

ArcGIS Maps for SharePoint Installation and Configuration Guide



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What's new in ArcGIS Maps for SharePoint

Do you have an idea for a feature you'd like to see in ArcGIS Maps for SharePoint? Tell us about it at the [ArcGIS Ideas](#) site.

ArcGIS Maps for SharePoint 4.2 includes the following updates and enhancements:

- Apps rebranded as ArcGIS Maps for SharePoint.
- Added support for SharePoint Server 2016.
- ArcGIS Maps for SharePoint Online is now a single app that contains both the ArcGIS Maps app part and the ArcGIS Maps Locate workflow.
- ArcGIS Maps for SharePoint Online is now supported in sub-sites.
- Enhanced security solution allows SharePoint administrators to use choose how to securely store ArcGIS credentials.
- Added support for ArcGIS Enterprise 10.5.
- Added support for vector tile basemaps.
- You can now add SharePoint lists and documents to an ArcGIS Maps app from sub-sites and sub-folders in a document library.
- ArcGIS Maps for SharePoint supports anonymously accessible map web parts on public-facing SharePoint sites.
- Enhanced user experience for adding SharePoint lists to a map.
- Enhanced user experience for app configuration and ArcGIS Maps Locate workflow.
- Multiple bug fixes and improvements.

Supported environments

ArcGIS Maps for SharePoint is deployed as a farm solution (wsp) to Microsoft SharePoint.

For ArcGIS Maps for SharePoint to operate properly, Esri assumes an operational configuration of Microsoft SharePoint.

ArcGIS Maps for SharePoint is supported for use with the following:

- Microsoft SharePoint Server 2010
- Microsoft SharePoint Foundation 2010
- Microsoft SharePoint Server 2013
- Microsoft SharePoint Foundation 2013
- Microsoft SharePoint Server 2016

Esri tests ArcGIS Maps for SharePoint only in software environments certified or supported by Microsoft SharePoint; not all SharePoint-supported environments have been tested or certified. For more information, see the Esri [supported environments policy](#).



Note: ArcGIS Maps for SharePoint does not support SharePoint 2010 templates in SharePoint 2013.

System requirements

See the system requirements for Microsoft SharePoint for information:

- [Hardware and software requirements \(SharePoint Server 2010\)](#)
- [Hardware and software requirements \(SharePoint 2013\)](#)
- [Hardware and software requirements \(SharePoint Server 2016\)](#)

ArcGIS

ArcGIS Maps for SharePoint requires an ArcGIS Online organizational subscription or an on-premises ArcGIS Enterprise deployment. It is assumed that the authentication method used to access the platform has been properly configured by your ArcGIS administrator.

ArcGIS Maps for SharePoint 4.2 supports the following ArcGIS versions:

- ArcGIS Online—current version
- Portal for ArcGIS— 10.2 through 10.4.1
- ArcGIS Enterprise— 10.5

Required software

Before deploying ArcGIS Maps for SharePoint, the following prerequisites must be met:

- Microsoft SharePoint Server or Foundation, 2010 or 2013 or SharePoint Server 2016 correctly installed and configured
- The following MIME types must be present on the SharePoint server on which ArcGIS Maps for SharePoint is installed:
 - `.svg image/svg+xml`
- Secure store service—By default, ArcGIS Maps for SharePoint uses the Secure Store Service (SSS) to secure ArcGIS credentials and automatically generates a target application during installation; this is the recommended setting. If you don't want to use SSS or if SSS is not available during installation, you must manually generate an encryption key after installation. For more information, see [Install ArcGIS Maps for SharePoint](#). If you choose to use SSS during installation, ensure the Secure Store Service is started and that the service itself is properly configured.
- Follow these steps to access the Secure Store Service and generate a new key:
 - On the **Central Administration** home page, in the **Application Management** section, click **Manage service applications**.
 - Click the **Secure Store Service** link.
 - Click **Generate New Key**.
For details, see [Configure the Secure Store Service in SharePoint 2013](#), [Configure the Secure Store Service \(SharePoint Server 2010\)](#), or [Configure the Secure Store Service in SharePoint Server 2016](#).
 - Exit **Central Administration**.
- ArcGIS Enterprise—To successfully run the ArcGIS Maps Locate workflow in ArcGIS Enterprise, [configure the geocoder service](#).
- SharePoint 2010—To successfully run the ArcGIS Maps Locate workflow in SharePoint 2010, [download the certificate](#) from ArcGIS Online or your ArcGIS Enterprise instance and import it to SharePoint.

Operating systems

ArcGIS Maps for SharePoint is supported for SharePoint 2010 and SharePoint 2013 on the following operating systems. See the Microsoft SharePoint supported environments information to determine which versions of these operating systems are actively supported:

- Windows Server 2012
- Windows Server 2012 R2
- Windows Server 2008 R2 SP1
- Windows Server 2008 R2

Supported languages

ArcGIS Maps for SharePoint is available in the following languages:

Arabic, Chinese (simplified), Chinese (Traditional Hong Kong), Chinese (Traditional Taiwan), Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hebrew, Indonesian, Italian, Japanese, Korean, Latvian, Lithuanian, Norwegian, Polish, Portuguese (Brazil), Portuguese (Portugal), Romanian, Russian, Spanish, Swedish, Thai, Turkish, and Vietnamese.

The language used in the Windows version of the app is determined by your operating system's language setting. If you are using an unsupported language setting, the app uses English.

Help can be viewed in the following languages:

Arabic, Chinese (simplified), Chinese (Traditional Hong Kong), Chinese (Tradition Taiwan), English, French, German, Italian, Japanese, Korean, Portuguese (Brazil), Romanian, Russian, and Spanish.

