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ArcGIS Enterprise Quick Start Guide

Essential tasks and best practices for setting up ArcGIS Enterprise on Windows or Linux



Task checklist

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1. Get to know ArcGISEnterprise

ArcGIS Enterprise provides secure mapping and analysis to your organization– behind your firewall or in the cloud. ArcGIS Enterprise also supports fully disconnected workflows for those organizations lacking Internet connectivity.

The most foundational implementation of ArcGIS Enterprise is called a base deployment, which can be installed and configured on a single machine or across multiple machines.

This guide will walk through steps to install and customize a base deployment for the purpose of delivering and centralizing mapping and visualization, data management, and collaboration workflows in your organization.

You may also extend the functionality and capacity of your base ArcGIS Enterprise deployment by adding additional servers. Adding more server machines can help you make the most of the ArcGIS Enterprise server roles and capabilities. For an overview into the breadth of functionality available in ArcGIS Enterprise, review the latest functionality matrix.

Before getting started with ArcGIS Enterprise, determine which deployment pattern will best suit your organization's needs. In many cases, the base deployment will be just right. For other desired workflows and needs, you will need to extend your base deployment by adding additional servers. Each deployment pattern is unique and delivers capabilities to perform a wide range of workflows:

- Mapping, visualization, and analytics
- Distributed analytics for imagery
- Powerful data science and automation workflows
- Real-time mapping and analytics
- Automate and orchestrate GIS and non-GIS workflows
- Model relationships between entities using knowledge graph layers
- Index, search, publish, and stream videos as web-enabled services

2. Use ArcGIS Enterprise Builder

You will begin by using ArcGIS Enterprise Builder to install, authorize, and configure foundational software components for a base deployment.

ArcGIS Enterprise Builder is a simple installation and configuration wizard that sets up a base ArcGIS Enterprise deployment on a single machine on-premises. The Builder works in two parts:

- 1. Installs and authorizes each software component on your machine
- 2. Configures installed software components as a base deployment

Once the Builder is finished, you can start using ArcGIS Enterprise in your organization to create maps, conduct analysis, and share content through a variety of apps.

For more details on what is included with ArcGIS Enterprise, see the documentation.



3. Set up your home page

Once you install and configure your site, you may begin configuring your ArcGIS organization by adding a logo and specialized content to your home page. You can also configure additional security requirements to limit logins or assign users to custom roles and privileges.

Customize the appearance

When setting up ArcGIS Enterprise for the first time, you will want to create a familiar look and feel for your organization. Some considerations for doing so are as follows:

- Make your home page professional looking, aesthetically pleasing, and well organized. Use a custom banner and logo, include featured content, and provide information about the purpose of your site.
- Showcase your best maps and apps as featured content on your home page.
- Your organization's name is what appears in the banner on the home page. You should choose a distinct and accurate name that represents your organization.
- Determine a login experience for your users to access the organization. For more details, see the section below on adding members.

For a hands-on lesson on setting up your portal, try the tutorial to Set up an ArcGIS Enterprise portal.

Tip

During setup, consider designating a few administrators as points of contact for your organization. These administrators can be notified when members request password resets, additional privileges to their accounts, and so on. For more information about roles and privileges, review the documentation.

4. Add members

ArcGIS Enterprise uses an identity-based security model. Any content, such as layers, services, maps, and apps, is secured through groups within ArcGIS Enterprise. These groups are created in the portal; you can add users manually to these groups, or you can link them to enterprise groups from your organization's identity store, such as an Active Directory-based, LDAP-based, or SAML-based identity provider.

Best practices

Below are some best practices for adding and inviting members to your organization:

- **Configure enterprise logins**: If your organization uses a single sign-on system, enable enterprise logins. This lets members sign in to an organization with the same credentials they use in their enterprise system. For details on configuring portal authentication, see the documentation.
- Assign user types and roles: Consider the privileges each member needs to get their work done. You assign privileges through a default or custom role. There are five default roles: Viewer, Data Editor, User, Publisher, and Administrator. You can also create custom roles based on the specific privileges you want that role to have. Every ArcGIS Enterprise organization must have at least one administrator. To learn more, see the documentation for user types, roles, and privileges.
- Automatically add members to groups: Specify the groups you want members to join. Members may be added automatically without needing to request membership.
- Assign app licenses: ArcGIS includes a wide range of apps that help your organization's members do their work. Many come automatically with your license and others can be purchased separately. For purchased apps, you can assign licenses to specific members.

5. Create groups

Groups are a way to organize items you want to share with members of your organization.

For an individual to access content secured in a group, they must be a member of your organization and have an assigned user type. When you create a new user within your organization, you assign them a role. This role defines a specific set of privileges for the user. For example, you can define the type of information a user can search, edit, or create. To learn more about the type of privileges you can grant members of your organization, see User types, roles, and privileges. You can also allow anonymous access to content that has been shared with everyone in your organization. This means that people will be able to access your content without having to sign in to ArcGIS Enterprise. Alternatively, you may disable anonymous access to secure items and groups for only those members who have been granted access.

You can also use groups to feature content on your organization's home page and gallery and build custom galleries to showcase your basemaps and apps.

Tip

You may want to share content from one organization to another using ArcGIS Enterprise or even to ArcGIS Online. Using distributed collaboration, you can securely connect with other ArcGIS Enterprise deployments and ArcGIS Online to share and sync content as you work on projects and initiatives. Distributed collaboration uses groups to share layers, maps, and apps across deployments.

6. Create content

ArcGIS Enterprise includes everything you need to create and share maps, scenes, apps, and layers. You can add existing content, such as spreadsheets and ArcGIS Server services, and create new content, such as maps, apps, and hosted web layers.

