



# ArcGIS Enterprise: Administering your Deployment

Derek Law

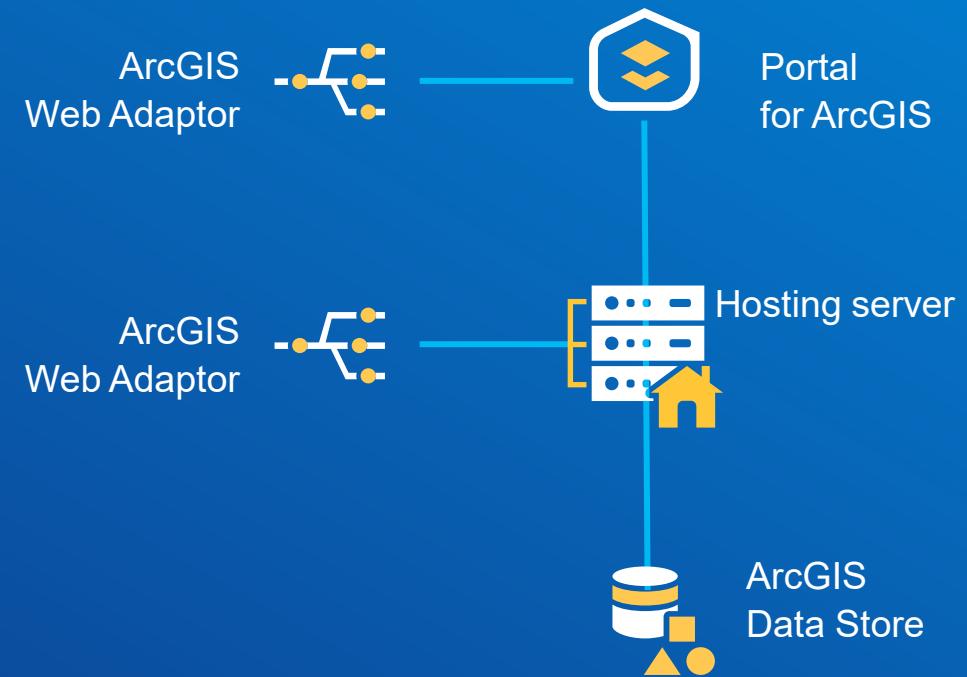
 @GIS\_Bandit

2022 ESRI MIDWEST USER CONFERENCE



# 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

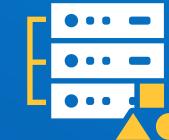


# Administrative Endpoints Overview

- 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>



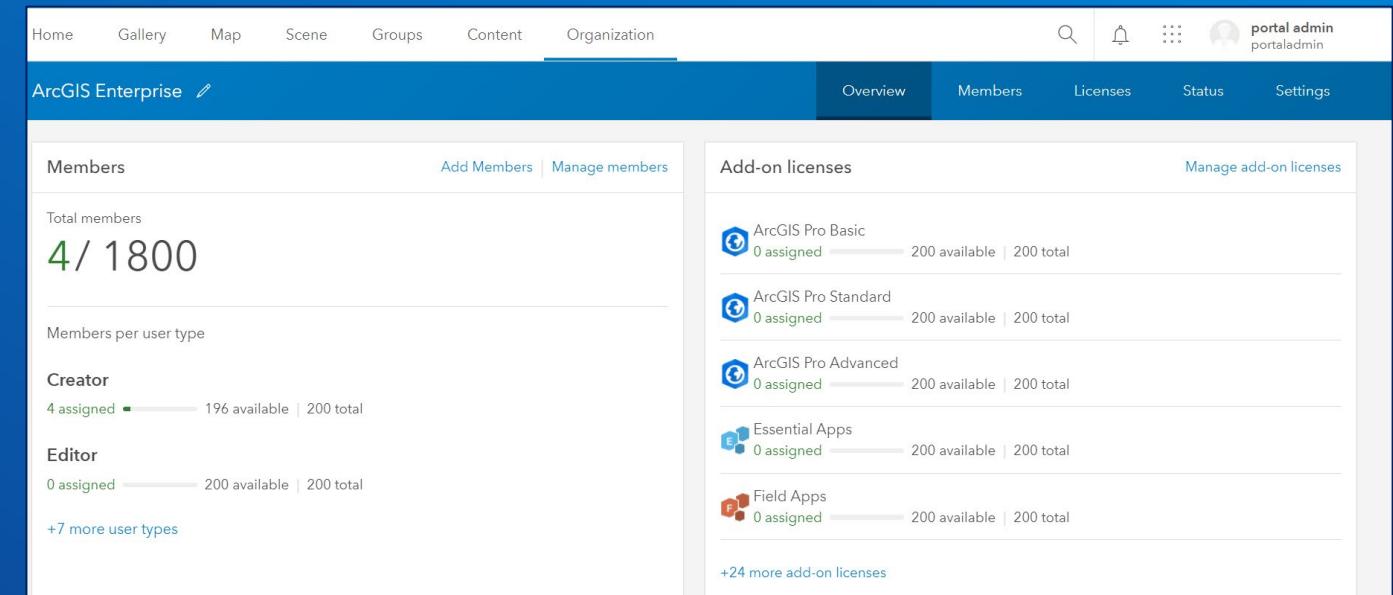
Portal  
for ArcGIS



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



The screenshot shows the ArcGIS Enterprise Portal Home Page with the Organization tab selected. The top navigation bar includes Home, Gallery, Map, Scene, Groups, Content, Organization, a search icon, a bell icon, and a user profile for 'portal admin portaladmin'. The main content area has tabs for Overview, Members, Licenses, Status, and Settings. The 'Members' tab is active, showing 'Total members' as 4/1800. Below this, 'Members per user type' is listed: 'Creator' (4 assigned, 196 available, 200 total), 'Editor' (0 assigned, 200 available, 200 total), and '+7 more user types'. The 'Licenses' tab is active, showing 'Add-on licenses' for ArcGIS Pro Basic, ArcGIS Pro Standard, ArcGIS Pro Advanced, Essential Apps, and Field Apps, all with 0 assigned and 200 available licenses. A link '+24 more add-on licenses' is at the bottom of the list.

License Type	Assigned	Available	Total
ArcGIS Pro Basic	0	200	200
ArcGIS Pro Standard	0	200	200
ArcGIS Pro Advanced	0	200	200
Essential Apps	0	200	200
Field Apps	0	200	200

# Portal Administrator Directory

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

**Portal Administrator Directory**

[Home](#)

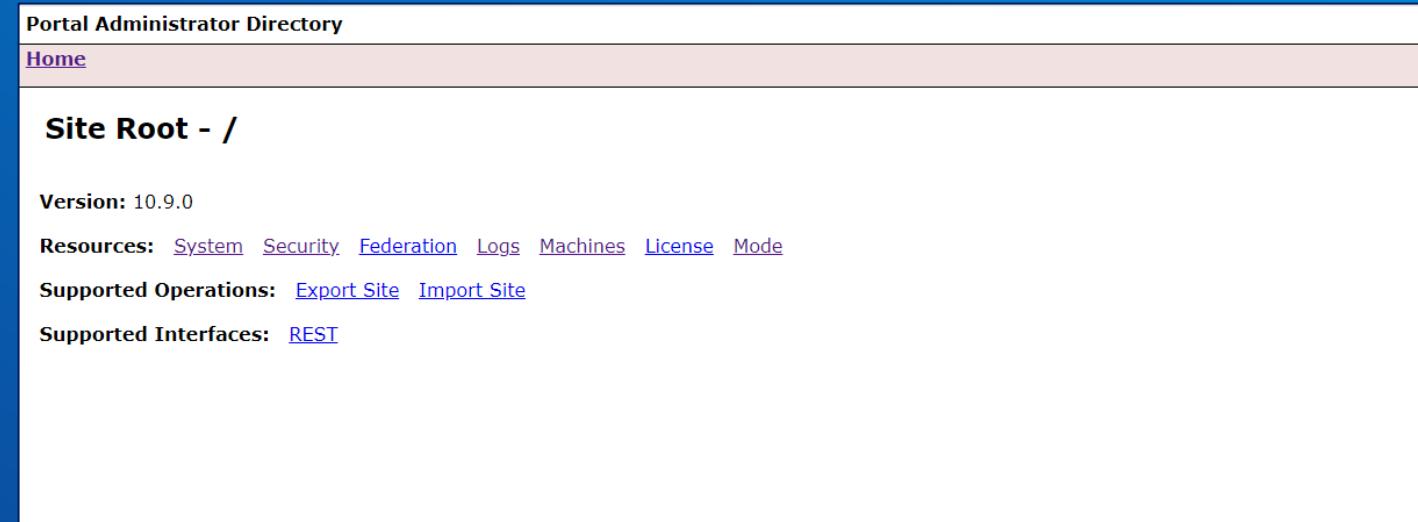
**Site Root - /**

**Version:** 10.9.0

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

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

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



# 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](#)

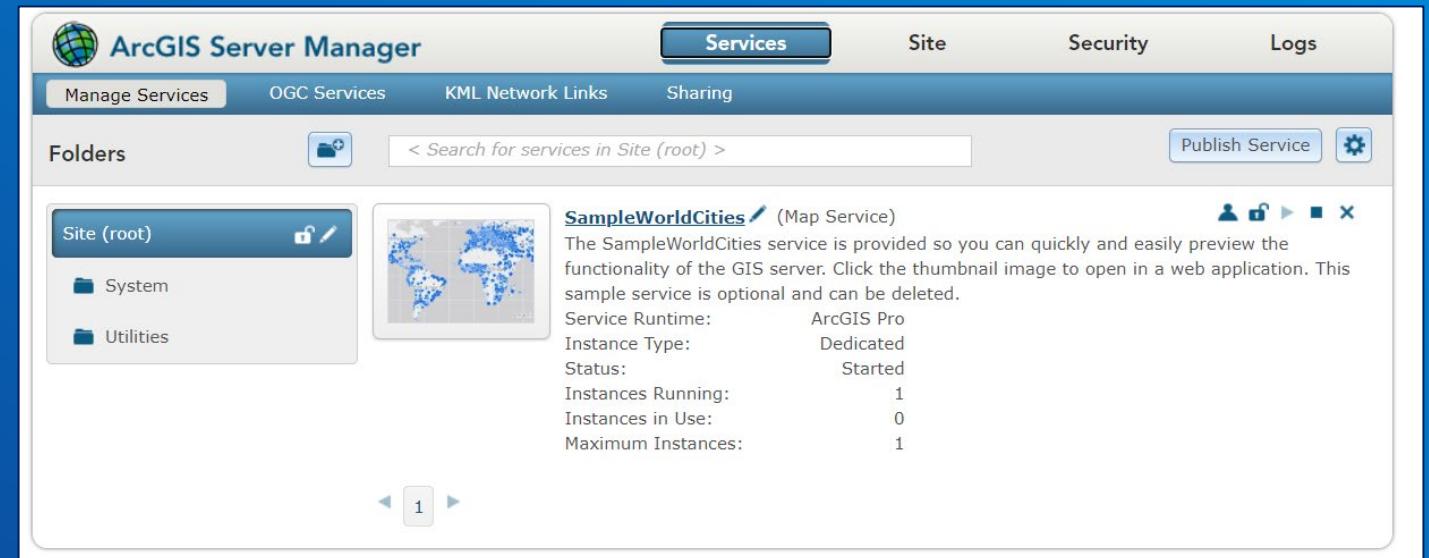
**Current Version:** 8.4

**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	<a href="#">X</a>
 PA	portal admin portaladmin	<a href="#">X</a>

<input type="checkbox"/> Member	Last login	User type	Role	
 DJ derek jeter djeter	 May 18, 2021 Multifactor authentication enabled	Creator	Administrator	<a href="#">...</a>
 MH mia hamm mihamm	Never	Creator	User	<a href="#">...</a>
 BB barry bonds bbonds	Never	Creator	User	<a href="#">...</a>
 PA portal admin portaladmin	Yesterday	Creator	Administrator	<a href="#">...</a>

# Communicating Changes to the Enterprise portal

- **Access Notice**

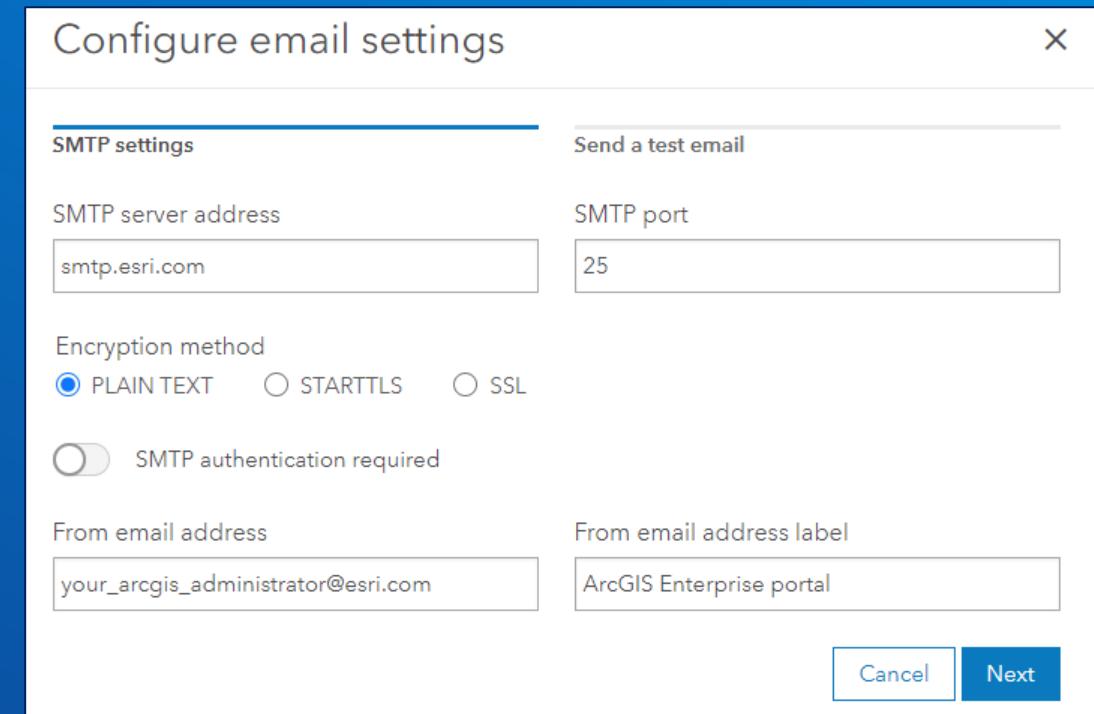
- Notice of terms before gaining access to the home page

- **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



# 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)

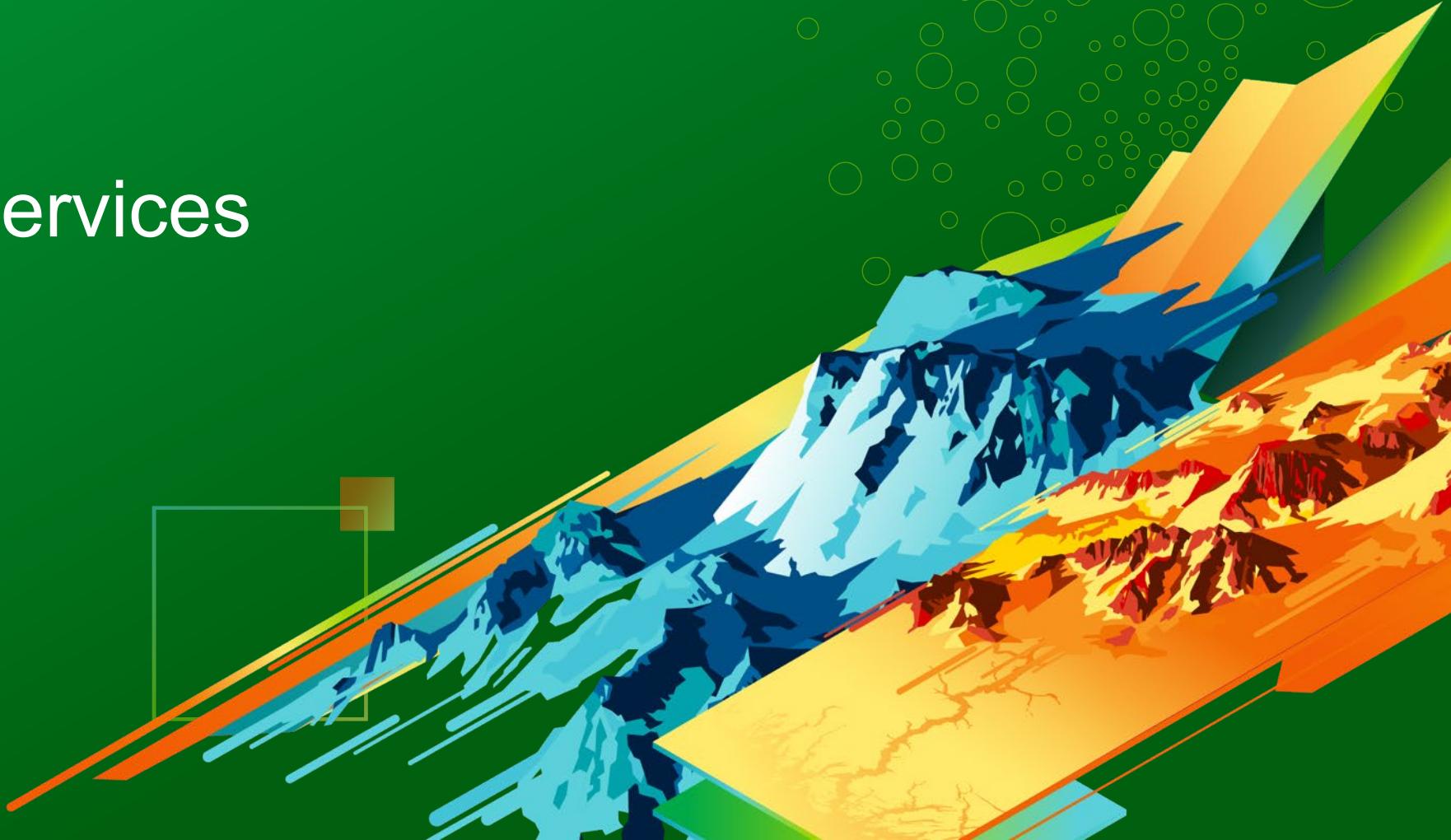
### Potential security items to review

<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

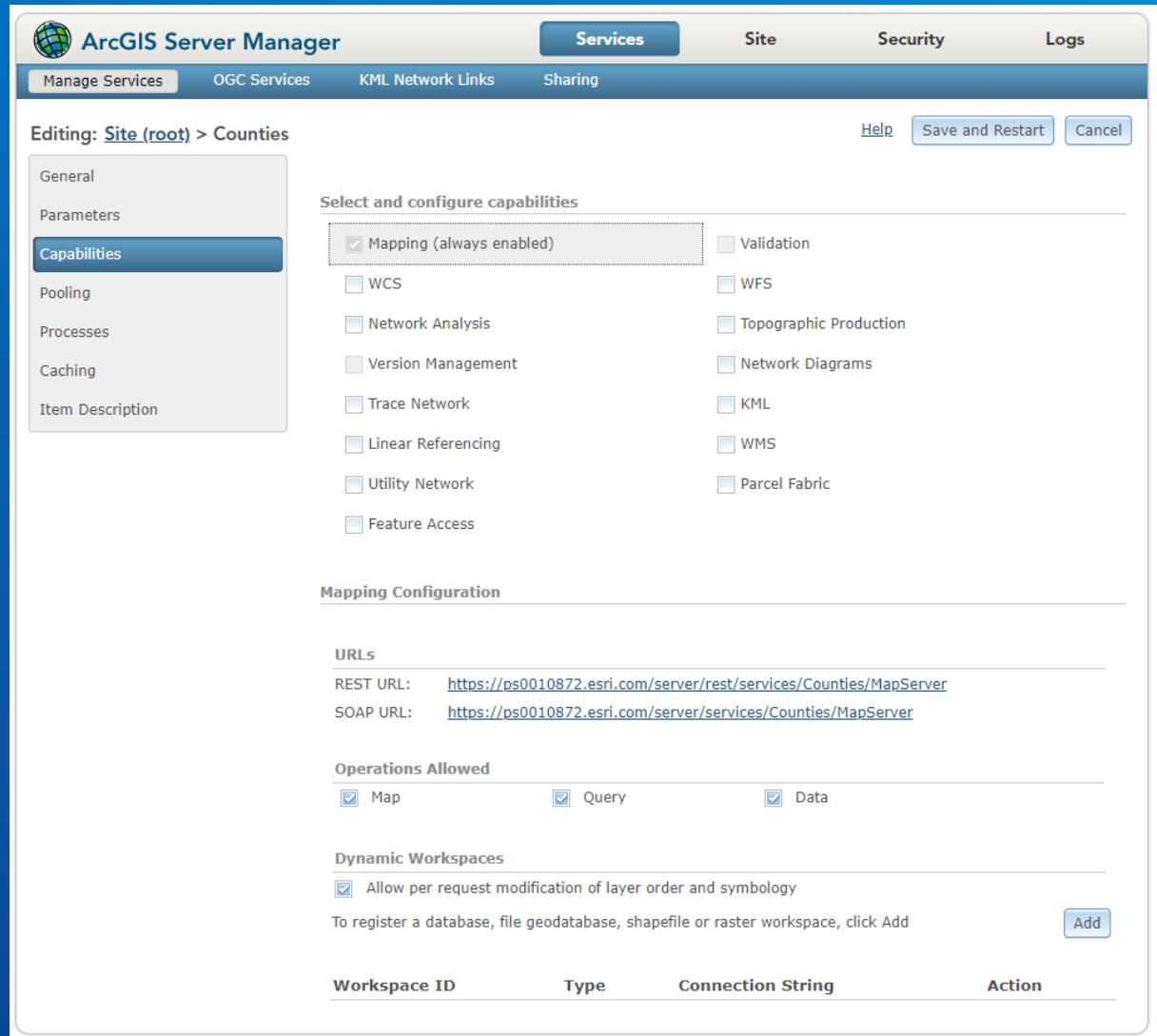
- **Server scan**
- **C:\Program Files\ArcGIS\Server\tools\admin**
  
