



July 2025

Extend the Reach of Your GIS

ArcGIS Online tips and best practices



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Introduction

This guide presents a stepwise framework for rapidly configuring and implementing ArcGIS Online using best practices. Learn how to implement cloud GIS for delivering intelligent maps, apps, and analytics and how to share them with key users throughout your organization and beyond. Learn how to turn data into actionable information and streamline your workflows.

Whether you've already implemented ArcGIS Online or are just beginning to think about it, you'll explore how to use the cloud to your best advantage and experience.

The topics in this guide include the following:

- Governance
- Creating destinations to engage communities
- Establishing your brand
- Setting things up for success
- Tips for fine-tuning your organization
- Groups
- Member best practices
- Authoring maps
- Feature layers
- ArcGIS Online analysis
- Information products—apps and more
- Keeping your organization moving forward

For the most up-to-date version of this book, visit go.esri.com/extend.

Chapter 1: Establish the vision, goals, and governance

Understand your road map to success and what success means.

A successful organization is not a solo effort; it requires teamwork, agreement, and collaboration. It is recommended that you plan and meet with your team as you think about improving your ArcGIS organization. To start, ask the following questions:

- Who serves as the champion, demonstrating vision and leadership in establishing and moving the organization forward?
- Who are the other stakeholders within the organization it should serve?
- What is the vision, mission, and purpose?
- What workflows will it support?
- What problems will it solve?
- How will it improve or enhance the organization's capabilities?
- What are the deliverables?
- What are the measures of success?

It is important to think about these questions since the answers will guide your decisions and how you will frame your organization.

Consider forming a governance committee of stakeholders. The governance committee should meet regularly as the organization grows and evolves.

Evaluate and test methods and workflows before introducing them throughout your organization and implement successful patterns.

Establish and document procedures and guidelines, such as what a user profile should contain, how to author and publish maps and layers, and required item details and other documentation.

Be flexible, adapt, and evolve. As your organization grows in the number of members, tasks, and workflows it supports, adjustments will be needed along the way.

Communicate your successes and what is new on your organization's site to help others understand the value of the organization and encourage them to participate. Use internal organization communication capabilities to notify members of your organization of any changes or updates.

Look for and mentor new champions of the organization. The original leaders may be committed to the organization's objectives, but as they depart, it is necessary to ensure that others are prepared to maintain the vision and goals without disruption.

Administration

The administrator is in control of the organization and has privileges that allow configuring the organization and managing members and content. An organization must have at least one administrator; however, there is no limit to the number of administrator roles that can be assigned within an organization. It is recommended that an organization has at least two administrators.

Select one or more administrators to be primarily responsible for the organization. For larger organizations, custom roles can be used to allocate certain administrative tasks to other members. See [Chapter 4: Custom roles](#) for more information.

Tips and best practices

Keep the following recommendations in mind:

- Establish a curator or group of curators to manage the vision and goals of the organization.
- Identify one or more organization administrators. You can divide the administration tasks across several members using custom roles.

- Prototype and evaluate various methods and scenarios before introducing them throughout the organization.
- Establish procedures and guidelines for administration, group owners, and members.
- Be flexible, adapt, and evolve as your organization evolves.
- Communicate early and often, especially among stakeholders.
- Look for and mentor new administrators and content managers.

Establish best practices guidelines

Early on, before the organization grows in members and content, it is advisable to establish clear guidelines outlining best practices. These guidelines can include what a member profile should look like, proper item documentation (including tags or categories), and which apps and basemaps are preferred.

This information can be stored in a document that you should review and update from time to time. The document can be added to your organization and shared internally with members for reference. You can share it where it is only visible after members sign in—for example, on your organization home page or gallery.

Additionally, you can create template items and groups showing the best practices for descriptions and documentation. These can also include any standard text or terms of use that should be included in publicly shared items.

Learn more

See the following resources to learn more:

- [ArcGIS Online Implementation Guide](#) (PDF)
- [Get started with administration](#) (Help)
- [User types, roles, and privileges](#) (Help)

- [Administer your organization](#) (Tutorial)
- [Set up an ArcGIS organization](#) (Tutorial)

Chapter 2: Create destinations

Build compelling destinations to engage your communities.

Your organization home page is the first thing that organization members and visitors will see. Your home page's appearance and content will create first impressions. These first impressions are not just about your GIS organization but also about the quality and accuracy of what visitors will find there.

People do judge books by their covers, so it is important to have a professional, aesthetically appealing, and well-organized home page, whether you're exposing it only within your organization or to a wider audience.

The examples discussed in the following sections are attractive sites and provide an impression of professionalism, backed up by content that you can trust.

Organization home page

The home page is the landing page of your organization's website and serves as a gateway for your user community. The home page provides resources and content for organization members and, if you allow outside access, for the public.

You can configure a modern and professional-looking home page that reflects your organization's branding and mission and showcases the maps, scenes, apps, and layers that are most important to your community.

While aesthetics are important, success is about more than just cosmetics. It is about how the site works and what it offers visitors.

Pay attention to the anonymous and signed-in experience for the featured gallery and the Gallery and Group tabs across the top of the page. Avoid barriers such as requiring visitors to sign in when they open content they find on your public home page.

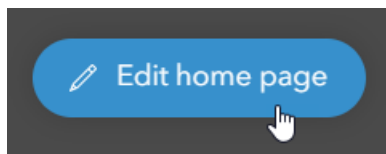
You can add links and documents, such as your ArcGIS Hub sites, ArcGIS Open Data sites, your city website, learning resources, and more.

You can use sharing to control what visitors to your home page see—the public can see publicly shared items, but only after signing in can members see organization or group-only shared items.

Home page editor

Use the home page editor to create a secure and responsive experience across all devices. The editor includes a flexible set of components and options that allow you to create a unique and compelling entry point to your site. As you configure your home page using the home page editor, a live preview of design choices helps you achieve the look and functionality you want.

If you have privileges to edit your home page, an edit button is available on the home page after you sign in.



Use the editor to design the header, content blocks, and footer, and select colors and typography to suit your overall style and aesthetics.

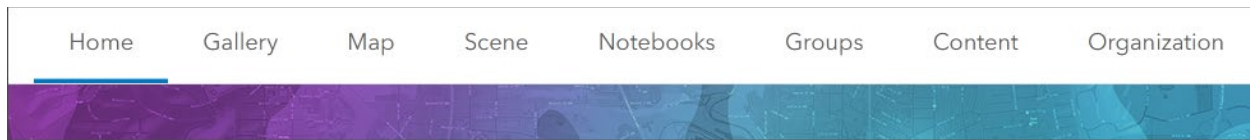
The home page editor allows you to create a home page that has the following characteristics:

- Responsive and works across devices
- Accessible, without barriers that prevent interaction
- Secure so that it is not susceptible to malicious attacks

Home page visibility settings

Using the visibility settings when you [configure your home page](#), organizations can specify navigation bar access (tab visibility) for the main website pages. These tabs

are visible at the top of the organization home page: **Gallery**, **Map**, **Scene**, and **Groups**.

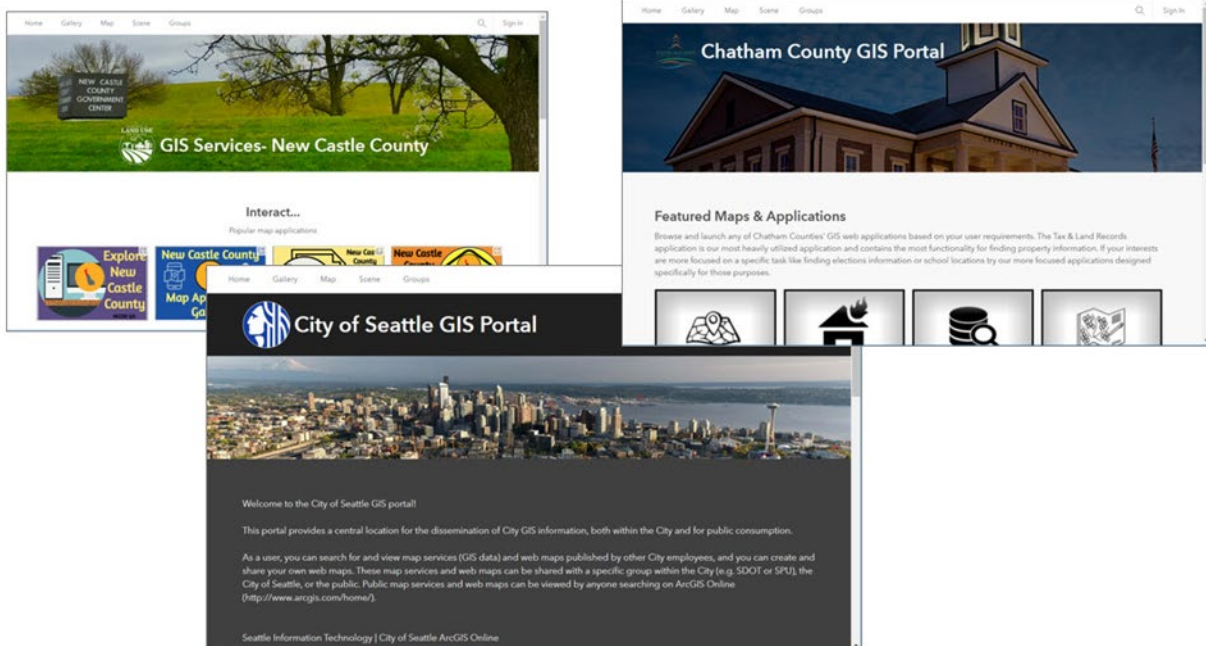


Home is always visible to everyone, **Content** is always visible to members, and member roles determine **Organization** and **Notebooks** visibility.

These settings allow administrators to provide a more customized experience for visitors. For example, administrators can make the **Groups** tab visible for organization members only or for everyone who visits the site. For more information, see [Navigation bar](#) or [Declutter your organization's Navigation bar](#).

Home page examples

The home pages shown below are visually appealing, delivering an impression of professionalism and well-curated content.



Explore the organization homes listed below and decide what you like and what you don't. Consider your experience as you click the featured content, visit links, and explore the Gallery and Groups tabs. Do you like what you see? Is it useful? Is it well-crafted and curated? How would you change or improve them?

A selection of nicely implemented live organization home pages are listed below. Note that since these sites are live, they are subject to change at any time.

- [Africa GeoPortal](#)
- [Faribault County, Minnesota](#)
- [Chatham County GIS Portal](#)
- [North Carolina Department of Transportation \(NCDOT\)](#)
- [New Jersey Department of Environmental Protection \(NJDEP\)](#)

Tips and best practices

Keep the following recommendations in mind:

- Explore your home page as an anonymous visitor and after you sign in to gain an understanding of how members and visitors will experience it.
- Configure the **Gallery** and **Groups** tabs to highlight your best content.
- Review home page content from time to time to make sure it is up to date.
- Consider adding a regularly updated collection of resources that will entice visitors and organization members alike.
- Add your home page as a document item, making it discoverable in ArcGIS Online.
- Organize home page content using unique groups to populate home page blocks.
- Consider [verifying your organization](#) to make your website easier to discover and expose authoritative content badges for publicly shared items in ArcGIS Online.

Learn more

See the following resources to learn more:

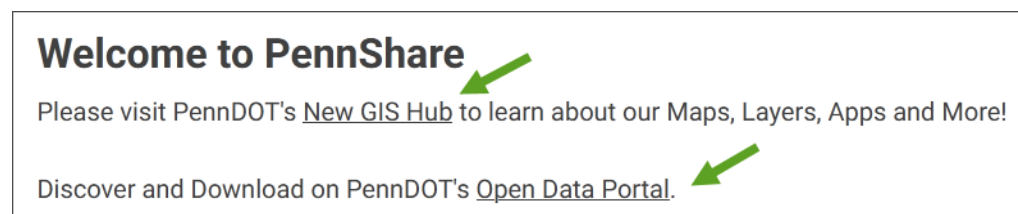
- [Create a great home page for your organization](#) (Blog)
- [Configure your home page navigation bar and galleries](#) (Blog)
- [Best practices for creating an organization home page](#) (Help)
- [Configure home page](#) (Help)
- [Configure gallery](#) (Help)
- [Set up an ArcGIS organization](#) (Tutorial)

Other destinations

While your home page is the primary destination for your organization and can serve public or community needs, you can create other destinations that focus on your target audiences. A popular option is **ArcGIS Hub**, which includes **ArcGIS Open Data**. Many organizations implement one or more hubs in addition to their home page.

Other alternative destinations can be implemented using ArcGIS Experience Builder, or Group-based gallery apps and ArcGIS StoryMaps collections. These are often mini destinations that focus on specific types of content. They can also be used as resources within your organization or components of your home page or hubs.

When implementing multiple destinations, it is recommended that you crosslink them, providing opportunities to discover and navigate across them. For example, include a link to your ArcGIS Hub site from your home page, and vice versa.



ArcGIS Hub

Use ArcGIS Hub to create geo-enabled websites where content can be discovered and explored. ArcGIS Hub allows you to share data, maps, and apps; collaborate with stakeholders; and engage your community.

ArcGIS Hub is available in Basic and Premium versions. Hub Basic is included with every ArcGIS Online organization and allows you to create compelling, focused destinations for your audience. For more information, see [A quick start guide to ArcGIS Hub Basic](#) (Blog).

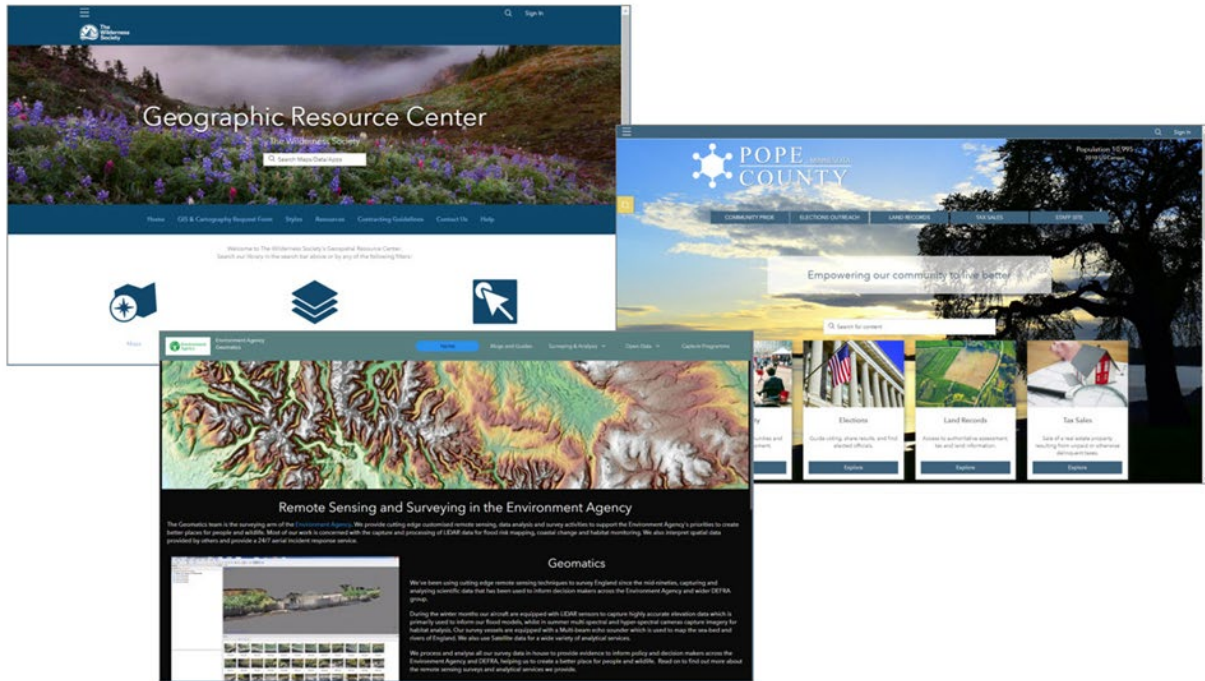
Hub Premium offers additional capabilities for community engagement and collaboration. These capabilities include creating and managing initiatives and private sharing and communication with constituents.

