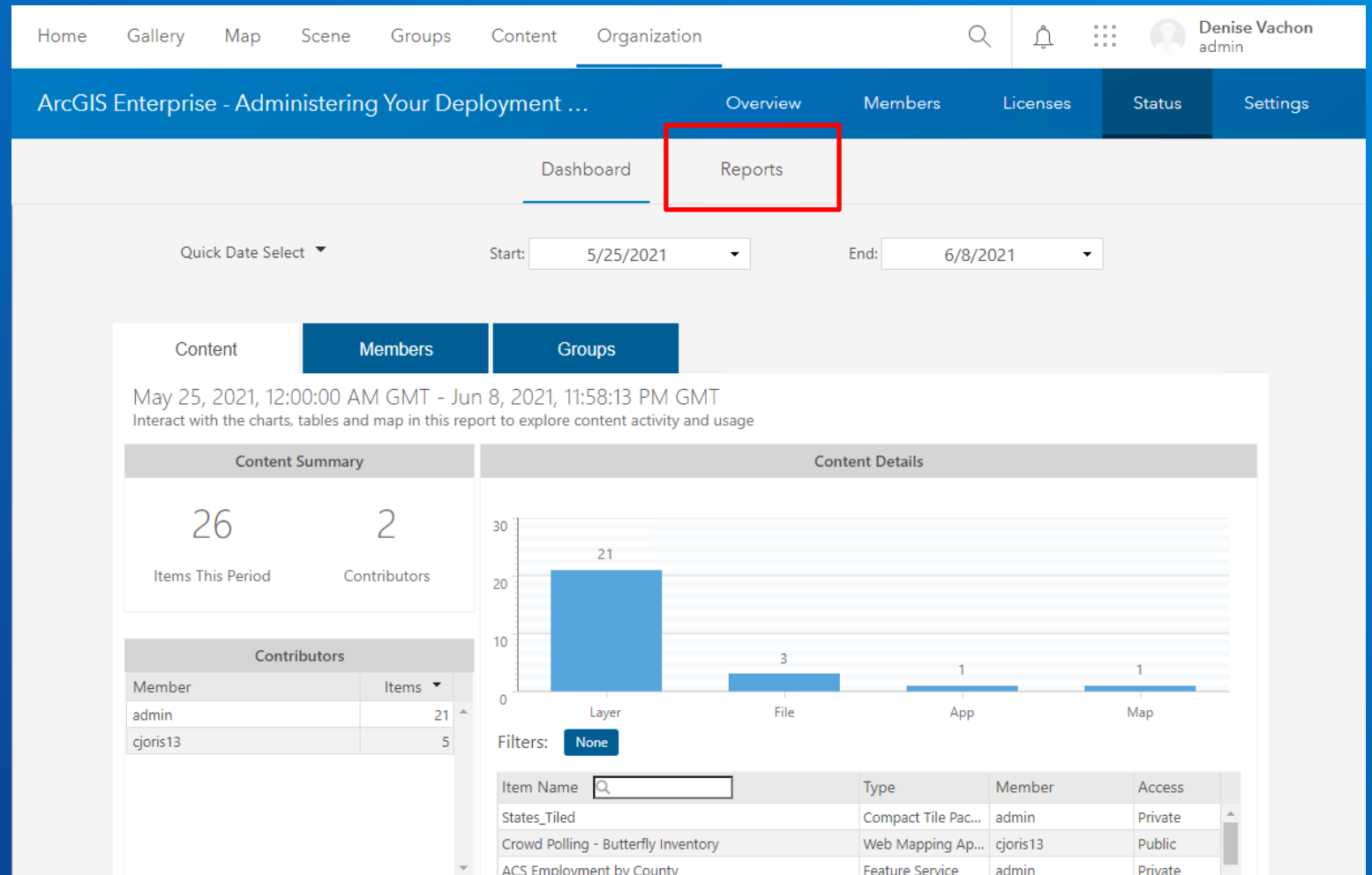
- **Both the Content and Member tabs are interactive.**



# Monitoring your Deployment

## Usage Reports in Portal for ArcGIS

- New at 10.9!
- Exportable Administrative Reports
- Requires the default administrator role



# Monitoring your Deployment

## Usage Reports in Portal for ArcGIS

- New at 10.9!
- Exportable Administrative Reports
- Requires the default administrator role