- **Portal scan**
- **C:\Program Files\ArcGIS\Portal\tools\security**

# Managing Services



# Capabilities

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



The screenshot shows the 'ArcGIS Server Manager' interface with the 'Services' tab selected. The main content area is titled 'Editing: Site (root) > Counties'. On the left, a sidebar menu includes 'General', 'Parameters', 'Capabilities' (which is selected and highlighted in blue), 'Pooling', 'Processes', 'Caching', and 'Item Description'. The main panel is titled 'Select and configure capabilities' and contains a list of service operations. The 'Mapping (always enabled)' checkbox is checked. Other available operations include Validation, WCS, WFS, Network Analysis, Topographic Production, Version Management, Network Diagrams, Trace Network, KML, Linear Referencing, WMS, Utility Network, Parcel Fabric, and Feature Access. Below this is a 'Mapping Configuration' section with 'REST URL' and 'SOAP URL' fields, both set to <https://ps0010872.esri.com/server/rest/services/Counties/MapServer>. The 'Operations Allowed' section shows checkboxes for 'Map' (checked), 'Query' (checked), and 'Data' (checked). The 'Dynamic Workspaces' section contains a checked checkbox for 'Allow per request modification of layer order and symbology' and a note: 'To register a database, file geodatabase, shapefile or raster workspace, click Add' with an 'Add' button. At the bottom is a table with columns 'Workspace ID', 'Type', 'Connection String', and 'Action'.

# 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>

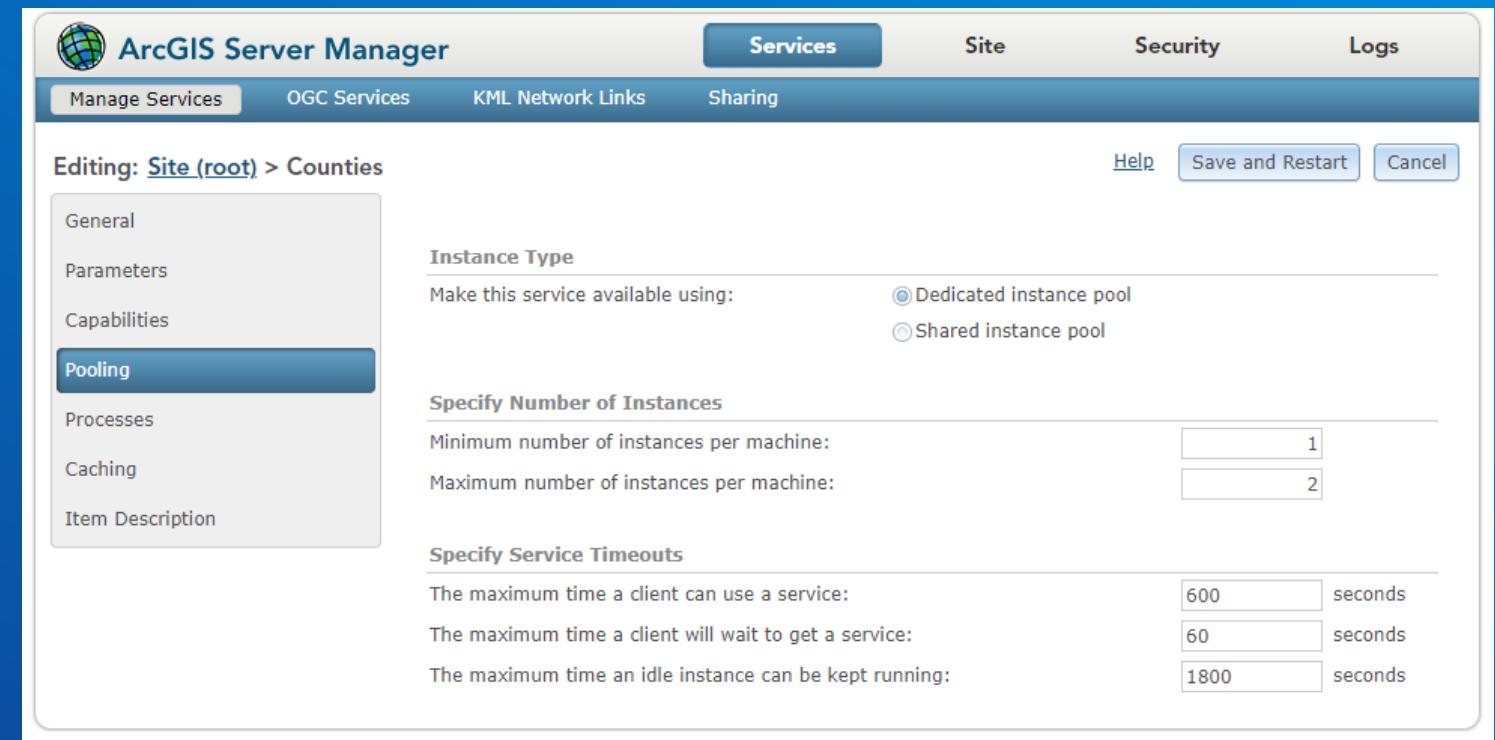
# Introducing Shared Instances

- Blog link

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

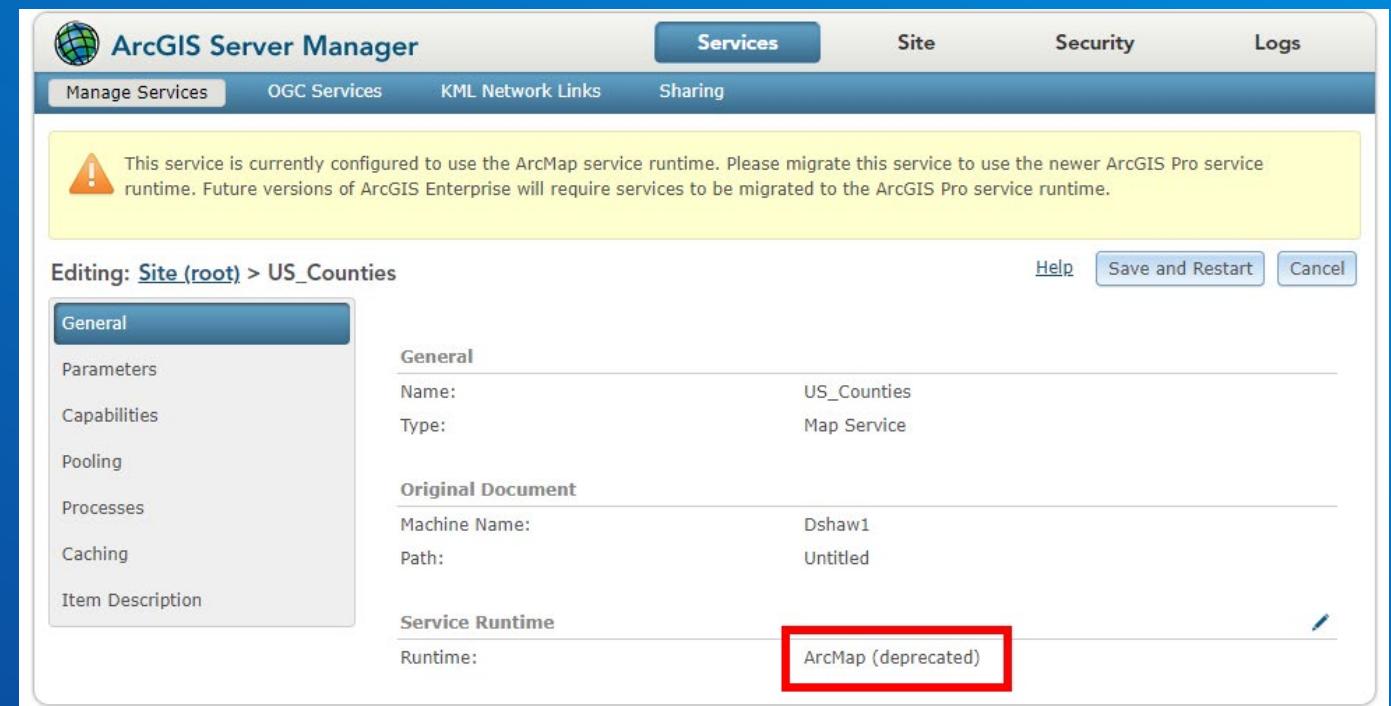
# Tuning and Configuring Instances

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



# 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



# 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

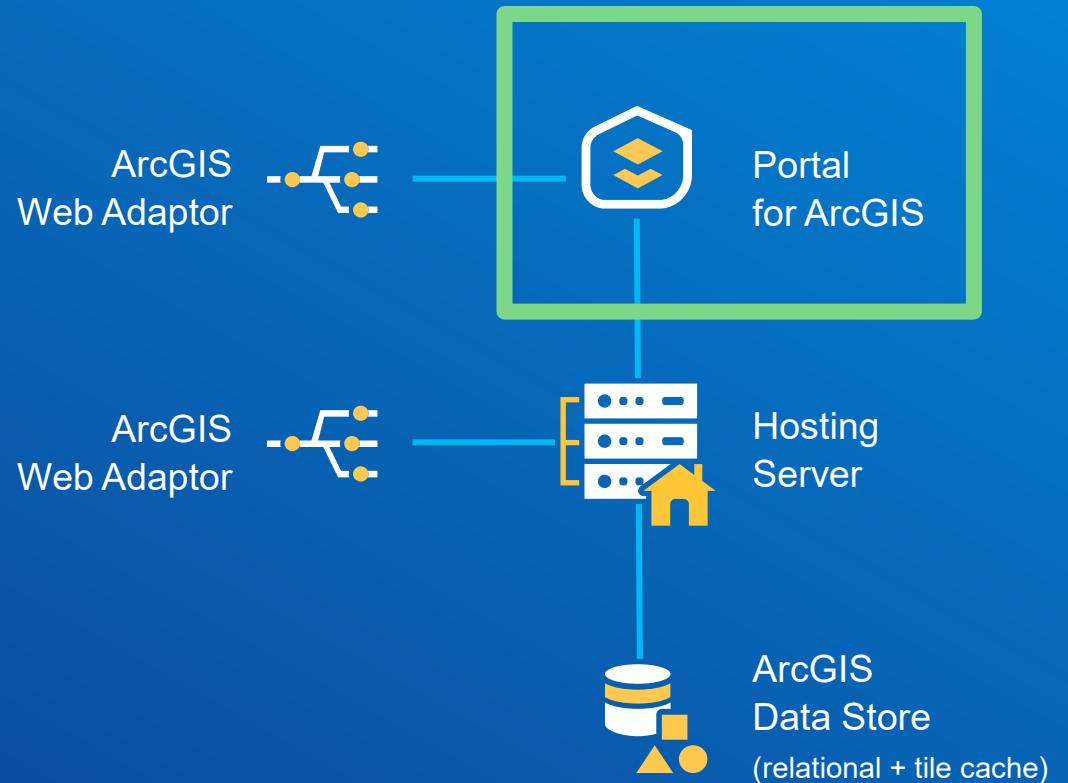


# Managing Members

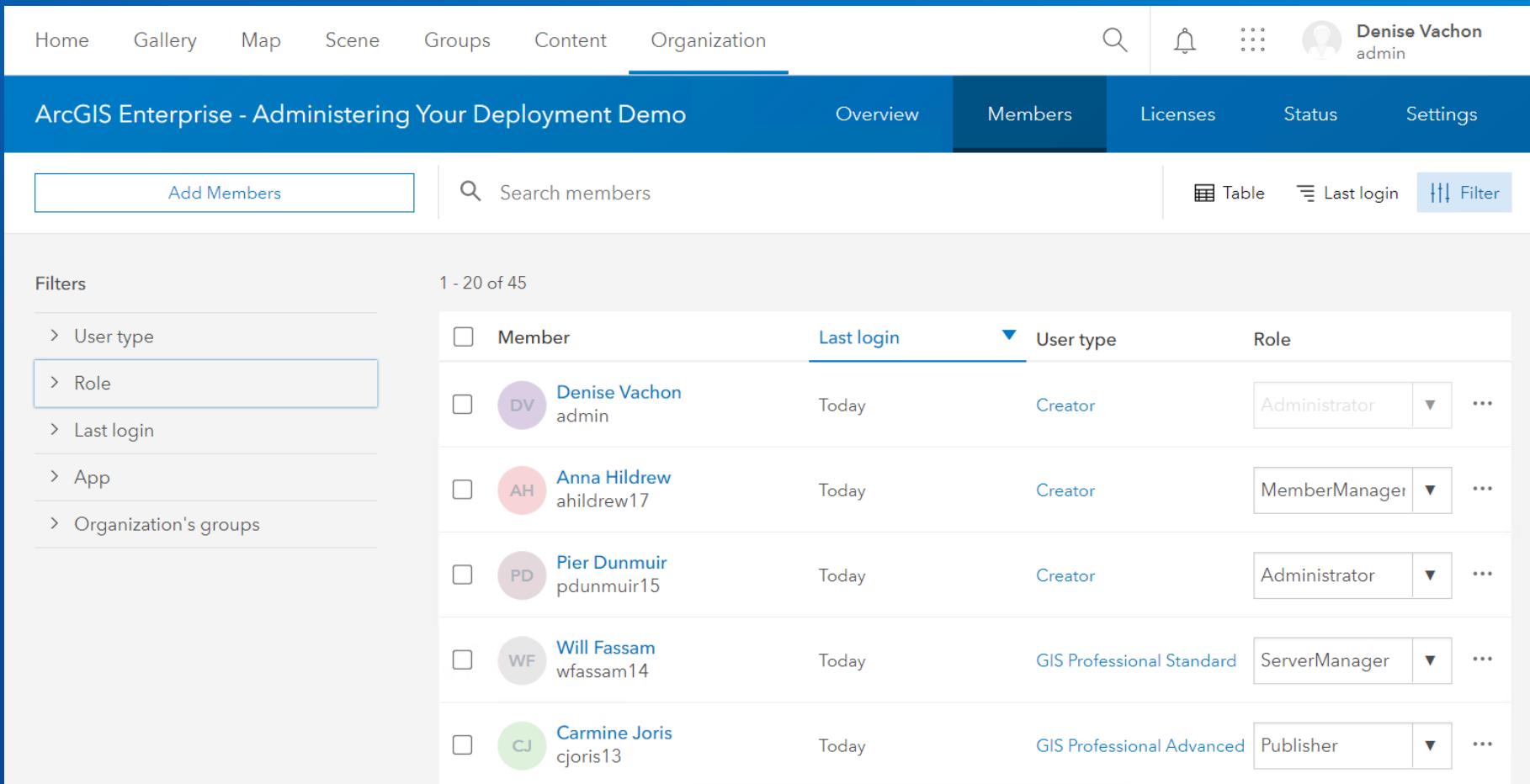
Users are managed and authenticated through  
Portal for ArcGIS

## Assumptions:

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



# Managing Members



The screenshot shows the ArcGIS Enterprise interface under the Organization tab. The top navigation bar includes Home, Gallery, Map, Scene, Groups, Content, Organization, a search bar, and user profile for Denise Vachon (admin). Below the navigation is a blue header bar with the title "ArcGIS Enterprise - Administering Your Deployment Demo" and tabs for Overview, Members (which is selected), Licenses, Status, and Settings. The main content area displays a table of members. The table has columns for Member (checkbox), Last login, User type, and Role. The "User type" column is currently sorted by "Last login". The table lists five members:

Member	Last login	User type	Role
DV Denise Vachon admin	Today	Creator	Administrator
AH Anna Hildrew ahildrew17	Today	Creator	MemberManager
PD Pier Dunmuir pdunmuir15	Today	Creator	Administrator
WF Will Fassam wfassam14	Today	GIS Professional Standard	ServerManager
CJ Carmine Joris cgoris13	Today	GIS Professional Advanced	Publisher

On the left, a sidebar titled "Filters" includes options for User type, Role (which is selected and highlighted in blue), Last login, App, and Organization's groups. A "Search members" input field is also present.