Web browsers

The following browsers are supported:

Browser name	SharePoint 2010	SharePoint 2013	SharePoint 2016
Internet Explorer 11	Full	Full	Full
Internet Explorer 10	Full	Full	Full
Google Chrome*	Full	Full	Full
Mozilla Firefox*	Full	Full	Full

*Latest released version

Install ArcGIS Maps for SharePoint

The [setup program](#) included with ArcGIS Maps for SharePoint provides an easy way to deploy to your SharePoint installation.

 **Note:**

- Installing ArcGIS Maps for SharePoint requires administrative access to SharePoint. Run the installer with elevated permissions to avoid errors
- Installing on a site that previously had a beta version of ArcGIS Maps for SharePoint installed is not recommended. Before installing ArcGIS Maps for SharePoint, disable and [remove](#) all components containing the beta software or create a new site.

Included files

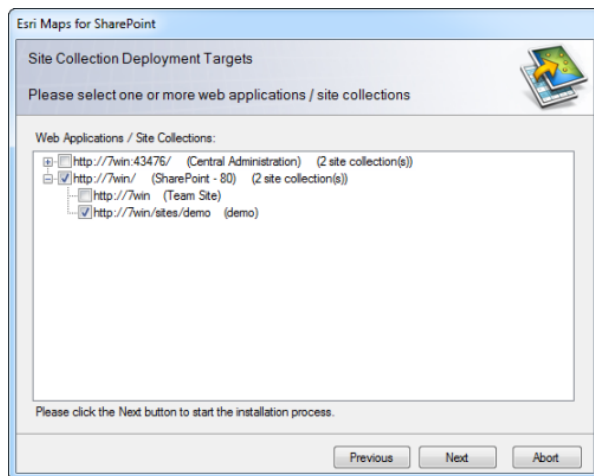
The ArcGIS Maps for SharePoint on-premises (SharePoint 2010, 2013, or 2016) installation includes the following files:

- Setup.exe—Installation program that allows you to deploy ArcGIS Maps for SharePoint to web applications and site collections in your SharePoint farm.
- ESRI.ArcGIS.Mapping.SharePoint.wsp—SharePoint solution package that contains the ArcGIS Maps for SharePoint features, resources, and configuration files.
- EnableAnonymousAccess.ps1—PowerShell script that enables anonymous access to SharePoint lists displayed within the ArcGIS Maps app.
- Documentation—ArcGIS Maps for SharePoint includes a variety of documents to help you install, configure, and get started with the apps. It also includes a guide for deploying language packs, and the license agreement.
- Language resource files—Setup resources for supported languages. To install ArcGIS Maps for SharePoint in a language other than English, you must first install the English software, then download and install the appropriate language pack.

Install and deploy ArcGIS Maps for SharePoint on-premises

Follow these steps to deploy ArcGIS Maps for SharePoint.

1. Download and extract the contents of the ArcGIS Maps for SharePoint installation ZIP file to a location on the system where SharePoint is installed.
2. Right-click the Setup.exe file and choose **Run as Administrator** to begin the installer. The installer performs a series of checks to ensure that the installation will be successful. If a check fails, the installer provides information about the failure.
3. Once the checks have completed successfully, click **Next**.
If you receive a message that the Secure Store service has not started, start this service on your SharePoint server (not applicable for SharePoint Foundation). See [Supported environments](#) for more information.
4. Read the End User License Agreement (EULA). If you agree to the terms of the EULA, check the check box and click **Next**.
5. Choose the web applications or site collections on which to enable ArcGIS Maps for SharePoint. In the **Web Applications / Site Collections** tree, each top-level node represents a SharePoint web application, while each child node represents a site collection. In the following example, ArcGIS Maps for SharePoint is targeted for deployment to the site collection located at `http://7win/sites/demo`. Once you have selected the target web applications and site collections, click **Next**.



Note: If you target a web application, the ArcGIS Maps for SharePoint feature is available to all site collections within that web application. Therefore, for site collections that are not checked on this installer page but are within web applications that are checked, the ArcGIS Maps for SharePoint feature is available but not activated.

6. Click **Next** to continue.
7. To participate in the Esri User Experience Improvement program, check the **Allow Esri to collect information to improve software** check box.

8. Click **Next**.
A log of the operations appears.
9. Click **Close** to close the setup program.

When the installation is complete, [configure](#) ArcGIS Maps for SharePoint


Install using PowerShell

Use the following PowerShell commands to manually install ArcGIS Maps for SharePoint. Be sure to replace the <placeholders> with the information from your system.

```
Add-SPSolution
-LiteralPath C:\Software\ESRI.ArcGIS.Mapping.SharePoint.wsp
Install-SPSolution ESRI.ArcGIS.Mapping.SharePoint.wsp
-WebApplication http://<web application name>
-GACDeployment
Start-Sleep 15
Enable-SPFeature
-identity "b432665a-07a6-4cc7-a687-3e1e03e92b9f"
-URL http://<web application name>/sites/<MySiteCollectionName>
```

Upgrade ArcGIS Maps for SharePoint

The Setup.exe program included with ArcGIS Maps for SharePoint allows you to upgrade to the latest version. To upgrade, follow these steps.

 **Note:** You do not need to uninstall your previous version of ArcGIS Maps for SharePoint to upgrade to a newer version.

Upgrade

1. Double-click the **Setup.exe** file to open it. Click **Next** in the ArcGIS Maps for SharePoint setup wizard.
The installer performs a series of checks to ensure that the installation will be successful. If a check fails, the installer provides information about the failure.
2. When the checks have completed successfully, click **Next**.
3. Choose the **Upgrade** option and click **Next**.
The installer deploys and activates ArcGIS Maps for SharePoint to the selected site collections.
4. When the operation is complete, click **Next** to view the installation log.
5. Click **Close** to close the setup wizard.

Upgrade using PowerShell

Use the following PowerShell commands to remove the previous version of ArcGIS Maps for SharePoint and install the latest. Be sure to replace the placeholders with the information from your system.

