Salesforce Files Connect Implementation Guide

Salesforce, Spring '25

'25

CONTENTS

FILES CONNECT FOR ADMINISTRATORS

The Files Connect Setup Process

The setup process for Files Connect varies by external data source.

💡 **Tip:** For detailed visuals, tips, and troubleshooting, see the Files Connect *Setup Guide* and *User Guide*.

First, enable Files Connect, and let users access related external data sources

- Enable Salesforce Files Connect for Your Organization.
- Let Users and Administrators Access Files Connect Data Sources.

For cloud-based data sources, create an authentication provider, and then define the source

If you use Google Drive:

- Create an Authentication Provider for Google Drive.
- Define an External Data Source for Google Drive.

If you use Quip:

- Set Up Salesforce Anywhere Advanced.

If you use Microsoft's cloud systems:

- Create an Authentication Provider for SharePoint Online Using Azure (Preferred Method).
- Define an External Data Source for SharePoint Online or OneDrive for Business.

If you use Box:

- Create an Authentication Provider for Box.
- Define an External Data Source for Box.

Include the external data in global search

To let users access external data in global Salesforce searches, you'll need to create an external object and give users access to its fields. This is an optional step, but highly recommended to best integrate external data with Salesforce.

For per-user data sources, have users authenticate in Salesforce

If you specified per-user authentication for a data source and exposed it through profiles or permission sets, ask authorized users to provide their data source credentials.

Start accessing, sharing, and searching external files!

Now users can access and share external files via the Files tab and feed, and search for them right alongside their Salesforce content.

Enable Salesforce Files Connect for Your Organization

Let users search and share files from external systems like Google Drive and SharePoint.

1. From Setup, enter `Files Connect` in the `Quick Find` box, and then select **Files Connect**.
2. Click **Edit**, and then select **Enable Files Connect**.
3. For File Sharing, select one of the following:
   - **Copy** — stores a copy of external files in Salesforce. If files are shared with a Chatter group, all group members can access the files, even if they lack access to the external system.
   - **Reference** — points to external files stored outside Salesforce. No file previews are available, and file downloads require user access to the external system. (Users must enter credentials for the system in the Authentication Settings for External Systems section of personal setup).

   Choose Copy mode if your organization shares files with external customers or partners. Choose Reference mode to reflect access restrictions from the external system in Salesforce.

   Regardless of sharing mode, files in Salesforce don't reflect file revisions in external systems. However, Reference mode points to the latest versions in those systems.

EDITIONS

Available in: both Salesforce Classic (not available in all orgs) and Lightning Experience

Files Connect for cloud-based external data sources is available in: **Professional**, **Enterprise**, **Performance**, **Unlimited**, and **Developer** Editions

USER PERMISSIONS

To enable Salesforce Files Connect:
- Customize Application

Let Users and Administrators Access Files Connect Data Sources

After you enable Files Connect, give users and administrators permission to access specific external data sources from Salesforce.

> 💡 **Tip:** You can provide access to data sources through permission sets or custom profiles. However, permission sets let you more quickly adjust access for several types of users. Regardless of which method you choose, be sure to give administrators access so they can configure data sources.

1. From Setup, enter `Permission Sets` in the `Quick Find` box, then select **Permission Sets** or enter `Profiles` in the `Quick Find` box, then select **Profiles**.
2. Create a permission set or profile, or click an existing one.

   If you use a permission set, User License must be set to the default option, "None."
3. For a permission set, click **System Permissions**, then click **Edit**.

   For a profile, click **Edit**, and scroll down to the Administrative Permissions section.
4. To access cloud-based data sources, select **Files Connect Cloud**, and then click **Save**.
5. For a permission set, click **Manage Assignments** in the toolbar at the top of the page. Then click **Add Assignments**, select users for the permission set, and click **Assign**.

EDITIONS

Available in: both Salesforce Classic (not available in all orgs) and Lightning Experience

Files Connect for cloud-based external data sources is available in: **Professional**, **Enterprise**, **Performance**, **Unlimited**, and **Developer** Editions

USER PERMISSIONS

To set permissions:
- Customize Application

> ⊗ **Important:** Include any administrators who need to configure external data sources.

6. If you haven't already, define the external data sources for your organization:

   - Define an External Data Source for SharePoint Online or OneDrive for Business
   - Define an External Data Source for Google Drive
   - Define an External Data Source for Box

   If you select an identity type of Named Principal for the data source, skip the following steps. But if you select Per User, read on.

7. In Setup, return to the detail page for the permission set or profile. Then do either of the following:

   - For a permission set, in the Apps section, click **External Data Source Access**.
   - For a profile, go to the Enabled External Data Source Access related list.

8. Click **Edit**, add specific data sources to the Enabled External Data Sources list, and click **Save**.

   (Users enter their credentials when they first access external data sources, or from their personal settings on the Authenticated Settings for External Systems page.)

Create an Authentication Provider for Box

To use Box as an external data source, first create an authentication provider for it in Salesforce.

For detailed visuals, tips, and troubleshooting, see the Files Connect *Setup Guide* and *User Guide*.