Both Hub Basic and Hub Premium allow you to create Open Data sites that provide broad access to your organization's data in a variety of formats, such as downloading data in various formats, live maps, or with APIs.

For more information on Hub Basic compared to Hub Premium, see [Introduction to ArcGIS Hub](#) (Help) and [ArcGIS Hub overview](#) (Website).

ArcGIS Hub examples

Sample Hub destinations are shown below. Similar to your organization home, hubs should be designed with both aesthetics and use in mind.



The following links provide a selection of nicely implemented hubs. Note that since these sites are live, they are subject to change at any time.

- [Delaware.gov FirstMap](#)
- [Johns Creek DataHub](#)
- [KyGovMaps Open Data Portal](#)
- [California State Geoportal](#)

Tips and best practices

Keep the following recommendations in mind:

- Know your target audience and focus on what you want to deliver, and then decide on the best destination for the audience.

- Consider implementing more than one destination.
- Crosslink destinations and consider adopting a uniform look and feel.

Learn more

See the following resources to learn more:

- [Introduction to ArcGIS Hub](#) (Help)
- [Try ArcGIS Hub Basic](#) (Tutorial)
- [Get started with ArcGIS Hub Premium](#) (Tutorial)
- [ArcGIS Hub Gallery](#) (Website)

Chapter 3: Establish your brand

Establish a recognizable identity.

A brand is an identifiable symbol or portrayal of who you are, and what you represent. It provides immediate recognition of your organization and the work you do.

A brand has the following characteristics:

- Unique design, symbols, words, or a combination of these that can be quickly identified, for example, in a thumbnail or user profile.
- Content identification—in this case, your maps, apps, and layers—and what differentiates them from other content.
- Your brand becomes associated with a level of credibility, quality, veracity, and satisfaction in the consumer's mind.

Organization branding

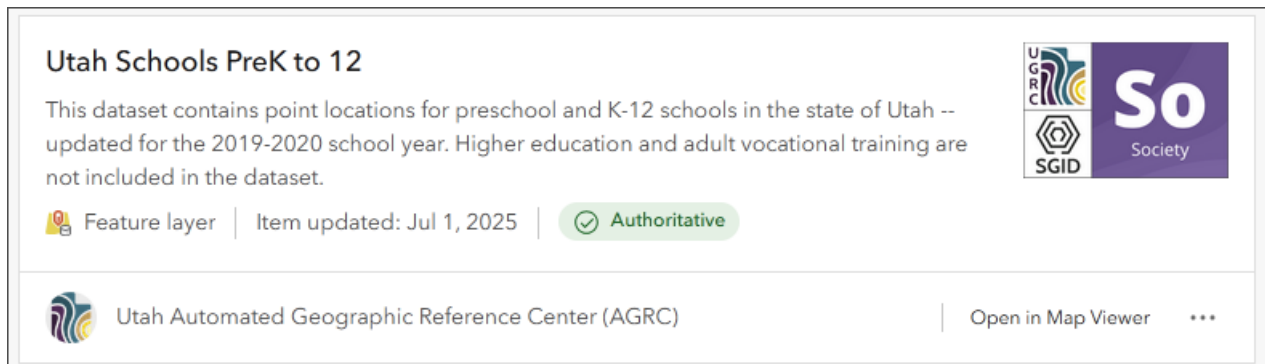
If you found two items of interest—one from a well-documented source and another from someone you cannot identify—which would you think to use first?

Organization branding can take many forms. For example, a user in Utah would know that the Utah Automated Geographic Reference Center (AGRC) is the statewide source for authoritative foundational content. Yet, if you wanted authoritative content for Utah but were not from there, you might not know that. So how can you judge what you find in search results?

One of the first things you can look for is the Authoritative badge. The [Public Authoritative Content badge](#) section explains how to display the badge for your organization's publicly shared items.

Otherwise, the search results are judged by their title, summary, and appearance (thumbnail) and by the profile of the owner. Without other knowledge, these are the clues that lead users to trusted content.

The example below effectively curates these elements, adding assurance that the associated content is professionally prepared, represents quality, and is authoritative.



Tips and best practices


Keep the following recommendations in mind:


- Emphasize a visual element and be visually consistent when establishing a brand.
- Establish standard conventions or metadata for item documentation.
- Establish workflows and governance to ensure that what you publish for public consumption meets your standards.
- Demonstrate value. Ensure that your content is well crafted with best practices (pop-ups, styles, scale dependencies, and so on).


Organization profile


Your organization profile is often the first thing that is viewed by others when searching for content. Displayed below are the results of a search for Utah content,



returning items shared by Salt Lake County, Utah UGRC, and Utah Automated Geographic Reference (AGRC).


Parcels - Statewide Utah (AGRC)
Statewide Utah Parcels from AGRC.
 Feature layer | Item updated: May 1, 2019

 Salt Lake County

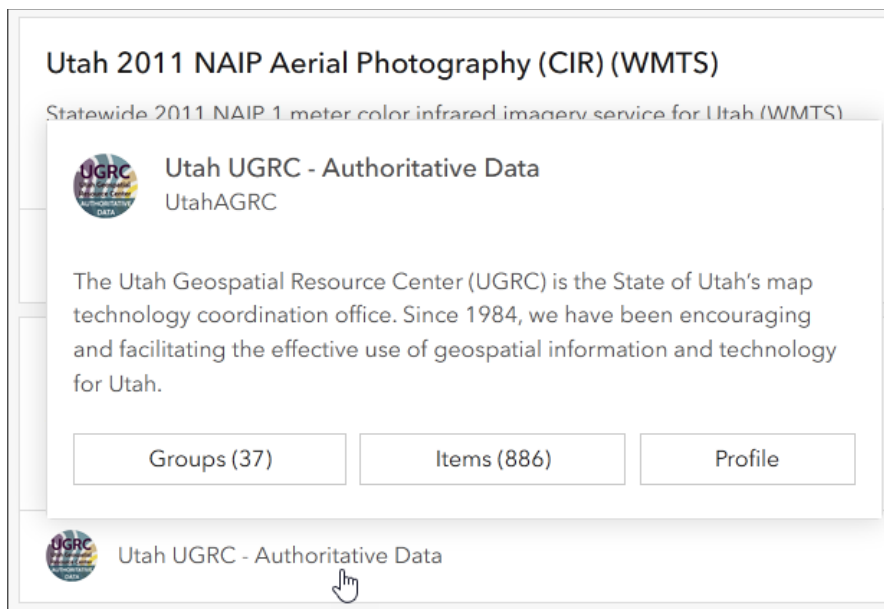
Utah 2014 NAIP Aerial Photography (RGB) (WMTS)
Statewide 2014 NAIP 1 meter natural color imagery service for Utah (WMTS)
 WMTS | Item updated: Sep 12, 2017

 Utah UGRC - Authoritative Data

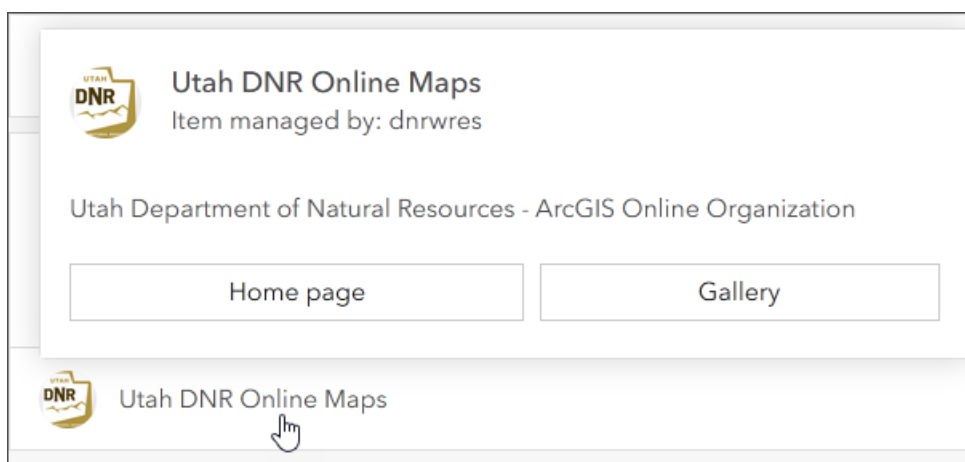
Utah Address Points Base map (WMTS)
A web mercator basemap cache of the Utah SGID Address Points feature class.
 WMTS | Item updated: Aug 21, 2023 | 

 Utah Automated Geographic Reference Center (AGRC)

Click the profile name to view it. There are two forms the profile can take depending on whether the organization has been verified or if the profile is the owner of published content. A typical profile displays a description and includes links to the groups and items owned by the profile account.



[Verified organizations](#) have requested that Esri validate their identity. The name of the organization becomes the owner profile, and the profile card displays links to the organization home page and gallery.



For regular profiles, ensure that the groups and items that are displayed from the profile are well-curated and show best practices. For verified organization profiles, ensure that the organization's home page and gallery are well-curated and show best practices.


Tip: Consider creating a unique profile for public content that represents your organization. As organization members complete maps, apps, and layers, they can be

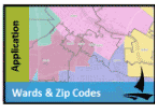
evaluated and reviewed for good thumbnails, item summaries, and item descriptions, and then transferred by an administrator to the profile representing the organization.


Shown below, City_of_Minneapolis is a profile representing Minneapolis GIS. The profile bio information clearly states it is an official account and provides contact information. The profile image also matches the thumbnail branding. All of this provides an indication of professionalism and content you can trust.

City Council Wards & Zip Codes

App showing both Minneapolis City Council Wards and Zip Codes.

 Web Mapping Application | Item updated: Feb 1, 2024





 Minneapolis GIS


View ...

Council Wards & Zip Codes


Web map showing City Council Ward boundaries with Zip Codes.

 Web Map | Item updated: Feb 1, 2024



 Minneapolis GIS

Open in Map Viewer ...



Minneapolis GIS


City_of_Minneapolis

This is the official City of Minneapolis account. Data published from this account is maintained by City of Minneapolis Employees and published by the City of Minneapolis GIS Team. The City of Minneapolis GIS office can be reached by phone at (612) 673-2431 or by email at gis@minneapolismn.gov.

An additional example of an effective profile is provided below.

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Michigan DNR

MichiganDNR


Bio

Welcome to the official Michigan Department of Natural Resources ArcGIS Online page! The Michigan Department of Natural Resources is committed to the conservation, protection, management, use and enjoyment of the state's natural and cultural resources for current and future generations. For more information, go to www.michigan.gov/dnr. Follow us on Facebook for the latest DNR news, photos and answers to all of your questions or by following us on Twitter at www.twitter.com/michiganDNR or www.twitter.com/michiganDNR_UP

Item gallery

Top items based on relevance

GIS Layer




Michigan Department of Natural Resources

Counties with Labels

Feature Layer


Details ...

Open Data GIS Layer




Michigan Department of Natural Resources

DNR Forest Inventory Open Data - Compartments

Feature Layer | 


Details ...

Open Data GIS Layer




Michigan Department of Natural Resources

Michigan DNR Designated ORV Routes

Feature Layer | 


Details ...

Open Data GIS Layer



Michigan Department of Natural Resources


Michigan DNR Designated MCCCT Trails

Feature Layer | 

Details ...

When viewing a profile, both items and groups are discoverable and displayed. This means that you must ensure that what is exposed follows best practices. This collection shows consistent branding.

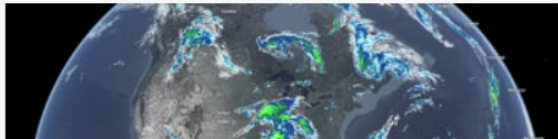
By default, items in the profile are the top items displayed by relevance. It is recommended that you customize the items that are displayed, showcasing your best work. Open your profile, and click **Customize items**.



ArcGIS Online Labs

Item gallery

[Customize items](#)
[Reset to default](#)



Tips and best practices

Keep the following recommendations in mind:

- Keep profile bio information to a reasonable size but ensure that essential information about the organization is presented.
- Add links and contact information, including social media accounts, as appropriate.
- Ensure that all items associated with the profile (including groups) demonstrate best practices.
- Customize the items shown with your profile to feature your best work, rather than default to items found based on search relevance.

Learn more

See the following resources to learn more:

- [Manage profile and settings](#) (Help)
- [Create a great profile](#) (Blog)
- [Customize your profile item gallery](#) (Blog)

Thumbnails

Over the years, the conventional wisdom about what makes a good thumbnail has evolved. Esri used to provide solution templates to create organization-branded thumbnails that included text to describe the item type and audience.

Today, less text is considered better and so are easy-to-recognize graphics rather than small logos that are difficult to read. These practices ensure readability across all of the sizes at which thumbnails are displayed in ArcGIS Online and how they appear on devices.

Tip: If you created items a long time ago, capture new thumbnails using the thumbnail editor or a graphics program of your choosing. Be sure to update to the current size standard. The recommended size was originally 200x133 pixels; now it is 600x400 pixels.

Tip: Save thumbnails in PNG format when using other software for best results. In the ArcGIS ecosystem, thumbnails are displayed at different sizes; PNG delivers the most crisp and clear images at all sizes.

For additional examples of good thumbnails, including those with organizational branding, see the [Chapter 7: Thumbnails](#).

Tips and best practices

Keep the following recommendations in mind:

- Less text is often better.
- Displaying the item type is not essential and may not be needed.
- Simple and bold thumbnails are better than complicated and subtle.
- Update old thumbnails to current size (600x400 pixels) and style standards.
- For the best results, always use a PNG, not a JPEG or GIF, when creating custom thumbnails. PNGs deliver the best results across the ArcGIS Online ecosystem.

Learn more

See the following resources to learn more:

- [View and use items](#) (Help)
- [Create a thumbnail style and brand](#) (Blog)

Content status

Content can be designated as authoritative or deprecated within your organization. This status can be searched, making the content you mark as authoritative more discoverable. Assigning authoritative status also moves it up in the search rankings.

Authoritative designations are only discoverable within your organization, not externally, until you take the next step and register your organization (described in the next section).

Designating content as deprecated moves it to the bottom of search rankings. It can be used when you need to keep content around to support apps but want to steer users toward replacement content.

Tips and best practices

Keep the following recommendations in mind:

- Items can be designated as authoritative or deprecated.
- If there are alternatives to deprecated items, note those in the item description.
- Members can filter items by status.

Learn more

See the following resources to learn more:

- [Designate items as authoritative](#) (Help)
- [Manage content](#) (Help)

Public authoritative content badge



To display an authoritative badge on public items in your organization, you can go through the process of organization verification. [Verified organizations](#) have requested that Esri validate their identity. Organizations that are verified by Esri can designate public items they share as authoritative.


Designating public items as authoritative allows others inside and outside your organization to find reliable, up-to-date content. These items are also boosted in search results and are returned when the authoritative Status filter is applied.


When public items are designated as authoritative, they are identified with an authoritative badge and the name of the organization as the item owner.