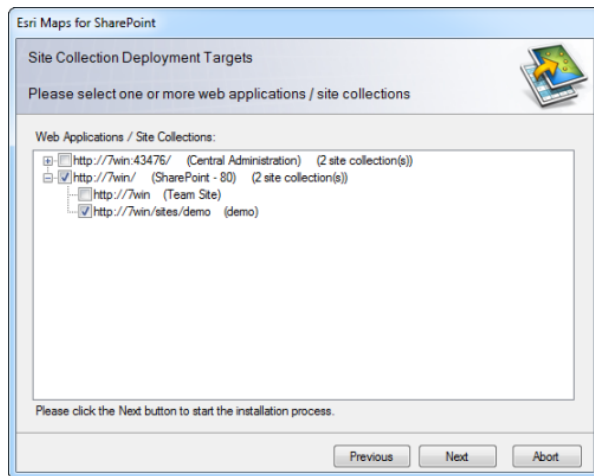
```
Disable-SPFeature
-identity "b432665a-07a6-4cc7-a687-3e1e03e92b9f"
-URL http://<web application name>/sites/<MySiteCollectionName>
Uninstall-SPSolution
-Identity ESRI.ArcGIS.Mapping.SharePoint.wsp
-WebApplication http://<web application name>
Start-Sleep 15
Remove-SPSolution
-Identity ESRI.ArcGIS.Mapping.SharePoint.wsp
WebContentInstaller.ps1 -uninstall
Add-SPSolution
-LiteralPath C:\Software\ESRI.ArcGIS.Mapping.SharePoint.wsp
Net stop SPTimerV4
Net start SPTimerV4
Install-SPSolution ESRI.ArcGIS.Mapping.SharePoint.wsp
-WebApplication http://<web application name> -GACDeployment
Start-Sleep 15
Enable-SPFeature
-identity "b432665a-07a6-4cc7-a687-3e1e03e92b9f"
-URL http://<web application name>/sites/<MySiteCollectionName>
```

Modify or remove

Modify

The Setup.exe program included with ArcGIS Maps for SharePoint allows you to easily modify which sites and web applications contain ArcGIS Maps for SharePoint functionality. To modify your installation, complete the following steps:

1. Right-click the Setup.exe file and click **Run as Administrator** to begin the installer. The installer performs a series of checks to see whether ArcGIS Maps for SharePoint has been installed and to ensure the installer can perform its functions. If a check fails, the installer provides information about the failure.
2. Once the checks have completed successfully, click **Next**.
3. Select the **Modify** option and click **Next**.
4. Choose the web applications or site collections on which to enable or disable ArcGIS Maps for SharePoint. In the Web Applications/Site Collections tree, each top-level node represents a SharePoint web application, while each child node represents a site collection. In the following screen capture, ArcGIS Maps for SharePoint is being targeted for deployment to the site collection located at <http://7win/sites/demo>.



If you target a web application, ArcGIS Maps for SharePoint is available to all site collections within that web application.

5. Once you have selected the target web applications and site collections, click **Next**. The installer deploys and activates ArcGIS Maps for SharePoint to the selected site collections and deactivates ArcGIS Maps for SharePoint on any unchecked site collections.
6. Once the operation completes, click **Next** to view a log of the operations or **Close** to close the setup program.

Remove

To remove ArcGIS Maps for SharePoint from your SharePoint farm, use the Setup.exe program included with the product. Follow the steps below to uninstall ArcGIS Maps for SharePoint.

1. Right-click the Setup.exe file and click **Run as Administrator** to begin the installer. The installer performs a series of checks to see whether ArcGIS Maps for SharePoint has been installed to ensure the installer can perform its functions. If a check fails, the installer provides information about the failure.
2. Once the checks have completed successfully, click **Next**. The **Modify or Remove** dialog box appears.
3. Choose the **Remove** option and click **Next**. The installer retracts ArcGIS Maps for SharePoint from all site collections and removes it from the SharePoint farm.
4. Once the operation completes, click **Next** to view a log of the operations or **Close** to close the setup program.

Uninstall using PowerShell

Use the following PowerShell commands to uninstall ArcGIS Maps for SharePoint. Be sure to replace the placeholders with the information from your system.

```
Disable-SPFeature  
-identity "b432665a-07a6-4cc7-a687-3e1e03e92b9f"  
-URL http://<web application name>/sites/<MySiteCollectionName>  
Uninstall-SPSolution  
-Identity ESRI.ArcGIS.Mapping.SharePoint.wsp  
-WebApplication http://<web application name>  
Start-Sleep 15  
Remove-SPSolution  
-Identity ESRI.ArcGIS.Mapping.SharePoint.wsp
```

ArcGIS authentication

ArcGIS Maps for SharePoint works directly with an ArcGIS Online organization or with a ArcGIS Enterprise instance. Although users can view the map without signing in, usage is limited to viewing and basic navigation of the map, and editing attributes in the dataset that appear in pop-ups. Signing in to ArcGIS allows ArcGIS Maps for SharePoint to connect to the platform and enable full functionality of the map.

The authentication method used to sign in is determined by the way you have set up security features for your ArcGIS Online organization or ArcGIS Enterprise instance. ArcGIS Maps for SharePoint requires no specific steps to implement the authentication methods supported by ArcGIS OnlineArcGIS Maps for SharePoint or ArcGIS Enterprise. For details about configuring the app, see [Configure ArcGIS Maps for SharePoint](#).

For more information about ArcGIS authentication and to ensure that security settings are properly implemented, refer to the documentation for [ArcGIS Online](#) or [ArcGIS Enterprise](#).

ArcGIS Online


ArcGIS Maps for SharePoint supports the following authentication methods for connecting to ArcGIS Online:

- **Built-in accounts**—Users enter their ArcGIS Online credentials. This results in the use of token-based authentication via OAuth 2.0.
- **Enterprise logins**—Enterprise logins are supported via Security Assertion Markup Language (SAML) 2.0. See [Configure enterprise logins](#) for more information.