1. In Setup, enter `Auth. Providers` in the `Quick Find` box, then select **Auth. Providers**.
2. Click **New**.
3. For `Provider Type`, select **OpenID Connect**, and then set the following options:

   - `Name` — Enter the name you want to appear in Salesforce.
   - `URL Suffix` — Enter a suffix you want to appear at the end of the URL path. By default, the suffix reflects the Name entry.
   - `Consumer Key` — Enter any placeholder value. You fill this in after you create the Box application in Step 5.
   - `Consumer Secret` — Enter any placeholder value. You fill this in after you create the Box application in Step 5.
   - `Authorize Endpoint URL` — Enter `https://account.box.com/api/oauth2/authorize`
   - `Token Endpoint URL` — Enter `https://api.box.com/oauth2/token`
   - `User Info Endpoint URL` — Leave empty.
   - `Default Scopes` — Leave empty.

4. Click **Save**. Then, at the bottom of the Auth. Provider detail page, copy the `Callback URL` entry to a text file. (Use this when creating the Box application.)
5. After you create the Box application, edit the Salesforce Auth. Provider and replace the following values with those from the Box app.

   - `Consumer.Key`: the Box client_id.
   - `Consumer.Secret`: the Box client_secret.

EDITIONS

Available in: Salesforce Classic (not available in all orgs)

Available in: **Professional**, **Enterprise**, **Performance**, **Unlimited**, and **Developer** Editions

USER PERMISSIONS

To create authentication providers:
- Customize Application

  AND

  Manage Auth. Providers

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6. Click **Save**.

   Your Box authentication provider is now ready to use. Next, you can create a Box application.

7. Using the credentials of your Box admin account, log in to `https://app.box.com/developers/services`.

8. Click **Create a Box Application**.

9. Enter a project name, select Box content, and click **Create Application**.

10. Click **Configure your application**.

11. In the **redirect_uri** field, paste the Salesforce callback URL specified in the OAuth2 specification.

12. Copy the **client_id** and **client_secret** values to a text file. Enter these values at step 6 of Create an Authentication Provider in Salesforce.

Define an External Data Source for Box

Let users access their Box content from Files home, feed posts, and search.

1. From Setup in Salesforce Classic, enter `External Data Sources` in the `Quick Find` box, then select **External Data Sources**.

2. Click **New External Data Source**. Then set the following options.

Field	Description
Label	A user-friendly name for the data source displayed in the Salesforce user interface.
Name	A unique identifier used to refer to this external data source definition through the API. The **Name** field can contain only underscores and alphanumeric characters. It must be unique, begin with a letter, not include spaces, not end with an underscore, and not contain two consecutive underscores.
Type	Choose **Files Connect: Box**
Identity Type	The identity type used to authenticate to the external data source. Select **Per User** to require separate credentials for each user who accesses the data source. (Administrators must enable the data source for specific permission sets and profiles. Users then enter their credentials when first accessing the data source.)
Authentication Protocol	The protocol used to access Box. Select **OAuth 2.0**.
Authentication Provider	Enter the Box Authentication Provider.

Field	Description
Scope	Leave blank.
Start Authentication Flow on Save	Select to immediately test the settings above.

Files from a Box data source can't be previewed in the file preview player.

Create an Authentication Provider for Google Drive

To use Google Drive as an external data source, create an authentication provider for it in Salesforce. The process begins with creating a related project in the Google Developers console.

For detailed visuals, tips, and troubleshooting, see the Files Connect *Setup Guide* and *User Guide*.

1. Using the credentials of your Google App for Work admin account, log in to https://console.cloud.google.com.

2. In the title bar, expand **Select Project** and click **Create Project**.

3. Enter a project name and location, and click **Create**.

4. In the project dashboard, click the menu icon in the upper left, and then click **APIs & Services**.

5. In the API manager, go to the Library tab and search for `Google Drive API`.

6. In the search results, click **Google Drive API**, and then click **Enable API**.

7. In the menu on the left, click **Credentials**.

8. In the OAuth Consent Screen tab, enter a valid email address and application name, and click **Save**.

9. In the Credentials tab, click **Add credentials**, and select `OAuth client ID`.

10. Select `Web application`, and click **Create**.

11. Copy the client ID and client secret values to a text file.
    Use these values next, when you create an authentication provider in Salesforce.

12. In Setup, enter `Auth. Providers` in the `Quick Find` box, then select **Auth. Providers**.

13. Click **New**.

14. For `Provider Type`, select **OpenID Connect**, and then set the following options:

    *   `Name` — Enter the name you want to appear in Salesforce.

    *   `URL Suffix` — Enter the suffix at the end of the URL path. For example, in the path, `https://login.salesforce.com/services/authcallback/00Dx00000000001/MyGoogleProvider`, the suffix is "MyGoogleProvider"

    *   `Consumer Key` — Enter the client ID you copied when creating the Google project.

    *   `Consumer Secret` — Enter the client secret you copied when creating the Google project.

    *   `Authorize Endpoint URL` —Enter `https://accounts.google.com/o/oauth2/auth?access_type=offline&approval_prompt=force`

    *   `Token Endpoint URL` — Enter `https://accounts.google.com/o/oauth2/token`

    *   `Default Scopes` —Enter `openid email profile https://www.googleapis.com/auth/drive`

15. Click **Save**.

16. At the bottom of the Auth. Provider detail page, copy the `Callback URL` entry to a text file. Use this URL when you edit the Google project next.

17. In the API Manager, in the menu on the left, click **Credentials**.

18. Click the previously created web app.

19. In the Authorized Redirect URIs section, add the Callback URL you copied when creating the authentication provider in Salesforce, and click **Save**.

Define an External Data Source for Google Drive

Let Chatter users access their Google Drive content from the Files tab, feed posts, and search. Salesforce supports Google documents, spreadsheets, presentations, and drawings.