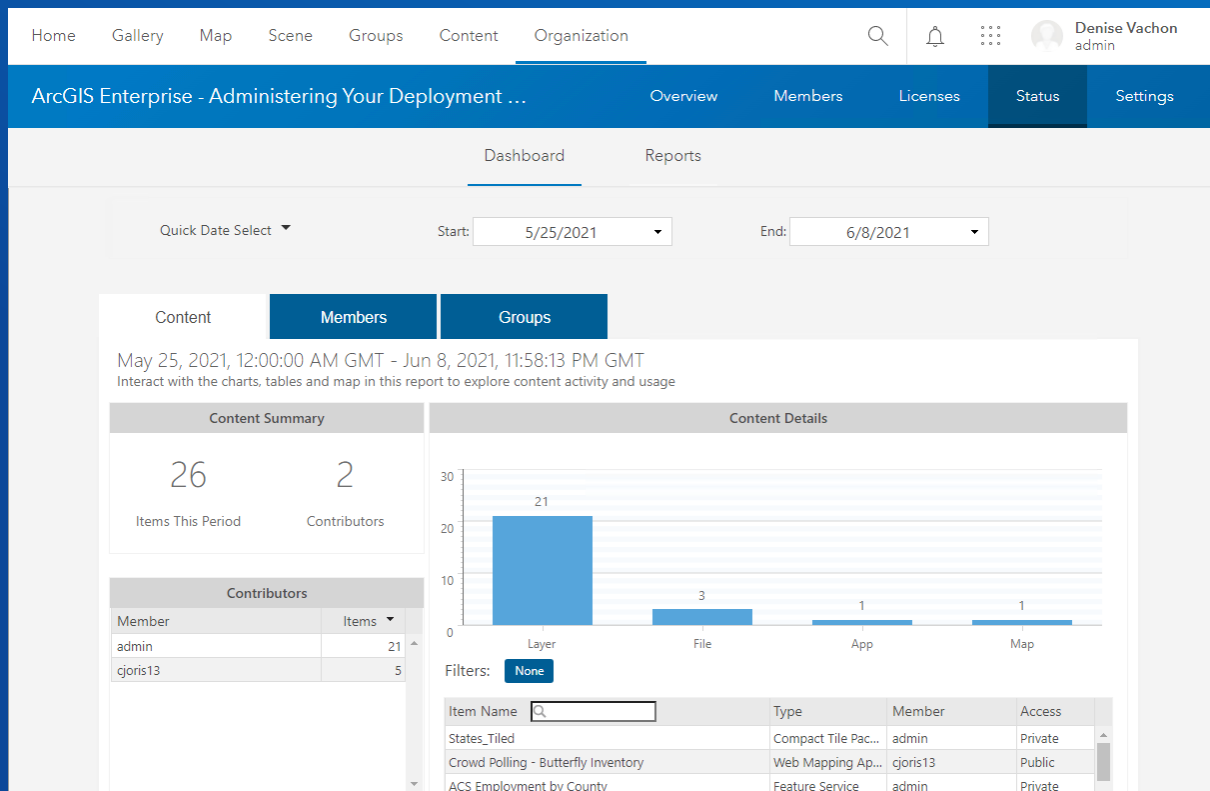
The screenshot displays the ArcGIS Portal interface. The top navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, and Organization. Below this, a secondary navigation bar shows 'Content', 'My Content', 'My Favorites', 'My Groups', 'My Organization', and 'Living Atlas'. The 'My Content' tab is selected. On the left, a 'Folders' panel shows a search bar and a list of folders: 'All My Content', 'admin' (selected), and 'UC2021'. An 'Edit Folder' button is visible next to 'UC2021'. The main content area shows a list of items under the heading '1 - 16 of 16 in admin'. The list has columns for checkboxes, titles, types, icons, and modification dates. Two items are highlighted with a red box: 'OrganizationMembers\_6/8/2021' (Administrative Report) and 'OrganizationItems\_5/25/21' (Administrative Report). Other items include 'States\_Tiled' (Tile Layer) and 'States\_Tiled' (Tile Package).