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

# Managing Members

<input type="checkbox"/> Member	Last login	<input type="button" value="▼ User type"/>	<input type="button" value="Role"/>
<input type="checkbox"/>  Denise Vachon admin	Today	Creator	<input type="button" value="Administrator"/> <input type="button" value="..."/>
<input type="checkbox"/>  Anna Hildrew ahildrew17	Today	Creator	<input type="button" value="MemberManager"/> <input type="button" value="..."/> Manage add-on licenses Manage user type
<input type="checkbox"/>  Pier Dunmuir pdunmuir15	Today	Creator	<input type="button" value="Manage items"/> Transfer content
<input type="checkbox"/>  Will Fassam wfassam14	Today	GIS Professional Standard	<input type="button" value="View groups"/> <input type="button" value="View profile"/> Reset password Disable member Delete member
<input type="checkbox"/>  Carmine Joris cgoris13	Today	GIS Professional Advanced	
<input type="checkbox"/>  Michaela Charkham mcharkham12	Today	Field Worker	
<input type="checkbox"/>  Bree Garthshore 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](#)

Privilege	Status
View all	<input checked="" type="checkbox"/>
Update	<input checked="" type="checkbox"/>
Delete	<input checked="" type="checkbox"/>
Add	<input checked="" type="checkbox"/>
Disable	<input checked="" type="checkbox"/>
Change roles	<input checked="" type="checkbox"/>
Manage licenses	<input checked="" type="checkbox"/>

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

# 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

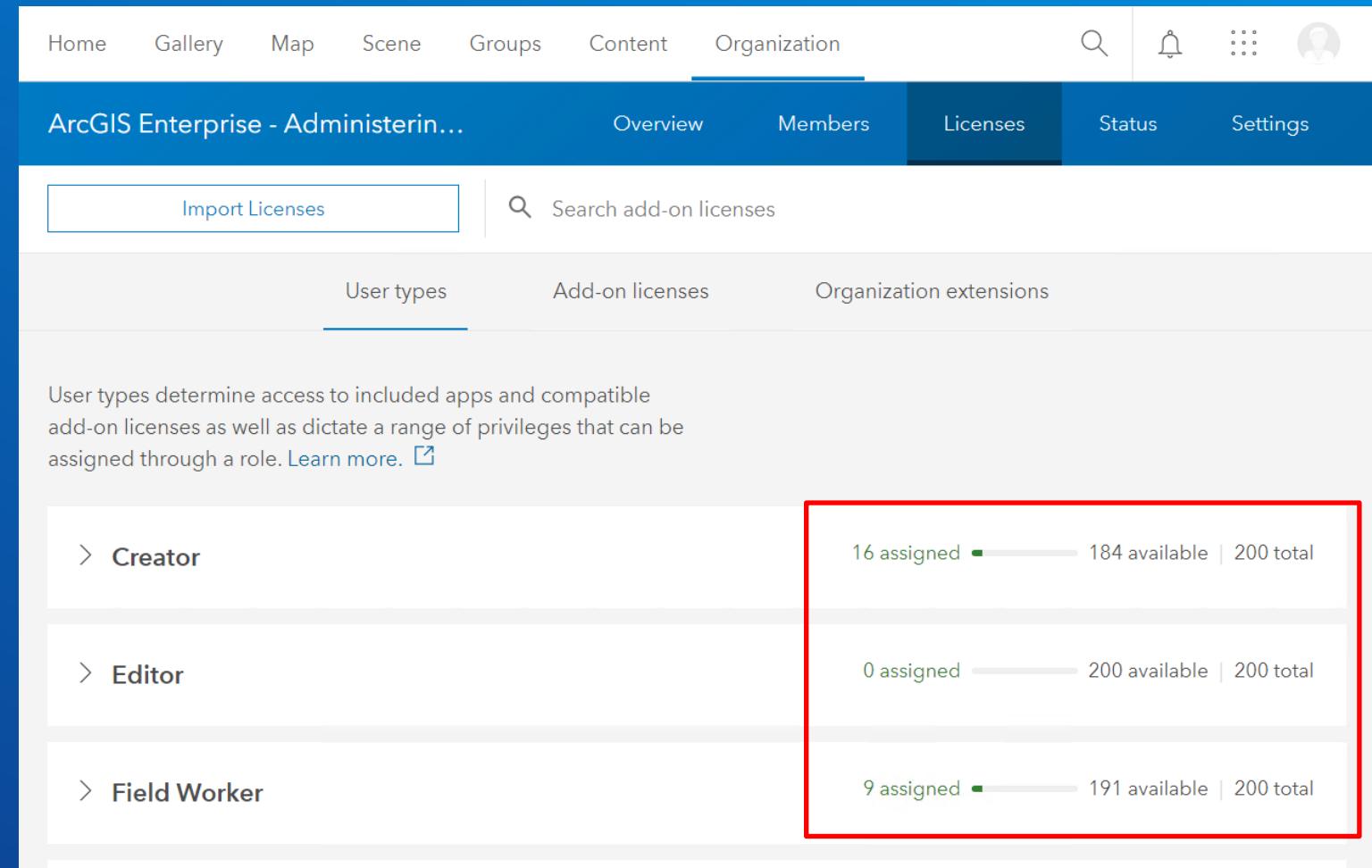
- General Privileges:
  - Members
  - Groups
  - Content
  - Sharing
  - Content and Analysis
  - Features
  - Version Management
- Administrative Privileges:
  - Members
  - Groups
  - Content
  - Portal Settings
- Privileges are dictated by **User Types** and **User Roles**

<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



Home    Gallery    Map    Scene    Groups    Content    Organization    Search    Notifications    More    User Profile

ArcGIS Enterprise - Administering...    Overview    **Members**    Licenses    Status    Settings

Import Licenses    Search add-on licenses

User types    Add-on licenses    Organization extensions

User types determine access to included apps and compatible add-on licenses as well as dictate a range of privileges that can be assigned through a role. [Learn more](#).

User Type	Assigned	Available	Total
Creator	16 assigned	184 available	200 total
Editor	0 assigned	200 available	200 total
Field Worker	9 assigned	191 available	200 total

# Managing Members

## User Roles

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

ArcGIS Enterprise - Administering Your Deployment Demo

Organization

Overview Members Licenses Status Settings

Search Settings

Member roles

Manage roles

Create role

Search roles

Role	Users	Status	...
Administrator	10	Default	
Data Editor	8	Default	
Member Manager	1	Custom	...
Publisher	0	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	<span>info</span> <span>key</span> 10	Default
Data Editor	<span>info</span> <span>key</span> 8	Default
Member Manager	<span>info</span> <span>key</span> 1	Custom
Publisher	<span>info</span> <span>key</span> 8	Default
Server Manager	<span>info</span> <span>key</span> 1	Custom
User	<span>info</span> <span>key</span> 6	Default
Viewer	<span>info</span> <span>key</span> 11	Default

### Create role

Role name  
Custom Role

Description  
A customized user role in ArcGIS Enterprise.

Privilege compatibility

View      View and edit      **View, edit, create and manage**

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

Role privileges

[Set from existing role](#) [Expand all](#)

[General privileges](#)      Enabled: 17/26 [Enable all](#)

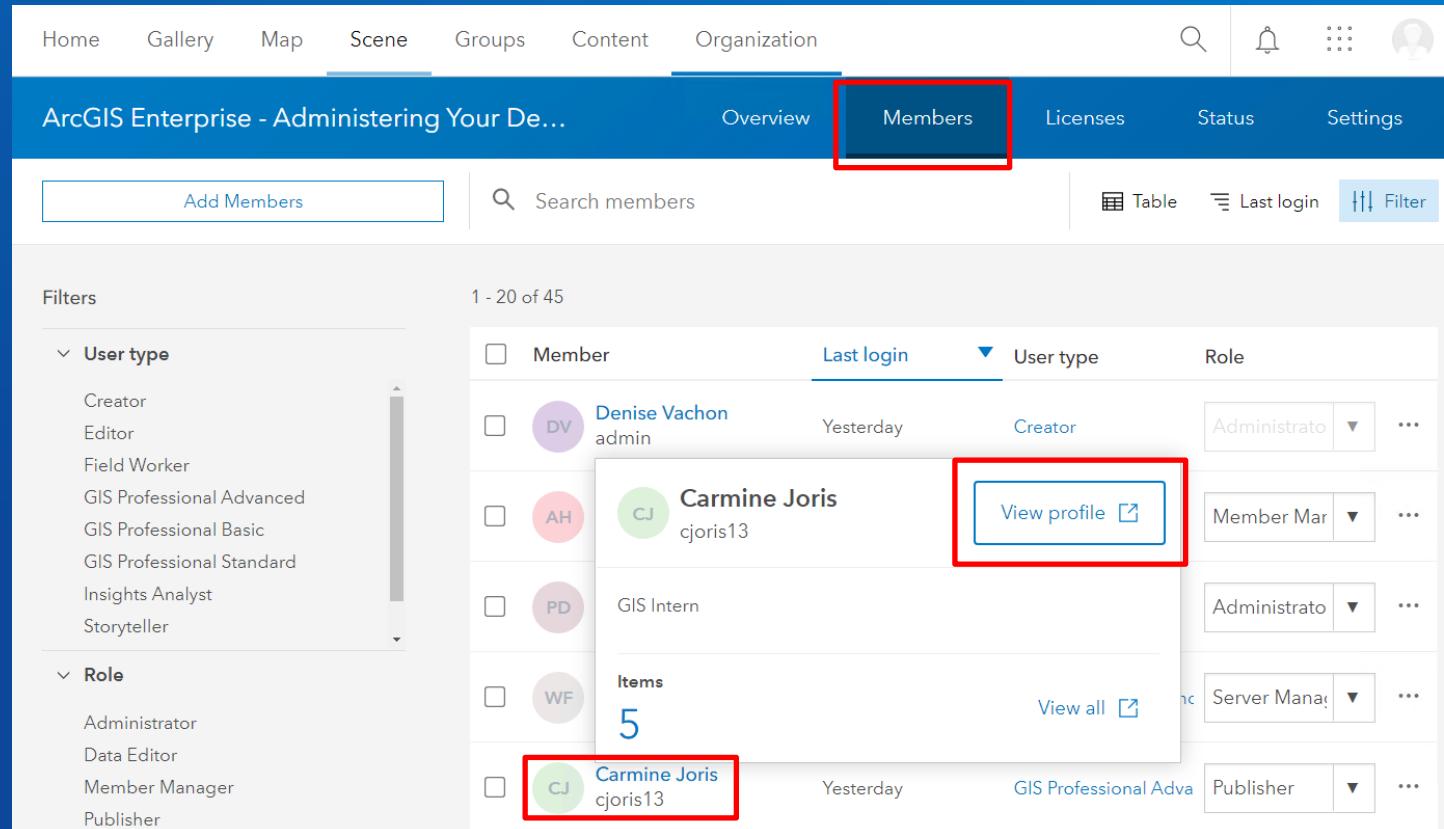
[Administrative privileges](#)      Enabled: 21/26 [Enable all](#)

[Save](#) [Cancel](#)

# Managing Members

## Profile and Account Settings

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



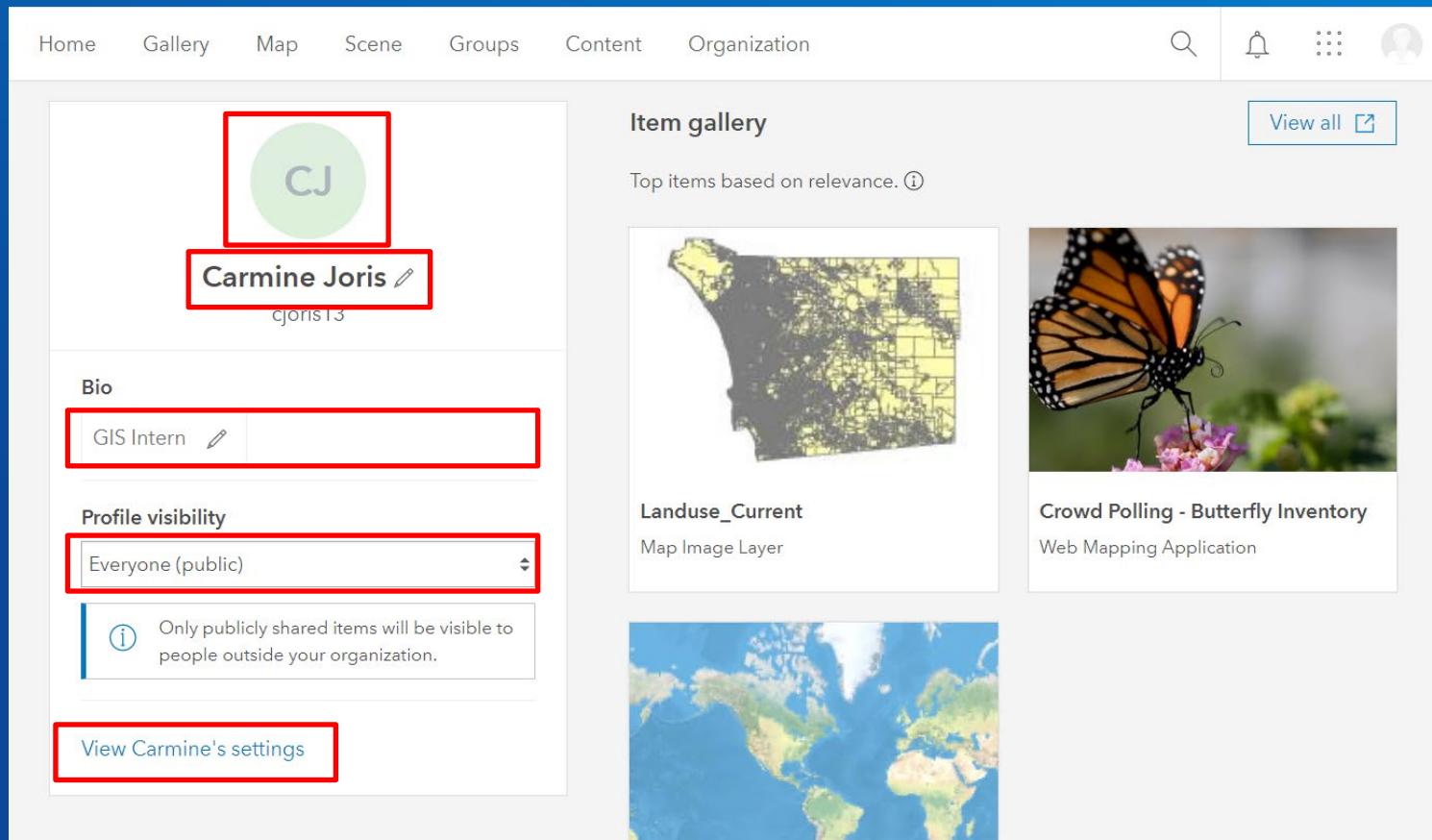
The screenshot shows the ArcGIS Enterprise interface for managing members. The top navigation bar includes Home, Gallery, Map, Scene, Groups, Content, Organization, a search icon, a bell icon, a grid icon, and a user profile icon. The 'Organization' tab is selected. Below the navigation is a blue header bar with the text 'ArcGIS Enterprise - Administering Your De...' and tabs for Overview, Members (which is highlighted with a red box), Licenses, Status, and Settings. A 'Add Members' button and a 'Search members' input field are on the left. The main content area displays a table of users with columns for Member (checkbox), Last login, User type, and Role. The table shows several users, including Denise Vachon (admin, Creator, Administrator), Carmine Joris (cgoris13, GIS Intern, Member Manager, Member Manager), and others. A red box highlights the 'View profile' button for Carmine Joris. On the left, a 'Filters' sidebar shows '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). The table shows 1 - 20 of 45 users, with a 'View all' button at the bottom.

Member	Last login	User type	Role
<input type="checkbox"/> DV	Denise Vachon admin	Yesterday	Creator Administrator
<input type="checkbox"/> AH	Carmine Joris cgoris13	Yesterday	Member Manager Administrator
<input type="checkbox"/> PD	GIS Intern		Administrator
<input type="checkbox"/> WF	Items 5		Administrator
<input type="checkbox"/> CJ	Carmine Joris cgoris13	Yesterday	GIS Professional Advanced Publisher

# Managing Members

## Profile and Account Settings

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



Home    Gallery    Map    Scene    Groups    Content    Organization    View all

**Item gallery**

Top items based on relevance. ⓘ

**Carmine Joris** edit

**bio**

GIS Intern edit

**Profile visibility**

Everyone (public) edit

Only publicly shared items will be visible to people outside your organization.

**View Carmine's settings**

**Landuse\_Current**  
Map Image Layer

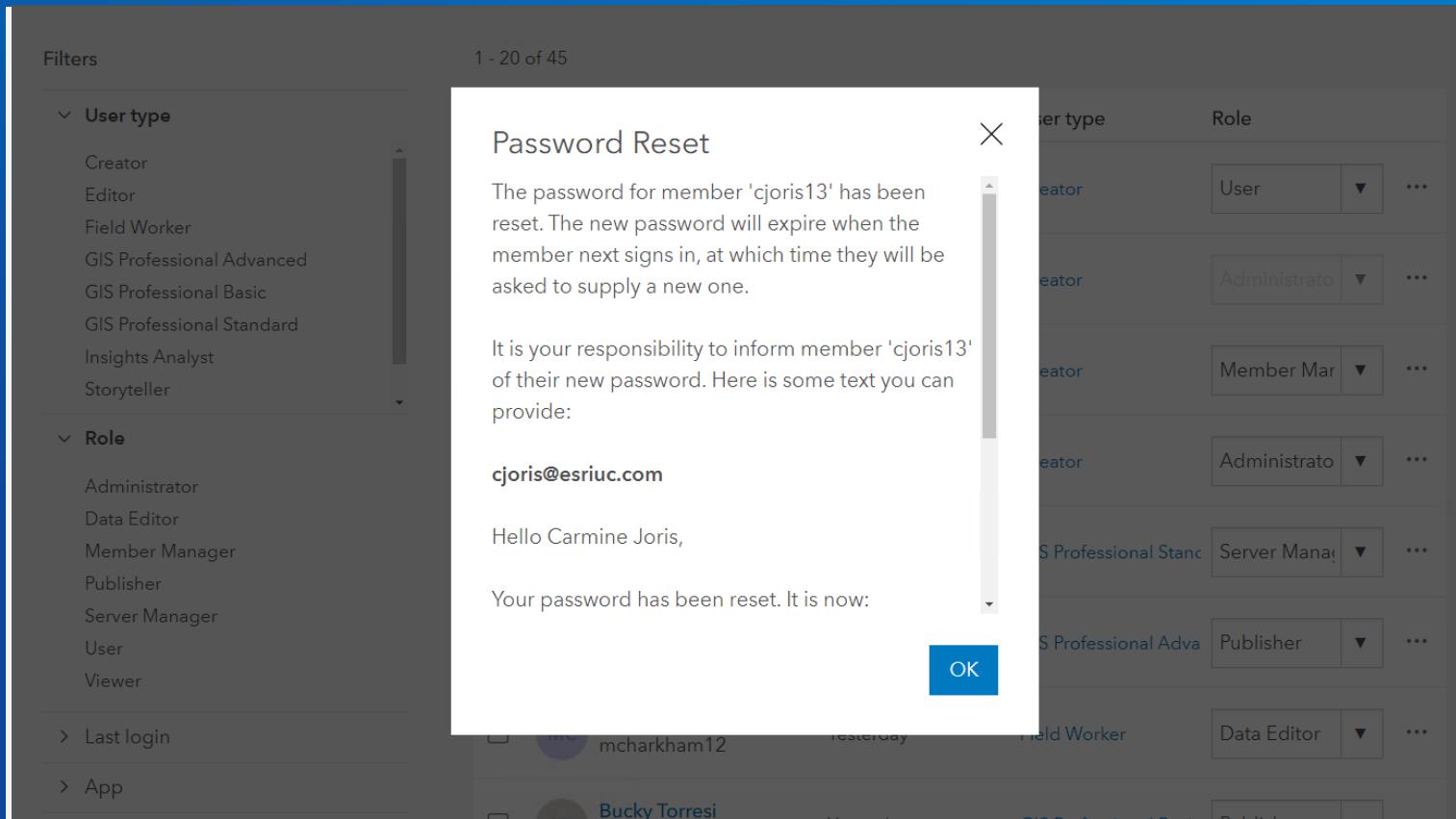
**Crowd Polling - Butterfly Inventory**  
Web Mapping Application

