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2018-12

Supplier Data API

SAP Ariba Supplier Lifecycle and Performance
SAP Ariba Supplier Information and Performance Management (new architecture)

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Content

Supplier Data API

The Supplier Data API enables you to extract and data about your suppliers, including their registration, qualification, and preferred status and details about their questionnaires.

It is only available for suppliers maintained in one of the following solutions:

- SAP Ariba Supplier Lifecycle and Performance
- SAP Ariba Supplier Information and Performance Management (new architecture)

Qualification and preferred supplier management is only available in SAP Ariba Supplier Lifecycle and Performance.

The Supplier Data API includes two endpoints: one for returning data about suppliers, including questionnaire IDs, and one for returning supplier questionnaire details for those questionnaire IDs.

> ! Restriction
>
> The Supplier Data API endpoints described in these topics are the first version of this API; their runtime URL includes `/v1/` in its path. Endpoints associated with the `/v1/` runtime URL can only retrieve a maximum of 10,000 supplier records in total. The Supplier Data API with Pagination endpoints are the second version of this API; their runtime URL includes `/v2/` in its path. The pagination features in the Supplier Data API with Pagination allow you to retrieve any number of supplier records in total. New application developers should use the Supplier Data API with Pagination.

Prerequisites

Before you can use the Supplier Data API, you must:

- Complete the onboarding process on the SAP Ariba developer portal
- Ensure that your application conforms to expected OAuth authentication. Only applications approved by the SAP Ariba APIs administration can execute OAuth authentication.

If you wish to connect a third-party service using this API, first confirm that the company is participating in the SAP partner program and is authorized to provide connection to this solution using this API. You will be required to submit written consent to SAP to authorize the exchange of data with the third-party service.

Security and authentication

Prior to developing an application using the Supplier Data API, you must register on the developer portal and obtain an **application key**, an **OAuth client ID**, and an **OAuth client secret**. You can register at https:// developer.ariba.com/api/ .

- You must enable access to the Supplier Data API in your site [page 4].
- Each API invocation retrieves data for a single site.

- OAuth tokens are short-lived and expire 24 minutes (1440 seconds) after they are issued. Tokens must be refreshed.

Related Information

General workflow for the Supplier Data API

The following high-level steps describe the workflow for the SAP Ariba Supplier Data API:

1. The client application posts a request to the `searchSupplier` endpoint, specifying the filters, the output format, and the questionnaire flag in the request body.
2. The SAP Ariba application returns results in the specified format. If the questionnaire flag in the request was set to `TRUE`, the results include questionnaire IDs.
3. (Optional) The client application posts one or more requests to the `queryQuestionnaireDetails` endpoint, specifying questionnaire IDs returned in the previous results.
4. The SAP Ariba application returns results in JSON format.
5. You process the data as desired. If you wish, as part of this processing you can update questionnaire responses using the `submitQuestionnaireResponse` endpoint, specifying the questionnaire ID and the item ID associated with the questions whose response you wish to change.

How to enable access to the Supplier Data API in your site

Enabling access to the Supplier Data API in your site established a link between your SAP Ariba Supplier Management solutions and your client applications and is a prerequisite to using the API.

Prerequisites

To enable access to the Supplier Data API in your site, you must be a member of the **SM Ops Administrator** group.

You must register on the developer portal and obtain an **OAuth client ID** before enabling access to the Supplier Data API in your site. You can register at https://developer.ariba.com/api/.

Procedure

1. On the dashboard, click ▌ **Manage** ❯ **SM Administration** ▌.
2. Click **Service Admin**.
3. In the **Client ID** field, enter the OAuth client ID you obtained from the developer portal.
4. In the **Description** field, enter a short note describing why you want to add this client ID.
5. Click **Update**.

Using the Supplier Data API `searchSupplier` endpoint to retrieve supplier data

The Supplier Data API `searchSupplier` endpoint uses a `POST` request that specifies authentication in the header and filters and output formats in the body.

> **i Note**
>
> In the sample URLs in this topic, replace `{{runtime_url}}` with the desired runtime URL from the **Environment Details** table on the SAP Ariba developer portal discovery page for this API.

The URL for requests to the Supplier Data API `searchSupplier` endpoint is:

```
{{runtime_URL}}/searchsupplier
```

You do not pass any parameters in Supplier Data API URLs.