1. From Setup, enter `External Data Sources` in the `Quick Find` box, then select **External Data Sources**.

2. Click **New External Data Source**. Then set the following options.

Field	Description
Label	A user-friendly name for the data source displayed in the Salesforce user interface.
Name	A unique identifier used to refer to this external data source definition through the API. The **Name** field can contain only underscores and alphanumeric characters. It must be unique, begin with a letter, not include spaces, not end with an underscore, and not contain two consecutive underscores.
Type	Choose **Files Connect: Google Drive**
Identity Type	The identity type used to authenticate to the external data source.
	Select **Per User** to require separate credentials for each user who accesses the data source. (Administrators must enable the data source for specific permission sets and profiles. Users then enter their credentials when first accessing the data source..)
	Select **Named Principal** to use the same set of credentials for every user who accesses the data source from Salesforce.
Authentication Protocol	The protocol used to access Google Drive.
	Select **OAuth 2.0**.

Field	Description
Authentication Provider	Enter the Google Drive authentication provider.
Scope	Leave blank.
Start Authentication Flow on Save	Select to immediately test the settings above.

Create an Authentication Provider for SharePoint Online Using Azure (Preferred Method)

To use a Microsoft cloud-based external data source, create an authentication provider for it in Salesforce and register that provider in a Microsoft Azure web application.

💡 **Tip:** For detailed visuals, tips, and troubleshooting, see the Files Connect *Setup Guide* and *User Guide*.

The high-level steps to fully configure an authentication provider include

- Creating an Authentication Provider Using Placeholder Values.
- Registering a Web Application in the Azure Management Console. If you don't have access to the Azure Management Console, or to authenticate to OneDrive for Business, follow these instructions to register your app in Office 365: Create an Authentication Provider for SharePoint Online or OneDrive for Business Using Office 365 (Alternate Method).
- Configuring the Authentication Provider in Salesforce

Create an Authentication Provider Using Placeholder Values

The authentication provider has a redirect URl so you can register your app.

1. In Setup, enter `Auth. Providers` in the `Quick Find` box, then select **Auth. Providers**.

2. Click **New**.

3. For `Provider Type`, select **OpenID Connect**, and then set the following options.
   - `Name` — Enter the name you want to appear in Salesforce.
   - `URL Suffix` — Enter a suffix you want to appear at the end of the URL path. By default, the suffix reflects the Name entry.
   - `Consumer Key` — Enter a placeholder value.
   - `Consumer Secret` — Enter a placeholder value.
   - `Authorize Endpoint URL` — Enter a placeholder that begins with *https*.
   - `Token Endpoint URL` — Enter a placeholder that begins with *https*.
   - `Default Scopes` — Leave empty.

4. Click **Save**. Then, at the bottom of the Auth. Provider detail page, copy the `Callback URL` entry to a text file.

Register a Web Application in the Azure Management Console

1. Log in to Azure at `https://portal.azure.com/`. (If you have any trouble, connect to Azure with your browser in "incognito" mode.)

2. Under **Azure Services**, select **Azure Active Directory**.

3. Select your active directory. Skip this step if you only have one.

4. On the Active Directory page, select **App registrations** from the left navigation menu.

5. In the header menu, click **New Registration**.

6. Under **Create**, enter the following properties:

   - `Name` — Enter a name for your application.
   - `Supported Account Types` — Enter accounts that are only in this organizational directory.

7. Click **Register**.

8. After the app is created, from the left panel, click **Overview**.

9. Copy the `Application ID` to a text file. You need this ID to configure the auth. provider in Salesforce.

10. From the left panel, click **Certificates & Secrets**.

11. Click **New Client Secret**, enter a description, select a duration, and click **Add**. To see the key value, click **Save**.

12. Copy the key so you can use it in the auth. provider.

13. From the left panel, click **Authentication**. Under **Redirect URIs**, select type as **Web** and paste the callback URL that you copied from the bottom of the Auth. Provider detail page.

14. From the left panel, click **API Permissions**, click **Add a permission**, and click **Sharepoint**.

15. Choose which required app permissions you want to enable and click **Add permission**.

Configure the Authentication Provider in Salesforce

In Salesforce, replace the original placeholder values with the correct ones from the Azure app.

1. In Setup, enter *Auth. Providers* in the Quick Find box, then select **Auth. Providers**.

2. Next to the authentication provider you created earlier, click **Edit**.

3. Change the following values.

   - `Consumer Key` — Enter the Client ID you copied to a text file.
   - `Consumer Secret` — Enter the key you copied to a text file.
   - `Authorize Endpoint URL` — Enter:
     https://login.microsoftonline.com/common/oauth2/authorize?resource=https%3A%2F%2FYOUR_TENANT.sharepoint.com&prompt=login
   - `Token Endpoint URL` — Enter: `https://login.microsoftonline.com/common/oauth2/token`
   - SharePoint Online example:
     ```
     https://login.microsoftonline.com/common/oauth2/authorize?prompt=consent&
     resource=https%3A%2F%2Fcontenthubblitz.sharepoint.com%2F
     ```

4. Click **Save**.

Create an Authentication Provider for SharePoint Online or OneDrive for Business Using Office 365 (Alternate Method)

To use one of Microsoft's cloud-based external data sources, first create an authentication provider for it in Salesforce and register that provider in an Office 365 app.

> 💡 **Tip:** For detailed visuals, tips, and troubleshooting, see the Files Connect Setup Guide and User Guide.