Member Profile page in Portal for ArcGIS

# Managing Members

## Reset Passwords

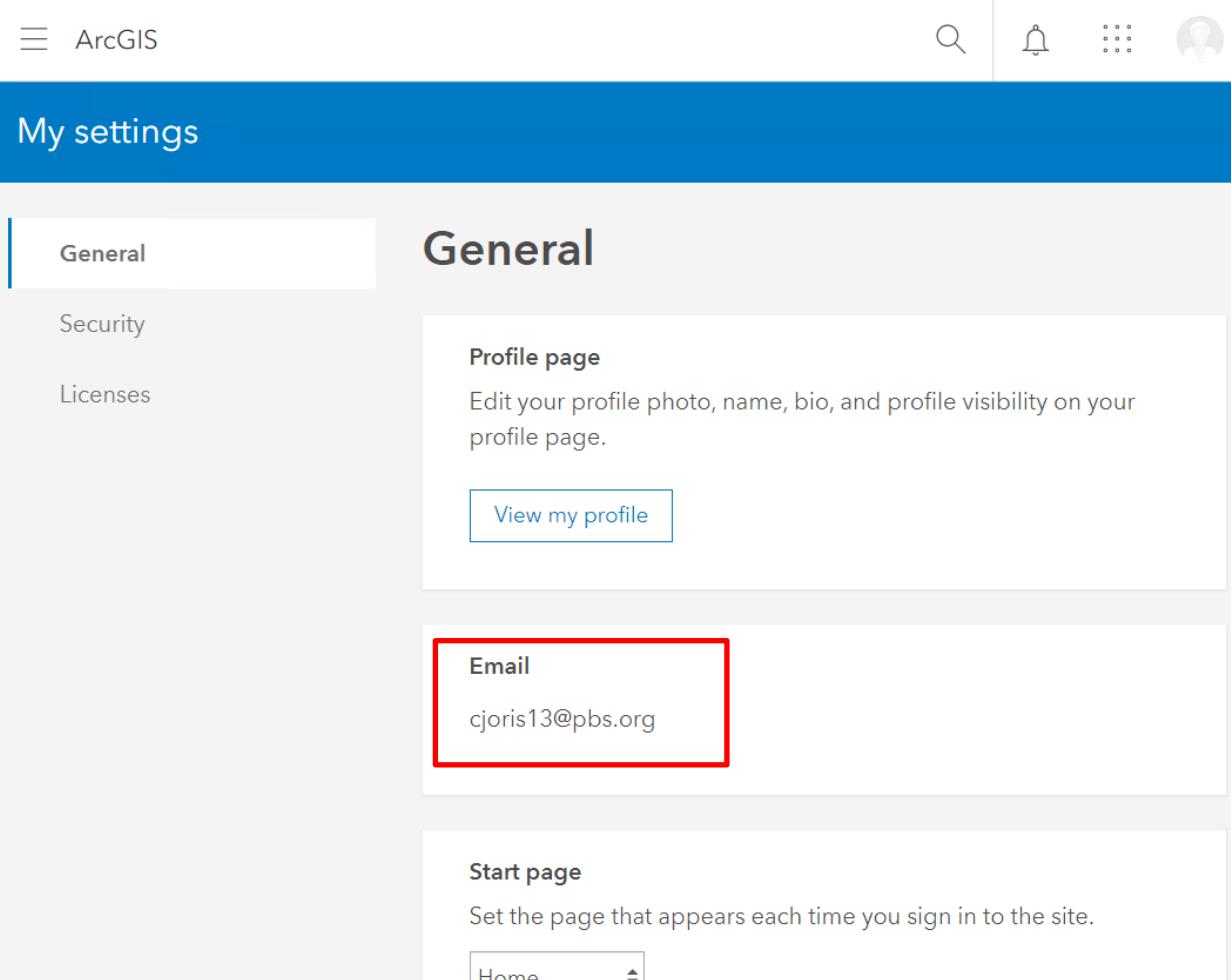
- Privileges required: Administrative privileges > Members > View All + Update



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

# Managing Members

## Profile and Account Settings - Limit



ArcGIS

My settings

General

Security

Licenses

## General

**Profile page**  
Edit your profile photo, name, bio, and profile visibility on your profile page.

[View my profile](#)

**Email**  
cgoris13@pbs.org

**Start page**  
Set the page that appears each time you sign in to the site.

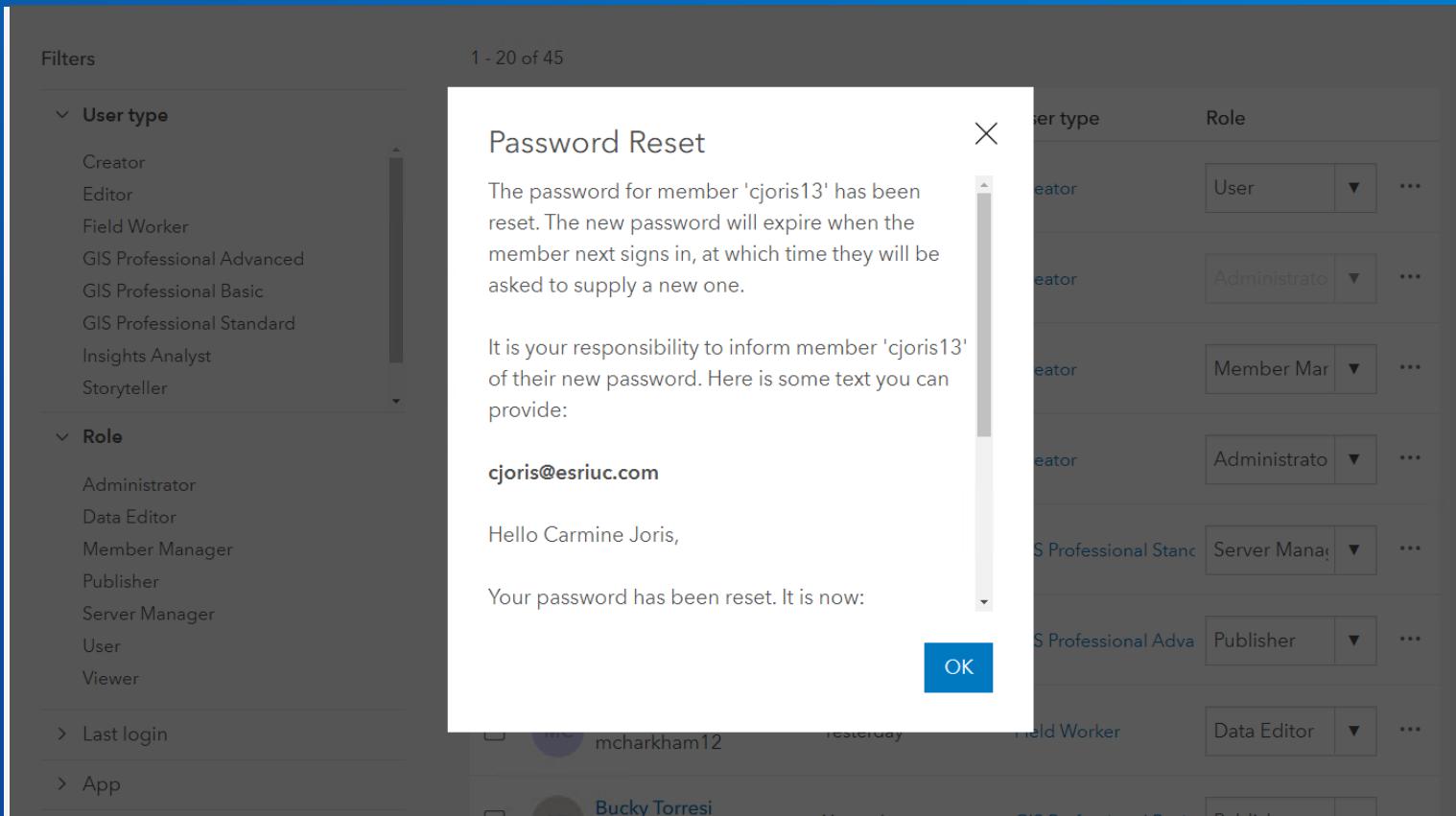
Home

**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

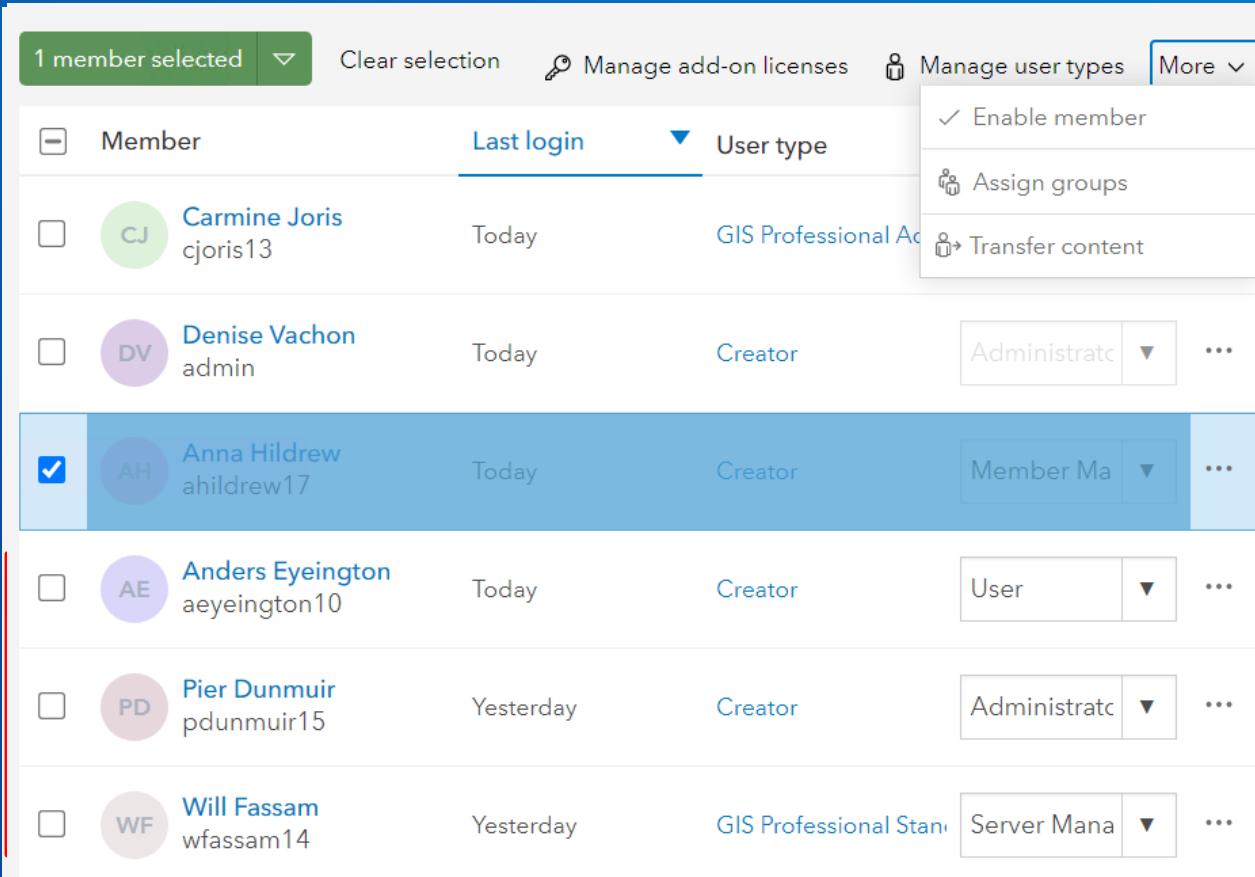
<input type="checkbox"/> Member	Last login	User type	Role	
<input type="checkbox"/>  Carmine Joris cgoris13	Today	GIS Professional Adv	<input data-bbox="1600 568 1830 626" type="button" value="Publisher"/>	...
<input type="checkbox"/>  Denise Vachon admin	Today	Creator	<input data-bbox="1600 698 1830 756" type="button" value="Administrator"/>	...
<input type="checkbox"/>  Anna Hildrew ahildrew17	Today	Creator	<input data-bbox="1600 813 1830 900" type="button" value="Member Manager"/>	...
<input type="checkbox"/>  Anders Eyeington aeyeington10	Today	Creator	<input data-bbox="1600 972 1830 1029" type="button" value="User"/>	...
<input type="checkbox"/>  Pier Dunmuir pdunmuir15	Yesterday	Creator	<input data-bbox="1600 1101 1830 1159" type="button" value="Administrator"/>	...
<input type="checkbox"/>  Will Fassam wfassam14	Yesterday	GIS Professional Stan	<input data-bbox="1600 1231 1830 1288" type="button" value="Server Manager"/>	...

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

# Managing Members

## Disabling Accounts

- Privileges required: Administrative privileges > Members > Disable



The screenshot shows the Member List page in the Portal for ArcGIS interface. At the top, a green bar indicates "1 member selected". Below the bar, a table lists six members. The third member, "Anna Hildrew", has a blue selection box around her row and a checked checkbox in the "Selected" column. A context menu is open over her row, showing options: "Enable member" (with a checked checkbox), "Assign groups", and "Transfer content". The table columns are "Member", "Last login", "User type", and "Actions". The "Actions" column contains dropdown menus for "Administrative" (selected for Anna Hildrew), "Member Management", "User Management", "Administrative", and "Server Management". The "User type" column shows "Creator" for most members and "GIS Professional Admin" for Carmine Joris.

Member	Last login	User type	Actions
<input type="checkbox"/> Carmine Joris cgoris13	Today	GIS Professional Admin	<input type="checkbox"/> Enable member Assign groups Transfer content
<input type="checkbox"/> Denise Vachon admin	Today	Creator	<input type="checkbox"/> Administrat... ...
<input checked="" type="checkbox"/> Anna Hildrew ahildrew17	Today	Creator	<input type="checkbox"/> Member Ma... ...
<input type="checkbox"/> Anders Eyeington aeyeington10	Today	Creator	<input type="checkbox"/> User ...
<input type="checkbox"/> Pier Dunmuir pdunmuir15	Yesterday	Creator	<input type="checkbox"/> Administrat... ...
<input type="checkbox"/> Will Fassam wfassam14	Yesterday	GIS Professional Stan...	<input type="checkbox"/> Server Mana... ...

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

# Managing Members

## Deleting Members

- Privileges required: Administrative privileges > Members > Delete

The screenshot shows the Member List page under the Organization tab in Portal for ArcGIS. On the left, there are filters for User type (Creator, Editor, Field Worker, etc.) and Role (Administrator, Data Editor, Member Manager, etc.). The main table lists members with columns for Last login, User type, and actions. A modal dialog box is centered, asking 'Delete Member' and 'Are you sure you want to delete member cjosris13?'. The 'Delete Member' button is highlighted with a red box. The 'Cancel' button is also highlighted with a red box. To the right of the modal, the 'Delete member' option in the context menu is also highlighted with a red box. The context menu includes options like Manage add-on licenses, Manage user type, Manage items, Transfer content, View groups, View profile, Reset password, and Disable member.

User type	Last login	User type	Actions
Member	Yesterday	Creator	Manage add-on licenses Manage user type Manage items Transfer content View groups View profile Reset password Disable member Delete member
DV	Denise Vachon admin	Creator	
AH	Anna Hildrew ahildrew17	Creator	
MC	Michaela Charkham mcharkham12	Field Worker	Data Editor
AE	Anders Eyeington ayeington10	Creator	User
BT	Bucky Torresi btorresiz	GIS Professional Basic	Publisher

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

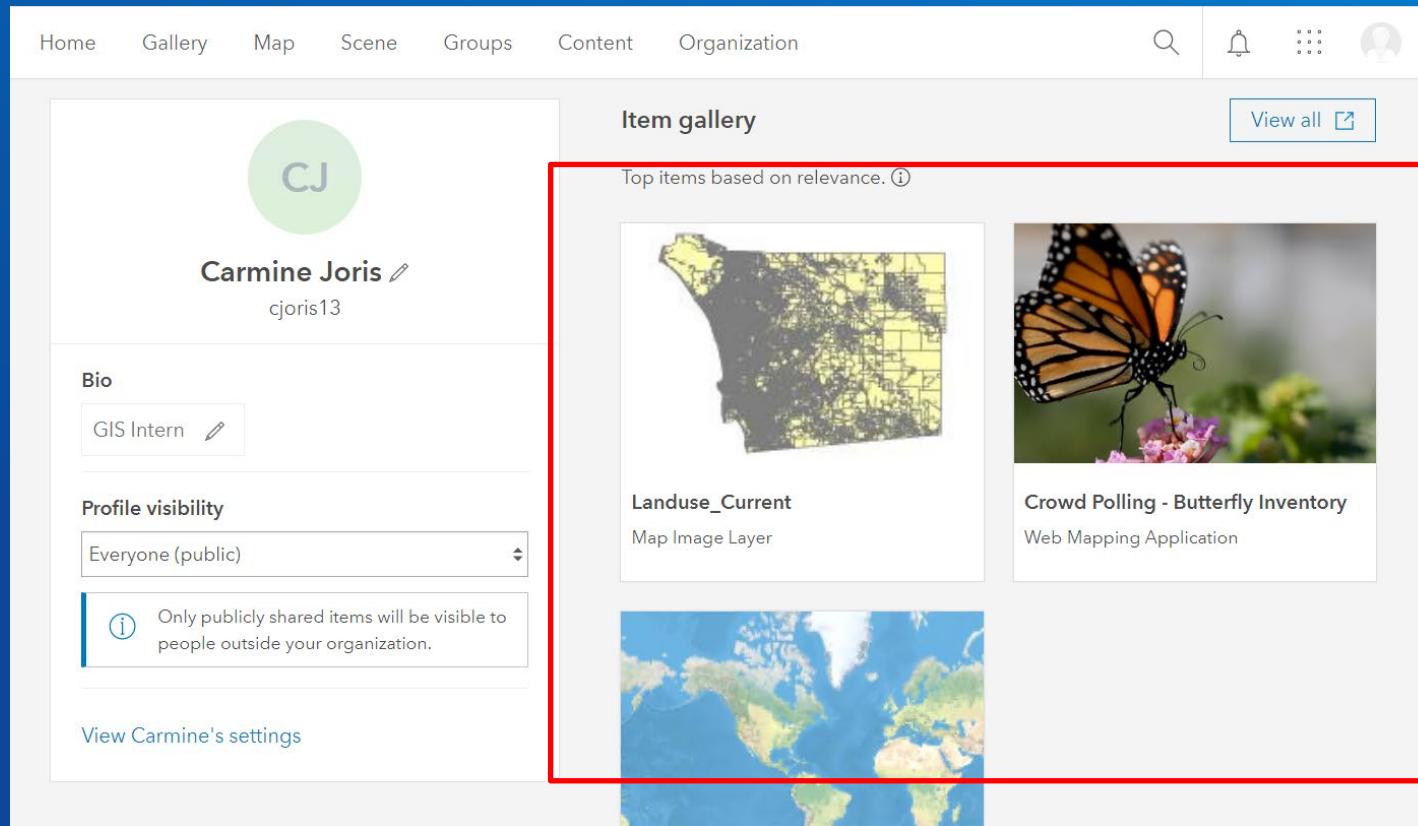
**Deleting a Member  
is Not Reversible\***

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

# Managing Members

## Handling Content before Deleting Members

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



Home    Gallery    Map    Scene    Groups    Content    Organization    View all

**Item gallery**

Top items based on relevance. ①

**Landuse\_Current**  
Map Image Layer

**Crowd Polling - Butterfly Inventory**  
Web Mapping Application

**Carmine Joris** /  
cjoris13

**Bio**  
GIS Intern edit

**Profile visibility**  
Everyone (public)

Only publicly shared items will be visible to people outside your organization.