California Access and Functional Needs Web Map (Active Map)

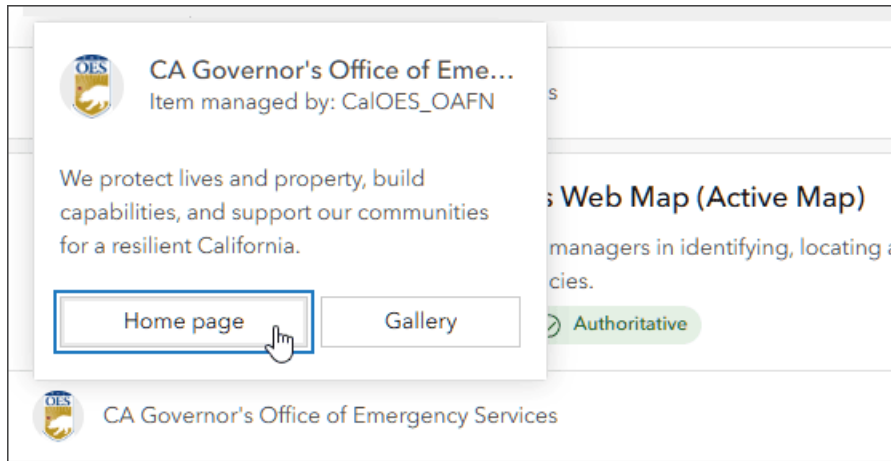
An interactive, GIS-based tool to assist emergency managers in identifying, locating and deploying access and functional needs (AFN) related assets and resources during all phases of emergencies.

 Web Map | Item updated: Apr 8, 2024 |  Authoritative

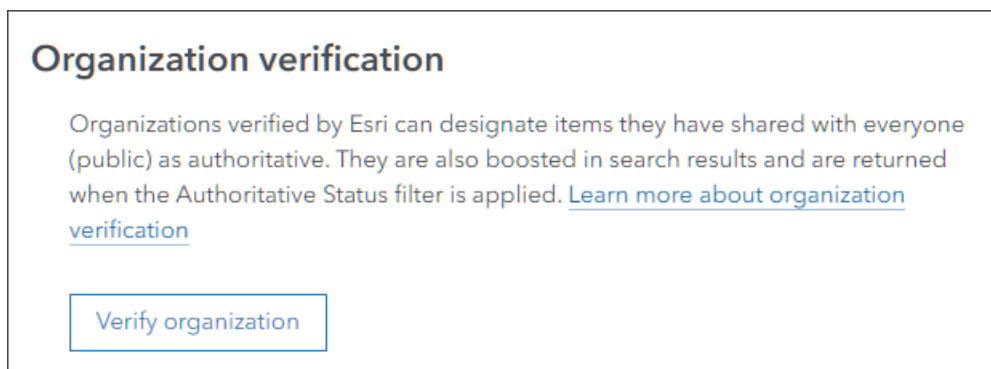
 CA Governor's Office of Emergency Services | [Open in Map Viewer](#) ***



Once you verify your organization, the item owner link will display an information pane with information about your organization and links to its gallery and home pages. To ensure the best impression, make sure that your gallery and home page are configured and well-curated.



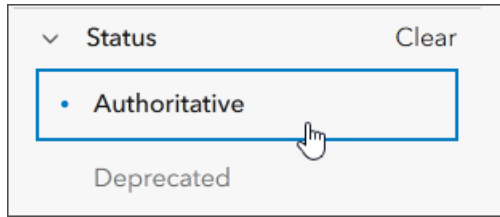
The administrative setting to verify your organization is in the **Organization verification** section under **General** in the organization settings. For more information, see [Organization verification](#) (Help).



Tips and best practices

Keep the following recommendations in mind:

- To display a public badge for your authoritative items, verify your organization.
- Your organization home page and gallery will be included as links on the profile card. These should be well-crafted since they may be the users' first impression of your organization.
- To find authoritative content, use the Status search filter, located on the bottom left of the search page.



Examples


Organization branding and profile

The City of Philadelphia is a good example of both branding and the use of an organizational profile.

The Liberty Bell logo and color scheme are used throughout their content, providing a recognizable brand. The consistent thumbnails contribute to an impression of curation and authoritative information.



Note the contact information in the profile bio.



Maps Data

maps.phl.data

Bio



This is the primary account for data releases for the City of Philadelphia. If you require any assistance please contact: CityGeo Office of Innovation and Technology 1234 Market Street, 15th Floor Philadelphia PA 19107 e-mail: maps@phila.gov


Verified organizations


The Iowa Department of Transportation (DOT) is an example of an organization that has been verified and displays the authoritative badge on its public authoritative content. The authoritative designation also places these at the top of the search rankings.

Snow Plow Truck Location AVL (Iowa DOT)

Active Iowa DOT Winter Operations Vehicles

 Feature layer
 | Item updated: Jul 1, 2020
 |  Authoritative



 Iowa Department of Transportation
 Open in Map Viewer

Click the owner profile. The bio information explains who they are, and the profile card includes links to the home page and gallery.



Iowa Department of Transportation

Item managed by: IowaDOT_SODA

The Iowa DOT is committed to providing the traveling public, lawmakers and partners with easy to understand information that demonstrates how we are managing the state's transportation infrastructure. We are working hard to maximize the performance of our existing structures, minimize costs and improve the public's experience when traveling in Iowa. We are in the process of developing tools to help our stakeholders clearly see how we are performing. We invite you to check back and take a look for yourself on how we are doing. [Open Data](#) [Featured Apps](#) [GIS Website](#) [GeoHub](#)(DOT Staff Only) [Training](#) [AGOL User Guide](#)

[Home page](#)[Gallery](#)

Chapter 4: Member types, roles, and privileges

Empower your members with the tools and capabilities they need.

Organizations are composed of many members with various duties, responsibilities, skills, and tasks. Organization members also use various apps—from ArcGIS Pro to apps used in the field. The ability of individual organization members to access and work with apps and content in different ways depends on the types, roles, and privileges they have in the organization.

User types

User types provide role-based access to capabilities, apps, and content that equip members with essential capabilities for interactive collaboration, mapping, and analysis. Members are assigned a user type when they are invited to the organization.

A user type is composed of the following:

Identity—Your unique username and password allow you to access capabilities, apps, and content others share with you.

Capabilities—Capabilities are what you can do in ArcGIS Online or ArcGIS Enterprise, for example, view, create, or edit content, or perform analysis.

Apps—Software that you can use in conjunction with ArcGIS Online and ArcGIS Enterprise supporting your work and responsibilities. For example, ArcGIS Instant Apps, ArcGIS Story Maps, ArcGIS Dashboards, and more.

User types are as follows:

Viewer—Viewers can view items that are shared with them within their organization and can also view publicly shared content across ArcGIS Online. This user type is ideal for members of an organization who need to view your organization's non-public content in a secure environment.

Viewers cannot create content (including apps), edit, share, or perform analysis on items or data. Viewers can use a selection of apps but cannot author apps and stories. Viewers may include decision makers that need access to maps and apps that are internal to the organization. See [Viewer User Type](#).

Contributor—Contributors can view and edit data in ArcGIS maps and apps. This user type is ideal for users who need to access and edit data that is shared with them and includes access to a selection of apps.

This user type is ideal for users who need to access and edit data that is shared with them. Contributors cannot analyze, create, or share items or data. See [Contributor User Type](#).

Mobile Worker—Mobile Workers can capture data in the field and securely receive work assignments and driving directions, communicate updates, and share location with focused field apps.

This user type is intended for mobile users to view, collect, and edit data directly in ArcGIS Online or in field apps, share their location, and record location tracks. Mobile Workers cannot analyze, create, or share items or data. See [Mobile Worker User Type](#).

Creator—Creators can create and edit content such as maps and apps, perform feature analysis using the analysis tools in ArcGIS Online, collect data, and collaborate and share content for use in apps. They can also create 2D and 3D maps and interactive visualizations using [ArcGIS Pro Basic](#).

The Creator user type is recommended for GIS specialists, asset managers, data journalists, and other content creators and collaborators. See [Creator User Type](#).

Professional—Professional users can build advanced 2D and 3D maps, visualizations, and analyses using [ArcGIS Pro Standard](#), which provides the tools and environment for map creation, interactive visualization, multiuser editing, and advanced data management. Professionals can also use ArcGIS Online to create, edit, collaborate and share content for use in apps and can also administer users and content in the organization.

This user type is a good choice for GIS analysts, cartographers, and other GIS professionals. See [Professional User Type](#).

Professional Plus—Professional Plus users can build advanced 2D and 3D maps, visualizations, and analyses using [ArcGIS Pro Advanced](#), which provides the tools and environment for map creation, interactive visualization, multiuser editing, advanced data management, advanced analysis, high-end cartography, and extensive database management. They can also use ArcGIS Online to create, edit, collaborate and share content for use in apps. Professional Plus users can administer users and content in the organization.

This user type is a good choice for advanced GIS analysts, developers, and advanced cartographers. See [Professional Plus User Type](#).

Assign user types based on the members' needs. For more information, see [User types](#) (Help).

Member roles

A role defines the set of [privileges](#) assigned to a member. Privileges are assigned to a role to grant specific rights to members. They control what a member can or cannot do in the organization. The privileges granted to default roles cannot be changed, but the organization administrator can assign and change privileges that are assigned to custom roles.

Members are assigned a role when they are invited to the organization. Roles are subsequently managed in the Member roles section in the organization's settings.

Default roles

ArcGIS Online includes a default set of privileges for the default role. Here are the privileges for the following default roles:

Viewers can use the organization's maps and apps to explore data and join groups to access content shared to the groups. However, they cannot create or share content or perform analysis or data enrichment.

Data Editors have Viewer privileges, plus they can edit features.

Users have Data Editor privileges, plus they can create groups and content. Users can use the organization's maps, apps, layers, and tools. They can also author maps and create apps, edit features, add items, share content, and create groups.

Publishers have User privileges, plus they can publish their features and map tiles as hosted web layers. They can also perform analysis on layers in maps.

Facilitators have Publisher privileges, plus they can create and manage [partnered collaborations](#).

Administrators have Publisher privileges, plus additional capabilities to manage the organization and its members. An organization must have at least one administrator.

A member's user type determines the default roles that can be assigned to them. For example, a Viewer role is compatible with all user types. A Publisher role is compatible with Creator, Professional, and Professional Plus user types.

For an overview, see [Member roles](#) (Help). For a matrix showing default roles and compatible user types, see [Default roles](#) (Help).

Custom roles

In addition to using default roles, you can also create custom roles. Administrators and those with the appropriate privileges can configure custom roles to add control and flexibility to the default roles in an organization. For example, you may have members who need to publish hosted feature layers but not hosted tile layers. Or you may want members to have the same privileges as the default Publisher role but without allowing them to use GeoEnrichment services.

Custom roles are created and managed on the Member roles tab of the organization Settings page.

When you create a custom role, you first assign a name and description. Then you can assign privileges. Privileges are grouped into categories and subcategories and can be individually turned on or off.

Content

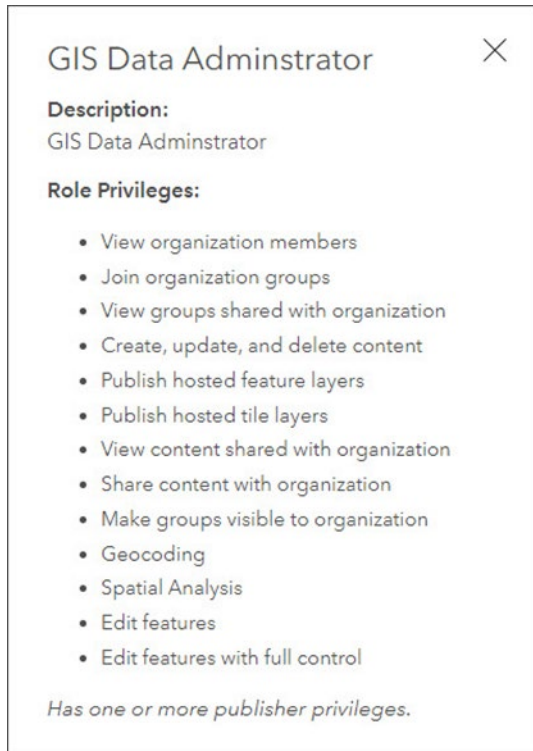
Enabled: 4/7 | [Enable all](#)

| | |
|---|-------------------------------------|
| Create, update, and delete | <input checked="" type="checkbox"/> |
| Allow member to create, edit, and delete their own content. | |
| Publish hosted feature layers | <input checked="" type="checkbox"/> |
| Allow member to publish hosted feature layers from shapefiles, CSVs, etc. | |
| Publish hosted tile layers | <input type="checkbox"/> |
| Allow member to publish hosted tile layers from tile packages, features, etc. | |
| Publish hosted scene layers | <input type="checkbox"/> |
| Allow member to publish hosted scene layers. | |

Characteristics of roles include the following:

- You can use default roles or create custom roles.
- Custom roles are based on templates.
- Custom roles can be created by an administrator or by those with appropriate privileges.
- Custom roles can include custom administration settings to offload organization management tasks.
- Default and custom roles are set in the Member roles section in the organization settings.
- Administrators can view the privileges for any role by viewing the role card, which can be accessed using the information button in the Member roles section of the organization settings.

The following is an example of the privileges enabled for a custom GIS Data Administrator role:



For more information, see [Custom roles](#) (Help).

New member defaults

In the New member defaults section of the organization settings, you can specify the default user type and role, add-on licenses, group membership, and more.

New member defaults allow you to specify the following when adding or inviting new members:

- User type and role
- Add-on licenses
- Groups membership
- Member categories
- Esri access (use of My Esri for training, community participation, blog comments, and Esri mail communications)

- Format of the default username

New member defaults can be overridden during the member invitation process or later if necessary.

Credits

In the Credits section of the organization settings, you can manage and control credit expenditures by enabling credit budgeting tools for some or all organization members.

An allocation of any amount can be assigned to members one at a time or as part of a bulk operation. Allocations for members can be modified at any time.

Tips and best practices

Keep the following recommendations in mind:

- Custom roles are helpful to fine-tune member capabilities and access.
- Don't overuse custom roles; create essential roles that are easily managed and understood.
- Distribute administrative tasks using custom roles.
- Consider obtaining an [Enterprise Agreement](#) (EA) to provide the greatest flexibility with roles, privileges, and apps as your organization grows.

Learn more

See the following resources to learn more:

- [User types](#) (Website)
- [User types, roles, and privileges](#) (Help)
- [Configure member roles](#) (Help)
- [Configure new member defaults](#) (Help)

- [ArcGIS Online Pricing](#) (Website)—Includes detailed descriptions of what's included with each user type.

Chapter 5: Fine-tune your organization settings

Set your organization and members up for success.

You can fine-tune your organization settings to configure the appearance of the home page, the Gallery and Groups tabs, the basemap gallery, member roles, security, collaborations, and more. Collectively, these factor into the success of your members and the entire organization.

Organization settings

Your entire organization—your ArcGIS Online website—can be managed by the administrator through a series of settings organized by topic. These settings are the core framework for your organization.

To access these settings, click **Organization** and click **Settings**. Organization settings are organized in tabs on the left side of the page as follows:

General—Manage organization defaults, such as region, language and extent, as well as administrative contacts, navigation bar visibility, and so on.

Home page—Access the home page editor.

Gallery—Choose the group that populates the home page **Gallery** tab.

AI assistants—Choose to enable AI assistants in ArcGIS Online for use by members of the organization. See [Configure AI assistants](#).

Map and scene—Manage map and scene defaults, basemap galleries, and so on.

Items—Show and allow comments, metadata, and related item search. Configure organization categories and enable the recycle bin.

Groups—Manage groups displayed on the featured groups tab on the organization home page.

Utility services—Configure geocoding locators, printing, GeoEnrichment service, directions, and routing.