> **i Note**
>
> Previously, the Supplier Data API used the following URL to retrieve supplier data:
>
> ```
> {{runtime_URL}}/
> ```
>
> This URL is still supported for purposes of backwards compatibility.

> **! Restriction**
>
> These endpoints are in version 1 of this API, which includes `/v1/` in the path of the runtime URL and can only retrieve a maximum of 10,000 supplier records in total. The Supplier Data API with Pagination is the second version of this API; its runtime URL includes `/v2/` in its path. The pagination features in the Supplier Data API with Pagination allow you to retrieve any number of supplier records in total. New application developers should use the Supplier Data API with Pagination.

Supplier data requests use the following parameters in the header of the request:

`Authorization:Bearer`	Your authorization token.
`apiKey`	Your application key. This key is automatically generated when you create a new application on the SAP Ariba developer portal, and is visible when you select your application in the **Manage Applications** area.

Related Information

Specifying output format and filters in the request body

If you do not filter the result set, the API returns all data for all suppliers. The request body lets you filter the result set as well as specifying the output format.

Request body syntax is as follows:

```
{
  "businessUnitList": [
    "{departmentID}"
  ],
  "categoryList": [
    "{categoryID}"
  ],
  "outputFormat": "{CSV | JSON}",
  "withQuestionnaire": "TRUE",
  "preferredLevelList": [
    {preferredLevel}
  ],
  "qualificationStatusList": [
    "{qualificationStatus}"
  ],
  "regionList": [
    "{regionCode}"
  ],
  "registrationStatusList": [
    "{registrationStatus}"
  ]
}
```

> i Note
>
> The `"withQuestionnaire": "TRUE"` name/value pair only returns questionnaire information in JSON output. It is ignored if you specify CSV output.

The following example shows a request for preferred suppliers (preferred level 1) in CSV format:

```
{
"outputFormat": "CSV",
"preferredLevelList": [
    1
]
}
```

This request returns a row for each level 1 preferred designation, including the commodities, regions, and departments associated with each preferred designation..

The following example shows a request for all suppliers qualified for cleaning equipment and supplies in California and Arizona in JSON format, including any questionnaires associated with the suppliers:

```
{
  "categoryList": [
    "47",
  ]
  "outputFormat": "JSON",
  "withQualification": "TRUE",
  "qualificationStatusList": [
    "Qualified"
  ],
  "regionList": [
    "CA,AZ"
  ]
}
```

This request returns rows for each supplier with status `Qualified` in the specified categories and regions, including any departments that are also associated with the qualifications. It also returns the ID, and title, and project type of each questionnaire associated with each supplier in the results.

Request filter and output values

The following table describes the valid values for name:value pairs and arrays in request body.

Name:value pair or array	Valid values
businessUnitList	One or more of the business unit or department IDs loaded in your site as master data and used in supplier management projects, separated by commas.
categoryList	One or more of the category IDs loaded in your site as master data and used in supplier management projects, separated by commas.
outputFormat	Either CSV or JSON.

Name:value pair or array	Valid values
`withQuestionnaire`	`TRUE` to include the titles, IDs, and types of any questionnaires associated with the suppliers returned in results; otherwise, `FALSE`.
	i Note You can only specify `TRUE` if you specify `outputFormat` of `JSON`. Questionnaire information is not returned in CSV output.
`preferredLevelList`	One or more numbers between 1 and 5, separated by commas. 1 is the highest preferred level and 5 is the lowest.
`qualificationStatusList`	One or more of the following values, separated by commas: `Unknown, QualificationRejected, Disqualified, InDisqualification, PendingDisqualificationApproval, QualificationExpired, NotQualified, QualificationStarted, InQualification, PendingQualificationApproval, PendingQualificationResubmit, QualificationRestricted, QualifiedForSome, QualifiedWithException, Qualified, None`
`regionList`	One or more of the region codes loaded in your site as master data and used in supplier management projects, separated by commas.
`registrationStatusList`	One or more of the following values, separated by commas: `Unknown, RegistrationDenied, PhasedOut, InCreation, InExternalApprovalForCreation, NotInvited, Invited, InRegistration, PendingApproval, PendingResubmit, Registered`

i Note

The supported values for registration and qualification statuses are the system unique names for those statuses. The supported values for preferred levels are the numbers 1-5. Use of your company's custom labels for these statuses and levels in API requests is not supported.

