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ARIS

ARIS ADAPTER FOR MICROSOFT® SHAREPOINT 2016 & 2019

VERSION 10.0 – SERVICE RELEASE 18

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Contents

1   Introduction

This document describes how to install and configure **ARIS Adapter for Microsoft®
SharePoint 2016** and **ARIS Adapter for Microsoft® SharePoint 2019** for ARIS version
10.0.8 and later.

ARIS Adapter for Microsoft® SharePoint 2016 and 2019 is a third-party document
management system adapter that enables ARIS to connect to Microsoft® SharePoint 2016 and
2019. It replaces the adapter for Microsoft® SharePoint 2013. Refer to the ARIS document
storage online help for more information.

2　　Features and functions

- **Browse**

  Enables users to browse folders and documents in Microsoft® SharePoint 2016 and 2019 while working with ARIS or ARIS Architect

- **Create a folder**

  Enables users to create a folder in Microsoft® SharePoint 2016 and 2019 while working with ARIS.

- **Upload a document**

  Enables users to upload a new document to Microsoft® SharePoint 2016 and 2019 while working with ARIS or ARIS Architect.

- **Upload a new version of a document**

  Enables users to upload a new version of a document to Microsoft® SharePoint 2016 and 2019 while working with ARIS or ARIS Architect.

- **Download documents**

  Enables users to download documents from Microsoft® SharePoint 2016 and 2019.

- **Download a specific version of a document**

  Enables users to download a specific version of a document from Microsoft® SharePoint 2016 and 2019.

- **Move documents**

  Enables users to move documents from one folder to another in Microsoft® SharePoint 2016 and 2019.

- **Delete documents**

  Enables users to delete documents in Microsoft® SharePoint 2016 and 2019.

- **Search documents**

  Enables users to perform a search on either metadata or content, or both.

- **Microsoft® SharePoint Online support**

  Provides support for Microsoft® SharePoint Online.

- **Proxy support**

  Provides proxy server support.

- **User impersonation**

  ARIS takes into account the privileges assigned to users in Microsoft® SharePoint 2016 and 2019. This means that a user who has read privileges for Microsoft® SharePoint 2016 and 2019 can view documents in ARIS.

3   Known issues

- You can retrieve a maximum of 1000 files and 500 folders within a folder.

- If you move a file from one folder to another, the file in the target folder is overwritten.

- Errors are logged only in English.

- For the latest revision, the **Changed by** column of a file on the **Versions** page displays the name of the user who created the file.

- When you upload a new version of a document, the name of the document is not verified.

- If you upload an XML file, the file name is used as the title of the document. This is the behavior of Microsoft® SharePoint 2016 and 2019 REST API.

- If you use multiple connections to third-party document management systems, you can access the document administration only if all configured connections are valid.

- If you type a dot when entering your search terms, the list of results changes.

- If the search term is a special character, all possible results are listed.

- If the search term consists of several words, the search returns a result for each word entered and not for the combination of words.

- A site collection with backslashes will result in unexpected behavior. Always use slashes in a site collection.

- In the **Change comments** field, a pressing **Enter** is replaced by a space character.

- The latest document should be the head revision. However, you can download older versions of a document from the **Versions** page.

- When you upload a document to the root folder, the name of the root folder is not displayed in the upload dialog.

- Users who have only **Read** privileges can upload files to the root folder.

- Privileges inherited from groups do not work when impersonation (page 7) is enabled.

- The impersonation functionality cannot be disabled for a particular tenant.

- The length of the document name is limited to 128 characters due to URL path restrictions. The Microsoft® SharePoint 2016 and 2019 documentation recommends the following actions to resolve or mitigate URL length problems:

  - Use shorter names for sites, folders, and documents, and control the depth of the site and folder structures to reduce the length of URLs.

  - If possible or allowed, use ASCII names for sites, folders, and documents. This prevents URLs from being lengthened due to encoding.

- The search function is supported only for the latest version of a document in Microsoft® SharePoint 2016 and 2019.

4 Deprecation of Basic Authentication in Microsoft® SharePoint Online

- Microsoft has recently announced a significant update "Basic Authentication retirement for legacy protocols in Microsoft® Exchange Online"

- Microsoft® Exchange Online is deprecating Basic Authentication for multiple protocols prior to its removal in the second half of 2021. Basic Authentication relies on sending user names and passwords -- often stored on or saved to the device -- with every request, increasing risk of attackers capturing users' credentials, particularly if not TLS protected.