[View Carmine's settings](#)

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**

User type	Last login	User type	Manage add-on licenses	Manage user type	Manage items
Member	Yesterday	Creator			
DV Denise Vachon admin	Yesterday	Creator			
AH Anna Hildrew ahildrew17	Yesterday	Creator			
PD Pier Dunmuir pdunmuir15	Yesterday	Creator			
WF Will Fassam wfassam14	Yesterday	GIS Professional S			
CJ Carmine Joris cjoris13	Yesterday	GIS Professional Adv	Publisher		...
MC Michaela Charkham mcharkham12	Yesterday	Field Worker	Data Editor		...
AE Anders Eyeington aeyeington10	Yesterday	Creator	User		...
BT 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**

Content

Carmine Joris - Content

Search cgoris13

Table Date Modified Filter

1 selected Clear selection

Move Change Owner Share Delete

Modified

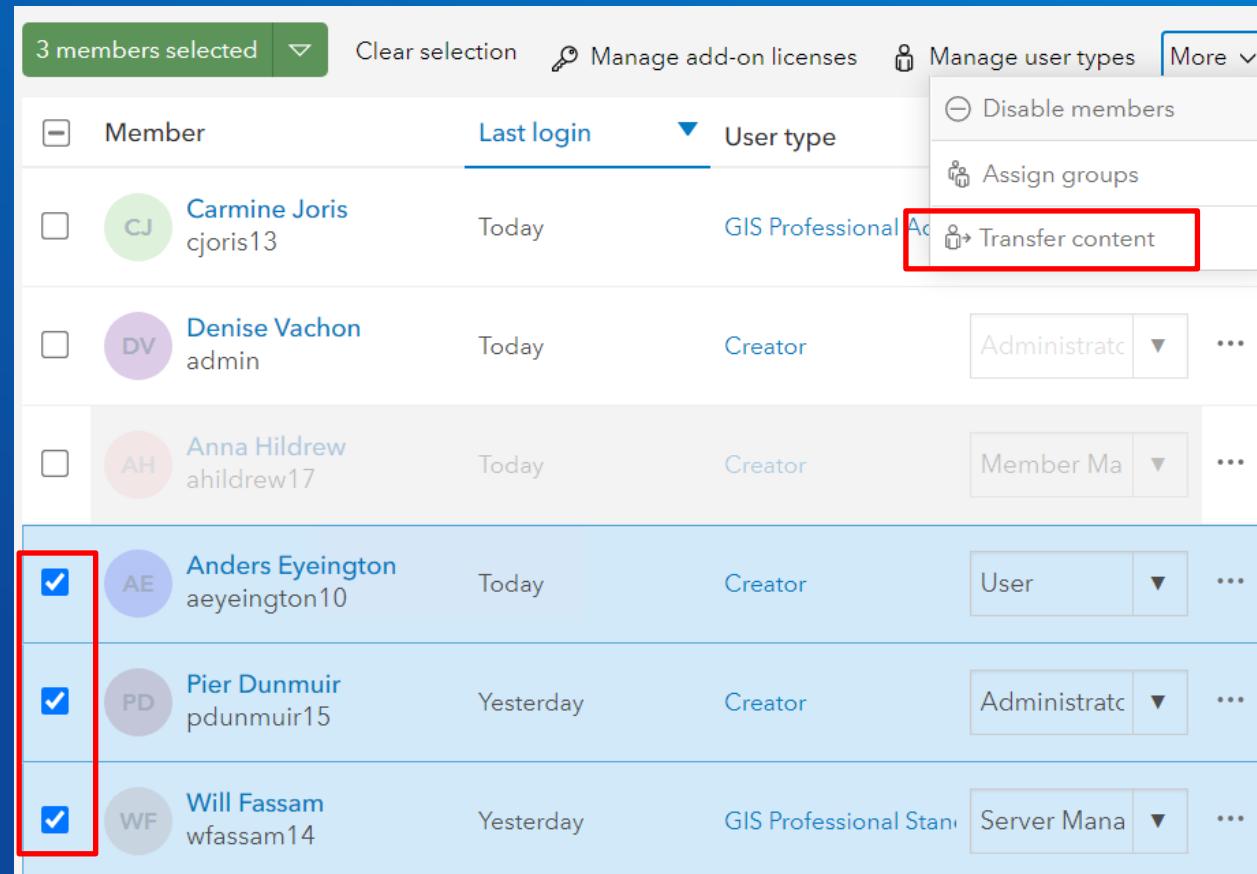
Item	Type	Description	User	Star	Ellipsis	Date Modified
<input checked="" type="checkbox"/> Invasive Species Public Reports	Feature Layer (hosted)	cjoris13	Jun 7, 2021			
<input type="checkbox"/> Infrared - South West	Web Map	Jun 7, 2021				
<input type="checkbox"/> Landuse_Current	Map Image Layer	Jun 7, 2021				
<input type="checkbox"/> CustomGP	Tool	Jun 7, 2021				
<input type="checkbox"/> Crowd Polling - Butterfly Inventory	Web Mapping Application	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 Portal for ArcGIS interface. At the top, a green bar indicates "3 members selected". Below this, a table lists six members. The first three members in the list (Carmine Joris, Denise Vachon, and Anna Hildrew) are not selected, while the last three (Anders Eyeington, Pier Dunmuir, and Will Fassam) are selected, as indicated by a red box around their checkboxes and the fact that they are highlighted in blue. The table columns include "Member", "Last login", "User type", and "Administrative". A context menu is open for the selected members, showing options: "Disable members", "Assign groups", and "Transfer content". The "Transfer content" option is highlighted with a red box. The "Administrative" dropdown menu for Anders Eyeington shows "User" as the current selection.

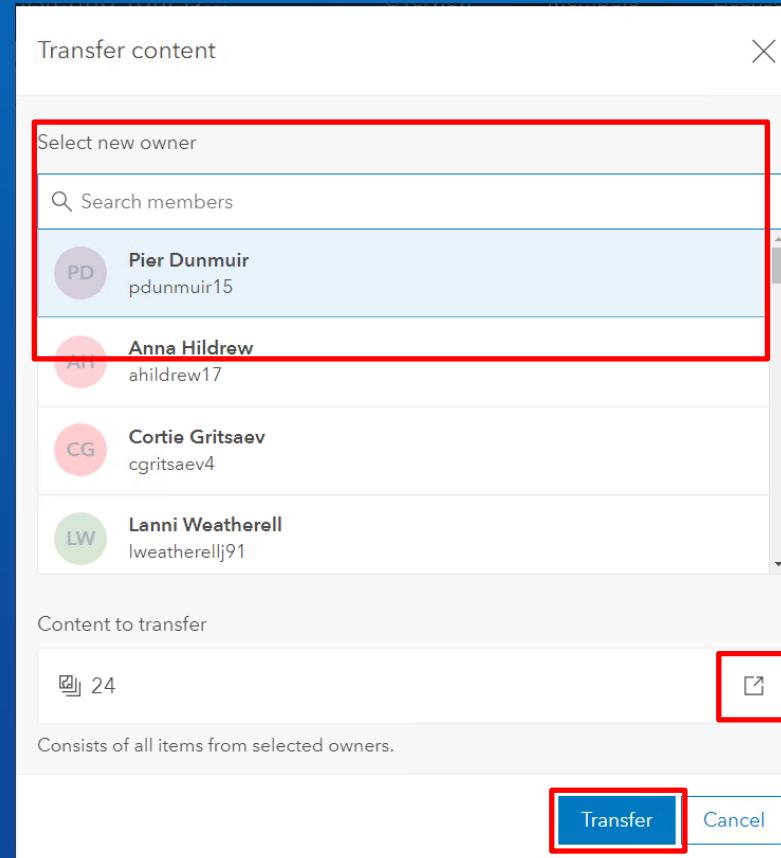
Member	Last login	User type	Administrative
Carmine Joris cgoris13	Today	GIS Professional Admin	User
Denise Vachon admin	Today	Creator	Administrator
Anna Hildrew ahildrew17	Today	Creator	Member Manager
Anders Eyeington aeyeington10	Today	Creator	User
Pier Dunmuir pdunmuir15	Yesterday	Creator	Administrator
Will Fassam wfassam14	Yesterday	GIS Professional Standard	Server Manager

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**



**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"/>  Denise Vachon admin	Today	Creator	<input data-bbox="1420 396 1753 453" type="button" value="Administrator"/>	<input data-bbox="1779 410 1830 439" type="button"/>
<input type="checkbox"/>  Anna Hildrew ahildrew17	Today	Creator	<input data-bbox="1420 540 1753 597" type="button" value="MemberManager"/>	<input data-bbox="1779 540 1830 583" type="button"/>
<input type="checkbox"/>  Pier Dunmuir pdunmuir15	Today	Creator		
<input type="checkbox"/>  Will Fassam wfassam14	Today	GIS Professional Standard		
<input type="checkbox"/>  Carmine Joris cgoris13	Today	GIS Professional Advanced		
<input type="checkbox"/>  Michaela Charkham mcharkham12	Today	Field Worker		
<input type="checkbox"/>  Bree Garthshore bgarthshoret	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.

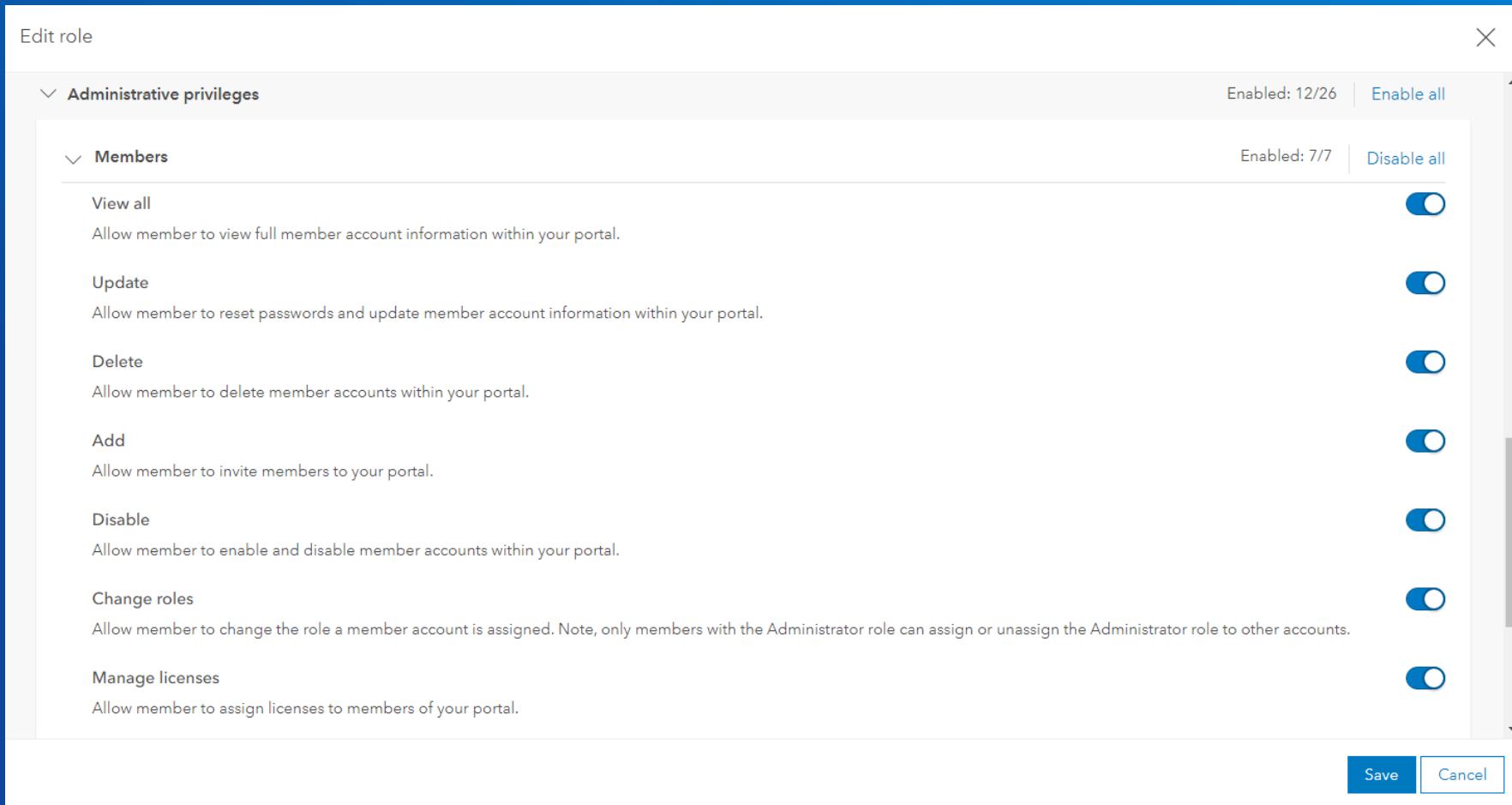
Manage licenses

Allow member to assign licenses to members of your portal.