Output fields

Request output includes the following fields, in the order listed, in the specified JSON or CSV format:

- Supplier Name
- ERP Vendor ID
- SM Vendor ID
- An Id
- Registration Status
- Integrated to ERP
- Address - Line 1
- Address - Line 2
- Address - Line 3
- Address - City
- Address - Country Code
- Address - Region Code
- Address - PO Box
- Address - Postal Code
- questionnaires
    - questionnaireId
    - questionnaireTitle
    - workspaceType
- Qualification Status
- Preferred Status
- Category
- Region
- Business Unit

This set of fields is not currently customizable. Output values for registration and qualification statuses are the unique names for those statuses. The supported values for preferred levels are the numbers 1-5. Output that uses your company's customized labels for these statuses and levels is not currently supported. The output uses the same values as the request filters.

The fields related to questionnaires are only included in JSON output if your request specifies `"withQuestionnaire" : "TRUE"`. They are not included in CSV output.

Related Information

Using the Supplier Data API `queryQuestionnaireDetails` endpoint to retrieve supplier management questionnaire details

The Supplier Data API `queryQuestionnaireDetails` endpoint uses a `POST` request that specifies authentication in the header and the supplier and questionnaire ID in the body.

Constructing the request URL

> **i Note**
>
> In the sample URLs in this topic, replace `{{runtime_url}}` with the desired runtime URL from the **Environment Details** table on the SAP Ariba developer portal discovery page for this API.

The URL for requests to Supplier Data API `queryQuestionnaireDetails` endpoint is:

```
{{runtime_URL}}/queryQuestionnaireDetails
```

You do not pass any parameters in Supplier Data API URLs.

Specifying authentication parameters in the request header

Questionnaire detail requests use the following parameters in the header of the request:

Parameter	Description
`Authorization:Bearer`	Your authorization token.
`apiKey`	Your application key. This key is automatically generated when you create a new application on the SAP Ariba developer portal, and is visible when you select your application in the **Manage Applications** area.
`Content-Type`	`application/json`

Specifying supplier and questionnaire ID filters in the request body

You must specify `smVendorId` in the request body. You can only specify one `smVendorId` and one `questionnaireId` per request, but `questionnaireId` is not required, and if you do not filter by `questionnaireId`, the request returns details for all of the questionnaires associated with a supplier. You fetch `smVendorId` and `questionnaireId` values with a previous post to the `searchSuppliers` endpoint [page 5].

The following example shows the body of a request for a specific questionnaire:

```
{
    "smVendorId":"S1834105"
    "questionnaireId": "Doc13501"
}
```

The request returns a JSON response with details for each question in the questionnaire and its answer.

The following example shows the body of a request for all of a supplier's questionnaires:

```
{
    "smVendorId":"S1834105"
}
```

The request returns a JSON response with details for each question in all of the supplier's questionnaires, grouped by questionnaire.

Updating a questionnaire using the Supplier Data API

You can update questionnaire data, including metadata, Q&A data, and attachments.

For a likely use case, suppose a business changes locations and you wish to update the address provided for that business in a particular questionnaire. You could use the `/queryQuestionnaireDetails` endpoint to view the current responses; searching the JSON response for the old address, you can find the appropriate question and its associated `itemId`. Then you could use the `/submitQuestionnaireResponse` endpoint to update the desired responses by passing the `itemId` and the new address in the request body.

The following questionnaire types are supported:

- Registration questionnaire
- Qualification questionnaire
- Modular questionaire

Limitations

When you update the answer to a questionnaire question, you must format the new answer correctly. For example, date-time questions must use the date-time format the questionnaire expects. If the original answer used MM-DD-YYYY format, the new answer must use that format as well.

External questionnaires in the following states are not supported:

- `Not Responded`
- `Pending Submission`
- `Pending Resubmission`

In general, if a task is open on the supplier side for an external questionnaire, this API cannot be applied.