ArcGIS Enterprise

For detailed information on ArcGIS Enterprise authentication, see the Administrator Guide included with the ArcGIS Enterprise installation.

- **Built-in accounts**—Users enter their ArcGIS Enterprise credentials. This results in the use of token-based authentication via OAuth 2.0. For ArcGIS Enterprise 10.3 and later, this is the default authentication method. See [Configure ArcGIS Maps for SharePoint](#) for more information.
- **Enterprise logins**—Enterprise logins are supported via Security Assertion Markup Language 2.0 (SAML). The following Enterprise identity providers are supported: Integrated Windows Authentication (IWA), Public Key Infrastructure (PKI), Lightweight Directory Access Protocol (LDAP), and token-based authentication. See [Configure enterprise logins](#) for more information.

 **Note:** If you use ArcGIS Enterprise configured with SAML, you will need to sign in to the App Configuration using a built-in user, and then change the credentials to sign in using the SAML user name and password.

ArcGIS Maps for SharePoint does not currently support IWA/PKI/LDAP authentication for workflows (ArcGIS Maps Connect and ArcGIS Maps Locate workflows) for ArcGIS Enterprise.

Configure ArcGIS Maps for SharePoint

As a SharePoint site collection administrator, you are responsible for configuring ArcGIS Maps for SharePoint. To begin, you generate an encryption key that ensures that the ArcGIS credentials used to configure the map are stored securely; if you chose to use SSS during installation, this is done automatically; otherwise, you must manually generate a key. You then specify the URL for your ArcGIS Online organizational account or ArcGIS Enterprise instance. Finally, you specify the ArcGIS named user account used to validate the map and charge credits consumed by the ArcGIS Maps for SharePoint workflows (Locate and Connect). You can also optionally set options for the Esri User Experience Improvement program [here](#).

The ArcGIS named user account specified during configuration is used to generate an app item in ArcGIS Online or ArcGIS Enterprise. This app item is used for the following purposes:

- Generate an app token used by the ArcGIS Maps Locate workflow and ArcGIS Location field
- Generate an app token to allow guest users to view the map web part
- The app item's ID is used for OAuth 2.0 authentication for named users

When the ArcGIS credentials are set, users can view the map as guests, without needing to sign in to ArcGIS. Guest users have limited access to the map; in addition to viewing publicly shared SharePoint content and publicly shared ArcGIS content that has been added to the map, guest users can pan and zoom the map, turn layers on and off, and view pop-ups, but most functionality is restricted to viewing only. In addition, the ArcGIS Maps Locate workflow is limited to using only public geocoders and publicly shared feature layers. To fully interact with the map, users must sign in to ArcGIS using a named user account.

After you complete the app configuration, users can sign in as the named user in the ArcGIS Maps web part, using their own user credentials. Any credits consumed by the app (for example, driving routes, infographics, etc.) are charged to the user's account.

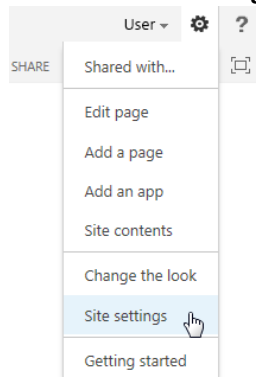
Important: ArcGIS Maps for SharePoint supports different authentication methods; these procedures describe how to configure the app with the default OAuth 2.0 authentication. For other authentication methods, see [Configure enterprise logins](#).

Access ArcGIS Maps for SharePoint app configuration


Prerequisite:

You must be a SharePoint site collection administrator to access the ArcGIS Maps for SharePoint administration menu and configure the app.

1. Browse to the **Site Settings** page of the site.



2. Under the **ArcGIS Maps for SharePoint Administration** heading, click **Configuration Settings**.

 **Note:** If you receive an "Access denied" message when you open the App Configuration page, you do not have site collection administrator privileges. Only site collection administrators can perform the app configuration.

Generate an encryption key

Before you can configure ArcGIS Maps for SharePoint, you must generate an encryption key. This key ensures that the ArcGIS credentials used to configure the app are stored securely.

By default, ArcGIS Maps for SharePoint uses the Secure Store Service (SSS) to secure ArcGIS credentials. An encryption key is generated within a target application and stored in SSS, and all site collections will use this encryption key to secure ArcGIS credentials. If

you don't want to use SSS, you can choose to manually generate an encryption key after installation. Using SSS is the recommended setting for enhanced security.

During installation, a target application is automatically created with the ID "arcgismapsforsharepoint". SharePoint farm administrators can manually create other target applications for this too if desired.

Create an SSS target application (optional)

During installation, if you choose to use Secure Store Service to secure ArcGIS credentials, ArcGIS Maps for SharePoint automatically creates a target application in the Secure Store Service, with the ID "arcgismapsforsharepoint". All site collections are configured by default to use this target application.

In some cases, the SharePoint farm administrator may want to manually create a different target application. Some reasons for creating a manual target application include:

- The site collection administrator wants to use a dedicated target application for increased security.
- The ArcGIS Maps for SharePoint installer failed to properly create the default target application.

To manually create an SSS target application, do the following:

1. On the Central Administration home page, in the **Application Management** section, click **Manage service applications**.
2. Click the **Secure store service application**.
3. Click **New** to create a new target application.

4. Type a string in the **Target Application ID** field.
This value will be required during ArcGIS Maps for SharePoint configuration.
5. Provide a valid contact email address and set the **Target Application Type** to **Group**.
6. Click **Next**.
7. Remove the default username and password fields and click **Add field**. Type a field name and set the field type to **Key**. Check the **Masked** check box and click **Next** to continue.

8. Set the web application pool account to be both administrator and member.
The application pool runs the web application that owns the SharePoint web application in which ArcGIS Maps for SharePoint site collection is activated.