	Title	Type	Icon	Modified
<input type="checkbox"/>	OrganizationMembers_6/8/2021	Administrative Report		Jun 8, 2021
<input type="checkbox"/>	OrganizationItems_5/25/21	Administrative Report		Jun 8, 2021
<input type="checkbox"/>	States_Tiled	Tile Layer (hosted)		Jun 7, 2021
<input type="checkbox"/>	States_Tiled	Tile Package (tpkx)		Jun 7, 2021

# Monitoring your Deployment

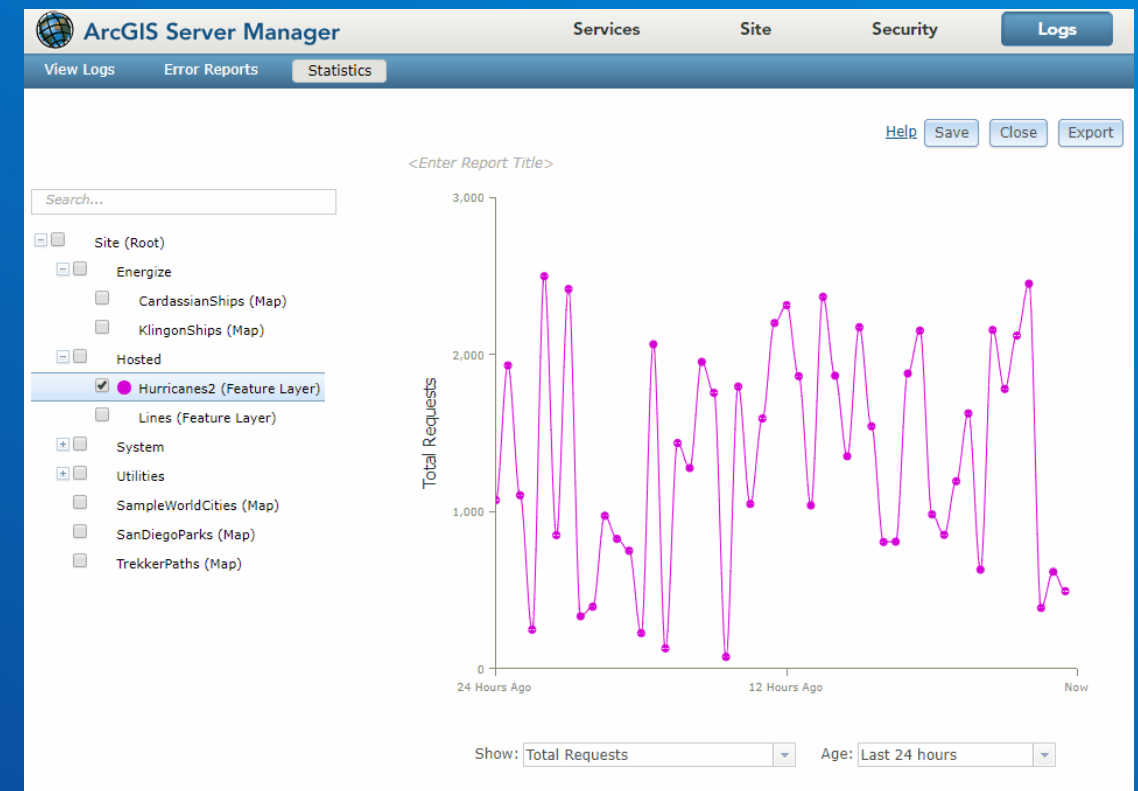
## Usage Reports

Monitor Portal items, members and groups



Activity Dashboard, Under the Organization > Status tab  
in Portal for ArcGIS

Monitor web service requests



Statistics, Under the Logs tab  
in Server Manager

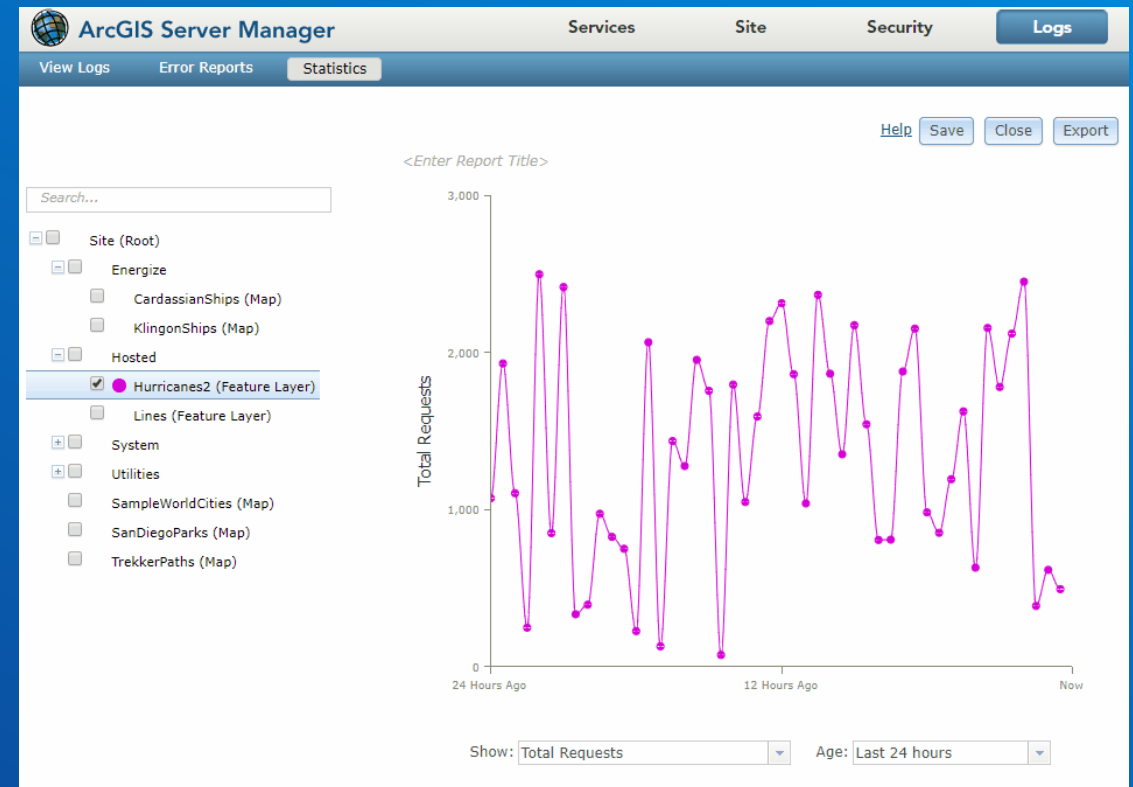
# Monitoring your Deployment

## Usage Reports – Server Statistics

Visualize service statistics:

- For any service
- Over custom time ranges
- Using 5 Metrics in Server Manager:
  - Total number of requests
  - Average request response times
  - Maximum request response times
  - Count of request timeouts
  - Count of running ArcSOC instances

## Monitor web service requests



**Statistics, Under the Logs tab  
in Server Manager**



# Monitoring your Deployment

## Usage Reports

What's the difference between service statistics in ArcGIS Server and item statistics in Portal for ArcGIS?