Consider how your content will be used and optimize it for the best experience. For example, refine layers with appropriate transparency, scale ranges, and labels; configure pop-ups in your maps; and create multiple views of your feature layers with different access and editing properties.

Create complete item details (thumbnail, description, tags, and so on) so the item is easy to find and use. Designate items as authoritative. Set up content categories for your organization and groups so the content is easy to discover.

Tips

Below are some best practices for adding and inviting members to your organization:

- Quickly create a new map by combining a basemap with your data and applying smart defaults to style the map.
- Access a wide variety of templates and widgets to create focused web apps.
- Use templates to create new layers that you can use in your maps and apps to collect and edit feature data.
- When you save or add items to a portal, they are stored as an item and assigned an item type. For example, when you save a map, it appears in your content as a web map.
- Each item includes a detailed page with information, actions, options, and settings. Use the page to learn more about and interact with the item.
- Use content categories to organize group content or other content across your organization.
- Once you add content, you can share it with specific groups or your entire organization, or use distributed collaboration to share beyond your organization.
- Want to get started? Check out the gallery of tutorials for ArcGIS Enterprise.

7. Create a site

ArcGIS Enterprise Sites provides the ability to design and build tailored web pages to highlight your organization's GIS content. With Sites, users of all levels of GIS experience (or no GIS experience) can access and work securely with geospatial data in the organization.

You can create as many independent, tailored web pages as you want, and security and access to your site and content are controlled by ArcGIS Enterprise. You can easily set up a site using the template available or drag-and-drop widgets. You can also customize using HTML and CSS if that is preferred.

Users will be able to interact with data through an inviting interface tailored for them, making data discoverability easy. For example, you can set up a site for each city department so that they can easily locate maps and applications customized for them.

To get started with ArcGIS Enterprise Sites, see the Training Seminar and documentation.

8. Learn more

As an administrator, you are responsible for setting up ArcGIS Enterprise to meet your organization's needs. It is equally important to regularly maintain members, items, and groups to keep your organization uncluttered and up to date. The resources in this section can help you with these maintenance tasks. They can also help you learn more about ArcGIS Enterprise in general.

Monitor activity

You have access to <u>usage reports</u> to help you monitor content and members. Item reports illustrate how users are creating, using, and sharing geographic content. Member reports reveal how users are contributing to the organization. Group reports provide a sense of active collaborations across and within organizations.

User types

User types are a flexible way to license capabilities and apps in ArcGIS Enterprise. User types allow organizations to allocate identity, privileges, and apps to better align with the needs of members.

9. Additional resources

- ArcGIS Enterprise documentation is the best resource for learning how to get started with installation, architecture, and using the software. Or find out what's new in the latest release.
- The Tutorial gallery includes a collection of lessons, articles, story maps, and videos that help you learn about ArcGIS. It also includes a Tutorial Series of ArcGIS Enterprise-related resources about specific topics such as mapping and visualization, and administration.
- You can leverage your own utility services or those from ArcGIS Online to power specific functionality in ArcGIS Enterprise. Utility services expose the ability to print maps, locate addresses, calculate areas, find directions, and perform analysis. The portal comes with some default services, but you can use your own services.
- The GIS community, including Esri, shares thousands of ready-to-use authoritative datasets in the ArcGIS Living Atlas of the World. The Living Atlas covers everything from historical census data to environmental conditions derived from live sensor networks and earth observations. You can use items curated by Esri directly in ArcGIS Enterprise by setting up Living Atlas access.
- ArcGIS API for Python can help you automate and maintain administrative tasks. For example, use the API to clone portal users, groups, and content from a staging to a production environment. You can also use it to update URLs for service or app items and manage your GIS servers.
- Esri Training provides a variety of learning resources for administering, using, and extending ArcGIS Enterprise. Use our training catalog to browse ArcGIS Enterprise offerings across common workflows and industries.



10. FAQ

Below are answers to frequently asked questions:

What is ArcGIS Enterprise?

ArcGIS Enterprise puts collaboration and flexibility at the center of your organization's GIS. It pairs industry-leading mapping and analytics capabilities with a dedicated Web GIS infrastructure to organize and share your work on any device, anywhere, at any time.

How do I get the latest in ArcGIS Enterprise?

If you have already installed a base deployment using the ArcGIS Enterprise Builder, you can upgrade it in place using the latest version. For other deployments, review the documentation, which includes the most up-to-date detailed steps to install or upgrade your deployment.

How do I purchase ArcGIS Enterprise?

There are several ways to purchase ArcGIS Enterprise. See our pricing page for more information.

What does my license include?

ArcGIS Enterprise is licensed per user and by system capacity. User types are a mix of capabilities and included apps that are included with your initial purchase of ArcGIS Enterprise software. The five general-purpose user types are Viewer, Contributor, Mobile Worker, Creator, and Professional.

How can I extend ArcGIS Enterprise?

ArcGIS Server can be licensed in a variety of roles depending on the capabilities you want to enable for your deployment. Server licensing roles define the capabilities of each ArcGIS Enterprise server machine or site. For a full description of options, see the ArcGIS Enterprise functionality matrix.

ArcGIS GIS Server brings GIS resources such as map services, feature services, and geoprocessing services to users as layers in your organization. This role is the foundation for your Web GIS, where ArcGIS GIS Server acts as the portal's hosting server. You can license ArcGIS GIS Server as Advanced, Standard, or Basic. All editions of ArcGIS Enterprise include an ArcGIS Server licensed in a GIS Server role. ArcGIS GIS Server also offers additional extensions. See ArcGIS GIS Server capabilities and extensions for details.

Where can I get more information?

Check out the ArcGIS Enterprise product page, explore Esri Community discussions, download the latest functionality matrix, or contact Esri.