- Basic Authentication is superseded by Modern Authentication (based on OAuth 2.0). Customers are encouraged to use Modern Authentication prior to the removal of Basic Authentication.

- For newly created tenants, basic authentication is disabled by default, and basic authentication will be disabled if the tenant has no recorded usage from Oct 2020.

- If new Microsoft® SharePoint subscription Grant App Permission is disabled by default (or) the browser link https://xxxx-admin.sharepoint.com/_layouts/15/appinv.aspx is disabled, To enable this feature, we need to connect to SharePoint using Windows PowerShell and then run set-spotenant -DisableCustomAppAuthentication $false

- Run the following commands on PowerShell.

    1. Install-Module -Name Microsoft.Online.SharePoint.PowerShell

    2. $adminUPN="<the full email address of a SharePoint administrator account, example: jdoe@contosotoycompany.onmicrosoft.com>"

    3. $orgName="<name of your Office 365 organization, example: contosotoycompany>"

    4. $userCredential = Get-Credential -UserName $adminUPN -Message "Type the password."

    5. Connect-SPOService -Url https://$orgName-admin.sharepoint.com -Credential $userCredential

    6. set-spotenant -DisableCustomAppAuthentication $false

- Fill in the values for the $adminUPN and $orgName variables (replacing all the text between the quotes, including the < and > characters), and then run the following commands at the SharePoint Online Management Shell command prompt:

- When prompted with the Windows PowerShell credential request dialog box, type the password for the SharePoint admin account.

- Afterward, run https://xxxx-admin.sharepoint.com/_layouts/15/appinv.aspx to grant permission.Generate new token and CRUD operations using REST API on SharePoint should be working by now.

- References:

  - Exchange Online deprecating Basic Authentication - Microsoft Lifecycle | Microsoft Docs
    https://docs.microsoft.com/en-us/lifecycle/announcements/exchange-online-basic-auth-deprecated.

  - Get started with the SharePoint Online Management Shell | Microsoft Docs
    https://docs.microsoft.com/en-us/powershell/sharepoint/sharepoint-online/connect-sharepoint-online?view=sharepoint-ps

5 Install ARIS Adapter for Microsoft® SharePoint 2016 & 2019

Prerequisite

- ARIS is installed and running.
- You must have access to ARIS Cloud Controller.
- A license is required for the Microsoft® Sharepoint: **ARIS Connect server Extension pack DMS Adapter MS Sharepoint TEN 1000.xml**

5.1 Installation without impersonation functionality

Install ARIS Adapter for Microsoft® SharePoint 2016 or 2019.

Procedure

1. Copy the extracted folder to the computer where you want to install ARIS Adapter for Microsoft® SharePoint 2016 or 2019.

2. Open an ARIS Cloud Controller command prompt. For further information, refer to the **ARIS Server Installation - Windows** or **ARIS Server Installation - Linux** document.

3. Stop ARIS document storage. To do so, enter

   stop <instance id>, for example, **stop adsadmin_m**.

4. Enhance the jar files in the **bin** and **lib** folders. To do so, enter

   enhance <instance id> with webappsClasspath local file <path of the jar file>, for example,

   enhance adsadmin_m with webappsClasspath local file "C:/SAA10.0.12GA/saa/bin/ads-dao-sp2016-10.0.8.1.jar"

   enhance adsadmin_m with webappsClasspath local file "C:/SAA10.0.12GA/saa/lib/ehcache-2.10.0.jar"

5. Start ARIS document storage. To do so, enter

   start <instance id>, for example, **start adsadmin_m**.

You have installed ARIS Adapter for Microsoft® SharePoint 2016 or 2019.

For information on how to configure a connection to a third-party document management system in ARIS, refer to the ARIS online help.

For information on how to set up a proxy configuration for ARIS Adapter for Microsoft® SharePoint 2016 and 2019, refer to the chapter Enable proxy configuration (page 17).

5.2 Installation with impersonation functionality

You can only use the impersonation functionality in ARIS versions that are installed on Microsoft® Windows platforms.

Prerequisite

If you use LDAP-based authentication, ARIS and Microsoft® SharePoint 2016 or 2019 must be connected with the same LDAP system.

Procedure

1. Copy the extracted folder to the computer where you want to install ARIS Adapter for Microsoft® SharePoint 2016 or 2019.