The screenshot shows the ArcGIS Portal interface for an item titled "HailEvents\_1900\_2017\_Australia". The page includes a thumbnail map of Australia with red dots representing hail events, a description of the Severe Storms Archive, and various action buttons like "Open in Map Viewer", "Open in Scene Viewer", "Open in ArcGIS Desktop", "Share", and "Metadata". It also displays item information such as creation and update dates (Jun 7, 2021) and a view count of 0.

ArcGIS

HailEvents\_1900\_2017\_Australia

Overview

Edit thumbnail

The Severe Storms Archive contains data relating to recorded Severe Thunderstorm and related events dating back to the 18th Century.

Map Image Layer by admin

Created: Jun 7, 2021 Updated: Jun 7, 2021 View Count: 0

Add to Favorites

Description

This is a database of all recorded severe local storm events. Many storms are not recorded because:

- It impacted an unpopulated area
- Nobody saw it
- Nobody reported it
- It was not detected by any observation systems (e.g. radar, AWS)

Item Information

Low High

Details

The screenshot shows the ArcGIS Portal map viewer interface. The map displays Australia with a layer titled "HailEvents 1900 2017 Australia" showing numerous red dots representing hail events. The interface includes a search bar, a contents pane on the left, and a scale bar at the bottom.

Home My Map

New Map Denise

Details Add Basemap Analysis Share Find address or place

Contents

- HailEvents 1900 2017 Australia
- Topographic

0 200 400mi

Esri, USGS | Esri, HERE, Garmin, FAO, NOAA, USGS | Australian Gov...