Enabled: 12/26 | Enable all

Enabled: 7/7 | Disable all

Save | Cancel

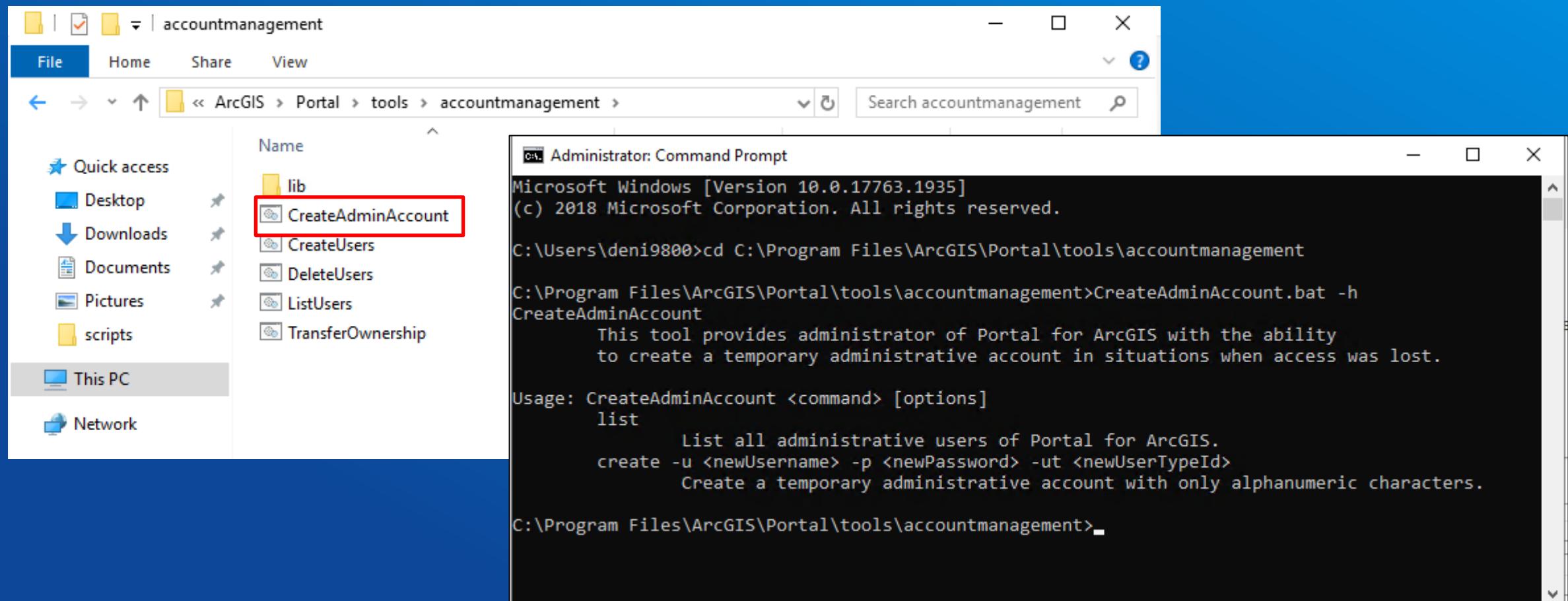


## Managing Members Requires Privileges:

- **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



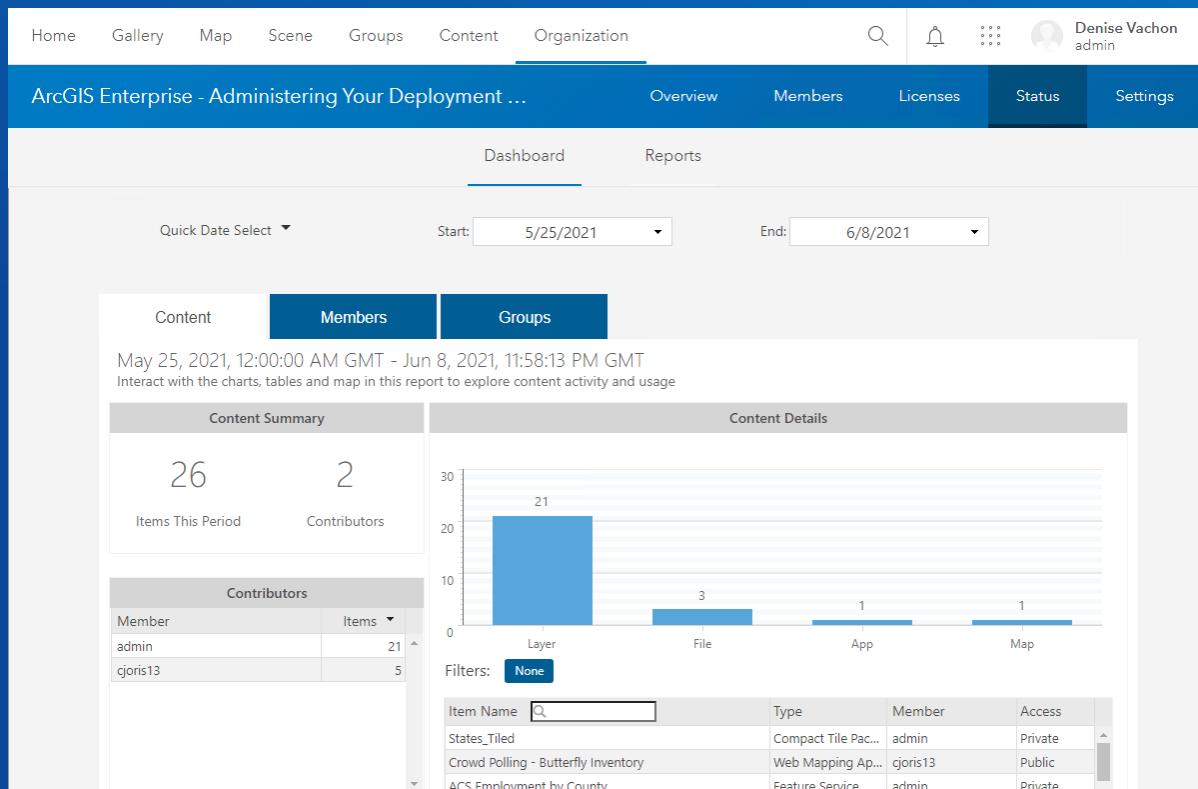
# Monitoring your Deployment

- 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

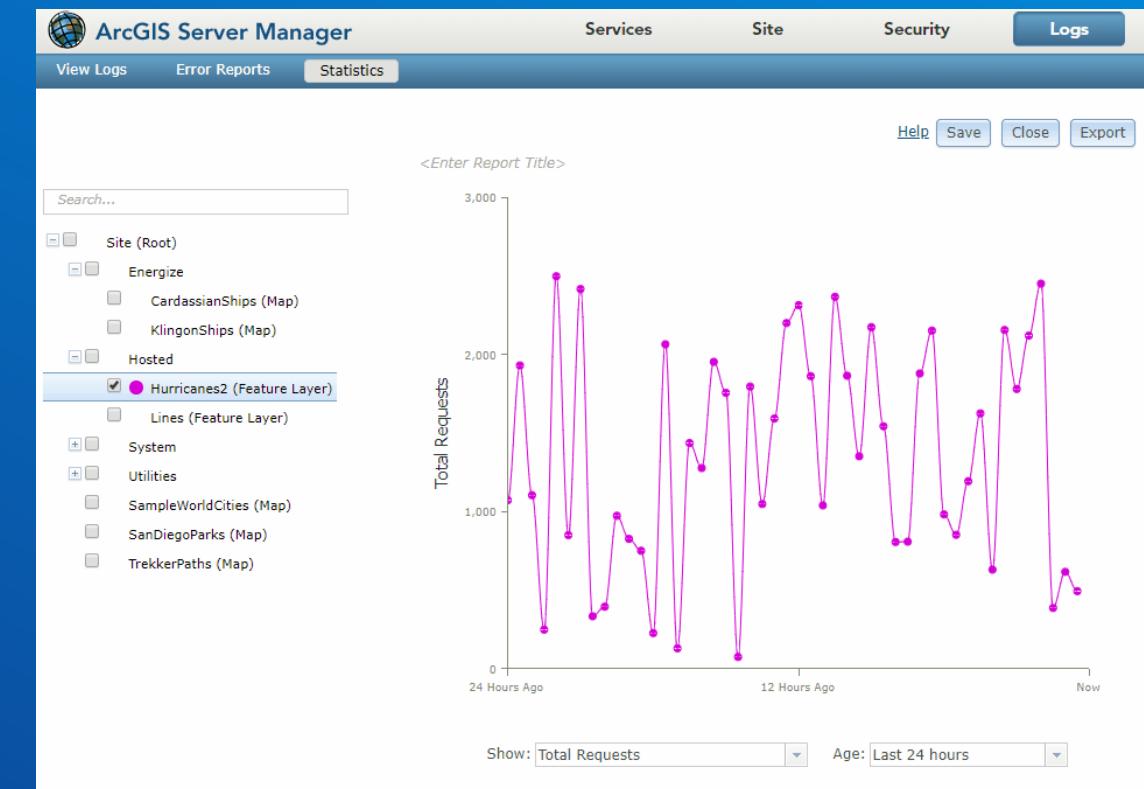
### Monitor Portal items, members and groups



The screenshot shows the ArcGIS Enterprise Activity Dashboard. The top navigation bar includes Home, Gallery, Map, Scene, Groups, Content, Organization, a search icon, a bell icon, and a user profile for Denise Vachon, admin. The Organization tab is selected. Below the navigation is a sub-header: ArcGIS Enterprise - Administering Your Deployment ... with tabs for Overview, Members, Licenses, Status (selected), and Settings. The main content area has tabs for Dashboard and Reports, with Dashboard selected. It features a date range selector from 5/25/2021 to 6/8/2021. Below this are three main sections: Content Summary (26 items, 2 contributors), Content Details (a bar chart showing 21 Layer items, 3 File items, 1 App item, and 1 Map item), and Contributors (a table showing admin with 21 items and gjoris13 with 5 items). A table at the bottom lists items like States\_Tiled, Crowd Polling - Butterfly Inventory, and ACS Employment by County.

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

### Monitor web service requests

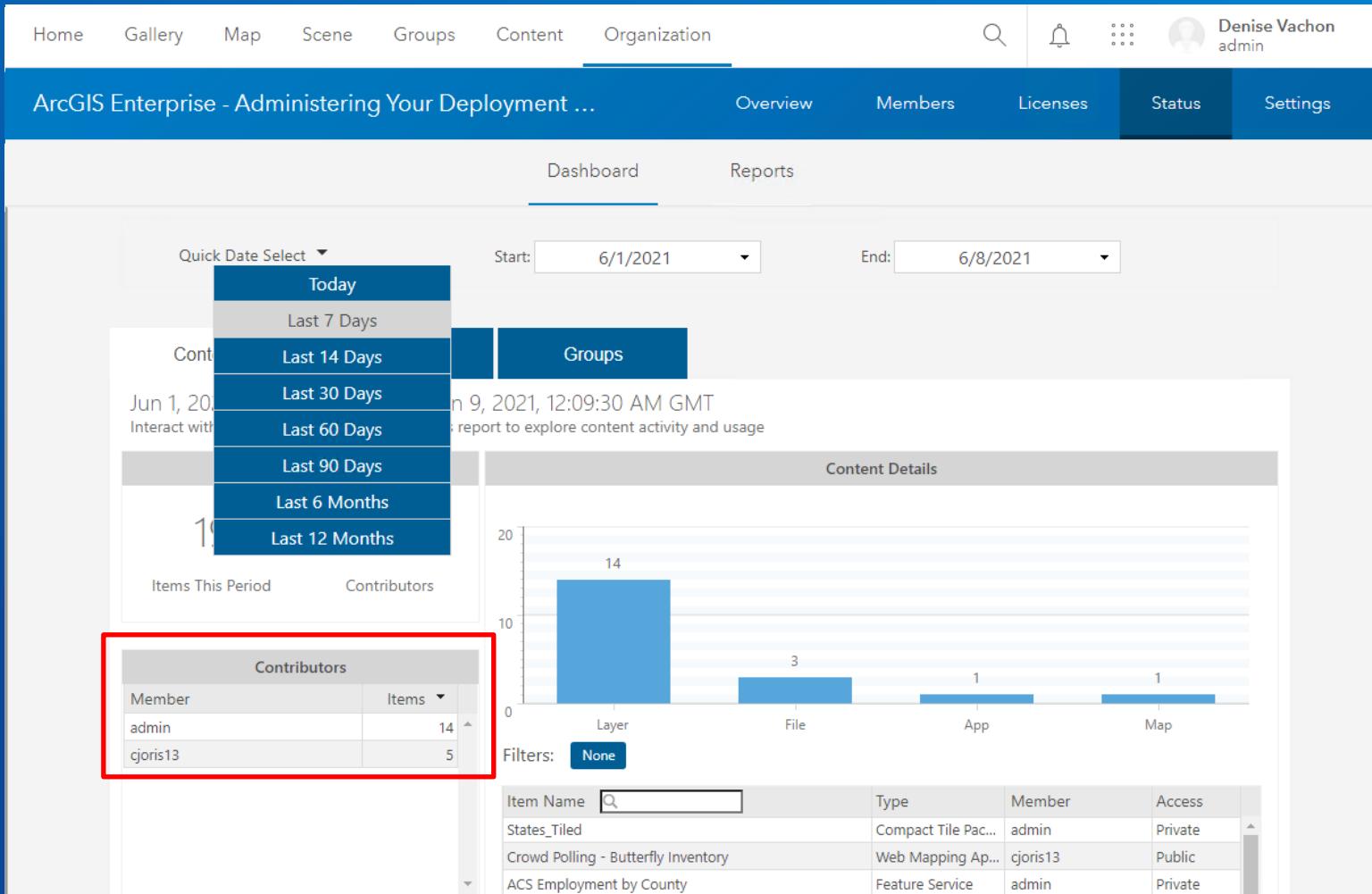


The screenshot shows the ArcGIS Server Manager Statistics tab. The top navigation bar includes Services, Site, Security, and Logs (selected). Below the navigation is a search bar and a report title field (<Enter Report Title>). The main content area has a search bar and a tree view of web services. The tree view shows Site (Root) with subfolders Energize and Hosted. Under Hosted, the Hurricanes2 (Feature Layer) service is selected. To the right is a line chart titled 'Total Requests' showing request volume over time. The chart has a y-axis from 0 to 3,000 and an x-axis from 24 Hours Ago to Now. The chart shows highly fluctuating request volumes, with several peaks reaching up to 2,500 requests. Below the chart are buttons for Help, Save, Close, and Export.

Statistics, Under the Logs tab in Server Manager

# Monitoring your Deployment

## Usage Reports in Portal for ArcGIS



The screenshot shows the ArcGIS Enterprise interface with the 'Organization' tab selected. The main content area is the 'Status' tab, specifically the 'Activity' dashboard. The dashboard includes a date range selector (set to 'Today' for the screenshot), a bar chart showing content details (14 layers, 3 files, 1 app, 1 map), and a table of contributors (admin: 14 items, cboris13: 5 items). A red box highlights the 'Contributors' table.

Dashboard      Reports

Quick Date Select ▾

Start: 6/1/2021 ▾      End: 6/8/2021 ▾

Groups

Content Details

Contributors

Member	Items
admin	14
cboris13	5

Filters: None

Item Name	Type	Member	Access
States_Tiled	Compact Tile Pac...	admin	Private
Crowd Polling - Butterfly Inventory	Web Mapping Ap...	cboris13	Public
ACS Employment by County	Feature Service	admin	Private

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, 12:15:00 AM GMT  
Filter, order and view details by interacting with member charts, tables and map

Utilization Summary and Statistics Report for Member: Denise Vachon

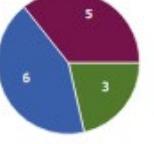
 Member Role: Administrator Member Since: 5/27/2021 Groups In: 2

Denise Vachon admin a@e.com 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**:  


Category	Count
Public	3
Private	6
Organization	5
Group	0

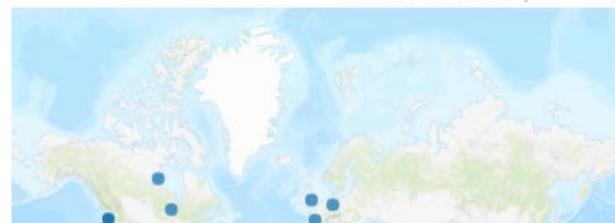
**Content Details**:  


Type	Count
Layer	11
File	3

  
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)

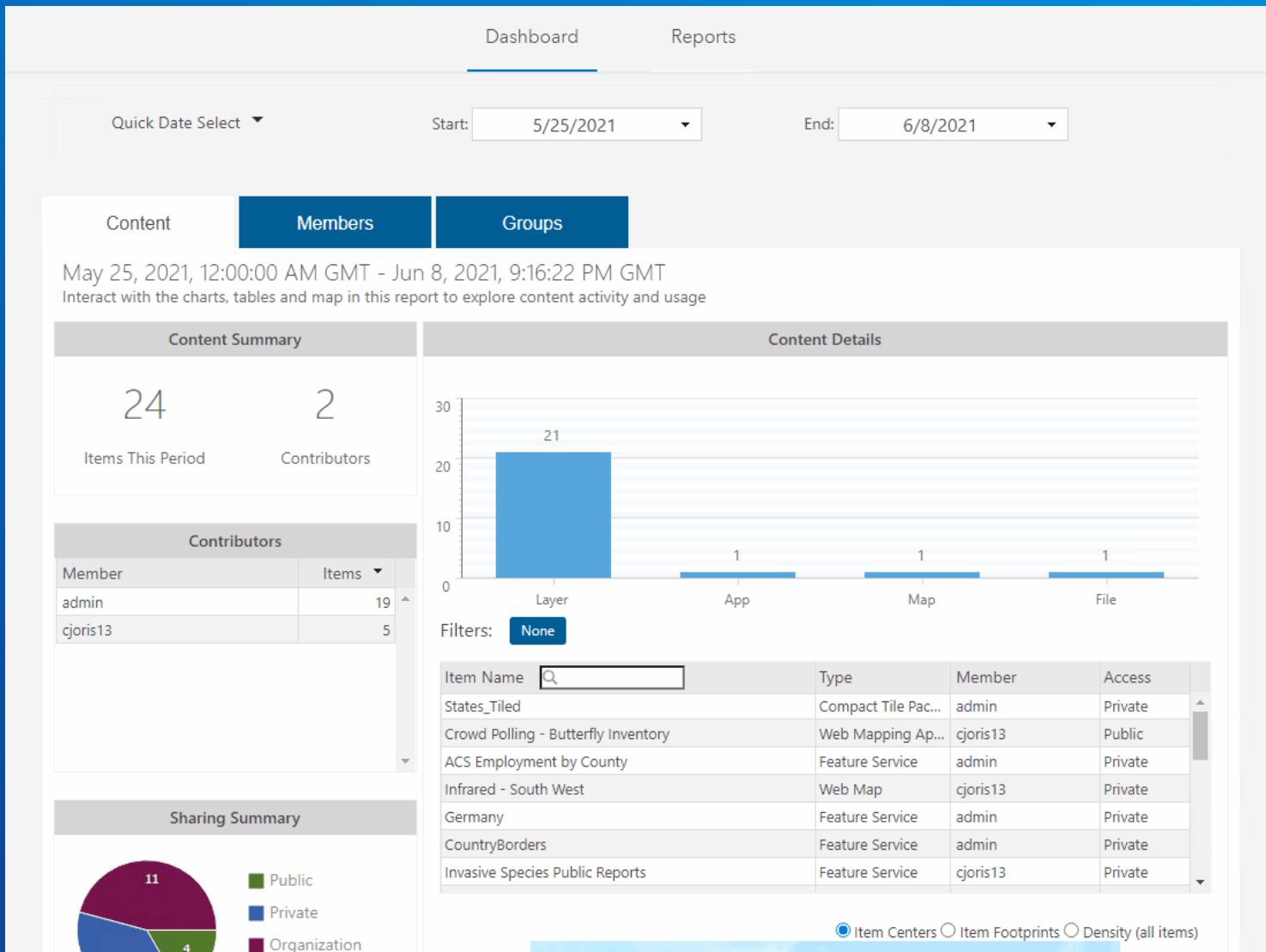


A

# Monitoring your Deployment

## Usage Reports in Portal for ArcGIS

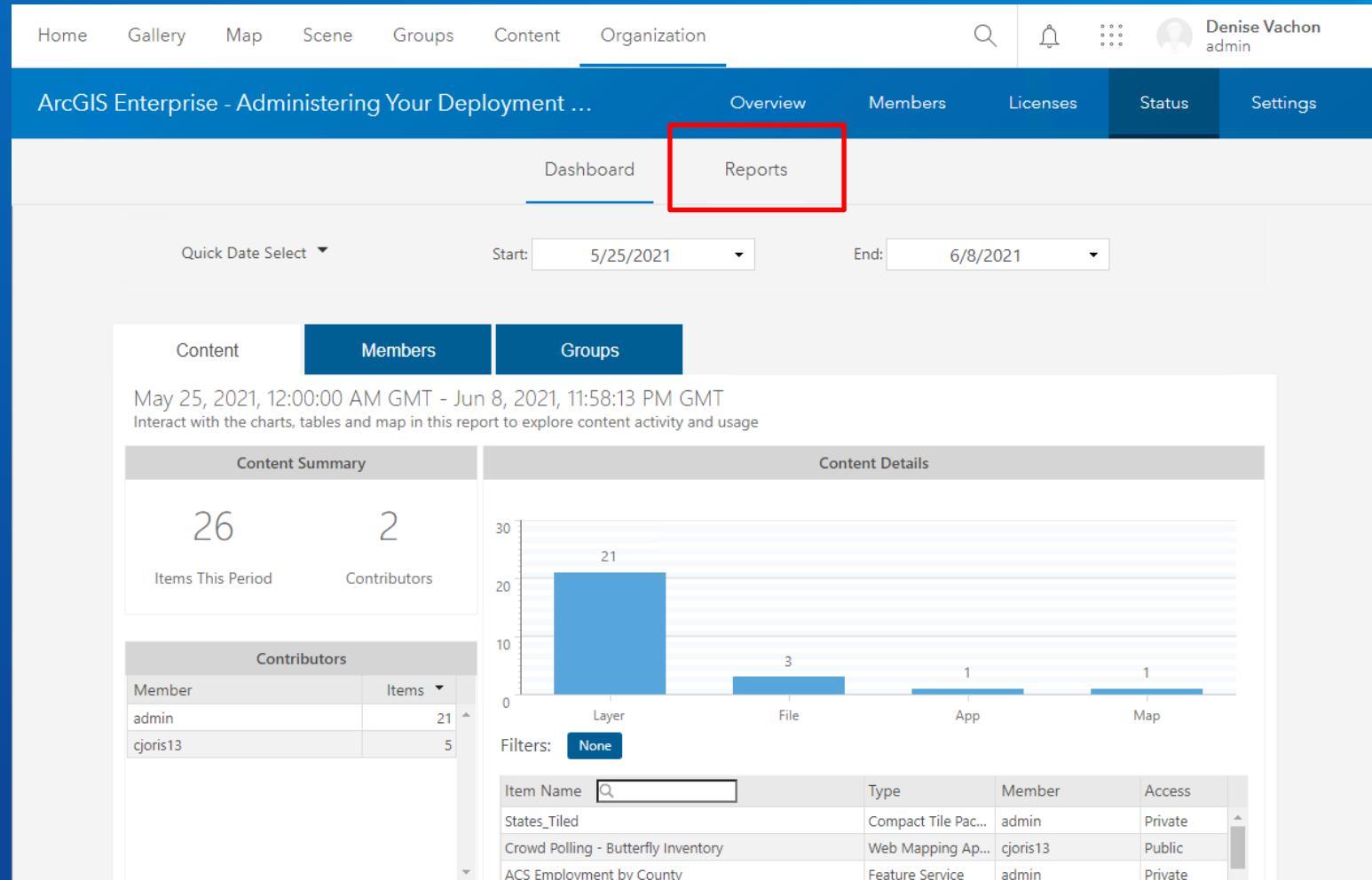
- **Interactive Filtering By Clicking On:**
  - Charts
  - Tables
  - Maps
- **Both the Content and Member tabs are interactive.**



# Monitoring your Deployment

## Usage Reports in Portal for ArcGIS

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



The screenshot shows the ArcGIS Enterprise Administering Your Deployment ... page. The top navigation bar includes Home, Gallery, Map, Scene, Groups, Content, Organization, a search icon, and a user profile for Denise Vachon, admin. Below the navigation is a secondary navigation bar with Overview, Members, Licenses, Status, and Settings. The 'Reports' tab is highlighted with a red box. The main content area has tabs for Content, Members, and Groups, with 'Members' selected. It displays a date range from May 25, 2021, to Jun 8, 2021. The 'Content Summary' section shows 26 items this period and 2 contributors. The 'Content Details' section includes a bar chart showing item types: Layer (21), File (3), App (1), and Map (1). Below the chart is a table of contributors and a table of content items.