To fully configure an authentication provider, you have to

- Create an Authentication Provider Using Placeholder Values
- Register and Office 365 App
- Edit the Authentication Provider in Salesforce

Create an Authentication Provider Using Placeholder Values

1. In Setup, enter `Auth. Providers` in the Quick Find box, then select **Auth. Providers**.

2. Click **New**.

3. For `Provider Type`, select **Microsoft Access Control Service**, and then set the following options.

   - `Name` — Enter the name you want to appear in Salesforce.
   - `URL Suffix` — Enter a suffix you want to appear at the end of the URL path. By default, the suffix reflects the `Name` entry.
   - `Consumer Key` — Enter a placeholder value.
   - `Consumer Secret` — Enter a placeholder value.
   - `Authorize Endpoint URL` — Enter a placeholder that begins with *https*.
   - `Token Endpoint URL` — Enter a placeholder that begins with *https*.
   - `Default Scopes` — Leave empty.

4. Click **Save**. Then, at the bottom of the Auth. Provider detail page, copy the `Callback URL` entry to a text file. (Use this when registering an Office 365 app.)

Register an Office 365 App

1. Log in to your Office365 account as an administrator, and go to one of the following URLs.

   - SharePoint Online: `https://`*your company name*`.sharepoint.com/`*site collection path*`/_layouts/15/appregnew.aspx`
   - OneDrive for Business: `https://`*your company name*`-my.sharepoint.com/_layouts/15/appregnew.aspx`

2. Set the following options.

   - `Client Id` — Click **Generate**, and copy the generated value to a text file.
   - `Client Secret` — Click **Generate**, and copy the generated value to a text file.

- `Title` — Enter a name for the app.
- `App Domain` — Enter the domain name of your Salesforce org.
- `Redirect URL` — Enter the Callback URL you copied when creating the Authentication Provider in Salesforce.

3. Click **Create**.
   Now you configure the newly created app to access SharePoint resources.

4. Go to one of the following URLs.

   - SharePoint Online: `https://your company name.sharepoint.com/site collection path/_layouts/15/appinv.aspx`
   - OneDrive for Business: `https://your company name-my.sharepoint.com/_layouts/15/appinv.aspx`

5. Set the following options.

   - `App Id` — Enter the Client Id you copied to a text file, then click **Lookup**.
   - `Title` — Keep the default value.
   - `App Domain` — Keep the default value.
   - `Redirect URL` — Keep the default value.
   - `Permission Request XML` — Enter a string with this format.
     - SharePoint Online:

       ```
       <AppPermissionRequests>
        <AppPermissionRequest Scope="[SCOPE]" Right="[PLACEHOLDER]"/>
       </AppPermissionRequests>
       ```

     - OneDrive for Business:

       ```
       <AppPermissionRequests>
        <AppPermissionRequest Scope="http://sharepoint/content/tenant"
       Right="[PLACEHOLDER]"/>
        <AppPermissionRequest Scope="http://sharepoint/social/tenant" Right="Read"/>
       </AppPermissionRequests>
       ```

6. For SharePoint Online, replace [SCOPE] with one of these values. Office 365 recognizes only these scope URLs; copy them exactly, without changes.

   - `http://sharepoint/content/sitecollection/web` so users can access a single site (but not its subsites).
   - `http://sharepoint/content/sitecollection` so users can access a single site collection (including all subsites).
   - `http://sharepoint/content/tenant` so users can access all site collections.

7. Replace [PLACEHOLDER] with one of these values:

   - `Read`
   - `Write`
   - `Manage`
   - `FullControl`

   For details about the differences between permission levels above, see the Microsoft website.

8. Click **Create**.

Edit the Authentication Provider in Salesforce

In Salesforce, replace the original placeholder values with the correct ones from the Office 365 app.

1. In Setup, enter `Auth. Providers` in the `Quick Find` box, then select **Auth. Providers**.

2. Click **Edit** next to the authentication provider you created previously.

3. Change the following values:

    -   `Consumer Key` — Enter the Client ID you copied to a text file.

    -   `Consumer Secret` — Enter the Client Secret you copied to a text file.

    -   `Authorize Endpoint URL` — Enter the URL of the OAuthAuthorize.aspx page in Office 365. The URL format is as follows.

        – SharePoint Online: `https://`*`your company name`*`.sharepoint.com/`*`site collection path`*`/_layouts/15/OauthAuthorize.aspx`

        – OneDrive for Business: `https://`*`your company name`*`-my.sharepoint.com/_layouts/15/OauthAuthorize.aspx`

    -   `Token Endpoint URL` — Enter a URL in the following format.

        – SharePoint Online: `https://accounts.accesscontrol.windows.net/`*`your company name`*`.onmicrosoft.com/tokens/OAuth/2?resource=00000003-0000-0ff1-ce00-000000000000/`*`your company name`*`.sharepoint.com@`*`your company name`*`.onmicrosoft.com`

        – OneDrive for Business: `https://accounts.accesscontrol.windows.net/`*`your company name`*`.onmicrosoft.com/tokens/OAuth/2?resource=00000003-0000-0ff1-ce00-000000000000/`*`your company name`*`-my.sharepoint.com@`*`your company name`*`.onmicrosoft.com`

4. Click **Save**.
    Your authentication provider is now ready to use.

Define an External Data Source for SharePoint Online or OneDrive for Business

With Files Connect and Chatter, Salesforce can access content from Microsoft's cloud-based systems.