Create New Secure Store Target Application

Target Application Administrators
The list of users who have access to manage the Target Application settings. The farm administrator will have access by default.

M4SP_SP_Pool

Users who have Full Control or All Target Applications privileges can administer this Secure Store Target Application.

Members
The users and groups that are mapped to the credentials defined for this Target Application.

M4SP_SP_Pool

After creating the new application, you can add credential mappings by using the "Set Credentials" button for the selected application. You can edit the settings of this application later at the Manage Target Applications page.

OK Cancel

Note: Be sure to add the web application pool identity user to the member group, not the SharePoint site collection administrator; otherwise, you may receive an Access Denied error.

9. Click **OK** to finish creating the target application.
10. After the target application is created, select it and click **Set** in the Central Administration application's ribbon to set the encryption key for ArcGIS Maps for SharePoint.
11. In the **Set credentials** window, type a value in **ekey** field, then type it again to confirm. You do not need to memorize this key.

Set Credentials for Secure Store Target Application (Group)

Warning: this page is not encrypted for secure communication. User names, passwords, and any other information will be sent in clear text. For more information, contact your administrator.

Target Application Name: arcgismapsforsharepoint

Target Application ID: arcgismapsforsharepoint

Credential Owners: M4SP_SP_Pool

Name	Value
ekey	

Confirm ekey

Note: Once the credentials are set, they cannot be retrieved by the administrator. Any existing credentials for this credential owner will be overwritten.

OK Cancel

12. Click **OK** to finish.

Use Secure Store Service

If you chose **Use SSS** during installation, the ArcGIS Maps App Configuration page shows the target application ID that was automatically created during installation (arcgismapsforsharepoint). The encryption key is saved in this target application and there is no need to manually create one. All related site collections will use this key to secure the ArcGIS credentials used to access content hosted on ArcGIS Online or ArcGIS Enterprise.


ArcGIS Maps App Configuration

Warning: This page is not encrypted for secure communication. All information will be sent in clear text. For more information, contact your administrator.

Encryption key
Protects the ArcGIS login credentials for this site collection.

☒ Use Secure Store Service (SSS) to encrypt credentials

Target application *

arcgismapsforsharepoint 

Set Test connection


☐ Generate your own encryption key

1. By default, ArcGIS Maps for SharePoint automatically creates a target application in the Secure Store Service, with the ID "arcgismapsforsharepoint". If your SharePoint farm administrator has manually generated a different target application ID, type it in the **Target application** field and click **Test connection**.

A green check mark beside the field indicates that the connection is working.

If the target application is not found, a red X and error message appear. Ask your SharePoint farm administrator to verify the target application ID and try again.

2. When the connection is valid, click **Set** to start using the encryption key stored in the target application.

 **Note:** In case of a security breach, the SharePoint farm administrator can use the Central Administration application to reset the encryption key stored in the target application. This will invalidate all existing ArcGIS credentials that were secured by the target application and all site administrators will need to reconfigure ArcGIS credentials for their own site collections.

Manually generate an encryption key

If you chose **Do not use SSS** during installation, you'll need to manually generate an encryption key for this site collection. This encryption key is stored within the site collection and is not as secure as using SSS. You should use this option only if SSS is not available.

1. In the **Encryption key** section of the configuration page, click the **Generate your own encryption key** radio button.

ArcGIS Maps App Configuration

Warning: This page is not encrypted for secure communication. All information will be sent in clear text. For more information, contact your administrator.

Encryption key
Protects the ArcGIS login credentials for this site collection.

☐ Use Secure Store Service (SSS) to encrypt credentials

☒ Generate your own encryption key

The encryption key is generated based on the passphrase you enter. The passphrase will not be stored; keep a record of it in a safe location

Passphrase*

Re-enter Passphrase*

Create key

2. Type a passphrase in the **Passphrase** field.
The passphrase must contain at least 6 characters, of which at least one must be a numerical digit, and one uppercase character (for example, passWord1).

Important: Both the passphrase used to generate the encryption key and the username and password for the ArcGIS account are case-sensitive.


3. Retype the passphrase to confirm.
4. Click **Create key**.
A message appears, stating that the encryption key was successfully generated.

5. To generate a new key, click **Refresh key**.
6. Type the passphrase you entered previously and click **Refresh**.
The encrypted credentials are re-encrypted using the new key and the old key is discarded.
7. To generate a new key with a different passphrase, click **New key** and follow the steps outlined at the beginning of this workflow.

After you generate an encryption key, you can securely set the remaining app configuration settings.

Set the ArcGIS connection URL

1. In the **ArcGIS or Portal URL** field, type the URL for your ArcGIS Online organization or ArcGIS Enterprise instance.
2. If you are connecting directly to ArcGIS Online (meaning your instance has no subdomain), leave the default setting of `http://www.arcgis.com`.

 **Note:** To configure ArcGIS Maps for SharePoint to work with SSL-secured sites, change the **ArcGISConnection** URL from HTTP to HTTPS.

If you are working in disconnected environment, such as when your internal network is behind a firewall, set this value to point to your ArcGIS Enterprise instance. For example: `https://<portalname>\<instance>`.

3. Click **Test connection**.
A green check mark beside the field indicates that the connection is valid.
If the URL is not found, a red X and error message appear. Verify the URL and try again.
4. When the connection is valid, click **Set** to confirm the URL.


Set the ArcGIS credentials

ArcGIS Maps for SharePoint uses a single ArcGIS named user account to create an app item in ArcGIS Online or ArcGIS Enterprise. This app item is used to generate an app token used to run the ArcGIS Maps Locate workflow and charge credits consumed by the ArcGIS Maps for SharePoint workflows (Locate and Connect), and by the ArcGIS Location field. It also uses this account to enable limited use for guest access.