Member roles—Create, edit, and manage member roles.

New member defaults—Establish essential default settings for new members.

Marketplace—Control ArcGIS Marketplace purchases by organization members.

Collaborations—Create and manage partnered and distributed collaborations.

Credits—Manage credit budgeting for members.

Security—Manage policies for access and permissions, login credentials, and passwords, and set organization notifications for the access notice and information banner.

Open Data—Enable and manage open data resources. See [Enable Open Data](#).

Hub—Manage and administer community hubs and initiatives.

Organization extensions—Manage organization-wide extensions, such as location sharing.

Tips and best practices

Take a tour of the available tabs and options and explore what's possible before you implement it.

The following sections provide a closer look at key settings.

General settings

Organization profile

Set your organization's name and logo in this section.

Organization verification

Administrators can request that Esri validate your organization's identity by making it a verified organization. Verified organizations can designate public items as [authoritative](#). Designating public items as authoritative makes it easier for others inside and outside your organization to find reliable, up-to-date content. These items will display an authoritative badge, can be filtered, and will be boosted in search results.

Contact link

Establish the Contact Us link that appears at the bottom of the home page.

Administrative contacts

Specify the administrators who will be listed as points of contact in automatic email notifications sent to members when they request assistance. These contacts will also receive communications from Esri Customer Service.

Navigation bar

Modify the visibility of pages (tabs) in the navigation bar of the organization. You can also add web apps to the app launcher to make them more readily available to members of your organization. The app launcher appears after members sign in.

Learn more

See the following resources to learn more:

- [Configure general settings](#) (Help)
- [Navigation bar](#) (Help)
- [Organization verification](#) (Help)

Gallery settings

Show in gallery

The **Gallery** tab is at the top of your organization home page. The gallery can be used to highlight your organization's best content or most useful apps. Use this setting to specify a group that will contain the items that populate the gallery.

Learn more

To learn more, see [Configure gallery](#) (Help).

Map and scene settings

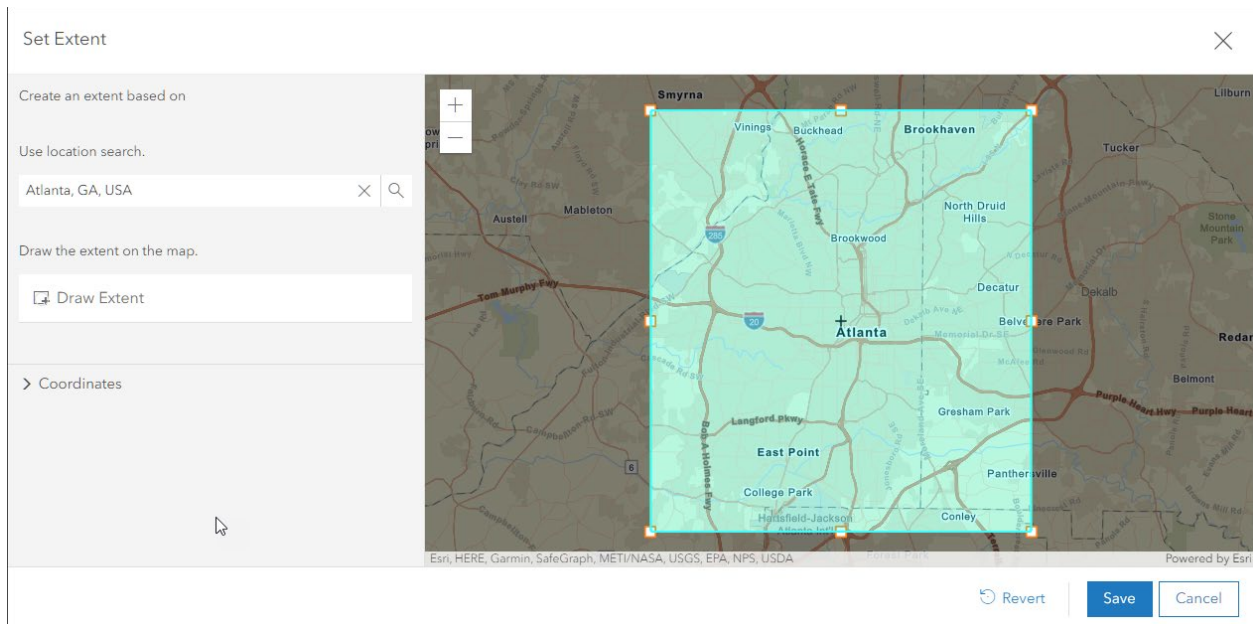
Some of the key organization settings are on the **Map and scene** tab. These allow you to set the basemap gallery, default basemap, default extent, units, and more.

Basemap gallery for maps and scenes

You can use Esri default basemaps or create a custom basemap gallery combining Esri basemaps with others from Living Atlas or your own maps. To use a custom basemap gallery, add the maps to a group and specify the group here.

Map and scene defaults

The default basemap specified in this section opens whenever users author a map. The map will open to the default extent, which can be set to the extent of your city, state, or some other area. Set the extent by drawing a box or providing coordinates.



Web styles

Web styles are collections of symbols stored in an item. Apps can use web styles to symbolize features with 2D or 3D symbols. Select a group to be used in symbol galleries.

Analysis layers

If analysis workflows in your organization commonly use specific layers—for example, city boundaries or police and fire districts—those layers can be automatically displayed in analysis tools. Place the layers in a group and select the group in this setting. For more information, see [Configure analysis layers](#).

Tips and best practices

Keep the following recommendations in mind:

- Use vector basemaps instead of tiled raster basemaps (which are in mature support and are no longer updated).
- Author your own maps to use as basemaps and combine them with the Esri default basemaps. You can author a custom basemap by editing the style of any Esri vector basemap using the [Vector Tile Style Editor](#).

- Set a default basemap and extent appropriate for your organization. For example, the default extent can be the boundary around your city or state.

Learn more

See the following resources to learn more:

- [Basemap gallery](#) (Help)
- [Create a custom basemap gallery for your organization](#) (Blog)
- [Use ArcGIS Living Atlas to create a custom basemap gallery](#) (Blog)

Items settings

Comments

Using this setting, you can show and allow comments about items in the organization. Comments appear at the bottom of the **Overview** tab and can be added by the item owner or other signed-in users. Once you've published a comment, you can delete it, but you can't edit it. Item owners receive email notifications of new comments and can delete comments published for items they own. However, unless you are confident that you want comments and that they will be reviewed and managed, it's best to leave comments off.

Metadata

Metadata is information that describes an item. Each item page includes a summary, description, terms of use, and credits. These provide flexibility in documenting items. However, if you want to use a more formalized metadata style, this setting can be enabled. You can choose from a variety of metadata styles. For more information, see [View and edit metadata](#).

Organization categories

Categories allow you to organize your content. You can add or remove categories at any time. You can use one of the templates or create custom categories (recommended for most organizations). Categories are searchable, so members can search for items using specific categories.

Categories can also be transient. For example, you can create a category named **Route 57 Improvement Project** and categorize all maps, apps, and layers that are important for the project using that category. When the project is finished, you can remove the category.

Categories are also supported in groups and the group-based [Category Gallery Instant App](#). Group categories are unique to the group. Category Gallery can use organization categories or group categories.

Tips and best practices

Keep the following recommendations in mind:

- Enable comments only if they will be monitored.
- Tags are useful for search, but categories offer a better way to organize and filter content in your organization.
- Custom categories are recommended to tailor their use for specific projects and workflows.

Learn more

See the following resources to learn more:

- [View and edit metadata](#) (Help)
- [Content categories](#) (Help)
- [Explore content with Category Gallery](#) (Blog)

Groups settings

Groups are a primary organizing component and building block in ArcGIS Online. For example, the basemap gallery is populated using a group containing maps. A group populates what is displayed on your organization's **Gallery** tab. Groups can be used to display specific content on your home page.

Featured groups

Choose the groups that will be displayed in your featured groups. By default, Esri groups will be displayed rather than those more useful in your organization.

Tips and best practices

Instead of using the Esri default groups, edit the featured groups to display groups that highlight your organization's maps, apps, or stories, or provide easy access to essential content.

Learn more

See [Featured groups](#) (Help) to learn more.

Member role settings

Roles control privileges that members have within your organization. Privileges are assigned with default roles, or you can create a custom role. User roles, types, and privileges are described in detail in [Chapter 4: Member types, roles, and privileges](#).

New member default settings

When inviting new members into your organization, you can set defaults for user type and role. You can also manage add-on licenses, the groups that new members will be assigned to, and credit allocation. These settings can be changed during the invitation process.

Learn more

See the following resources to learn more:

- [Configure new member defaults](#) (Help)
- [Invite and add members](#) (Help)

Credits settings

ArcGIS Online credits are the currency used across ArcGIS. Most of what members do—such as authoring maps or scenes, or creating apps—does not consume credits. Credits are consumed for specific transactions, such as performing analysis, publishing content, or geocoding addresses. The management and control of expenditures is an important component of the efficient administration of any organization.

Credit allocation

Storage, analytics, premium content, batch geocoding, and publishing content are operations that consume credits. Batch geocoding, publishing content, and performing some types of analysis can consume significant amounts of credits. You can limit and manage credit consumption using these settings.

Tips and best practices

Limiting credit consumption for new members of your organization can prevent inadvertent large credit-consuming tasks until best practices for reducing credit consumption are learned.

Learn more

See the following resources to learn more:

- [Configure credits](#) (Help)
- [Understand credits](#) (Help)
- [Managing credits in ArcGIS Online](#) (Blog)

Security settings

Security is important for your organization and its contents. This section allows you to manage security settings throughout your organization, define password policies,

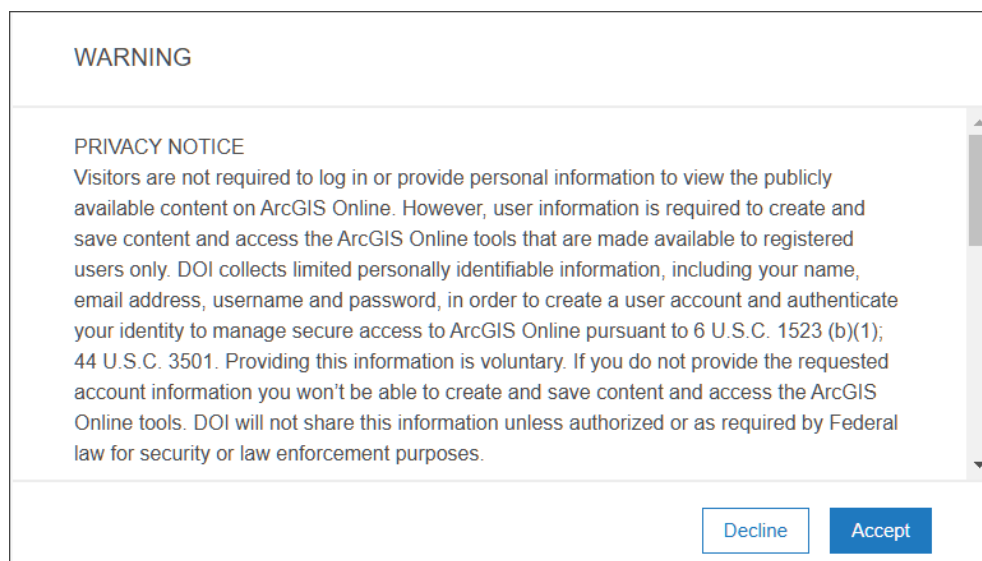
manage login methods, set multifactor authentication, and control messaging to members and public visitors.

Email verification

Verifying that email addresses are valid helps ArcGIS Online users and administrators receive critical information from ArcGIS Online, such as password resets and account changes.

Access notice

The access notice controls the message that is displayed when users or visitors go to your home page. For example, it can be a terms of use message or other important information that you want to display before accessing your home page. Access is controlled with an **Accept** or **Decline** toggle button or an **OK** only.



The screenshot shows a rectangular banner with a light gray border. At the top left, the word "WARNING" is displayed in a bold, dark gray font. Below this, the text "PRIVACY NOTICE" is centered. The main body of the banner contains a paragraph of text explaining that visitors are not required to log in to view public content, but user information is required to create and save content and access tools. It mentions that DOI collects limited personally identifiable information (name, email, username, password) to create an account and authenticate identity, citing 6 U.S.C. 1523 (b)(1) and 44 U.S.C. 3501. It states that providing this information is voluntary and that without it, users cannot create or save content or access tools. It also notes that DOI will not share this information unless authorized or required by Federal law for security or law enforcement purposes. At the bottom right of the banner, there are two buttons: "Decline" (a light blue button with a dark blue border) and "Accept" (a solid dark blue button with white text). A vertical scrollbar is visible on the right side of the text area.

WARNING

PRIVACY NOTICE

Visitors are not required to log in or provide personal information to view the publicly available content on ArcGIS Online. However, user information is required to create and save content and access the ArcGIS Online tools that are made available to registered users only. DOI collects limited personally identifiable information, including your name, email address, username and password, in order to create a user account and authenticate your identity to manage secure access to ArcGIS Online pursuant to 6 U.S.C. 1523 (b)(1); 44 U.S.C. 3501. Providing this information is voluntary. If you do not provide the requested account information you won't be able to create and save content and access the ArcGIS Online tools. DOI will not share this information unless authorized or as required by Federal law for security or law enforcement purposes.

Decline Accept

Information banner

Use information banners to alert anyone visiting your site about important news, updates, or changes.



Tips and best practices

Keep the following recommendations in mind:

- Set up SAML or OpenID logins to enable members to use the same login they use elsewhere in your organization. Permissions to access organization resources are still controlled using settings in your organization.
- Set the ArcGIS Online organization password expiration time to match your organization policies.
- When allowing anonymous access (recommended), ensure that you've configured the experience for visitors to your home page.
- Use [ArcGIS Security Advisor](#) to view security-related settings and obtain recommendations.

Learn more

See the following resources to learn more:

- [Configure security settings](#) (Help)
- [ArcGIS security](#) (Help)
- [ArcGIS Trust Center](#) (Website)

Chapter 6: Use groups

Groups are the building blocks of your organization.

A group is a collection of content usually related to a specific topic or project. You can create groups to organize items, deliver content to different parts of your organization, and build your organization. As a group owner, you decide who can find the group, who can join, and who can contribute content.

Groups organize content and people

Groups are also destinations for members and their work. When inviting members to your organization, you can assign them to a group.

It is recommended that you ensure that groups contain meaningful content—maps, apps, layers, and so on—that help group members accomplish their work by supporting projects and workflows.

A group is an item in ArcGIS Online, which means it has a thumbnail, a summary, a description, tags, and more. Use best practices for completing these elements.

Document the group so that others understand its purpose and the content it contains.

For administrators, groups are an important element for the organization. You can use them to create a custom basemap gallery, create galleries on your home page, organize custom app templates, and more.

Decide what groups you need

You will likely need the groups that contribute to the various galleries: basemaps, home page, configurable apps, Open Data, and hubs.

You may also want to create and set up groups for the departments that your organization will serve. Other ideas for groups can come from current projects and initiatives.

Groups can also be used to set up management and collaboration nodes for both internal and external purposes.

As your organization evolves, you can create groups to accommodate activities, and members can create groups to manage their content and collaborate.

Tips and best practices

Get ideas about which groups are needed from your organization chart or from constituents you need to engage. Use various departments or large project teams within your organization as a starting place.

Group settings

Groups provide flexibility to suit your organization needs. When you create a group, you can decide who can view the group, who can be a member of the group, how users can join, and who can contribute content.