1. From Setup, enter `External Data Sources` in the `Quick Find` box, then select **External Data Sources**.

2. Click **New External Data Source**. Then set the following options.

Field	Description
Label	A user-friendly name for the data source displayed in the Salesforce user interface.

Field	Description
Name	A unique identifier used to refer to this external data source definition through the API. The **Name** field can contain only underscores and alphanumeric characters. It must be unique, begin with a letter, not include spaces, not end with an underscore, and not contain two consecutive underscores.
	This entry must match the value entered in the SharePoint fields, **Managed Properties** > **Property Name** and **Alias**.
Type	Choose **Files Connect: Microsoft SharePoint Online** or **Files Connect: Microsoft OneDrive for Business**.
Site URL	The URL of your SharePoint site, site collection, or web app.
	The URL must begin with *https*. It should look like this: `https://salesforce.sharepoint.com/HRSite`
	(Don't copy the URL seen in the browser when accessing SharePoint. It should not look like this: `https://salesforce.sharepoint.com/HRSite/SitePages/Home.aspx`)
Exclude Other Site Collections	Accesses only the site collection specified by the URL, ignoring any other site collections. This should always be enabled if any users are currently allowed to access the root site collection.
Identity Type	The identity type used to authenticate to the external data source.
	Select **Per User** to require separate credentials for each user who accesses the data source. (Administrators must enable the data source for specific permission sets and profiles. Users then enter their credentials when first accessing the data source.)
	Select **Named Principal** to use the same set of credentials for every user who accesses the data source from Salesforce.
Authentication Protocol	The protocol used to access SharePoint Online.
	Select **OAuth 2.0**.
Authentication Provider	Enter the SharePoint Online or OneDrive for Business authentication provider.
Scope	Leave blank.
Start Authentication Flow on Save	Select to immediately test your settings or to create an external object for this external data source.

Custom columns defined on SharePoint should not have spaces in the name. Files from a SharePoint Online or OneDrive for Business data source can't be previewed in the file preview player.

Include a Files Connect Data Source in Global Search

Combine searches for Salesforce data with external data from Google Drive, SharePoint, OneDrive for Business, or Box. Developers can automate the process with supported SOQL or SOSL queries with the API.

To include external data in global searches or API queries, first create a related external object. External objects behave similarly to custom objects, but map to data stored outside Salesforce in an external system like SharePoint. Each external object maps to a data table, and the object fields map to accessible table columns.

> 💡 **Tip:** External objects support lookup relationships similar to custom objects, letting you integrate external data into related lists and other areas throughout Salesforce. For details, see External Object Relationships.

To fully configure global search, you have to

- Choose the layout for global search results
- Create an external object from an external data source
- Give users access to the external object fields
- Create a custom tab for the external object (Lightning Experience Only)

By default, Files Connect external objects use the standard search results layout for Chatter and the Files tab. If you want to display customized search layouts for these objects, complete these steps.

1. From Setup, enter `Files Connect Settings` in the `Quick Find` box, and select **Files Connect Settings**.

2. Select **Use External Object Search Layout**.

3. Define an external data source that supports search:

    - SharePoint Online or OneDrive for Business
    - Google Drive
    - Box

4. From Setup, enter `External Data Sources` in the `Quick Find` box, and select **External Data Sources**.

5. To access the details page, click the data source name.

6. Click **Validate and Sync**.
    If the **Validate and Sync** button is disabled, edit the Authentication Settings for External Systems to enable the `Start Authentication Flow on Save` checkbox.

7. Select the table named "items_[data source]." Then, click **Sync** and create an external object that maps to the entire source.

    Now deploy the object to make the data it contains available to users.

8. Choose **Build** > **Develop** > **External Objects**.

9. Click **Edit** next to the new external object.

10. At the bottom of the page, click **Deployed**, and then click **Save**.

11. To give users access to the external object fields:

    a. From Setup, enter `Permission Sets` in the `Quick Find` box, and select **Permission Sets**.

    b. Click a permission set in which you enabled Files Connect.

      c. In the Apps section, click **Object Settings**.

      d. Click the name of the external object.

      e. Click **Edit**, and enable the necessary Read permissions (for the object itself, and all fields you want to reveal in Salesforce).

      f. Click **Save**.

12. Next, create a custom tab for the external object (Lightning Experience Only):

      a. From Setup, enter `Tabs` in the search bar, and select **Tabs**.

      b. Click **New** in the `Custom Object Tabs` section.

      c. In Step 1 of the setup wizard, enter the name of the custom object you created from your external data source.

      d. In Step 2, choose the availability and visibility of the tab to profiles. The tab doesn't need to be visible, but it does need to be accessible. Choose either **Default On** or **Tab Hidden**.

      e. Complete Step 3 and click **Save**.

To automate search with SOQL or SOSL, review the supported queries for your data source.

SharePoint and OneDrive external objects support these standard fields and any custom fields you enable. Queries on specific fields return only documents that the external data source indexed.

Table 1: SOQL and SOSL Support for SharePoint and OneDrive External Objects

Field Name	Queryable	Sortable
Author	Yes	Yes
Comment	No	Yes
ContentLength	Yes	Yes
CreationDate	Yes	Yes
DisplayUrl	No	Yes
DownloadUrl	No	No
ExternalId	Yes	Yes
IsFolder	Yes	Yes
MimeType	Yes	Yes
Name	Yes	Yes
UpdateDate	Yes	Yes
UpdatedBy	Yes	Yes

You can also use `ParentId_c` as query criteria to retrieve the list of documents in a folder. However, that field isn't displayed in query results unless your query specifies a `ParentId__c` value.