The app item is protected in ArcGIS Online or ArcGIS Enterprise.

1. In the **ArcGIS credentials** section, click **Set**.
2. Under the App Configuration heading, click **Set Credentials**.
3. Type the username and password for the ArcGIS named user account.
Both the username and password are case-sensitive.
4. Click **OK**.
The App Configuration pane shows the user account currently specified.
5. To change the ArcGIS credentials to use a different account click **Delete**.
The ArcGIS sign in window opens.
6. Sign in using the credentials used when the account was initially set and click **Sign in**.
The saved ArcGIS are purged and the app item is removed from the ArcGIS Maps configuration.
7. Click **Set** to specify a new ArcGIS named user account.
8. To enable guest access by default, check the **Start session with guest signed in by default** check box.
If this option is unchecked, users will see a message on the map offering a choice of signing in to ArcGIS or continuing as a guest. If this option is checked, users automatically access the map as guests. Guests can click Sign in above the map title bar at any time to sign in with their named user account.

Guest users have limited access to the ArcGIS Maps Web Part. In addition to viewing SharePoint content and publicly shared ArcGIS content that has been added to the map, guest users can pan and zoom the map, turn layers on and off, and view pop-ups, but most functionality is restricted to viewing only. To fully interact with the map, users must sign in to ArcGIS using a named user account

 **Note:** All map authoring tasks and activities that consume ArcGIS credits, such as adding maps to SharePoint pages, adding ArcGIS layers to those maps, geoenabling SharePoint lists, adding geoenabled layers to maps and layers, changing styling options, and so on, require a named user account.

Set Esri User Experience Improvement options

Optionally participate in the Esri User Experience Improvement (EUEI) program. Check this box to provide anonymous information about your system and how you use ArcGIS Maps for SharePoint. Clear the box to opt out of the program. For more information, see [Esri User Experience Improvement](#).

Troubleshoot App configuration

- If you're using Internet Explorer and the **Sign In** window appears but is blank, try the following:
 - On the Internet Explorer **Internet Options** dialog box, click the **Security** tab and choose **Trusted Sites**.
 - Check **Enable Protected Mode**.
 - Click the **Sites** button and add `https://*.arcgis.com` or your ArcGIS Enterprise portal address.
 - Restart Internet Explorer.
- If you have a ArcGIS Enterprise configured with SAML, you'll need to sign into **App Configuration** using a built-in user, change the credentials, and sign in using the SAML username and password.
- Use Firefox or Chrome when setting the **App Configuration** credentials on SharePoint 2010 for IWA, PKI, or LDAP portals. When using Firefox, first navigate to the portal itself and make sure to add the exception to trust the portal.
- If you receive the following message: "Unable to obtain master key," follow the steps below to generate a key within the SharePoint Secure Store service:
 - On the **Central Administration** home page, in the **Application Management** section, click **Manage service applications**.
 - Click the **Secure Store Service** link.
 - Click **Generate New Key**.

Configure enterprise logins

You can specify your ArcGIS organization's subdomain to enable enterprise logins across your SharePoint site collection. Configuring enterprise logins allows members of your organization to sign in to ArcGIS Maps for SharePoint using the same credentials they use to access your enterprise information systems. The advantage of setting up enterprise logins is that members do not need to create additional logins within the ArcGIS platform; instead, they can use the account that is already set up within their enterprise system.

Prerequisite:

You must be a SharePoint site collection administrator to access the ArcGIS Maps for SharePoint administration menu and configure the app.

To configure enterprise login, do the following:

1. Navigate to the **Site Settings** page of the site.
2. Under the **ArcGIS Maps for SharePoint Administration** heading, click **App Configuration**.
The ArcGIS Maps for SharePoint configuration page opens.
3. Edit the value of the **ArcGIS or Portal URL** field to point to the subdomain of your ArcGIS Enterprise portal instance or ArcGIS Online organization.
For example: `https://<mysubdomain>.maps.arcgis.com`
Enterprise login configuration is complete.
4. To disable enterprise login and revert to the default ArcGIS sign in method, reset the **ArcGIS or Portal URL** to `https://www.arcgis.com`.

Frequently asked questions

- [What are the licensing requirements for ArcGIS Maps for SharePoint?](#)
- [When running the ArcGIS Maps Locate workflow, the fields do not appear on the Choose the columns with location information page.](#)
- [The ArcGIS Maps Locate workflow does not complete successfully when using a custom geocoder and ArcGIS Enterprise.](#)
- [How can I use Esri GeoEnrichment services?](#)
- [How do I connect to services in a firewalled environment?](#)
- [Why does ArcGIS Maps for SharePoint store properties in configuration lists?](#)
- [I created a new site collection within a web application that has ArcGIS Maps for SharePoint, but the components and configuration lists are not available.](#)
- [Can I use existing lists with latitude-longitude data?](#)
- [How do I import Excel spreadsheets for use with ArcGIS Maps for SharePoint?](#)
- [Error message: Your browser configuration does not support sending secured content. Your sign-in was canceled to ensure password safety.](#)
- [In SharePoint 2010, you receive one of the following error messages: An invalid ArcGIS Portal URL was entered. Please verify the URL.Unable to access the authentication service.Your Workflow failed: The underlying connection was closed: Could not establish trust relationship for the SSL/TLS secure channel.Your Workflow failed: Generating request token failed. System.Exception: Generating token request failed.](#)
- [Users who are not signed in to a SharePoint site see a 403 \(Forbidden\) error when trying to view a page that contains an ArcGIS Maps web part.](#)
- [Error message: Could not load file or assembly, Microsoft.SqlServer.Types, Version=11.0.0.0, Culture=neutral, PublicKeyToken=89845dcd8080cc91, or one of its dependencies.](#)

What are the licensing requirements for ArcGIS Maps for SharePoint?