Collaboration groups

Once administrators have created a collaboration, users can share content with groups that have been linked to the collaboration workspace. The content is then discoverable by other collaboration participants in their own environment. In a collaboration, content is shared according to the sharing settings of the organization where the data originated.

For example, you can work with someone external to your organization who has an ArcGIS Online account. A group can be created to share content across organizations within the group. You can invite people from another organization into that group to share and view content.

Tips and best practices

If your team works with GIS analysts who are external to your organization, use collaboration groups to reduce the named user accounts that both your organization and the analysts need to manage.

Learn more

See the following resources to learn more:

- [Understand collaboration](#) (Help)
- [Use distributed collaborations](#) (Help)
- [How distributed collaboration works](#) (Help)
- [Create a distributed collaboration](#) (Help)
- [Manage distributed collaborations](#) (Help)
- [Create a partnered collaboration](#) (Help)
- [Manage partnered collaborations](#) (Help)

Establish group conventions

Eventually your organization membership will grow, as will the number of groups. It's a good idea to establish conventions early.

You can use visual cues to help identify a group that you are trying to find. For example, all groups that are part of an organization's framework might have the same logo, and those that are building blocks for the organization might be identified using color. You can also use naming conventions to list related groups in order.



These techniques will keep you organized as the number of groups and activities within them grows.

Tips and best practices

Keep the following recommendations in mind:

- Use consistent visual cues in group thumbnails to help keep track of them.
- Use intuitive naming conventions and alphabetization to keep groups in order.
- Add useful descriptions.
- Prepopulate groups with meaningful content.
- Automatically assign members as you invite them to groups that help them do their work.
- Create a group destination including a meaningful summary, description, tags, and thumbnail.
- Curate content you want to feature on your group **Overview** page for a better experience. The default is to list group content by recency, but selecting specific group content to feature may improve the experience.

Learn more

See the following resources to learn more:

- [Get started creating groups](#) (Help)
- [Create groups](#) (Help)
- [Configure groups](#) (Help)
- [Manage groups](#) (Help)
- [Assign members to groups](#) (Help)
- [Use a curated gallery to feature group content](#) (Blog)

Apps for groups

As with maps, you can use configurable apps to present the content within groups in different ways. The Category Gallery app presents content from your group with a

variety of ways to filter and sort the items and allows you to apply your organization's content categories or categories unique to your group.

Groups can also be hierarchical—you can create a group of groups to organize content efficiently.

[ArcGIS StoryMaps collections](#) are another way to gather content that users will browse and share. You can create collections of stories, as well as other supported items.

Learn more

See the following resources to learn more:

- [Create apps from groups](#) (Help)
- [Category Gallery](#) (Help)
- [Explore content categories with Category Gallery](#) (Blog)
- [Create your first collection with ArcGIS StoryMaps](#) (Story)

Examples

For an example, see [Category Gallery \(Sample\)](#) (uses Category Gallery).

Chapter 7: Member best practices

Your profile and work speak volumes about you.

Best practices extend to all members of your organization and include documenting who you are in your profile and documenting and managing the content you author.

Profiles

A profile tells others who you are, whether they are within your organization or outside your organization if you publish public content. Profiles are part of any discoverable item and deliver access to your groups and items.

By default, unless otherwise set by your administrator, your profile is visible only within your organization. However, if you do publish public content, it is recommended that you make your profile visible to the public (in your profile settings) so that those who find your public content can identify the source.

You can use personal profiles to publish content on behalf of your organization, but an alternative practice is to use a profile you have specifically set up to own your organization's best content. Using this technique, your content is presented coming from your organization, instead of an individual. See [Chapter 3: Organization profile](#) for more information.

Profile bio information

There are many styles that you can consider that make for a good profile. In the example below, there is essential information about Scott as the content owner, including contact information.



Scott McGee
 scott_mcgee@fws.gov_fws


Cartographer, U.S. Fish & Wildlife Service, Region 7 (Alaska), Division of Realty. E-mail: scott_mcgee@fws.gov

Groups (1)

Items (55)

Profile

In the example below, Shaula is identified as a GIS Specialist at Lower Platte South Natural Resources District using the organization logo and clear affiliation with that organization.



Shaula Ross
 Shaula


GIS Specialist; Lower Platte South Natural Resources District; Parts of Lancaster, Cass, Seward, Butler, Saunders & Otoe Counties in Nebraska

Groups (4)

Items (124)

Profile

The next example shows a profile that has been created to represent the organization. The profile uses the Montana DNRC logo, which also appears in the item thumbnails.



Montana DNRC
 MontanaDNRC


GIS data, maps, and applications from the Montana Department of Natural Resources and Conservation. Please visit our website to learn more about who we are, what we do, and where we work: <http://dnrc.mt.gov>

Groups (140)

Items (804)

Profile

This final example shows a verified organization profile that links to the organization home page and gallery.



The Rivers Trust
 Item managed by: RTanneka

We are the umbrella body for the Rivers Trust movement across the UK and Ireland. Our vision is wild, healthy, natural rivers, valued by all. With your help, we can make this a reality. Together, for rivers. Join us and find out more at www.theriverstrust.org. Contact us at info@theriverstrust.org.


Home page

Gallery

All of these include details that help you learn more about the item owner.

Profile item gallery

Along with bio information, the profile displays a gallery of content created by the profile owner. By default, the profile displays items based on relevance.



Nevada Fire Info
 NVFireInfo_Authoritative

Bio


This account is used to publish Nevada fire information content to the NIFC ArcGIS Online organization.

<https://www.nevadafireinfo.org/>

This account is maintained by:
 Stephen Levitt
 BLM, Nevada
 Fire & Aviation program
 (775) 335-6473 c
 (775) 861-6659 o
slevitt@blm.gov
stephen_levitt@firenet.gov

Item gallery View all

Top items based on relevance




Nevada Wildfire Information
 WEB MAP

Nevada Wildfire Information Map

Web map

Details ...




Nevada Fire Restrictions
 FEATURE SERVICE

Nevada Fire Restrictions Layer

Feature layer

Details ...




Nevada Wildfire Season Summary
 WEB MAP

Nevada Wildfire Season Summary Map

Web map

Details ...




Nevada Fire Restrictions
 WEB MAP

Nevada Fire Restriction Map

Web map

Details ...




Nevada Wildfire Information
 DESKTOP DASHBOARD

Nevada Wildfire Info Dashboard - Desktop

Dashboard

Details ...



Nevada Federal & State Fire Stations
 FEATURE SERVICE

Nevada Federal and State Fire Stations

Feature layer

Details ...

Rather than display the default relevant items you've authored, a better approach is to create a custom profile item gallery to highlight your best work, showcase popular applications, or provide access to key resources.

From your profile, click **Customize items** and select the content to feature.



Tips and best practices

Keep the following recommendations in mind:

- Present a professional profile that represents you and your role within your organization.
- Include contact information (if appropriate) for you or your organization.
- Be complete but concise. Your profile need not be your professional resume.
- Customize your profile gallery to showcase your best content or highlight useful maps and apps that you've created.

Learn more

See the following resources to learn more:

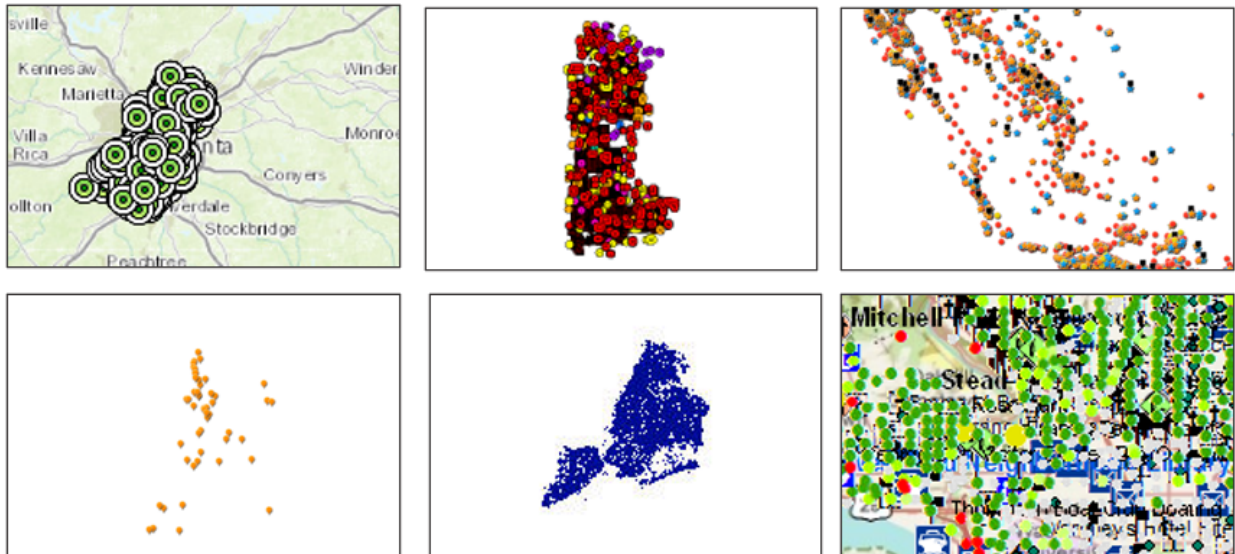
- [Create a great profile](#) (Blog)
- [Customize your profile item gallery](#) (Blog)
- [Manage profile and settings](#) (Help)

Thumbnails

Every item has a thumbnail. A thumbnail provides a visual cue to an item and may also include organization branding. A thumbnail image is created by default when you add the item to the site. It appears in galleries, search results, and contents and on the item page.

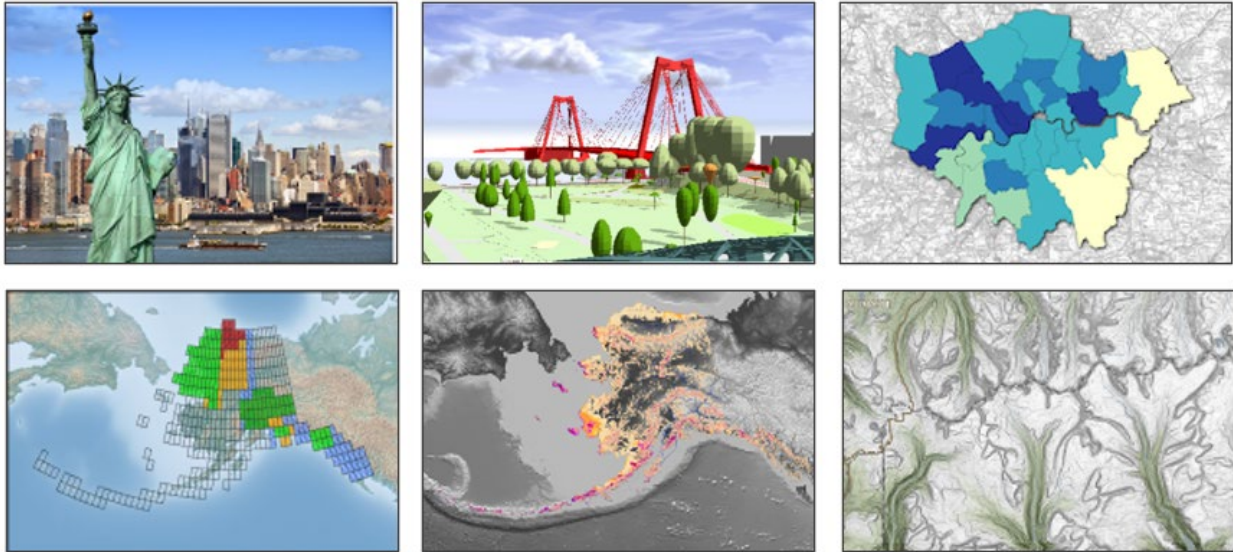
You can create and load a different image if the default image does not convey the information you want or if one cannot be generated by default for the item type.

Consider the following thumbnails:



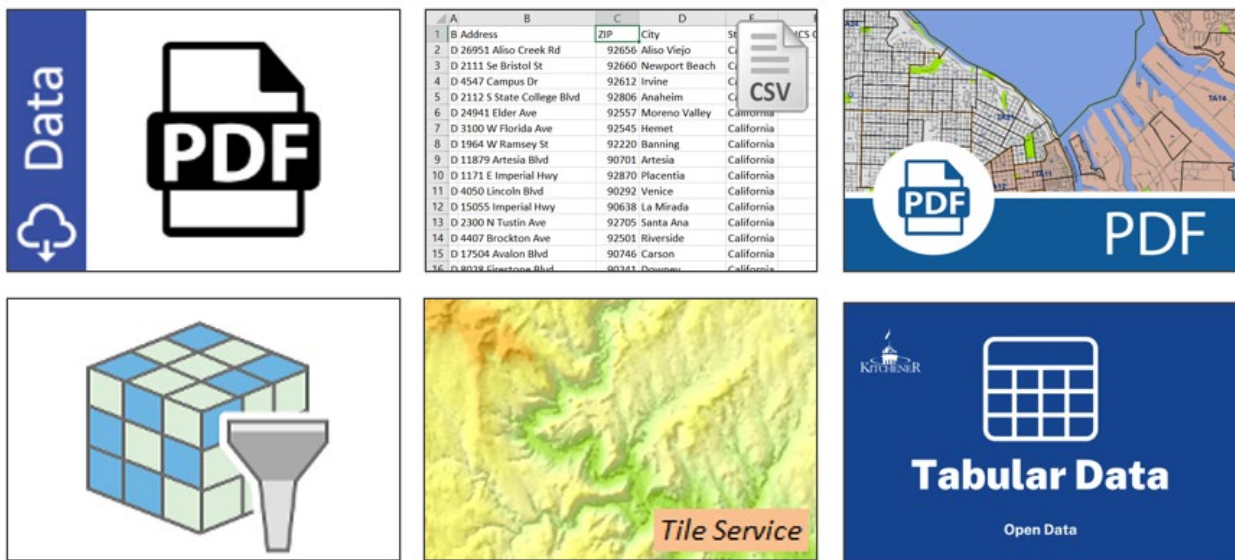
These thumbnails do not provide a feeling of confidence or communicate professionalism. Instead they indicate carelessness or hurried work and cast doubt about the quality of the data.

Compare the above thumbnails to the following:



These thumbnails portray a higher degree of professionalism and inspire confidence. They also provide a visual cue to the content.

The thumbnails below indicate the type of context a user would expect:



Thumbnails can also exhibit branding, such as your organization logo, graphics or color scheme, and text to define your organization or the content you provide.



A good thumbnail takes more effort but is worth the investment for your top-tier content that you want to share. You can use the built-in thumbnail editor or create a custom thumbnail using image editing software. Thumbnails can use a variety of locations and other visual hints to help viewers understand what to expect using your content.

Tips and best practices

Keep the following recommendations in mind:

- Use the thumbnail editor to quickly make a better thumbnail using your map or use any graphics program to create and upload a custom graphic.
- When using custom graphics, the best results are obtained by sizing the graphic at 600x400 pixels and saving it as a .png file.
- Simpler thumbnails, without words or details, work best at all sizes that thumbnails are presented in ArcGIS Online. But words and graphics also introduce additional context.