   To enable impersonation, you must install the Microsoft® SharePoint 2016 or 2019 Online Clients **S**oftware **D**evelopment **K**it (SDK) on the host computer. You can download the Microsoft® SharePoint 2016 or 2019 Online Clients SDK Microsoft (https://www.microsoft.com/en-in/download/details.aspx?id=42038).
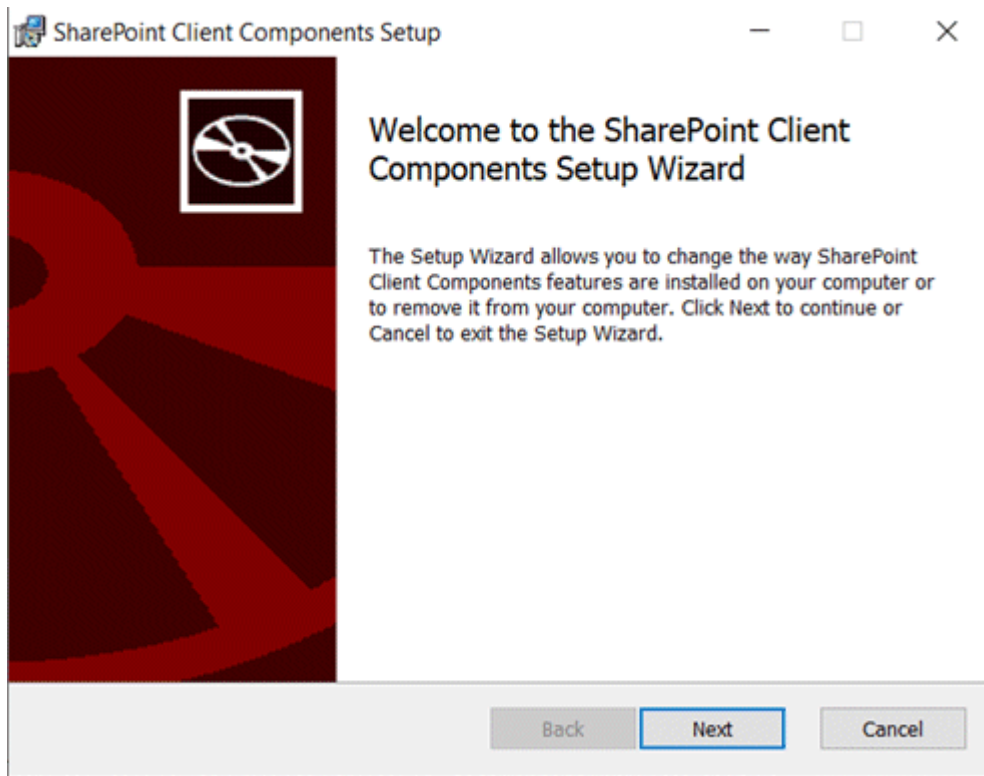
2. Click **Download**.

3. Select the installer based on the operating system architecture of the server, for example, 64 bits or 32 bits.
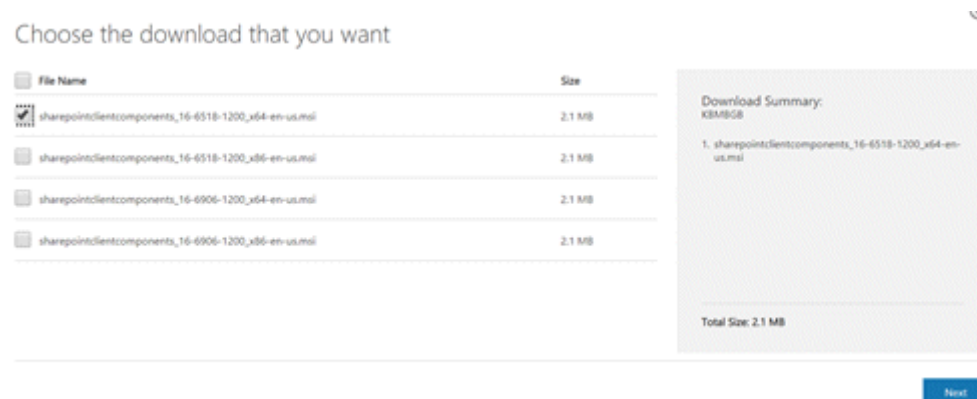
4. Click **Next**. The installer is downloaded.