**Portal is recording item views, ArcGIS Server is recording the service requests.**

# Monitoring your Deployment

## Logging



Portal Administrator Directory

[Home](#)

---

**Site Root - /**

**Version:** 10.8

**Resources:** [System](#) [Security](#) [Federation](#) [Logs](#) [Machines](#) [License](#) [Mode](#)

**Supported Operations:** [Export Site](#) [Import Site](#)

**Supported Interfaces:** [REST](#)

ArcGIS Server Manager

Services Site Security **Logs**

View Logs Error Reports Statistics

[Printer Friendly View](#) | [Help](#) [Columns](#) [Delete Logs](#) [Settings](#)

### View Log Messages

View log messages by querying based on the level, age and source of the messages and clicking Query.

Change the level of detail that the log messages are generated at by clicking Settings.

Log Filter:  Age:  Source:  Machine:  [Query](#)

All

Server Framework

ArcGIS Data Store

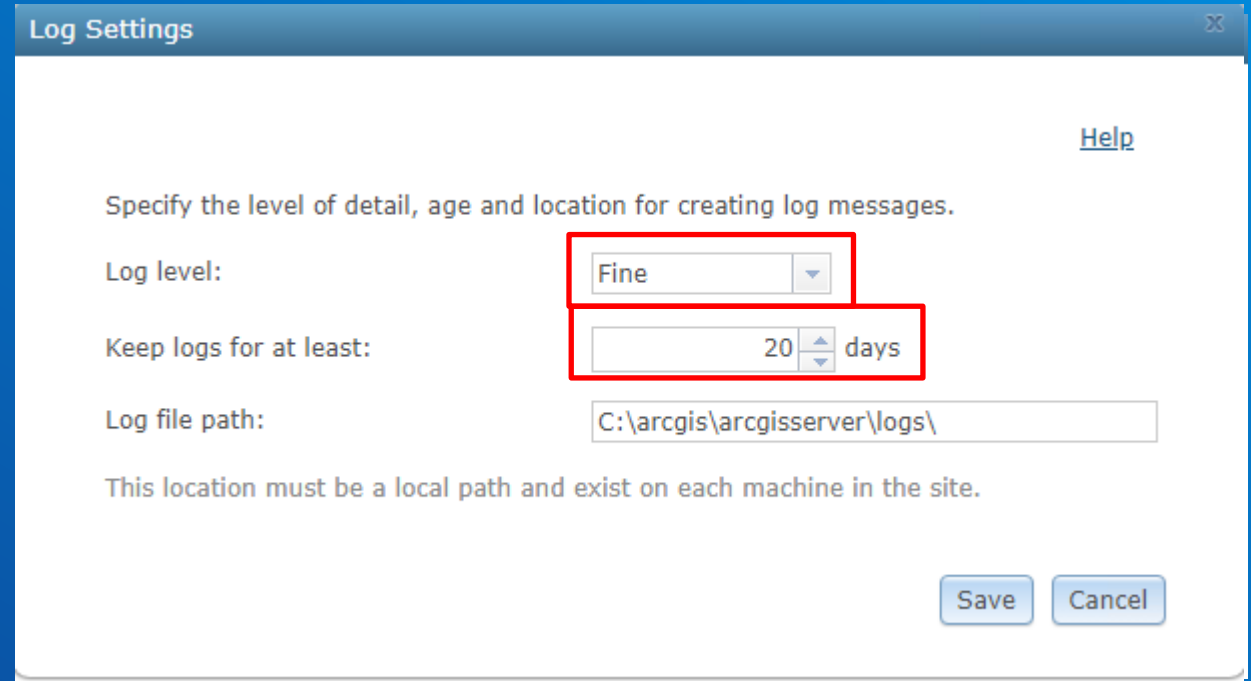
All Services

# Monitoring your Deployment

## Logging

### 5 Log Levels:

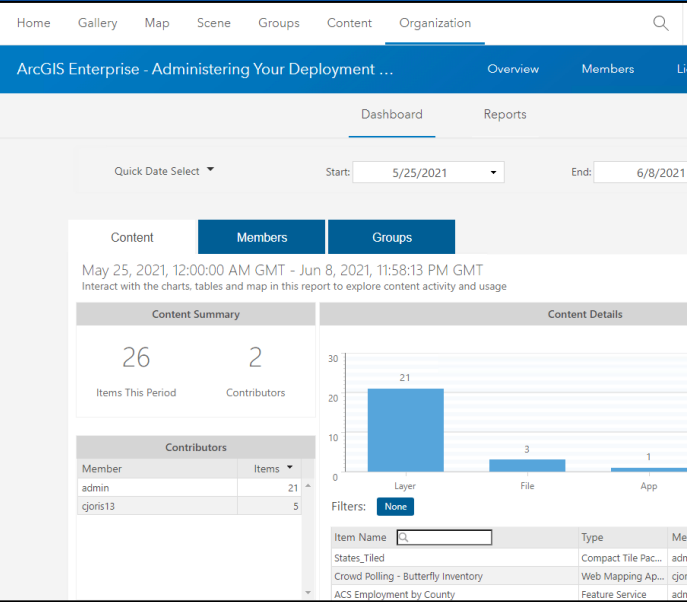
- Severe
- Warning (Default)
- Info
- Fine
- Verbose
- Debug\*



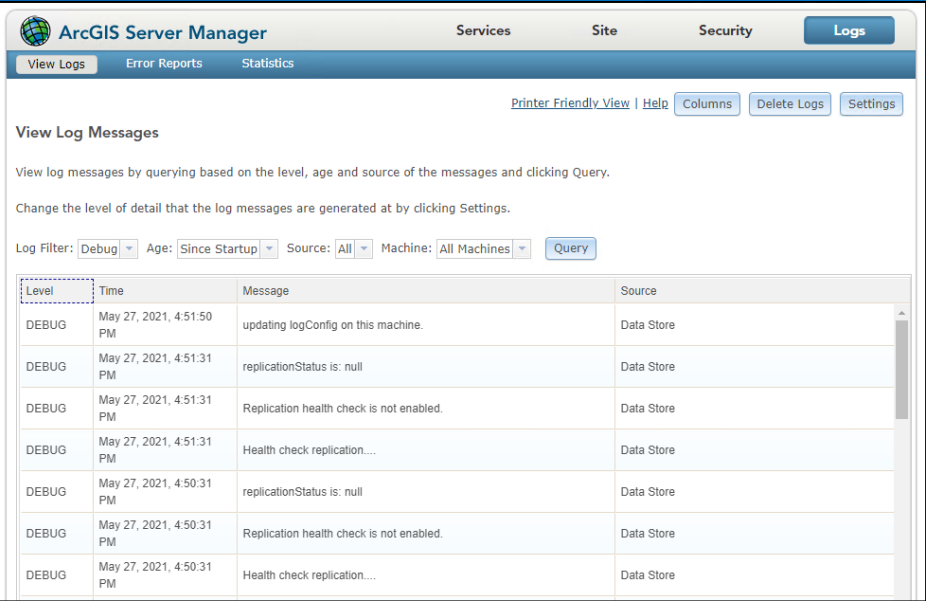
Log setting dialogue in Server Manager  
under the Logs tab > Setting button

**\*Debug logs A LOT of messages. Do not leave your system at this level for an extended period of time if you wish to conserve disk space.**