ArcGIS Maps for SharePoint requires an ArcGIS Online organization plan or ArcGIS Enterprise. All users are required to have a Named User license to work with ArcGIS and interact with the map.

While users can view the map as guests without needing to sign in, these users have limited access to the map: in addition to viewing publicly shared ArcGIS Maps for SharePoint content and publicly shared ArcGIS content, guest users can pan and zoom the map, turn layers on and off, and view pop-ups, but most functionality is restricted to viewing only.

When running the ArcGIS Maps Locate workflow, the fields do not appear on the Choose the columns with location information page.

This issue can occur with Portal for ArcGIS 10.2.1 through 10.4.1 on Linux servers. If this occurs, ensure that the geocoding service used is shared with everyone.

The ArcGIS Maps Locate workflow does not complete successfully when using a custom geocoder and ArcGIS Enterprise.

To successfully run the ArcGIS Maps Locate workflow in Portal for ArcGIS 10.3 through 10.4.1 or in ArcGIS Enterprise 10.5 and later, configure the geocoder service according to the [If the service is not from a federated server and requires credentials](#) section in the [Configure utility services](#) topic in your ArcGIS Enterprise documentation.

How can I use Esri GeoEnrichment services?

Esri [GeoEnrichment services](#) provide demographic and contextual data for features in your map. GeoEnrichment requires a subscription to ArcGIS Online or configuration of GeoEnrichment on your installation of ArcGIS Enterprise.

How do I connect to services in a firewalled environment?

See [Configure enterprise logins](#).

Why does ArcGIS Maps for SharePoint store properties in configuration lists?

Some shared properties used across ArcGIS Maps for SharePoint components are stored in lists at the site collection and site level to provide flexibility and ease of use in configuration. Exposing the properties in lists accommodates scenarios where it is appropriate to allow nonadministrative users to configure these properties and scenarios where these should only be editable by administrators. Users of ArcGIS Maps for SharePoint components do not need edit rights to the configuration lists. Additionally, using lists for configuration provides an intuitive, easy-to-use user interface (UI) that will be familiar to most SharePoint users.

I created a new site collection within a web application that has ArcGIS Maps for SharePoint, but the components and configuration lists are not available.

ArcGIS Maps for SharePoint is not automatically activated when you create a new site collection. For new site collections, browse to the **Site Settings** page, click **Site Collection Features**, and activate the ArcGIS Maps for SharePoint feature. This makes all the functionality included with ArcGIS Maps for SharePoint available on the site collection.

Can I use existing lists with latitude-longitude data?

SharePoint lists can contain numerical columns that store the geographic location of each item as latitude and longitude coordinates. To geocode such lists so they can display on the ArcGIS Maps web part, add the ArcGIS Location field to the list and specify the latitude-longitude fields when setting the location field's properties.

How do I import Excel spreadsheets for use with ArcGIS Maps for SharePoint?

See [Prepare SharePoint data](#) for information on importing Excel spreadsheets to SharePoint.

Error message: Your browser configuration does not support sending secured content. Your sign-in was canceled to ensure password safety.


This happens when using an older version of Internet Explorer (IE8) that uses a proxy page hosted through http (as is done with ArcGIS Maps for SharePoint). ArcGIS Maps for SharePoint provides a configuration setting, **AllowSignInOverHttpProxy**, which is set to **False** by default. This setting prevents the user's password from being transmitted over http, which is not secure, instead of https. This setting can be changed to **True** if it is acceptable to send a password over http instead of https. To access this page, type the following URL in your browser's address field: <your site collection root>/lists/esri maps configuration settings.

In SharePoint 2010, you receive one of the following error messages:

- An invalid ArcGIS Portal URL was entered. Please verify the URL.
- Unable to access the authentication service.
- Your Workflow failed: The underlying connection was closed: Could not establish trust relationship for the SSL/TLS secure channel.
- Your Workflow failed: Generating request token failed. System.Exception: Generating token request failed.

This error message is specific to SharePoint 2010 and is the result of a certificate error in SharePoint. To resolve this error message, download the certificate and add it to the SharePoint server using the steps below:


Download the certificate

 **Note:** You may need elevated permissions (Run As Administrator) to copy the certificate.

1. Browse to <https://www.arcgis.com> (or the portal you are using). Ensure you use https.
2. Click the **Security Report** icon (padlock) in the URL address bar.
3. Click **View certificates** on the **Website Identification** window that appears.
4. Click the **Certification Path** tab on the **Certificates** window.
5. Select **DigiCert** and click **View certificate**.
Important: Be sure to select the root certificate (DigiCert), not one of the sub-entries; you need the entire contents of the package.
6. Click the **Details** tab on the **Certificates** window.
7. Click **Copy to File** to start the **Certificate Export Wizard**.
8. On the first page of the **Certificate Export Wizard**, click **Next**.
9. Select the **Base-64 encoded X.509 (.cer)** option and click **Next**.
10. Save the file to a known location on disk and click **Next** on the **Certificate Export Wizard**.
11. Click **Finish**. A message appears stating that the export was successful.

Import the certificate to SharePoint


1. Open SharePoint Central Administration in a browser, with elevated permissions (Run As Administrator).
2. Click **Security** and click **Manage Trust** under the **General Security** heading.
3. Click **New**, specify a name, and browse to the root certificate you saved in the previous steps.

 **Note:** Do not delete the existing local certificate.

4. Click **OK**. The certificate is now added to the SharePoint server instance.

Users who are not signed in to a SharePoint site see a 403 (Forbidden) error when trying to view a page that contains an ArcGIS Maps web part.

If you have a public-facing site collection that doesn't require users to sign in, if pages within that site collection contain ArcGIS Maps web parts, you must enable anonymous access for the SharePoint site, and enable ArcGIS Maps guest access for users to be able to view the map.

 **Tip:** As a best practice, it is recommended that you use a dedicated SharePoint web application to serve public-facing site collections.