Learn more

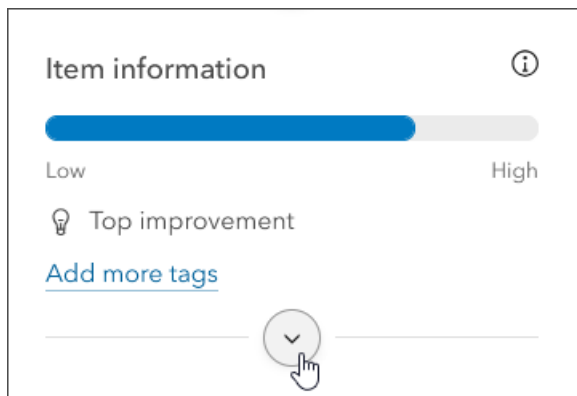
See the following resources to learn more:

- [Configure item details and settings](#) (Help)
- [Put your best thumbnail forward](#) (Blog)
- [Create a thumbnail style and brand](#) (Blog)

Item details

No job is complete until the paperwork is done—in this case, the item documentation, or description. A good thumbnail is important, but so is a concise summary, thorough description, tags, categories, and more. The better you document an item, the more valuable it will be to others in your organization, or outside your organization when shared publicly.

The item pages include the **Item information** panel, which provides suggestions for improving item pages. Expand the panel for improvement suggestions.



Item information

LowHigh

Top improvement

Add more tags

✓

Add a summary

✓

Add a thumbnail

✓

Add a description

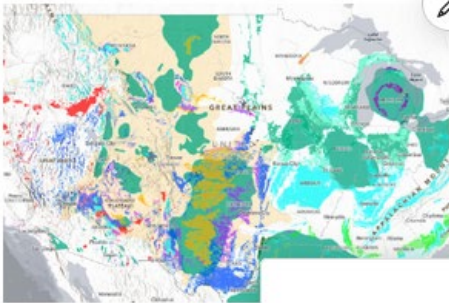
✓

Add a title

Add more tags

Add terms of use

Note the **Item updated** date, visible below the summary. This is when the item description was last updated, not necessarily when the layer, map, or app was updated.



Karst map of the contiguous United States from USGS Open-File Report 2014-1156.

Web map

✓

Authoritative

Item updated: Jan 16, 2025

Item created

Item updated


April 18, 2015 at 10:07 PM

January 16, 2025 at 12:17 PM



Because of this, it is recommended that you add the data update date or refresh interval in the item description as prominently as possible. This information can also be part of the item summary.

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Active Iowa DOT Winter Operations Vehicles

 Feature layer |  Authoritative

Data updated: Jul 8, 2025 ▾

▽ Description

This layer contains all active Iowa DOT Plow Trucks that are traveling more than 3 MPH. This data is updated every 2 minutes; 24 hours a day/7 days a week.

Real-Time Data Formats: [GeoJSON](#) | [JSON](#)

Tips and best practices

Keep the following recommendations in mind:

- Use a descriptive title for the item. Avoid acronyms unless they are obvious.
- Create a concise and descriptive summary.
- Include all relevant details in the description.
- Include information about the date the data was published and update frequency.
- Ensure that items are not accidentally deleted using delete protection.
- Consider creating a private template that contains all required metadata for items and copy from there into new items you are documenting.

Learn more

See the following resources to learn more:

- [View and use items](#) (Help)
- [Make your work easy to find, understand, and use by others](#) (Blog)
- [Protect and manage your ArcGIS Online content](#) (Blog)

Chapter 8: ArcGIS Living Atlas of the World

Use maps, apps, and more.

ArcGIS Living Atlas of the World is a collection of ready-to-use geographic information, containing maps, apps, and more from the global GIS community. The content is curated, authoritative, and continually updated. The collection is ever-growing and many of the items are live, meaning they are updated in real time or near real time.

ArcGIS Living Atlas website

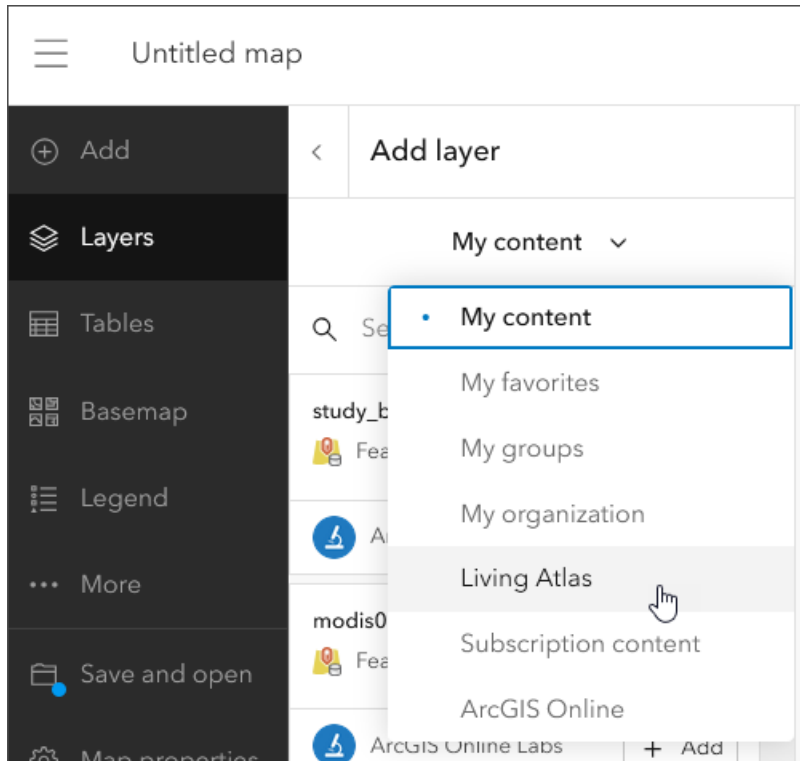
The [ArcGIS Living Atlas website](#) is a one-stop destination for news, learning, content discovery, and community participation. On the Browse tab, you can discover content using keywords and filter by type, category, region, and date (past month, year, or custom date).

You can sign in to your ArcGIS account directly on the site. After signing in, you can use the search and filtering tools and begin authoring maps right away using Map Viewer or ArcGIS Pro.

ArcGIS Living Atlas in Map Viewer

Map Viewer integrates Living Atlas content directly into the map authoring workflow. When you search for content to add to your map, Living Atlas can be selected from the Add layer drop-down menu.

In addition, you can apply filters to constrain the geographic extent of your Living Atlas search or discover data using keywords or selected categories and dates.



Tips and best practices

Keep the following recommendations in mind:

- Before you begin authoring maps using authoritative content, sign in at the ArcGIS Living Atlas website to begin your work.
- You can mark items of interest as favorites so you can find them again when making other maps.
- Remember that you can contribute content to ArcGIS Living Atlas and can also make corrections to basemaps and contribute vector details and imagery through the [Community Maps Program](#).

Learn more

See the following resources to learn more:

- [Get started with ArcGIS Living Atlas of the World](#) (Tutorial)
- [Make powerful maps using ArcGIS Living Atlas of the World](#) (Tutorial)

- [Ten ways to get the most out of ArcGIS Living Atlas](#) (Blog)

ArcGIS Living Atlas apps

[ArcGIS Living Atlas apps](#) can be used to visualize, analyze, and show ArcGIS Living Atlas content. The following apps allow you to author maps or download data:


- [World Imagery Wayback](#) offers a way to see ArcGIS Living Atlas archived world imagery and retrieve imagery at specific dates. This app is useful for selecting imagery and viewing change over time.
- [Historical Topo Map Explorer](#) allows you to browse topographic maps from the U.S. Geological Survey spanning 125 years. You can download and share the maps, or open them in a new web map.
- [Sentinel-2 Land Cover Explorer](#) uses annual 10-meter resolution land use and land cover data that is presented in a web app for dynamic visual and statistical change analysis. You can download or use the data to author maps.
- [Sentinel-2 Explorer](#) allows you to explore Sentinel-2 multispectral imagery, which can be used to help track and document land use and land change associated with climate change, urbanization, drought, wildfire, deforestation, and other natural processes, disasters, and human activity.
- [Landsat Explorer](#) is an app for exploring Landsat imagery. The imagery is updated daily. Use this app to draw on Landsat's different bands to better explore the planet's geology, vegetation, agriculture, and cities. Additionally, access the entire Landsat archive to visualize how the earth's surface has changed over the last 40 years.
- [Sentinel-1 Explorer](#) allows you to explore Sentinel-1 Synthetic Aperture Radar (SAR) imagery. With the ability to see through cloud and smoke cover, and because it does not rely on solar illumination of the Earth's surface, Sentinel-1 collects imagery in most weather conditions, during both day and night. This data is useful for a wide range of land and maritime applications, from mapping floods, to deforestation, to oil spills, and more.
- [Esri Maps for Public Policy](#) is a collection of ArcGIS Living Atlas maps that display important community facts. Use the app to view and share single maps or create collections of maps that can be shared with anyone. These maps are also ready to use throughout ArcGIS, in ArcGIS StoryMaps, ArcGIS Dashboards, ArcGIS Hub sites, and apps.

- [SSURGO Downloader](#) allows you to retrieve ready-to-use project packages with more than 170 attributes derived from the Soil Survey Geographic Database (SSURGO) dataset.

[View other ready-to-use apps](#) at the Living Atlas website.

Learn more

See the following resources to learn more:

- [Explore imagery using World Imagery Wayback](#) (Blog)
- [Use World Imagery Wayback to create a custom basemap](#) (Blog)
- [Learn to explore Landsat imagery using Landsat Explorer](#) (Blog)
- [Learn to explore Sentinel-1 imagery using Sentinel-1 Explorer](#) (Blog)
-  [Learn to explore Sentinel-2 imagery using Sentinel-2 Explorer](#) (Blog)
- [5 minutes with the Esri Maps for Public Policy site](#) (Blog)

Chapter 9: Turn data into information

Create layers and author maps that transform your data.

You can turn raw data into something more useful and meaningful—actionable information—with a few considerations.

Maps

In ArcGIS Online, you apply your tradecraft and skills in creating expressive and meaningful maps that help you share your geographic knowledge with others and communicate useful information. A map is more than a cartographic representation of information; it includes the entire experience of how viewers visualize, use, and experience your map, including the tools that can be applied to it. Proper map creation allows you to present information in an aesthetically pleasing and understandable way, with tools that enhance its information and purpose.

A map begins with a basemap—one that complements rather than competes with its layers. Esri provides a default basemap gallery, but you can customize your organization's gallery to include custom basemaps.

Next are the layers, properly styled to make the meaning they carry self-evident. Smart mapping is a data-driven way to find styles and defaults that are appropriate for the data. Effects and blending can be used to further enhance visuals or apply focus to a subset of features.

Layer pop-ups are another way to create useful, creative, and meaningful displays of information. Finally, you can use the map in a variety of apps.

Author maps

Map authoring is accomplished using Map Viewer or Scene Viewer to create 2D or 3D maps, respectively. When authoring maps, you will likely use content that's available in your organization and intended for reuse. If your organization has content marked as authoritative, you can filter for those layers or mark them as favorites.

ArcGIS Living Atlas is embedded in the authoring experience and offers authoritative layers that you can use.

There are five steps to authoring a map:

1. Choose a basemap.
2. Add layers.
3. Change style, and optionally, add effects and blending.
4. Configure pop-ups.
5. Save and share.

When finished, you can deliver the map in an app, dashboard, story, or experience.

Basemaps

A basemap is the foundation of a map and should complement rather than compete with the map layers. Your organization includes a default set of basemaps from Esri, but you can extend the collection with custom basemaps.

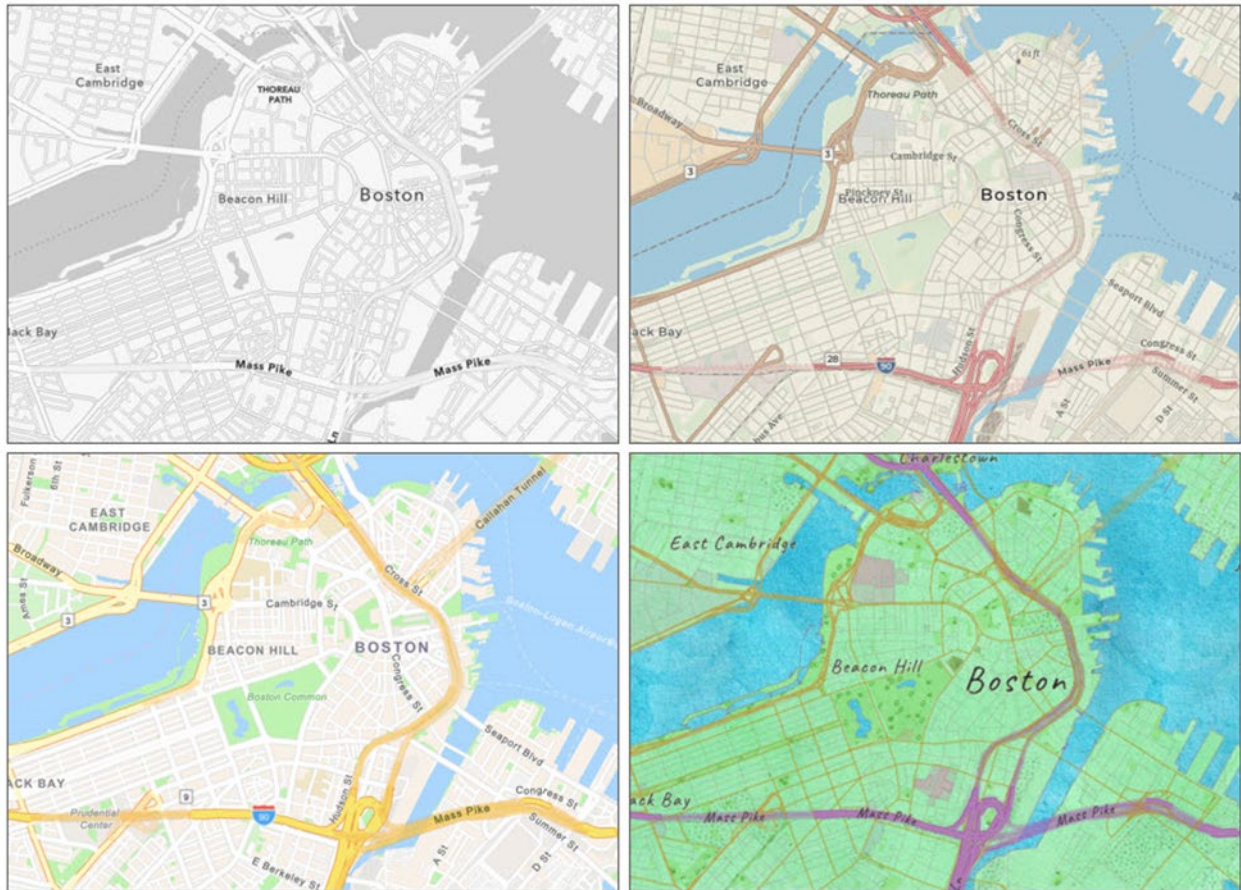
You can customize the style of any Esri vector basemap, reorder the basemap layers, or author a custom basemap to add to your organization's gallery.

While the web mapping projection standard is Web Mercator Auxiliary Sphere (WMAS), basemaps in other projections are available in ArcGIS Living Atlas. In addition, you can author basemaps in another projection to meet local city, state, or regional standards. The basemap projection defines the map projection, and other content will be projected on the fly onto the basemap as necessary.