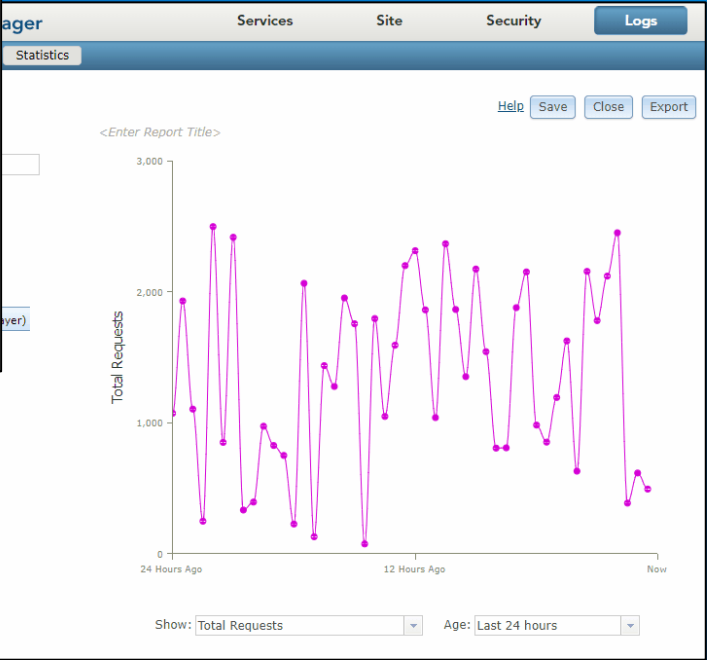
# Monitoring your Deployment



Activity Dashboard  
in Portal for ArcGIS



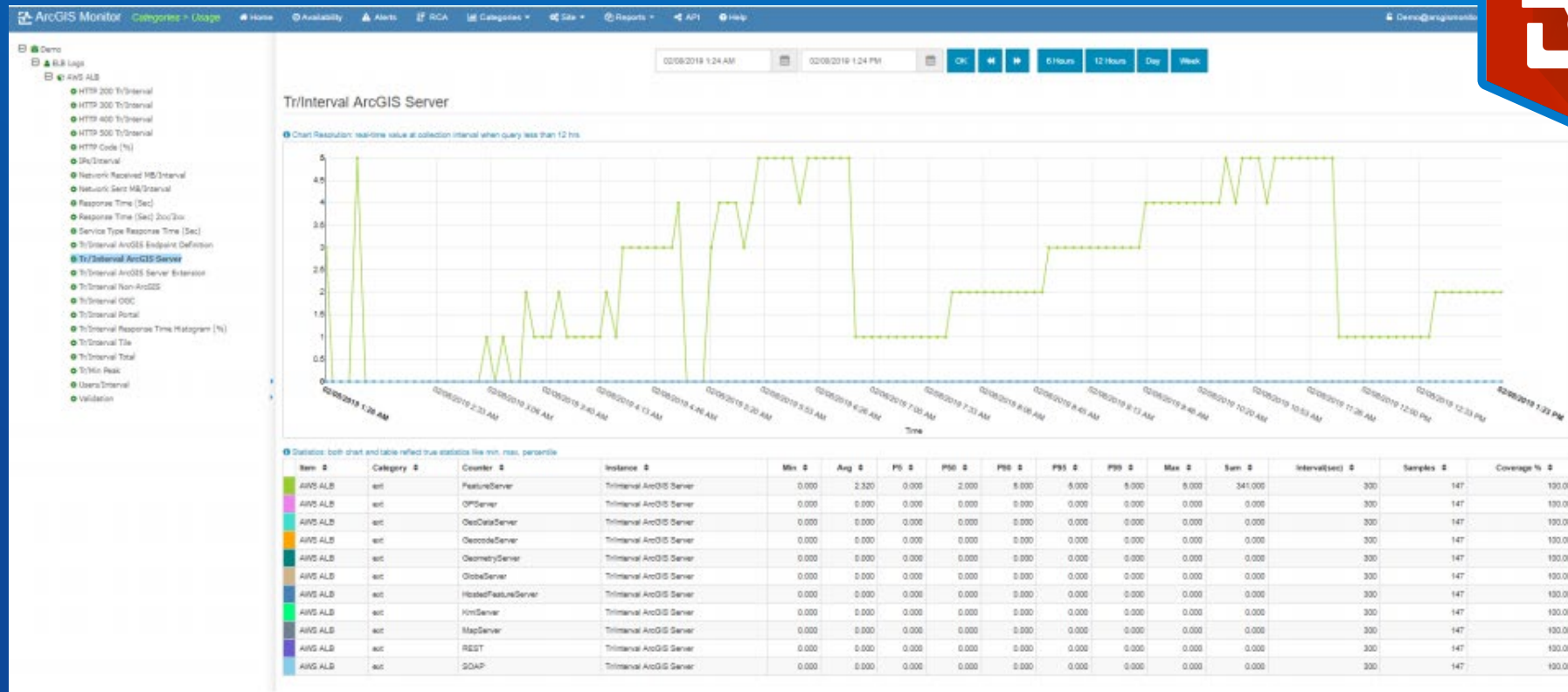
Logging  
in Server Manager  
and  
Portal Sharing API



Statistics  
in Server Manager

# Monitoring your Deployment

## ArcGIS Monitor



# Resources

Official Documentation: <https://enterprise.arcgis.com>

- Helpful administration links:
  - [Administering Portal](#)
  - [Administering ArcGIS Data Store](#)
  - [Administering ArcGIS Server](#)