Files Connect supports all standard Google Drive properties, but not custom properties. The following properties have different field names in Salesforce external objects:

Table 2: SOQL and SOSL Support for Google Drive External Objects

Google Property	Salesforce Field
alternateLink	DisplayUrl
createDate	CreationDate
description	Comment
downloadURL	contentStreamUri
editable	readOnly
fileSize	ContentLength
id	ExternalId
lastModifyingUserName	UpdatedBy
mimeType	MimeType
modifiedDate	UpdateDate
ownerNames	Author
originalFilename	contentStreamFileName
title	Name

This subset of fields supports SOQL and SOSL queries. (None are sortable, reflecting limitations in the Google Drive API.)

- CreationDate
- lastViewedByMeDate
- MimeType
- Name

  Note: Google Drive queries on the `Name` field support only one wildcard, %. Searches using this wildcard match only name prefixes. For example, the title "HelloWorld" would be returned with the query *Name LIKE "Hello%"* but not *Name LIKE "%World"*.

- sharedWithMe

  Note: Queries on the `sharedWithMe` field with a value of "false" are not supported, protecting confidential data.

- starred
- UpdateDate

Include SharePoint Custom Properties in Search, SOQL, and SOSL Queries

After you create an external object for a SharePoint data source, some special steps are needed to search or query any custom properties it contains.

Configuring Custom Properties in SharePoint

If you have the existing mapped custom columns and Office documents' (Microsoft Word, Excel, etc.) metadata in SharePoint, external objects in Salesforce let you select and filter on the following custom properties:

- Custom columns defined in a Custom Content Type
- Metadata from Microsoft Word, Excel, and other Office documents

To search on these custom properties in Salesforce, a Sharepoint administrator must create a corresponding Managed Property.

- To display these properties in external object fields, or use them in SOQL or SOSL `SELECT` queries, set the corresponding Managed Property to `Retrievable`.
- To filter on these properties in external objects, or use them as query criteria in a SOQL or SOSL `WHERE` clause, set the corresponding Managed Property to `Queryable`.

Querying Resulting Fields in Salesforce for SharePoint Online

In the following example, `CustomProperty` stands for the Custom column name defined in the Custom Content Type, or the Office document metadata name. `ManagedCustomProperty` stands for the corresponding Managed Property name.

In most cases, you can use `ManagedCustomProperty` for both the `SELECT` and `WHERE` clause. Here's a SOQL example:

```
SELECT ManagedCustomProperty FROM items_spOnline_x WHERE ManagedCustomProperty=...
```

However, for file types that SharePoint doesn't index for search, such as .jpg, .png, and .pdf files, you must use `CustomProperty` in the `SELECT` clause and `ManagedCustomProperty` in the `WHERE` clause. As a workaround, you can define an alias on the Managed Property in SharePoint and format queries like this:

```
SELECT Alias FROM items_spOnline WHERE Alias=...
```

Normally, custom properties aren't displayed on external object detail pages—defining an alias also addresses this issue.

Boolean Custom Properties

When using boolean (Yes/No) custom properties with a corresponding Managed Property set to the Text type, the corresponding external object field must be set to the Text type as well. In filters, the values "0" and "1" equal false and true, respectively. For example:

```
WHERE customBooleanWithTextManagedProperty="1"
```

"0" and "1" are also displayed as results, however, so boolean custom properties should use a Managed Property type of YesNo. Set the corresponding external object field to Checkbox to query it with standard `true` or `false` values. For example:

```
WHERE customBooleanWithYesNoManagedProperty=true
```

Metadata in Microsoft Office Documents

The Sharepoint Search service returns all metadata from Office documents as strings, so corresponding external object fields must be set to the Text type.

Dates are returned in the format, MM/DD/YYYY hh:mm:ss AM/PM, (for example, "3/31/2015 9:59:00 PM"). To query on fields using the Date type, the external object must include a corresponding Date field for filtering, and a Text field for selecting.

Limitations for Specific SharePoint Property Types in Salesforce for SharePoint Online

- Number, Currency, and Choice multiple properties can't be selected for file types SharePoint doesn't index for search. By default, this includes image, video, and .pdf files, although .pdf files are natively indexed starting with SharePoint 2013.
- Multiple Line of Text, URL, and Date properties aren't queryable.
- Choice multiple and URL properties can't be selected.

FILES CONNECT FOR USERS

Set Up Authentication to an External Data Source

When you connect to a Files Connect external data system for the first time, you can set up your authentication in just a few clicks.

If you haven't set up your authentication to an external data system in My Settings, you're prompted to authenticate the first time you try to access an external system in Salesforce. Click the link or button to complete most of the authentication automatically.

- If you are connecting to Box, Google Drive, SharePoint Online, or OneDrive for Business: Select **OAuth 2.0** as the authentication protocol.
- When you see a message requesting permission for Salesforce to access information from your external system, click **Allow**.
- After the authentication process has finished, you are redirected to Salesforce.

Manage Your Files Connect External Data Source Authentication Credentials

You or your Salesforce admin can use Files Connect to set up and manage your authentication settings for external data sources. With valid authentication settings, you can access files from external systems right from Salesforce.

Your admin defines external systems in external data sources and named credentials. Before you begin, your administrator:

- Sets up the external data source or named credential to use per-user authentication.