To enable anonymous access in your SharePoint site collection, do the following:

- Enable SharePoint anonymous access on the web application level
- Enable SharePoint anonymous access on the site collection level

Enable SharePoint anonymous access on the web application level

You must be a SharePoint farm administrator to complete these tasks.

1. From SharePoint Central Administration, under **Application Management**, click **Manage Web Applications**. The **Web Applications** page opens, listing available applications.
2. From the list, click the web application for which you want to enable anonymous access and, on the ribbon, click **Authentication Providers**. A window appears, showing the authentication providers available per zone. In a basic scenario, only the Default zone is listed.
3. Click **Default**. The **Edit Authentication** window opens.
4. Check the **Enable Anonymous Access** checkbox and clear the **Require Use Remote Interfaces permissions** box if it is checked.
5. Scroll to the bottom of the window and click **Save**. Close the Edit Authentication window and exit SharePoint Central Administration.
6. Open SharePoint Management Shell with elevated permissions (Run as Administrator).
7. To allow users to add SharePoint data to an ArcGIS Maps web part, run the following script, replacing the values in brackets with the URL of your web application:

```
$webapp = Get-SPWebApplication <"http://myWebApplication">
$webapp.ClientCallableSettings.AnonymousRestrictedTypes.Remove([microsoft.sharepoint.spweb], "GetSebwebsForCurrentUser")
$webapp.ClientCallableSettings.AnonymousRestrictedTypes.Remove([microsoft.sharepoint.splist], "GetItems")
$webapp.ClientCallableSettings.AnonymousRestrictedTypes.Remove([microsoft.sharepoint.splist], "GetChanges")
$webapp.Update()
```

Enable SharePoint anonymous access on the site collection level

You must be a SharePoint site collection administrator to complete these tasks.

1. Navigate to one of the site collections you created under the configured web application and open the **Site Settings** page.
- 2.
3. Under the Users and Permissions section, click **Site permissions**.
4. From the ribbon, click **Anonymous Access**. The Anonymous Access configuration window opens.
5. From the **Anonymous users can access** options, choose **Entire Web Site**.
6. Clear the **Require Use Remote Interfaces permission** check box and click **OK**. A new group named **Anonymous Users** appears on the site permissions list. After these configurations are complete, anonymous users that are unknown to both SharePoint and ArcGIS will be able to view ArcGIS Maps.

Error message: Could not load file or assembly, Microsoft.SqlServer.Types, Version=11.0.0.0, Culture=neutral, PublicKeyToken=89845dcd8080cc91, or one of its dependencies.

When running the workflow to connect to external data, you may encounter the error message, Could not load file or assembly Microsoft.SqlServer.Types, Version=11.0.0.0, Culture=neutral, PublicKeyToken=89845dcd8080cc91, or one of its dependencies. This error message occurs on systems with SQL Server 2008, which does not always provide version 11 of the Microsoft.SqlServer.Types assembly. This error message should only occur with SharePoint 2010. Follow the steps below to install version 11 of the Microsoft.SqlServer.Types assembly to the Global Assembly Cache (GAC) of the SharePoint server machine.

1. Download the Microsoft SQL Server 2012 SP1 Feature Pack from <http://www.microsoft.com/en-us/download/details.aspx?id=35580>.

2. When prompted to choose the download, select `ENU\x86\SQLSysClrTypes.msi` or `ENU\x64\SQLSysClrTypes.msi`, depending on whether the server is 32 bit (x86) or 64 bit (x64).
3. Save the file to the server machine and run it.
4. Restart IIS.

Esri User Experience Improvement program

Esri works continuously to improve its products and one of the best ways to find out what needs improvement is through customer feedback. The Esri User Experience Improvement program (EUEI) allows you to contribute to the design and development of ArcGIS Maps for SharePoint. The program collects information about your computer hardware and how you use ArcGIS Maps for SharePoint, without interrupting your work. The program is completely voluntary and anonymous; none of the information collected is used to identify or contact you.

The following questions and answers provide detailed information about the program.

- [What happens when I participate in the EUEI program?](#)
- [What kind of data is collected?](#)
- [Does Esri collect information about other software on my system?](#)
- [Can I opt out of the program?](#)
- [Will Esri contact me about the program?](#)
- [What is the size of the generated report?](#)
- [How is my privacy protected if I choose to participate in the program?](#)

What happens when I participate in the EUEI program?

Esri collects information about your computer and how you are using ArcGIS Maps for SharePoint. This information is stored in an encoded file that is occasionally sent to Esri while you are working. The collection and submission method is completely unobtrusive and has no impact on your use of the software.

What kind of data is collected?

Some examples of the data are hardware information, such as the version of your operating system, information about your graphics card, the commands and tools you are using, how long you use the application, error report information, and so on. The EUEI program does not collect any personal information related to you or your organization, such as your IP address, login information, or specifics about any data you may be using.

Does Esri collect information about other software on my system?

No, the program does not actively collect any information outside ArcGIS Maps for SharePoint. However, some general information may be collected from third-party software that extends ArcGIS.

Can I opt out of the program?

Yes, you can opt in or out at any time by changing the option in the **ArcGIS Maps App Configuration** pane. For more information, see [Change Esri User Experience Improvement settings](#).

Will Esri contact me about the program?

No. The EUEI program does not collect any personal or contact information that can be linked back to an individual user. The program is completely anonymous.

What is the size of the generated report?

The EUEI program reports are generally small, averaging a few megabytes or less.

How is my privacy protected if I choose to participate in the program?

Esri respects your privacy and does not gather any personal information about you or your system. To properly aggregate and prioritize the data, the program creates a globally unique identifier (GUID) that is stored on your computer. This ID allows the program to distinguish between one hundred users providing feedback or one user who provides feedback a hundred times. The GUID is a randomly generated number and is not used to identify you.

For more information, see the [Esri Privacy Policy](#).

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