Technical Support: <https://support.esri.com>

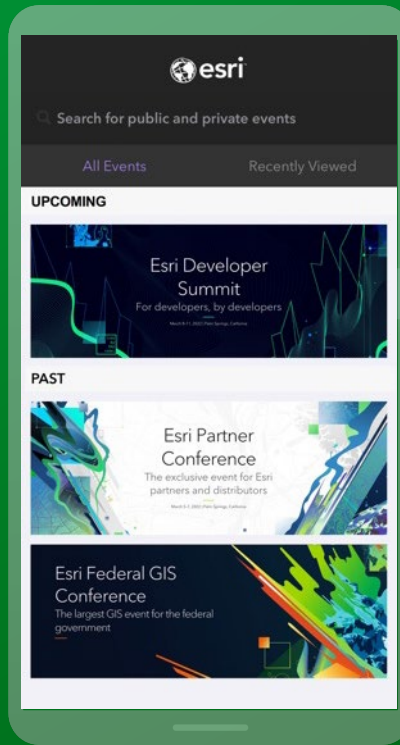
# Summary

- Administrative Endpoints
- Securing Your Deployment
- Managing Services
- Managing Users
- Monitoring your Deployment
- Summary

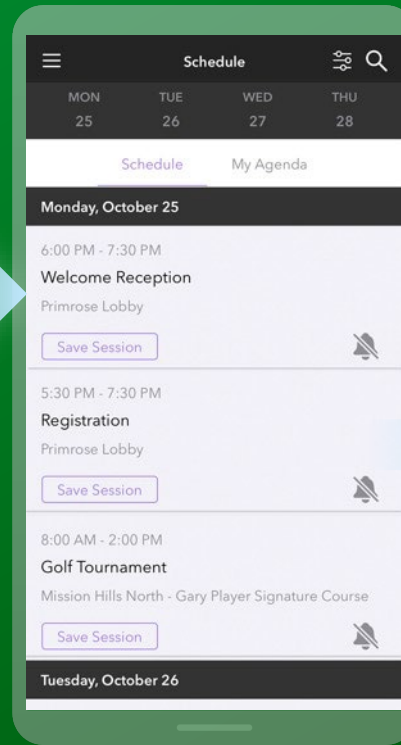


# Please Share Your Feedback in the App

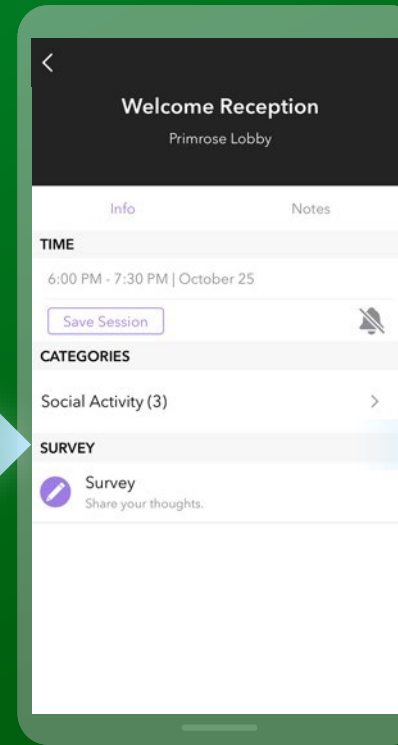
Download the Esri Events app and find your event



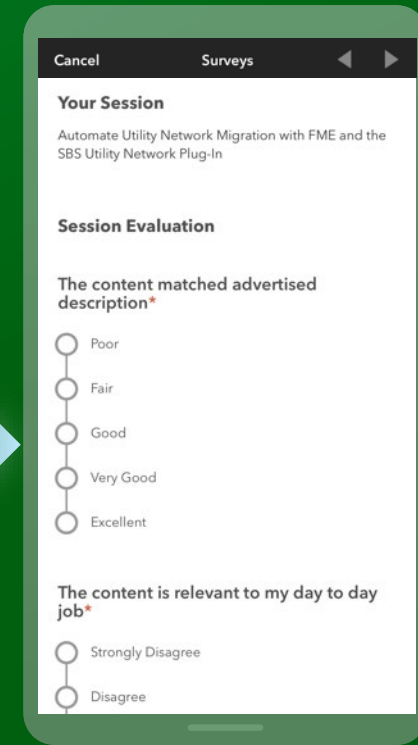
Select the session you attended



Scroll down to "Survey"



Log in to access the survey





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SCIENCE  
OF  
WHERE®