5. Click the downloaded installer and follow the installation instructions.

6. Open an ARIS Cloud Controller command prompt. For further information, refer to the **ARIS Server Installation - Windows** document.

7. Stop ARIS document storage. To do so, enter

    stop <instance id>, for example, **stop adsadmin_m**.

8. Enhance the jar files in the **bin** and **lib** folders. To do so, enter

    enhance <instance id> with webappsClasspath local file <path of the jar file>, for example,

    enhance adsadmin_m with webappsClasspath local file "C:/SAA10.0.12GA/saa/bin/ads-dao-sp2016-10.0.8.1.jar"

    enhance adsadmin_m with webappsClasspath local file "C:/SAA10.0.12GA/saa/lib/ehcache-2.10.0.jar"

9. Create a folder **dll** inside the working directory of ARIS document storage, for example, **<ARIS work folder>/work_adsadmin_m/base**.

10. Copy the **SP.ReadOnly.Metadata.Update.dll** file from **C:/SAA10.0.12GA/saa/dll/SP.ReadOnly.Metadata.Update.dll** to **<ARIS work folder>/work_adsadmin_m/base/dll**.

11. Copy the **saa_impersonation_config.properties** file from **C:/SAA10.0.12GA/saa/config/ saa_impersonation_config.properties** to **<ARIS work folder>/work_adsadmin_m/base/conf**.

12. Edit the file
<ARIS_HOME>\ARIS10.0\server\bin\work\work_adsadmin_m\base\conf\saa_imp ersonation_config.properties and specify the library path as **<ARIS work folder>/work_adsadmin_m/base/dll**.

13. Start ARIS document storage. To do so, enter

    start <instance id>, for example, **start adsadmin_m**.

You have installed ARIS Adapter for Microsoft® SharePoint 2016 or 2019.

For information on how to configure a connection to a third-party document management system in ARIS, refer to the ARIS online help.

For information on how to set up a proxy configuration for ARIS Adapter for Microsoft® SharePoint 2016 and 2019, refer to the chapter Enable proxy configuration (page 17).

5.3   Enable OAuth

Microsoft® SharePoint 2016 or 2019 uses OAuth 2.0. To enable OAuth, follow these steps.

Procedure

1. Sign in to Microsoft® SharePoint with your credentials.

2. Register the add-in in Microsoft® SharePoin. To register the add-in, enter the following URL:

    https://<sitename>.SharePoint.com/_layouts/15/appregnew.aspx.

    a. Click **Generate** to generate the **Client Id** and **Client Secret**.

    b. Enter the add-in title.

    c. Enter **localhost** in the **App Domain** field.

    d. Enter **https://localhost** in the **Redirect URI** field.

3. Click **Create**.

    After registering the add-in, you have everything required to use ARIS together with Microsoft® SharePoint 2016 or 2019.

4. Copy the Client ID and Client secret and save it to hand it over to the administrator who configures OAuth for ARIS document storage in ARIS.

5. Grant permission to the add-in. To grant permissions for the add-in, enter:

    https://<sitename>.SharePoint.com/_layouts/15/appinv.aspx.

a. Set the **Read** permission level to the web scope to be able to read the web information.

b. Enter the client ID in the **AppId** field to retrieve the add-in details and click on **Lookup**.

The fields retrieve and display the details of the add-in.

c. To allow **Read** permission, enter the following into the **Permission Request XML** field.

<AppPermissionRequests AllowAppOnlyPolicy="true">

    <AppPermissionRequest Scope="http://sharepoint/content/sitecollection" Right="Read" />

</AppPermissionRequests>

To allow full control, enter the following into the **Permission Request XML** field.

<AppPermissionRequests AllowAppOnlyPolicy="true">

<AppPermissionRequest Scope="http://sharepoint/content/sitecollection" Right="FullControl" />

</AppPermissionRequests>

App Id and Title

The app's identity and its title.