- Grants you access to the external data source or named credential.

- Tells you the authentication settings to enter.

If you don't see the expected settings or options, ask your admin for help.

1. From My Settings, enter `Authentication` in the `Quick Find` box, then select **Authentication Settings for External Systems**.

2. To set up a new connection, click **New**. To modify an existing external data source, click **Edit**.

3. From the `External System Definition` menu, select "External Data Source."

4. From the `External Data Source` menu, select a data source that your administrator created.

5. Set the options for the authentication protocol required by Box, Google Drive, SharePoint Online, or OneDrive for Business.

Authentication Protocol	Choose **OAuth 2.0**
Authentication Provider	Choose the provider that your administrator created for this data source
Scope	Leave blank
Start Authentication Flow on Save	Select to immediately verify your login credentials with the external data source.
	When you click **Save**, the external system prompts you to log in. After successful login, the external system grants you an OAuth token for accessing its data from this org.
	Redo the OAuth flow when you need a new token—for example, when the token expires—or if you edit the Scope or Authentication Provider fields.

6. Click **Save**.

Access and Share Files Connect External Files

After your admin enables Files Connect, you can access files from external sources, like Google Drive and SharePoint, or share them through feeds and Files home.

Download or Share Files on Files Home

Download external files to your local system or share them with a set of people in your org from Files home.

1. Navigate to Files home.

2. The External Files list in the left column shows available external data sources. Select one and navigate through the folders, or use the search bar to find a file.

   📝 Note:

   - Salesforce supports Google documents, spreadsheets, presentations, and drawings. In the Recent list, Google Drive content is limited to the 24 most recently accessed documents from the last 30 days.

   - SharePoint folders with special characters, such as # or %, appear in the list, but you can't see or access any files in them.

3. Click ⯆ next to the file name, and choose one of the following:

   - **Open** the file in the external data source, such as SharePoint.

   - **Download** the file to your local system.

   - **Share** the file either as a copy or as a reference. Your admin has determined which type of sharing is used in your org. When sharing, you do one of the following:

     - **Share a copy** of the external file stored in Salesforce. If files are shared with a Chatter group, all group members can access the files, even if members lack access to the external system. Salesforce Files doesn't reflect any revisions to the file in external systems.

     - **Share a reference** to the external file stored outside Salesforce. Only users with access to the external system can download files. (Users must enter credentials for the system in the Authentication Settings for External Systems section of personal setup). Salesforce Files doesn't reflect revisions to the file in external systems, but the reference points to the latest file version in those systems.

   📝 Note: To download files referenced from an external system, users must enter credentials for the system in the Authentication Settings for External Systems section of personal setup.

   When a user selects an external file from the file selector, a file reference or copy is created in Salesforce. If a file reference exists, it's reused.

Share Files in the Feed

If you want to include external files in a specific Chatter conversation, use the feed. All files shared in the feed are either copies or references, as determined by your admin.

In Salesforce Classic

1. While authoring a post, click **File** above the feed, and then click **Select a file from Salesforce**.

2. In the left column, click the external source, such as SharePoint.

3. Next to the file you want to share, click **Attach**.

4. In the body of your post, @mention the groups or people you want to share with.
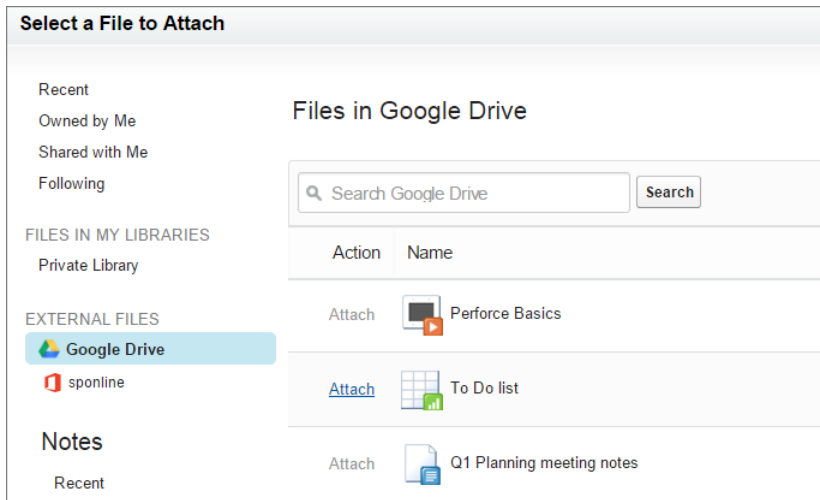