Vector basemaps

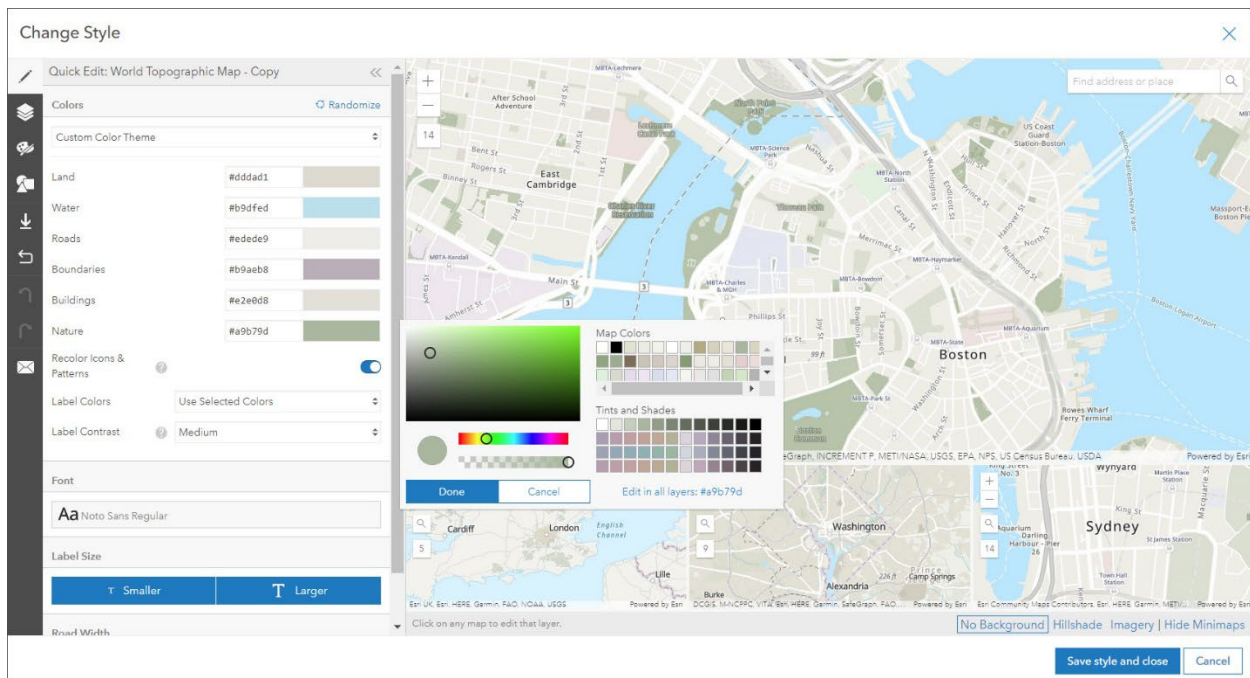
Vector basemaps are the default for your organization's basemap gallery. Esri builds on the same vector base and adds a variety of fonts and styles to render the vectors in distinctive and unique ways.

Vector basemaps have several advantages over raster tile basemaps. Unlike raster tile layers, vector tile layers can adapt to the resolution of the device display, can be rotated, and can be restyled. Vector tiles have a smaller file size than raster tiles, which allows for faster map creation and better performance.



Vector tile style editor

Vector tile layers send the geometry of features, as well as labels and sprites, to Map Viewer, along with a style of how they should be rendered. You can edit the style and change colors using the [Vector Tile Style Editor](#) (VTSE) to create a custom vector basemap style that matches your brand and the type of app that you are building.



The VTSE also allows you to edit the style of any vector layer.

Tips and best practices

Keep the following recommendations in mind:

- Ensure that you are using Esri vector basemaps and that any older maps you have are using vector basemaps.
- Extend your basemap gallery by adding your own basemaps using a custom gallery.

Learn more

See the following resources to learn more:

- [Switch the basemap](#) (Help)
- [Make your own map style](#) (Blog)
- [Update vector tile layer style](#) (Help)
- [Introduction to ArcGIS Vector Tile Style Editor](#) (Help)

- [Personalize your maps with custom basemap styles](#) (Tutorial)

Layers

When you author a map, you work with geographic data as layers. The layers drawn on top of the basemap are called operational layers. Layers can be of different types, such as feature layers, imagery layers, and so on. Depending on the layer type, you can change how a layer is rendered, change its style, use effects and blending, configure pop-ups, edit features, and perform analysis. For more information, see [Layers](#) (Help).

The visualization of layers is configured in the layer, but when added to a map, you can override the defaults and save the changes in the map. You can also use **Save layer** to create a new item with your changes; the layer still points to the original source but applies your overrides.

Layers you add to a map can come from a variety of sources, such as shapefiles, .csv files, GeoJSON, and so on, which can be local files or stored in cloud drives such as Google Drive and Microsoft OneDrive.

You can add layers from your organization, from other organizations on ArcGIS Online, or from ArcGIS Living Atlas. If you have the appropriate privileges, you can also publish new layers using ArcGIS Pro or ArcGIS Online. For more information, see [Publish hosted feature layers](#) (Help).

Feature layers

When adding layers from files, such as .csv or shapefiles, you can publish hosted feature layers to add to a map, simultaneously storing the file, or you can add the file and publish a hosted feature layer later. Hosted feature layers can be used in other maps.

Use [hosted feature layer views](#) to set permissions or filter by attributes for different users or purposes. When you create a feature layer view, a new layer item is added to **Content**. This new layer is a view of the data in the source layers, which means edits made to the data in the source appear in the view.

However, because the view is a separate item, you can change properties and settings on the view item separately from the hosted feature layer item from which it is created. For example, you can allow members of your organization to edit the hosted feature layer but share a read-only feature layer view with the public.

Image layers

While image layers do not support smart mapping styles, there are many ways that you can manipulate multispectral or multitemporal image layers.

Many ArcGIS Living Atlas image layers support on-the-fly server-side renderers. To find them, click **Processing templates** on the **Settings** (light) toolbar. Multitemporal imagery can be filtered by date using **Filter**.

The example below shows Sentinel-2 imagery from ArcGIS Living Atlas in the same area in Australia. The first image shows the default renderer—Natural Color. Smoke obscures the details. The next image shows the use of the Short-wave Infrared renderer to remove the smoke and see the active burn area. The third image uses Normalized Burn Ratio to emphasize the burned areas as dark black.



Other layer types

There are many other types of layers, each with unique capabilities and properties. For more information and details about other types of layers, see [Types of web layers](#) (Help).

Crafting layer appearance

When you add layers to a map, you can configure how they appear. The appearance of the layer can use styles, effects, blending, transparency, scale dependencies, and

more to achieve the desired results. Your goal should be to create an expressive display of information that is both visually appealing and intuitive.

Smart mapping

Smart mapping uses a data-driven approach to help you make decisions about the best way to represent your data, allowing you to explore, understand, and find meaning using attractive thematic maps. For example, if the attribute you are mapping is an integer, ArcGIS Online will suggest using size to show the counts. If the attribute is a string, it will suggest types (unique symbols) to show the different categories of the data.

Smart mapping also allows you to map multiple related attributes together in one map, such as through relationship mapping or predominance mapping. For example, if you've chosen two attributes of the same type, it will suggest predominance, relationship, or size and color.

There are many data-driven smart mapping styles that can help you make beautiful and expressive maps. See the [Styles quick reference](#) for the styling options available for various types of data and some of the key questions you can answer using each style. For more information, see [Apply styles](#).

Aggregation

When you have a large number of points, aggregation capabilities, such as clustering and binning, are useful to make the data more meaningful.

Clusters are represented by proportionally sized symbols based on the number of features in each cluster. For more information, see [Configure clustering](#).

Binning can be used to aggregate features into summary polygons called a bin. Each bin represents all features within its boundaries and are of uniform size and area. For more information, see [Configure binning](#).

Effects

Use effects to apply eye-catching visualizations to layers. Effects can be applied to all features in a layer or to a subset of features based on filters. See [Effects](#) to view a table listing whole layer and feature-specific effects.

Each effect has different settings you can use to fine-tune the results. Multiple effects can also be applied to a layer. For more information, see [Use effects](#).

Blending

Blending is a way to control how overlapping layers look in a map. For example, if your map has geology on top of terrain, you can adjust the transparency of the geology layer to see the terrain. However, transparency is applied to the entire layer uniformly, and too much transparency may make the geology look washed out.

By applying blend modes, you have greater control over the appearance by controlling pixel-by-pixel how the overlapping layers blend together. Using various blend modes, you can, for example, target changes to only the lighter pixels but keep the dark pixels unaffected, shift colors using a tonal wash or tint but keep the text labels unaffected or blend the textures from one layer into another.

See [Blend modes](#) to view a table of all modes and how they work. For more information, see [Use blend modes](#).

Examples

Examples of how the techniques described above can be applied effectively can be viewed at [Esri Maps for Public Policy](#). Find a layer of interest, and click **View** to see the map. Click the layer title to view the item details and open the layer in Map Viewer to examine how styles, effects, blending, and other techniques have been applied.

Tips and best practices

Keep the following recommendations in mind:

- Consider the information you want to map. What is your map's purpose, and what is the best way to display that information?
- Experiment. Even if ArcGIS Online suggests a mapping style, you still have control as the map author to choose the style and the settings.
- Be creative. Styles, effects, and blend modes can be combined to achieve stunning results. Use group layers to isolate how blending is applied.

- Find maps you like and decompile how they were crafted.
- When finished, click **Save Layer** so your changes will be preserved on the layer for others to use, not just in your map.

Learn more

See the following resources to learn more:

- [Get started with Map Viewer effects](#) (YouTube)
- [Effects in Map Viewer](#) (Blog)
- [Use effects](#) (Help)
- [Enhancing imagery basemaps with layer effects](#) (Blog)
- [Effects and vector basemaps](#) (Blog)
- [Aggregation, binning, and clustering](#) (Blog)

Layer pop-ups

In too many maps, pop-ups are left unconfigured. The default pop-up contains a simple list of sometimes meaningless fields and values. However, layer pop-ups are an essential and important part of crafting the complete map information experience. Pop-ups can transform an otherwise dull list of attributes into a meaningful display of intuitive and engaging information for your audience.

At a minimum, you should [configure the attributes](#). Remove the attributes that don't make sense (such as FID) and edit attribute names to remove all caps or rename them to make them more viewer friendly. Also, format numeric attributes; adjust the number of decimal places and decide if 1,000 separators are needed.

Beyond the basics, pop-ups are configured by assembling content elements, or blocks. These are fields list, chart, image, text, and ArcGIS Arcade. If the layer has related tables, related table elements will also be available to configure the pop-up.

Pop-ups can also include feature attachments, links to external resources, videos, and [Arcade expressions](#).

Tips and best practices

Keep the following recommendations in mind:

- Regardless of how you craft the pop-up, configure the fields first.
- Use Arcade to format attribute values and color dynamically, turn abbreviations into plain text, and resolve all caps.
- After configuring pop-ups for new layers, click **Save** so your changes will be preserved with the layer, not just in your map.

Learn more

See the following resources to learn more:

- [View pop-ups](#) (Help)
- [Configure pop-ups](#) (Help)
- [Pop-ups: the essentials](#) (Blog)
- [Pop-ups: text element essentials](#) (Blog)
- [Pop-ups: chart element essentials](#) (Blog)
- [Pop-ups: Arcade essentials](#) (Blog)

Save layers

If you have privileges to create content, you can save some types of layers as new items in **My Content**. If you are the owner of the hosted feature, you can save the styling, pop-ups, and other settings to the original layer. A newly published layer shows the default pop-up, style, and other settings.

After you style and configure the layer, click **Save** to save your changes. This stores the configurations with the layer, making it ready to use by others. Copy a layer in a map when you want to configure the properties of the layer in different ways.

Saved layers can be overridden by map authors if needed, but a well-crafted layer becomes a building block for others to use.

Tips and best practices

Keep the following recommendations in mind:

- Avoid sharing unconfigured layers.
- Think of layers as building blocks and craft them accordingly.
- New, empty feature layers can be created from an existing template, by defining a custom template, or from an existing feature layer.

Learn more

See the following resources to learn more:

- [Copy and save layers](#) (Help)
- [Save and duplicate layers](#) (Help)

Chapter 10: Work with hosted feature layers

Publish your data, use filters and tables, and create views.

As a publisher in your organization, you can publish hosted features layers from multiple sources. Use filters and tables and create views to use them to their fullest.

Publish layers

You can publish data as hosted feature layers directly in ArcGIS Online. When you do this, ArcGIS Online hosts the layers and the data that populates them. Web, desktop, and mobile apps can access your hosted layers from anywhere on the internet if you allow it. Many sources can be used to publish hosted feature layers, including cloud sources such as Google Drive and Microsoft OneDrive.

Hosted feature layers are published layers. Feature layers are available to anyone you have shared them with and can be used in multiple maps.

Feature layers support querying, styling (smart mapping), pop-ups, and editing. Hosted feature layers are most appropriate for visualizing data on top of basemaps. After you have styled the layer and configured pop-ups, click **Save Layer** to save your changes. The next time you or others use the layer, it will be configured. See [Chapter 9: Turn data into information](#) above for more details.

You can update or overwrite hosted feature layers by adding the source again. If the layer has large numbers of features or complex lines or polygons, you can increase performance using layer optimization settings.

Tips and best practices

Keep the following recommendations in mind:

- Click **Save** on the layer after publishing and configuring hosted feature layers to create ready-to-use operational layers.

- If the layer has been updated (or edited) and features have been added outside the initial extent, rebuild the spatial index to improve performance.

Learn more

See the following resources to learn more:

- [Publish hosted feature layers](#) (Help)
- [Manage hosted feature layers](#) (Help)
- [Optimize drawing of complex lines and polygons](#) (Help)

Editable feature layers

As the owner of a hosted feature layer or an organization administrator, you can decide who has edit access to your feature layer data. You can control that access through a combination of hosted feature layer views, editing settings, and sharing properties.

The feature layer owner (or administrator) decides the who, what, and how features and their attributes can be edited. Any changes made to a feature layer are automatically visible in any other map or app where the layer is used.

The publisher of the feature layer or the administrator decides whether a feature layer is editable and sets an editing level. Editing levels determine whether you can add features, delete features, update feature attributes only, or update feature geometry and who can perform these tasks.

If an editable feature layer is shared publicly, anyone with access to it can edit it even if they don't sign in to your organization. This can be controlled using the **Public data collection** setting or by creating read-only views on editable feature layers.

A public data collection badge will be displayed with the item when this setting is used.

Transportation Needs Survey Public Data Collection Layer

This survey is your opportunity to share your observations and ideas! Where are improvements needed? What improvements would you recommend? How can transportation investments improve quality of life in our region?



Feature layer

Item updated: Jun 16, 2025



Public data collection



Learn more

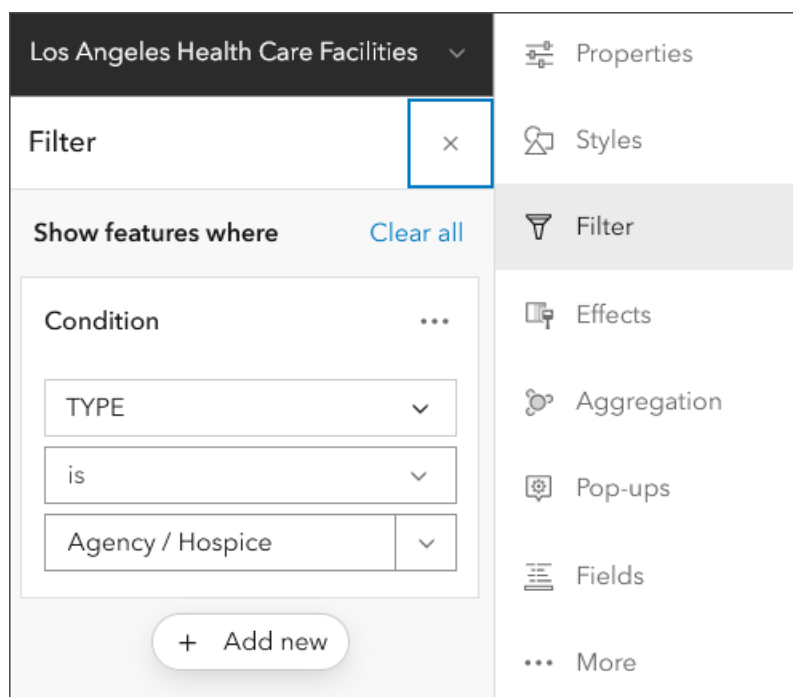
See the following resources to learn more:

- [Data access and editing](#) (Help)
- [Manage hosted feature layer editing](#) (Help)

Filters

A filter presents a focused view of a feature layer in a map. By limiting the visibility of features in a layer, you can reveal what's important. For example, you can create a filter on a crime layer so only arson fires are displayed. You can also apply multiple expressions. For example, you can create a filter that shows only arsons that occurred on weekends.