App Id:

ec505bd5-ba11-46b5-80a   Lookup

Title:

SPApp

App Domain:

localhost

Example: "www.contoso.com"

Redirect URL:

https://localhost/

Example: "https://www.contoso.com/default.aspx"
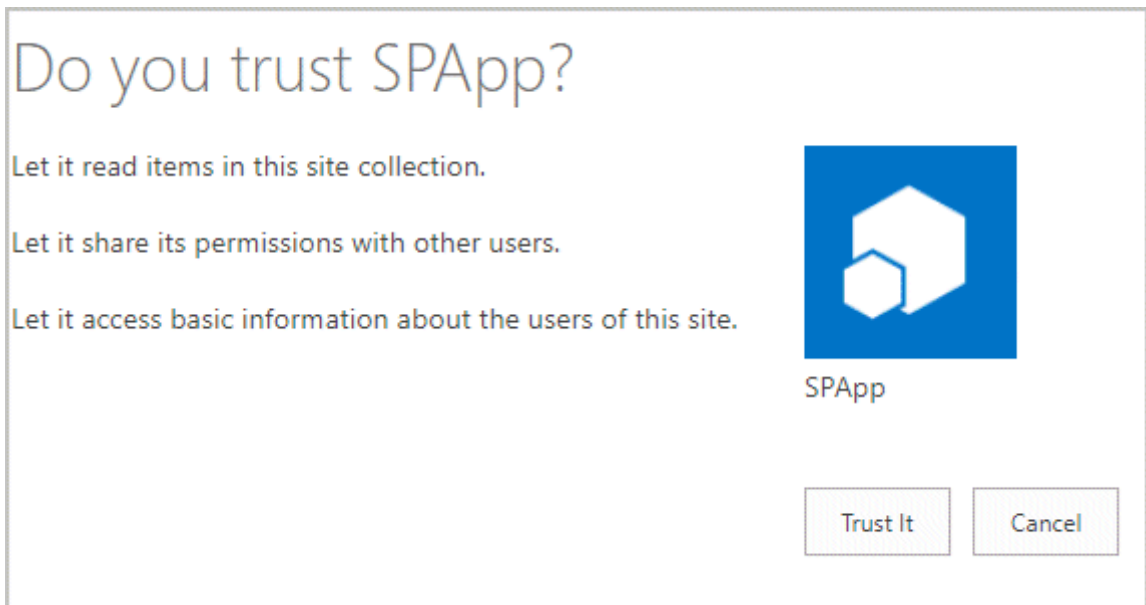
App's Permission Request XML

The permission required by the app.

Permission Request XML:

```
<AppPermissionRequests
AllowAppOnlyPolicy="true">
    <AppPermissionRequest
Scope="http://sharepoint/content/sitecollect
ion" Right="Read" />
</AppPermissionRequests>
```
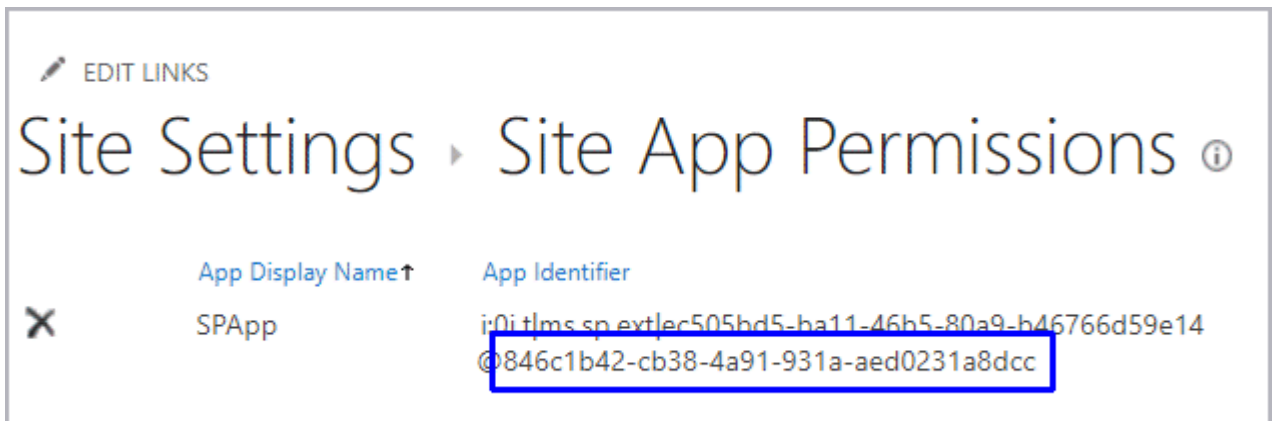
Create   Cancel

d. Click **Create**.

e. Click **Trust it**.

6. Get the tenant ID from Microsoft® SharePoint online. To get the tenant ID, enter the following:

https://<sitename>.SharePoint.com/_layouts/15/appprincipals.aspx?Scope=Web.