Content Summary

Items This Period	Contributors
26	2

Content Details

Layer	File	App	Map
21	3	1	1

Contributors

Member	Items
admin	21
cjoris13	5

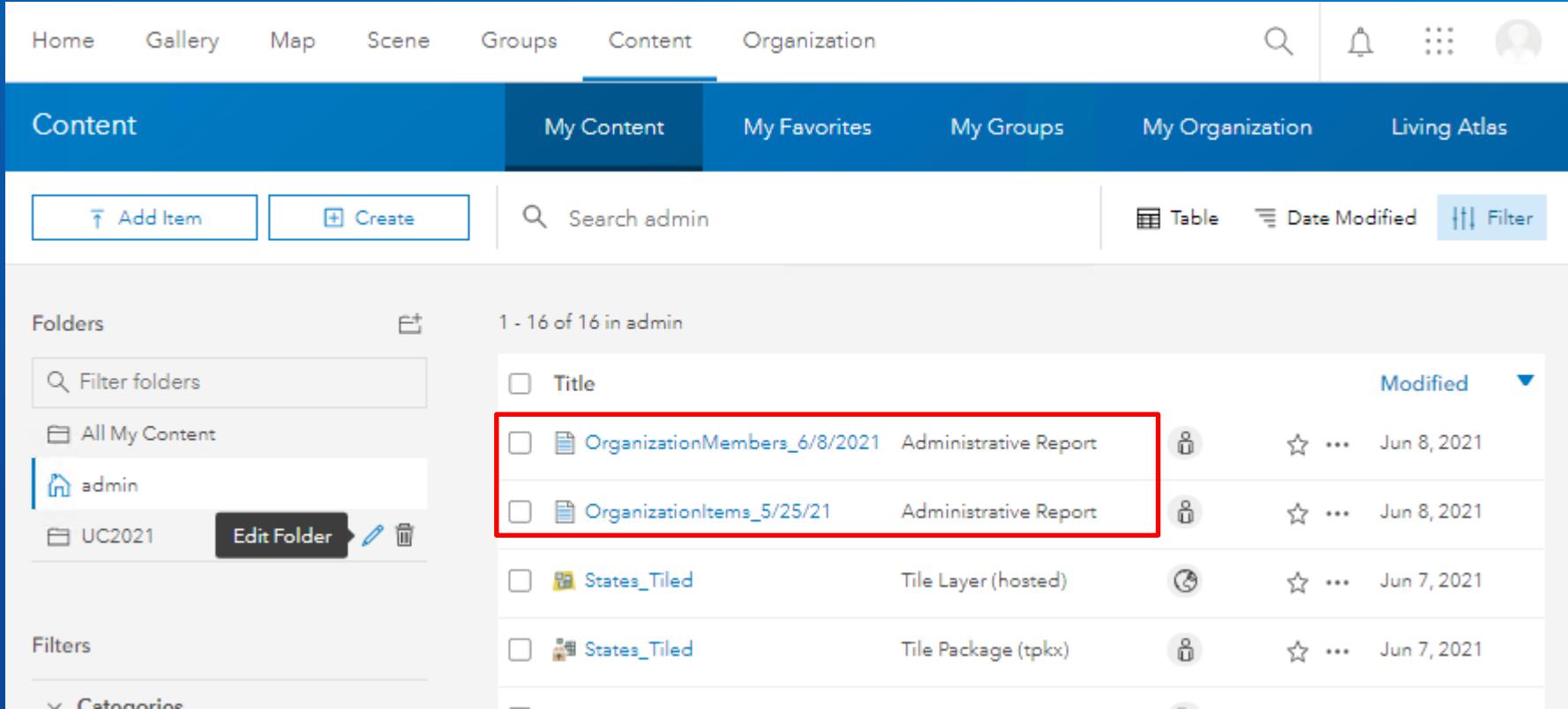
Filters: **None**

Item Name	Type	Member	Access
States_Tiled	Compact Tile Pac...	admin	Private
Crowd Polling - Butterfly Inventory	Web Mapping Ap...	cjoris13	Public
ACS Employment by County	Feature Service	admin	Private

# Monitoring your Deployment

## Usage Reports in Portal for ArcGIS

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



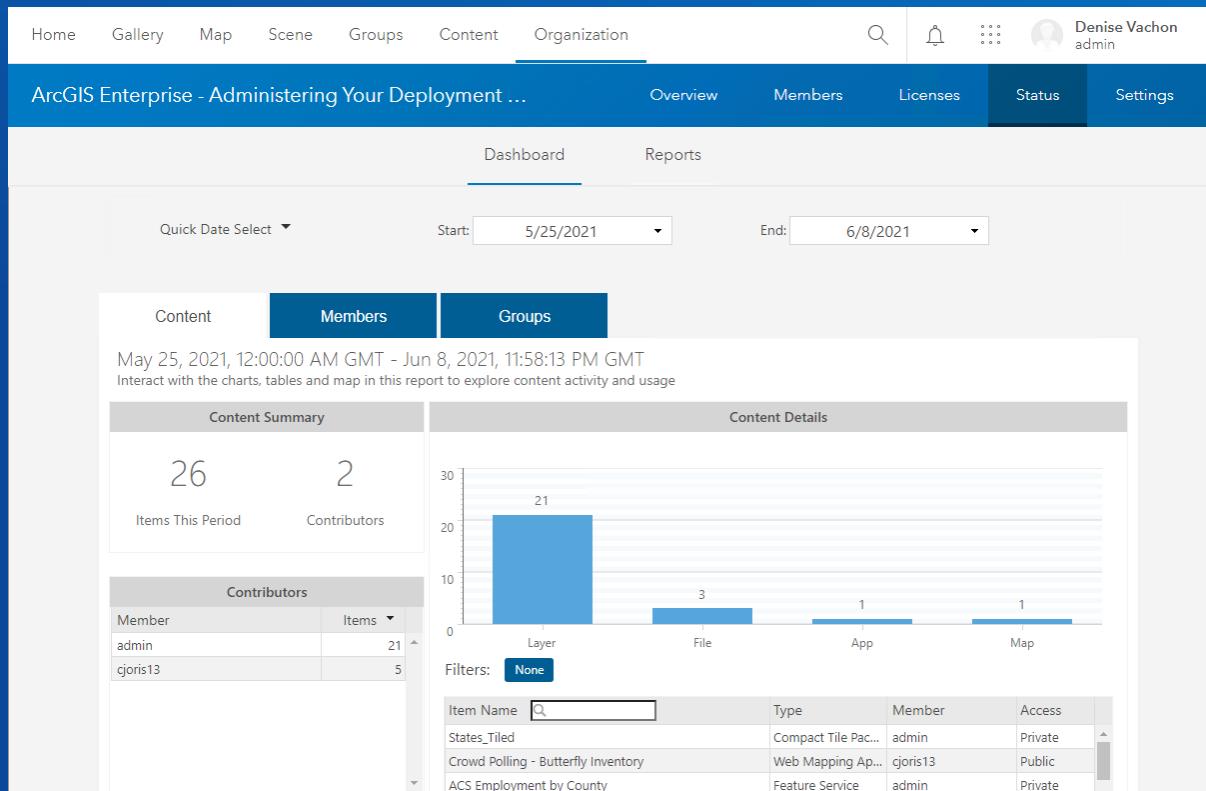
The screenshot shows the ArcGIS Portal interface for an administrator. The top navigation bar includes Home, Gallery, Map, Scene, Groups, Content (which is selected), and Organization. Below the navigation is a toolbar with Add Item, Create, a search bar (Search admin), and filters for Table, Date Modified, and Filter. The main content area is titled 'Content' and shows a list of items. On the left, there's a sidebar for 'Folders' with 'All My Content' and 'admin' selected. The main list shows 16 items, with the first two being 'OrganizationMembers\_6/8/2021' and 'OrganizationItems\_5/25/21', both labeled as 'Administrative Report'. These two items are highlighted with a red box. The list also includes 'States\_Tiled' (Tile Layer (hosted)) and 'States\_Tiled' (Tile Package (tpkx)). The 'Modified' column shows dates like Jun 8, 2021, and Jun 7, 2021.

Modified	Item	Type
Jun 8, 2021	OrganizationMembers_6/8/2021	Administrative Report
Jun 8, 2021	OrganizationItems_5/25/21	Administrative Report
Jun 7, 2021	States_Tiled	Tile Layer (hosted)
Jun 7, 2021	States_Tiled	Tile Package (tpkx)

# Monitoring your Deployment

## Usage Reports

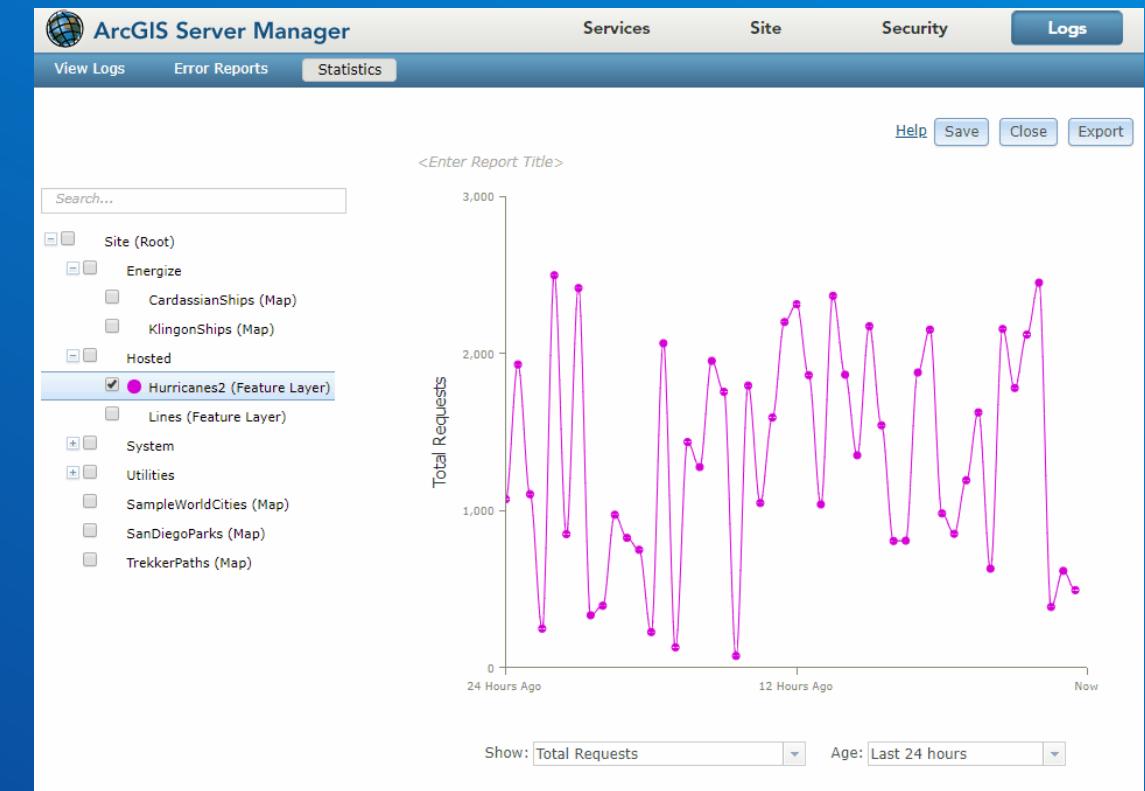
### Monitor Portal items, members and groups



The screenshot shows the ArcGIS Enterprise Activity Dashboard. The top navigation bar includes Home, Gallery, Map, Scene, Groups, Content, Organization, a search icon, a bell icon, and a user profile for Denise Vachon, admin. The Organization tab is selected. Below the navigation is a sub-header: ArcGIS Enterprise - Administering Your Deployment ... with tabs for Overview, Members, Licenses, Status (selected), and Settings. The main content area has tabs for Dashboard and Reports, with Dashboard selected. It features a date range selector from May 25, 2021, to Jun 8, 2021. Below this are three main sections: Content Summary (26 items, 2 contributors), Content Details (a bar chart showing 21 Layer items, 3 File items, 1 App item, and 1 Map item), and Contributors (a table showing admin with 21 items and gjoris13 with 5 items). A table at the bottom lists items like States\_Tiled, Crowd Polling - Butterfly Inventory, and ACS Employment by County.

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

### Monitor web service requests



The screenshot shows the ArcGIS Server Manager Statistics tab. The top navigation bar includes Services, Site, Security, and Logs (selected). Below the navigation is a search bar and a report title field (<Enter Report Title>). The main content area has a search bar, a tree view of service items, and a line chart showing 'Total Requests' over time. The tree view shows the hierarchy: Site (Root) > Energize > Hosted > Hurricanes2 (Feature Layer). The line chart shows a fluctuating pattern of requests over the last 24 hours, with a major peak around 2,500 requests.

Statistics, Under the Logs tab in Server Manager

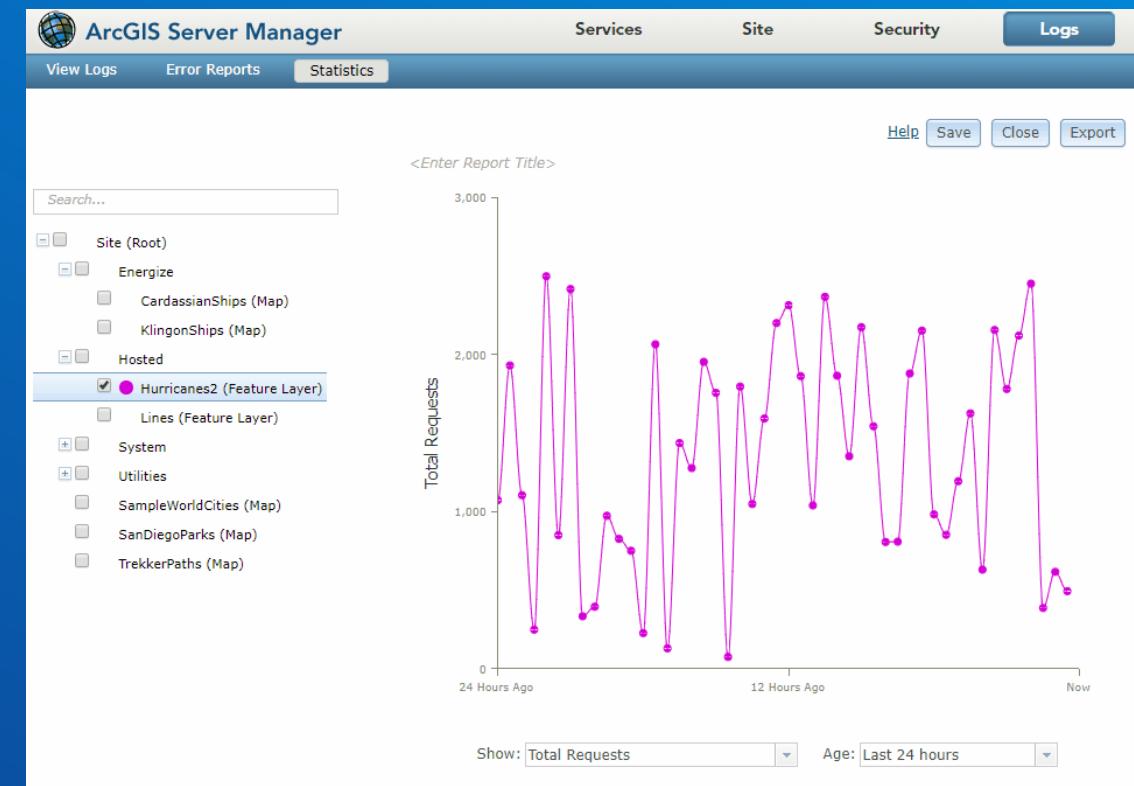
# Monitoring your Deployment

## 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

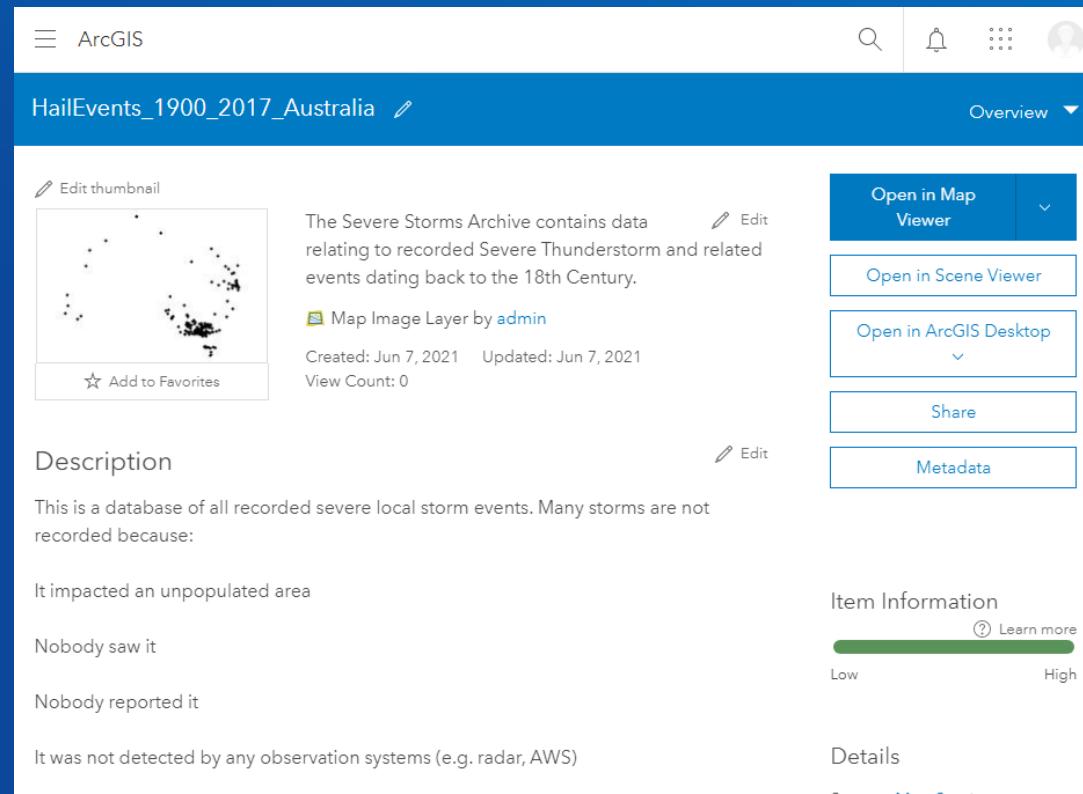


**Statistics, Under the Logs tab  
in Server Manager**

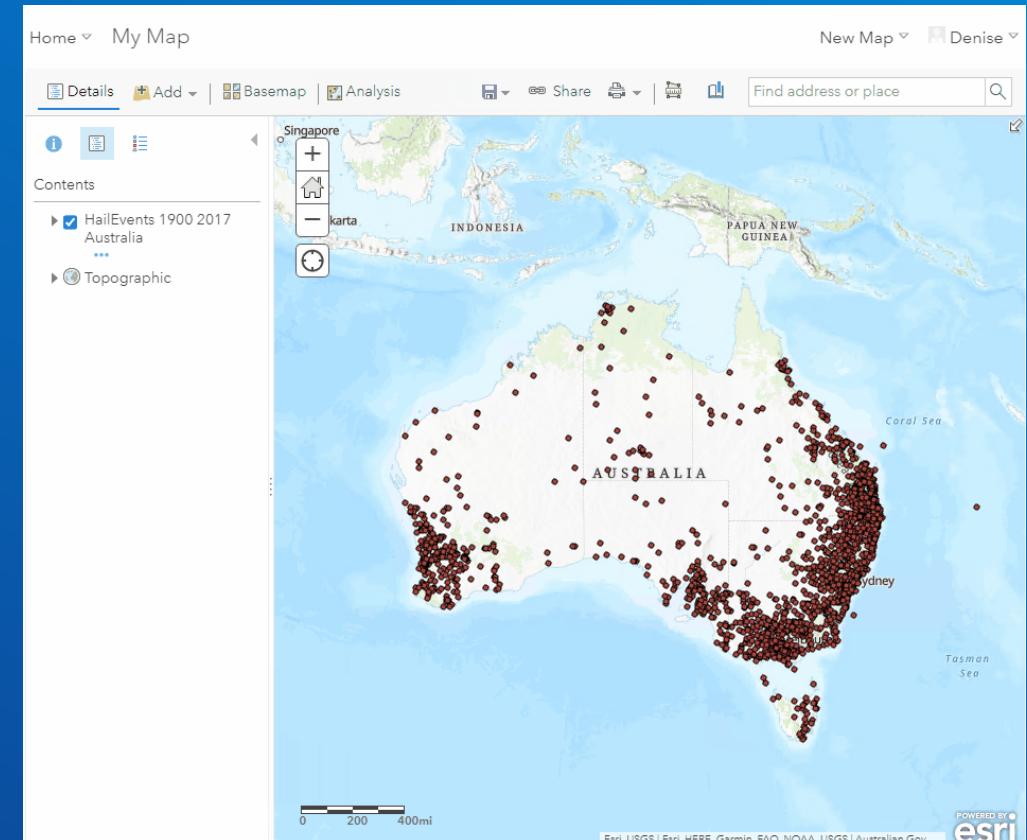
# Monitoring your Deployment

## Usage Reports

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



The screenshot shows the 'Overview' tab of an ArcGIS item page. The title is 'HailEvents\_1900\_2017\_Australia'. The description text reads: 'The Severe Storms Archive contains data relating to recorded Severe Thunderstorm and related events dating back to the 18th Century.' Below this is a 'Map Image Layer' created by 'admin' on Jun 7, 2021, with a view count of 0. To the right is a vertical list of actions: 'Edit thumbnail', 'Edit', 'Open in Map Viewer', 'Open in Scene Viewer', 'Open in ArcGIS Desktop', 'Share', and 'Metadata'. At the bottom, there's a 'Description' section with a list of reasons why storms are not recorded: 'It impacted an unpopulated area', 'Nobody saw it', 'Nobody reported it', and 'It was not detected by any observation systems (e.g. radar, AWS)'. A progress bar for 'Item Information' is shown, with 'Learn more' and 'Low' and 'High' ends.