Click the **Filter** button on the **Settings** (light) toolbar to open the **Filter** window and construct the filter.



Tips and best practices

Keep the following recommendations in mind:

- Keep the number of filters to a minimum. If many filters are needed, consider views instead.
- The [Interactive Legend Instant App](#) allows you to filter on the attribute that you used for symbolization.

Learn more

See the following resources to learn more:

- [Apply filters](#) (Help)
- [Use expression sets](#) (Help)

Views

Views allow you to create derivative, live-linked hosted feature layers based on the original. Views can be shared, styled, or edited in different ways. View features are automatically updated when the original feature layer is updated.

Using views, you can control editing and access. For example, the original feature layer may be editable by members of your organization, but you can create read-only views for public viewing of the same data. You can also style views differently and control the attributes that are displayed.

Only the owner of a hosted feature layer can create a hosted feature layer view from the original layer.

Tips and best practices

Keep the following recommendations in mind:

- Views allow you to present and control feature layer display and access for different audiences.
- Views simplify data management and access considerations.

Learn more

See the following resources to learn more:

- [Create hosted feature layer views](#) (Help)
- [Hosted feature layer views and data access](#) (Help)
- [Getting started with hosted feature layer views](#) (Blog)

Tables

To visualize information about features in a layer, you can display an interactive table at the bottom of the map in Map Viewer or on the Data tab of the feature layer's item page. A tabular view of the data can be a quick way to analyze information and start making decisions.

You can sort, resize, reorder, and hide data, as well as select specific attributes to appear on the map. If you have privileges to edit the layer, you can edit or delete attribute values and attach additional related photos and files.

If you own the layer, you can perform bulk editing operations, such as calculating field values and appending data. As the layer owner, you can also change the types of information stored in the layer by adding and deleting fields.

Learn more

See the following resources to learn more:

- [Show tables](#) (Help)
- [Edit tables](#) (Help)
- [Manage data](#) (Tutorial)

Chapter 11: Perform analysis

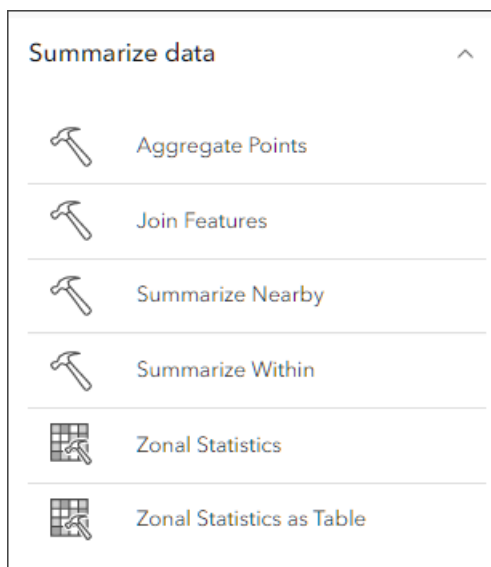
Enrich your content and perform essential analytic tasks.

The analysis tools in ArcGIS Online can be applied to many workflows to uncover patterns, assess trends, and make decisions. Analysis tools are available in Map Viewer and Scene Viewer. To use analysis tools, you must have the appropriate privileges.

Analysis tools

Vector and raster analysis tools are available to any member with the appropriate privileges. Analysis tools are organized into categories.

In Map Viewer, click **Analysis** on the **Settings** (light) toolbar to open the analysis tool pane and view available categories. Open a category to view the tools grouped within it.



Using Scene Viewer, click **Analysis** in the **Designer** sidebar. As in Map Viewer, tools are organized by category. Open any category to view the available tools.

Click any analysis tool to open the configuration pane. Fill in the options and run the tool. The analysis runs in the background, so you can continue working as the analysis completes. When completed, the new analysis layer will appear in your map.

After completion, the analysis history is saved. Open the tool from its history to rerun the analysis with different parameters or layers. History is saved with the map, so the tool can be rerun later or can be run by others you share the map with.

The use of analysis tools consumes credits. Click **Estimate credits** to learn more about the number of credits consumed to perform the operation. To minimize unneeded credit consumption, use filters and the map extent to reduce the number of features used in the analysis, thereby reducing the credits consumed.

Administrators can set credit limits for members by using credit budgeting and allocation tools. In addition, administrators have reporting tools to monitor credit consumption by members and by task.

Tips and best practices

Keep the following recommendations in mind:

- Preview credit consumption before running analysis tools.
- Use the map extent to limit the features used in the analysis.
- Set credit limits using credit budgeting and allocation tools.
- Complete the item details if you save the layer since analysis creates new layers.

Learn more

See the following resources to learn more:

- [Get started performing analysis](#) (Help)
- [Perform analysis](#) (Help)
- [Use the analysis tools](#) (Help)
- [Configure credits](#) (Help)
- [Tips for managing credits consumed by analysis tools](#) (Blog)

- [Solve a spatial problem using ArcGIS Online](#) (Tutorial)

Chapter 12: Create apps from maps and scenes

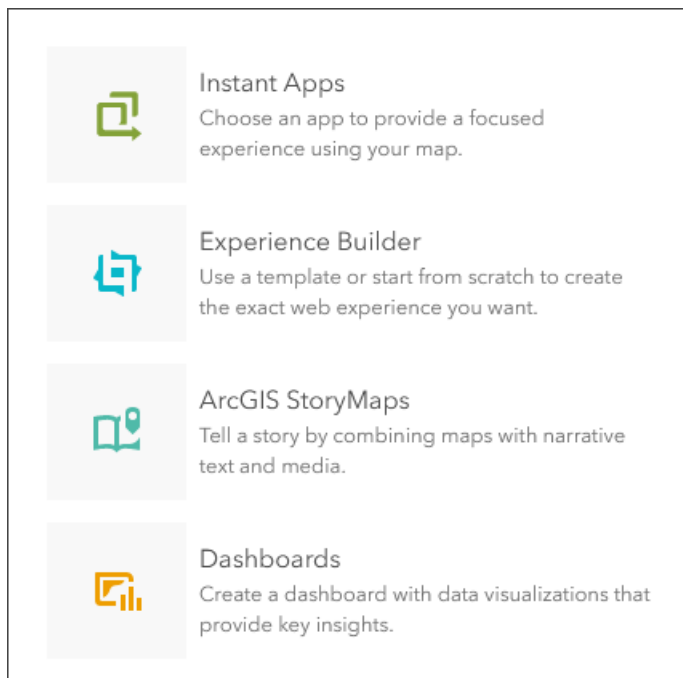
Use apps, dashboards, stories, and more.

Just as you display your work from spreadsheets in polished reports for your boss and your team, you can display your maps and scenes in the form of polished web apps. Using Instant Apps and app builders, you can present your maps in focused and interactive ways for your audience.

Create an app

You can create a web app with a map using ArcGIS Instant Apps, ArcGIS Dashboards, ArcGIS StoryMaps, or ArcGIS Experience Builder.

Each of these apps offers differing functionality and capabilities. Choose an app template from the Instant Apps home page, or open Dashboards, ArcGIS StoryMaps, or Experience Builder. These can be opened from Map Viewer and Scene Viewer or from the item pages.



ArcGIS Instant Apps

ArcGIS Instant Apps allows you to create and share interactive web apps in ArcGIS Online. Based on your goals and your audience, select from a variety of app templates using the gallery. Instant Apps transforms a map to an interactive app—no coding required. Instant Apps includes express setup options to streamline configuration, but you can switch to a more detailed, full setup option if needed.

Instant Apps is also available for group-based content.

Tips and best practices

Keep the following recommendations in mind:

- Use **Preview**, one of the options on the app card in the gallery, to get an idea of how the app looks and how it will work with your map.
- Try some of the configurable apps to see what works best with your map and how you envision viewers using it.
- Use **MyApps** in the gallery to copy existing apps to insert a new map and quickly make derivatives using existing configurations.

Learn more

See the following resources to learn more:

- [Create apps from maps](#) (Help)
- [Create apps from groups](#) (Help)
- [ArcGIS Instant Apps](#) (Help)

ArcGIS Dashboards

A dashboard is a view of geographic information and data that allows you to monitor events, make decisions, inform others, and see trends. Dashboards display multiple visualizations that work together on a single screen. They offer a comprehensive view of your data and provide key insights for at-a-glance decision-making.

A dashboard is created by selecting elements and placing them on the dashboard canvas. Use settings to configure the elements and use actions to link elements together.

Tips and best practices

Keep the following recommendations in mind:

- Consider whether the dashboard will be primarily used on mobile devices or in browsers, and design accordingly.
- Omit irrelevant information.
- Keep the layout simple.

Learn more

See the following resources to learn more:

- [What is a dashboard](#) (Help)

- [Create a dashboard](#) (Help)
- [Create your first dashboard using ArcGIS Dashboards](#) (ArcGIS Blog)
- [Dashboard mobile views](#) (Help)

ArcGIS StoryMaps

ArcGIS StoryMaps allows you to use maps and media to tell stories that inform and inspire. ArcGIS StoryMaps uses a single builder through which you select blocks to hold text, media, maps, and apps in your story. ArcGIS web maps can be added to any story, or you can create an express map without leaving the story builder.

ArcGIS StoryMaps collections can be used to quickly group together stories and share or present them as a cohesive, navigable set. Collections can also be used to group any ArcGIS items together, so they are valuable for organizing and presenting other types of content.

ArcGIS StoryMaps briefings are used to create presentation-style stories using a slide-based experience.

Tips and best practices

Keep the following recommendations in mind:

- Use the **Design** panel to try different themes or create a theme that aligns with your organization's branding colors. You can also upload a logo.
- The subtitle of your story will automatically be the summary in the story's item details page. This will also be the text that is displayed when your story is shared on social media.

Learn more

See the following resources to learn more:

- [What is ArcGIS StoryMaps?](#) (Help)

- [Create your first collection](#) (Help)
- [ArcGIS StoryMaps overview](#) (Website)
- [ArcGIS StoryMaps resources](#) (Website)
- [Get started with ArcGIS StoryMaps](#) (Tutorial)
- [Create and publish your first briefing](#) (Help)

ArcGIS Experience Builder

Use ArcGIS Experience Builder to build modern web apps and web pages without writing any code. Start from scratch or choose from an extensive library of customizable templates. You can add advanced functionality with widgets that you can drag, drop, and configure. Experience Builder offers a variety of layout options to build any web experience for any purpose.

Tips and best practices

Keep the following recommendations in mind:

- Explore the various templates before you start building your experience.
- You can customize your experience for various devices.
- Use Express Mode to quickly build an experience.

Learn more

See the following resources to learn more:

- [Get started with ArcGIS Experience Builder: Foldable template](#) (Blog)
- [Get started with ArcGIS Experience Builder: sync 2D and 3D maps](#) (Blog)
- [Get started with ArcGIS Experience Builder - Gallery template](#) (Blog)

- [ArcGIS Experience Builder: Introducing Express mode](#) (Blog)
- [Try ArcGIS Experience Builder](#) (Tutorial)

Apps for collections of things

A group is a collection of maps, apps, and other item types usually related to a specific area of interest. You can create groups to organize your items.

Group-based gallery apps are configurable apps that can be used to display and interact with group content.

Other apps can be used for displaying collections, including ArcGIS StoryMaps collections, ArcGIS Hub sites, and ArcGIS Experience Builder galleries.

Learn more

See the following resources to learn more:

- [Create apps from groups](#) (Help)
- [Create your first collection](#) (Help)
- [From groups to gallery apps](#) (Blog)

Chapter 13: Keep moving forward

Apps and tools help your organization grow.

ArcGIS Online includes a full range of administrative and reporting tools to effectively manage your organization and its members. It also includes the [ArcGIS Online Health Dashboard](#), which provides information about the overall status of the entire ArcGIS Online system. Each offers an RSS feed subscription to alert you of any changes.

Administration tools

ArcGIS Online organization administration tools allow administrators to invite and manage members and manage licenses, user types, and user roles. Member content can also be viewed and transferred to other members.

In addition, the organization status can be viewed showing credit consumption, types of content, sharing summary, member activity, and group activity.

Reports can also be created and saved to run again in the future. Report results can be saved for future reference.

Tips and best practices

Keep the following recommendations in mind:

- Make monitoring your organization and member activities a regular event.
- Create reports that help you achieve your monitoring goals.

Learn more

See the following resources to learn more:

- [Manage members](#) (Help)
- [View and report status](#) (Help)
- [Best practices for organization maintenance](#) (Help)

- [Time-saving tips for managing members in ArcGIS Online](#) (ArcGIS Blog)

ArcGIS Notebooks

While generally used for analysis and machine learning tasks, ArcGIS Notebooks also allows you to use the content management and GIS administration tools of ArcGIS API for Python to automate routine workflows and tasks.

For example, as an administrator, you can run notebooks to clean up items, notify web map authors of broken links or insecure URLs, delete inactive users, manage and allocate credits, and more.

The [sample notebooks gallery](#) includes scripts supporting administrative workflows, which you can modify to suit your specific needs. You can also create notebooks to automate administration in your organization.

ArcGIS Notebooks is offered in several versions: Standard, Advanced, and Advanced with GPU. Standard includes ArcGIS API for Python and open-source Python libraries, which are ideal for administrative tasks, data engineering, and light analytics.

ArcGIS Online Security Advisor

[ArcGIS Online Security Advisor](#) provides monitoring and reporting of potential site security and compliance issues. It's available at the [ArcGIS Trust Center](#), a resource for security, privacy, and compliance information.

ArcGIS Marketplace

[ArcGIS Marketplace](#) has data, apps, and utilities that can help you keep your organization moving forward. Some of what you will find is subscription based, but there are plenty of free tools as well. For example, [GeoJobe](#) offers free tools to help you manage your organization.

ArcGIS Assistant

[ArcGIS Assistant](#) streamlines certain administrative tasks and duties, including item maintenance. Created by Esri solution engineers, ArcGIS Assistant is intended for

users with an advanced understanding of ArcGIS Online and ArcGIS Enterprise. Note that the ArcGIS Online Assistant is unsupported, but it is widely used.

With ArcGIS Online Assistant, you can do the following:

- Search for and copy content from one organization to another.
- View and edit the underlying JSON for any item.
- View tags.
- Update and modify service URLs in web maps and registered applications.
- View item statistics.

The ArcGIS Online Assistant can also be accessed [on GitHub](#). For more information, see [ArcGIS Assistant User Guide](#).

Stay informed

A key to keeping your organization running smoothly is to stay informed of changes and new products and capabilities. ArcGIS Online can be a rapidly changing landscape, so it is beneficial to stay aware of useful resources.

Resources to help keep you informed include the following:

- [ArcGIS Blog](#)
- [ArcGIS Online Esri Community](#)
- [ArcGIS Online News](#)
- [ArcWatch](#) and [ArcUser](#) magazines
- [Esri events](#)
- [Esri contacts](#)
- [ArcGIS Online support knowledge base](#)
- [ArcGIS Living Atlas](#)