7. To enable the search service for the OAuth connection, you must grant a tenant level read permission to the add-in.

a. Navigate to the Microsoft® SharePoint admin grant permission page. To do so, enter the following URL:

https://<sitename>-admin.sharepoint.com/_layouts/15/appinv.aspx in the browser.

b. Enter the client ID, which we have generated earlier, in the **AppId** field to retrieve the add-in details and click **Lookup**. That will populate the values for the **Title**, **App Domain**, and **Redirect URL** fields.

In the **Permission Request XML** text box, enter the following XML syntax as it is to allow read permission at tenant level.

<AppPermissionRequests AllowAppOnlyPolicy="true">

<AppPermissionRequest Scope="http://sharepoint/content/tenant" Right="Read" />

</AppPermissionRequests>

You have enabled OAuth for Microsoft® SharePoint 2016 or 2019.

5.4   Upgrade

Ensure that the files of ARIS Adapter for Microsoft® SharePoint 2016 and 2019 are writable before you update your ARIS installation.

If you have updated your ARIS installation, you must reinstall ARIS Adapter for Microsoft® SharePoint 2016 and 2019.

5.5   Microsoft® SharePoint configuration in ARIS

You must configure Microsoft® SharePoint in ARIS.

Prerequisite

You have the **Technical configuration administrator** function privilege.

Procedure

1. Start ARIS.

2. Click ⋙ **Application launcher >** ⚙ **Administration**. The **Administration** opens with the 🔢 **Configuration** view.

3. Click **Document storage**.

4. Click the arrow next to **Document management system**.

5. Click **General settings**.

6. Enable **Use third-party document management system**.

7. Optional: If you want to use more than one third-party document management system, enable **Support for multiple document management systems**.

8. Click 💾 **Save**.

9. Click ➕ **Add**. The **Add document management system server** dialog opens.

10. Select the authentication scheme. **Basic Auth** and **OAuth** are available.

11. Enter the following:

    ▪   select the authentication schema. Depending on the authentication schema, the following steps are different

        Basic Auth

        ▪   the type of the third-party document management system. If you want to use Microsoft® SharePoint 2016 or Microsoft® SharePoint 2019, select **TDMS**. If you want to use Microsoft® SharePoint 2013, select **SP2013**.

        ▪   the server URL without a slash at the end

- the user name of the user allowed to access the third-party document management system content

- the password of this user

- the path to the root folder, the path is case sensitive

- the site collection, this is case sensitive

OAuth

- the type of the third-party document management system. If you want to use Microsoft® SharePoint 2016 or Microsoft® SharePoint 2019, select **TDMS**. If you want to use Microsoft® SharePoint 2013, select **SP2013**.

- the server URL without a slash at the end

- Client ID

- Client secret

- the path to the root folder, the path is case sensitive

- the site collection, this is case sensitive

12. Click **Save**.

You have added a third-party document management system.

5.6   Enabling proxy configuration

If you use a proxy server, you must register the proxy server as an external service using ARIS Cloud Controller. For further information, refer to the **ARIS Server Installation - Windows** or **ARIS Server Installation - Linux** document.

If you use multiple connections to third-party document management systems, where only some connections need the proxy support, add any hosts that do not require a proxy under **nonProxyHosts**.

Example

```
register external service proxy host="10.60.11.160" port=6588
nonProxyHosts="localhost|127.0.0.1|vmeswin01"
```

6   Legal information

6.1   Documentation scope

The information provided describes the settings and features as they were at the time of publishing. Since documentation and software are subject to different production cycles, the description of settings and features may differ from actual settings and features. Information about discrepancies is provided in the Release Notes that accompany the product. Please read the Release Notes and take the information into account when installing, setting up, and using the product.

If you want to install technical and/or business system functions without using the consulting services provided by Software AG, you require extensive knowledge of the system to be installed, its intended purpose, the target systems, and their various dependencies. Due to the number of platforms and interdependent hardware and software configurations, we can describe only specific installations. It is not possible to document all settings and dependencies.

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6.2   Support

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PRODUCT DOCUMENTATION

You can find the product documentation on our documentation website.

In addition, you can also access the cloud product documentation. Navigate to the desired product and then, depending on your solution, go to **Developer Center**, **User Center** or **Documentation**.

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- Add product feature requests.
- Search the Knowledge Center for technical information and tips.
- Subscribe to early warnings and critical alerts.
- Open and update support incidents.