The screenshot shows the 'My Map' page in ArcGIS Portal. The map displays a high density of red dots representing severe storm events across Australia. The map includes labels for 'Singapore', 'INDONESIA', 'PAPUA NEW GUINEA', 'AUSTRALIA', 'Sydney', and 'Tasman Sea'. The 'Contents' panel on the left shows the 'HailEvents 1900 2017 Australia' layer is selected. The bottom right corner contains the Esri logo and text: 'POWERED BY esri' and 'Esri, USGS | Esri, HERE, Garmin, FAO, NOAA, USGS | Australian Gov...'. A small yellow letter 'A' is in the bottom right corner of the slide.

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**

[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:** [Warning](#) [Age:](#) [Last Hour](#) [Source:](#) [All](#) [Machine:](#) [All Machines](#) [Query](#)

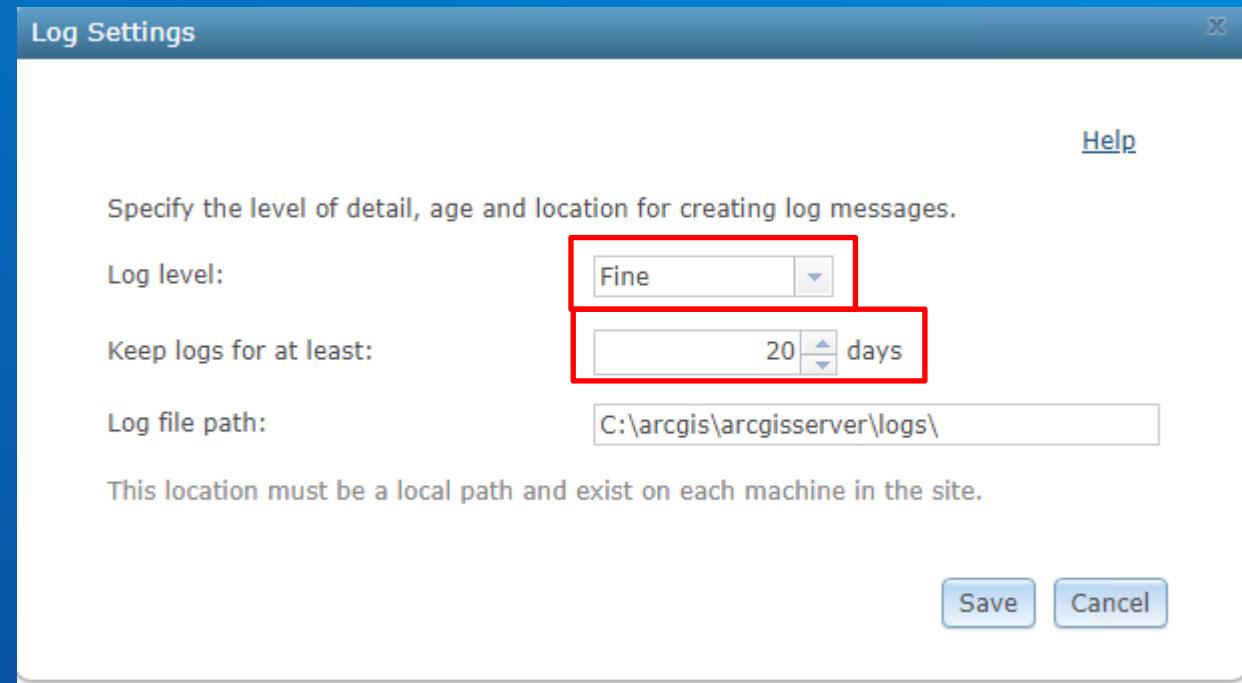
**All**  
Server Framework  
ArcGIS Data Store  
All Services

# Monitoring your Deployment

## Logging

### 5 Log Levels:

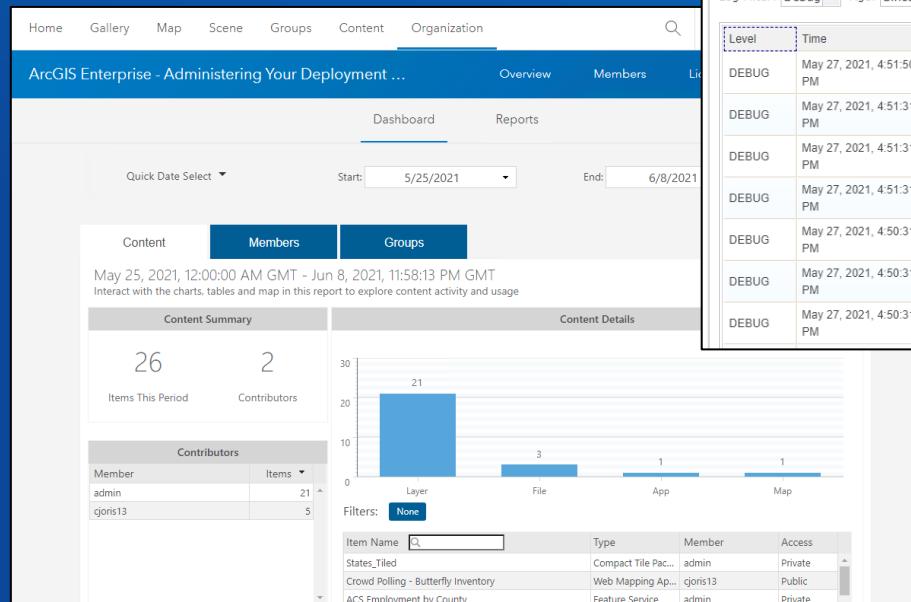
- Severe
- Warning (Default)
- Info
- Fine
- Verbose
- Debug\*



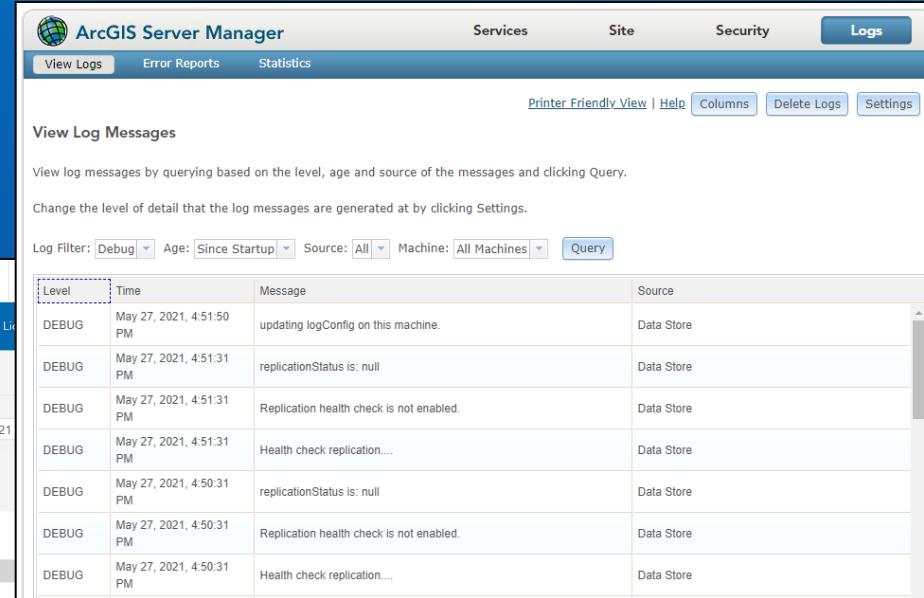
Log setting dialogue in Server Manager  
under the Logs tab > Setting button

**\*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.**

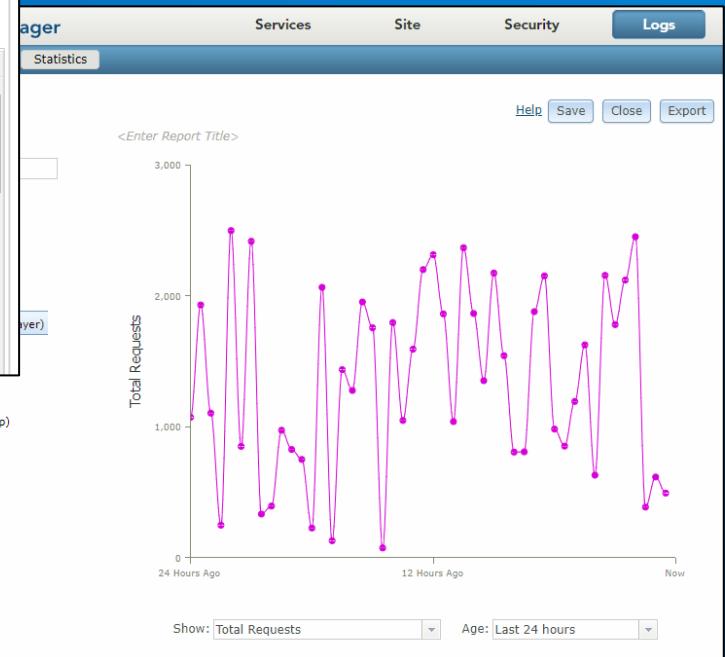
# Monitoring your Deployment



Activity Dashboard  
in Portal for ArcGIS



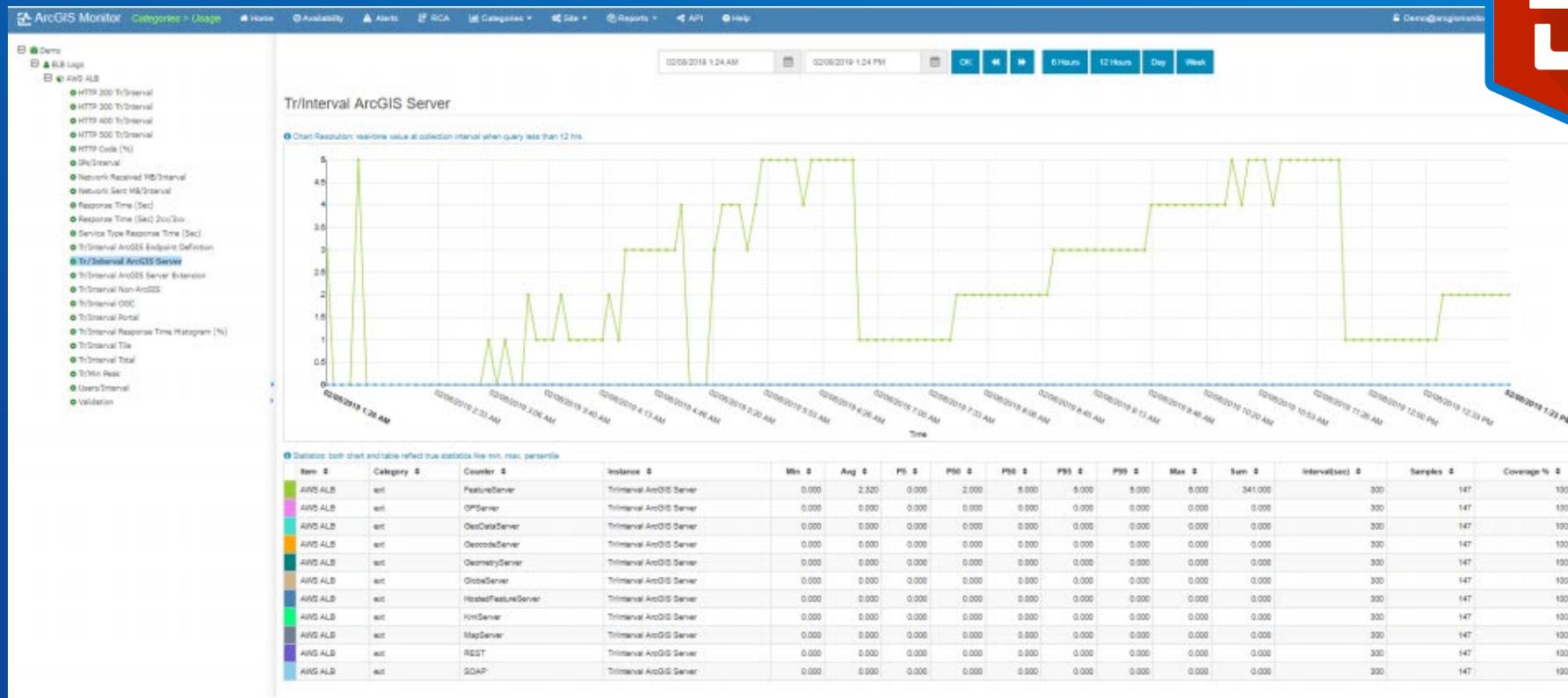
## Logging in Server Manager and Portal Sharing API



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](#)

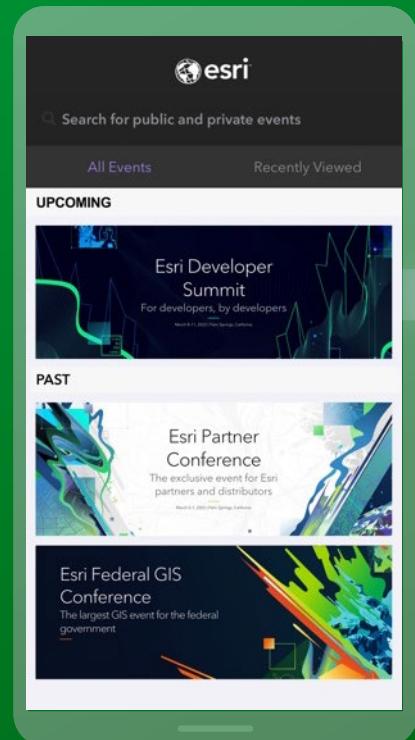
Technical Support: <https://support.esri.com>

# Summary

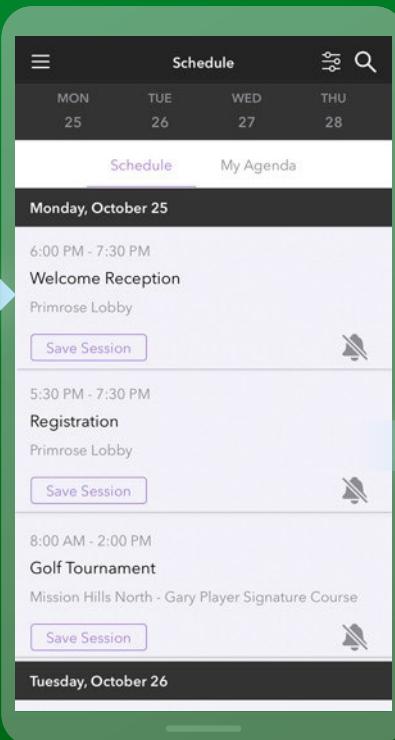
- Administrative Endpoints
- Securing Your Deployment
- Managing Services
- Managing Users
- Monitoring your Deployment
- Summary

# Please Share Your Feedback in the App

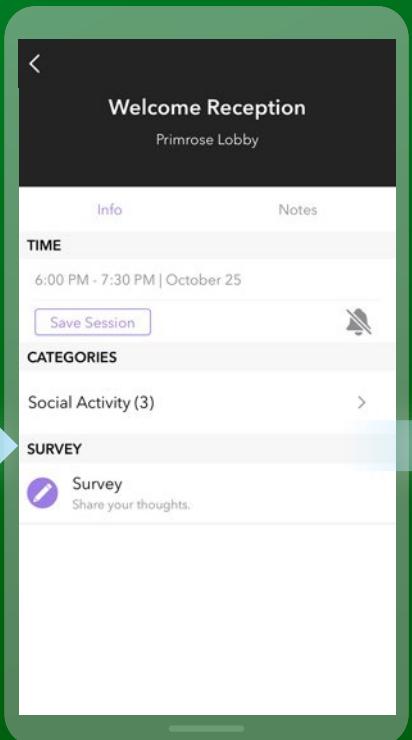
Download the Esri Events app and find your event



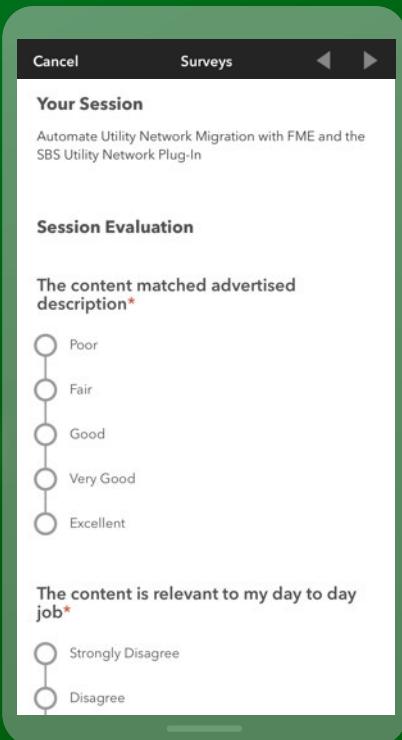
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