In Lightning Experience

1. While authoring a post, click the paperclip icon below the post to open the Select File window.

2. From the left column, click the external source, such as SharePoint or Google Drive.

3. Select the file you want to share, and click **Add**.

4. In the body of your post, @mention groups or people that you want to share with.
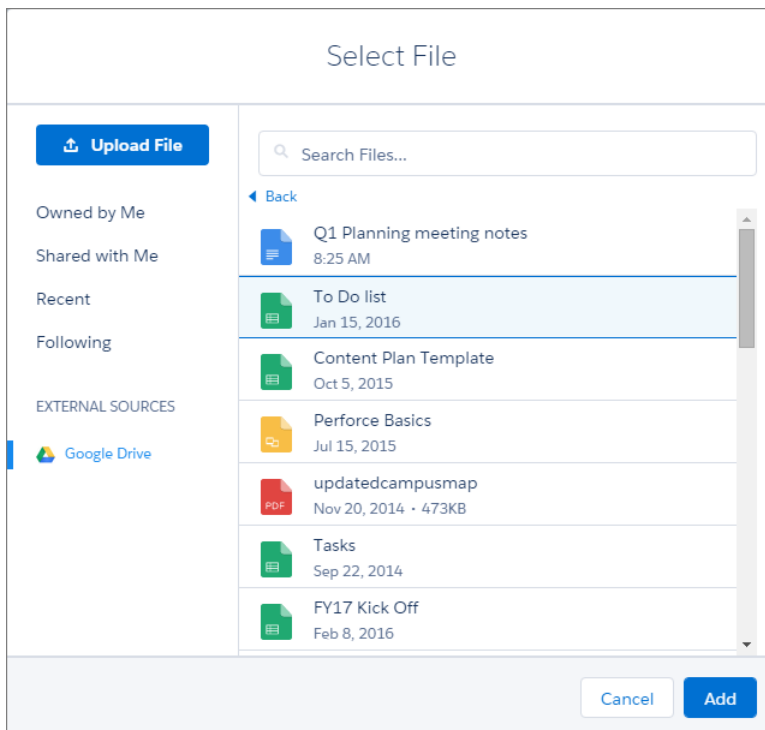
When you paste a link to an external document into a Chatter post, it's converted into a Files Connect file reference. Under the body of your post, the file title and icon appear. Click the icon to open the file preview right from your feed. A file reference is created for the first link in each post. File references are not created for links in comments.
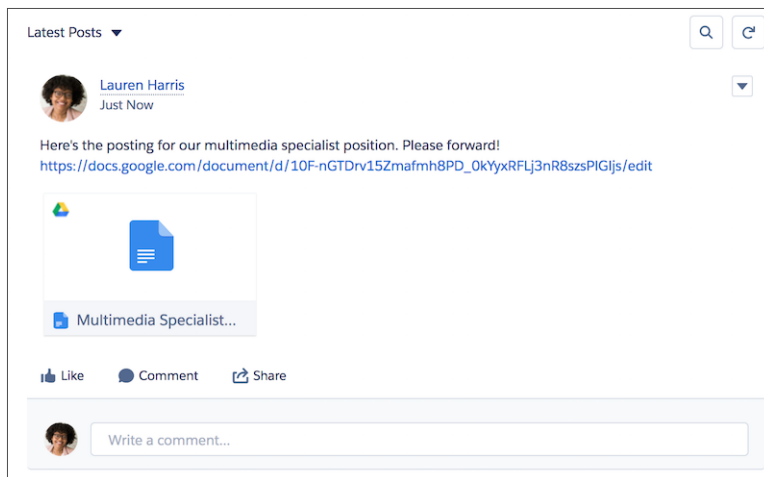
🖊 **Note:** File previews are only available for files connected through Sharepoint, Google Drive, and Quip integrations.

Search for Files Connect External Files

Search an external data source, like Google Drive, Box, or SharePoint, right within Salesforce.

Search in a Specific External Data Source

In Salesforce Classic:

1. From the left column of Files home or your Chatter feed, click the data source name.
2. In the search box, enter terms such as *document title* or *author*. (The specific information that you can search for depends on the configuration of the external data source.)
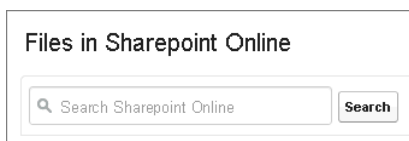
🖊 **Note:** You can also search external data sources from the file selector when attaching a file to a Chatter post. In Salesforce Classic, click **File** above the feed, and then select a file from Salesforce. In Lightning Experience, click the paperclip icon below the post to open the Select File window.

Search Globally for Salesforce and External Data

If your administrator enables global search for an external data source, you can search its contents along with your Salesforce data.

In Salesforce Classic:

1. In the global search box at the top of the Salesforce window, enter your search terms.
2. To filter the results down to a specific external data source, click its name in the left column (for example, "SharePoint Online").

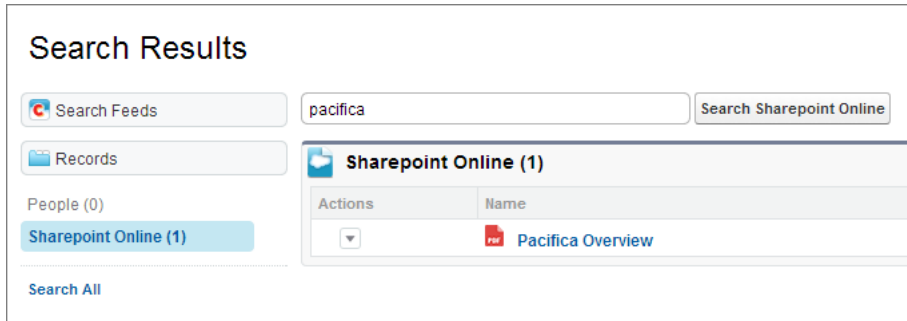**Tip:** If you often want to see content from a specific external data source, pin it to the top of global search results. To pin it, in the left column, hover over the data source name, and click the pin icon. (If you don't see the data source listed, click Search All.)

In Lightning Experience:

1. From Files home, enter a search term into the global search box in the header.

2. Optionally, filter your search results to return only Files.

   - Select **in Files** after entering your search in the global search box.

   - Do a global search and then select **Files** from the global search results.

   - Select **Files** from the global search Suggested For You menu, and then enter your search term.