How to update a questionnaire using the Supplier Data API

> **i Note**
>
> In the sample URLs in this topic, replace `{{runtime_url}}` with the desired runtime URL from the **Environment Details** table on the SAP Ariba developer portal discovery page for this API.

1. To receive full questionnaire details, use the `/queryQuestionnaireDetails` endpoint to pass the vendor ID of the desired supplier and an optional questionnaire ID for the desired questionnaire. If you pass a questionnaire ID and a vendor ID, you limit the response to a single questionnaire; if you pass only the vendor ID, the response includes details of all questionnaires for the specified vendor.

   ```
   {{runtime_url}}/queryQuestionnaireDetails
   {
       "smVendorId":"Vend123",
       "questionnaireId":"Doc1234a"
   }
   ```

   `smVendorId`   The supplier's vendor ID

   `questionnaireId`   The document ID for the desired questionnaire. You can find this ID in the JSON response in the `documentId` field.

2. Each question within a questionnaire has a unique `itemId` that distinguishes it from other questions within the questionnaire. Locate the desired questionnaire in the JSON response and find the `itemId` for each question you wish to update.

   > **i Note**
   >
   > Because `itemId` values are set at the template level, they are consistent between questionnaires of the same type. For example, if you wish to update question 4 in two different registration questionnaires (or the same questionnaire in two different workspaces), you can use the same `itemId` for both, because that ID maps to question 4 in the registration questionnaire template. In this example, you must make a separate query for each questionnaire.

3. Use the `/submitQuestionnaireResponse` endpoint to update the questionnaire. Pass the `documentId` of the questionnaire in the request URL as follows:

   ```
   POST {{request_url}}/submitQuestionnaireResponse?questionnaireId=Doc1234a
   ```

   `questionnaireId`   The document ID for the desired questionnaire. Use the same value you used in step 1.

   The request body dictates what updates will be made, as follows:
   - To update the answer to a question, pass the question's `itemId` and new answer in the `answers` block:

     ```
     {"answers":[
         {
         "itemId": "itemId_Q1",
         "answer": "new answer for the first question"
         },
         {
         "itemId": "itemId_Q2",
         "answer": "new answer for next question"
         }
     ]}
     ```

○ To attach an attachment to the questionnaire, pass its 64-bit-encoded value in the `fileContents` field in the `answers` block:

```
{"answers":[
     {
     "itemId": "itemId_attachmentQ",
     "attachment": {
         "fileName": "SampleFileName.csv",
         "mimeType": "application/csv",
         "fileSize": 221725,
         "fileContents": "64 Bit encoded value"
         }
     }
]}
```

answers	Include your updates in this block in the request body JSON.
itemId	The ID of the desired question. Item IDs are set at the template level, so they are unique within a particular questionnaire; however question 1 will have the same `itemId` in every questionnaire derived from a particular template.
answer	The new answer you wish to post for the specified question. You must provide the new answer in the correct format. For example, if the question expects a date in MM-DD-YYYYTHH:MM:SSZ format, you must provide the new date in that format. Similarly, if a text answer has a maximum number of characters, the new answer must conform to that maximum.
fileContents	Provide the 64-bit-encoded value for the desired attachment in this field.

> **i Note**
>
> You can pass any number of `itemId` blocks in the `answers` block of a single query, but they must all be related to the same questionnaire. To update multiple questionnaires, you must make an additional query for each additional questionnaire.

4.

Revision history

The following table provides a brief history of the updates to this guide. SAP Ariba updates the technical documentation for its cloud solutions if:

- Software changes delivered in service packs or hot fixes require a documentation update to correctly reflect the new or changed functionality.
- The existing content is incorrect or user feedback indicated that important content is missing.

SAP Ariba reserves the right to update its technical documentation without prior notification. Most documentation updates will be made available in the same week as the software service packs are released, but critical documentation updates may be released at any time.

Month/Year of update	Updated topic	Short description of change
December 2018	• Supplier Data API • Using the Supplier Data API `searchSupplier` endpoint	Added a note that this API will only export a maximum of 10,000 suppliers.
September 2018	Updating a questionnaire using the Supplier Data API	Added new topic.
	General workflow for the Supplier Data API	Added `submitQuestionnaireResponse` endpoint.
March 2018	Throughout	• Updated the name to Supplier Data API • Added information about the `withQuestionnaire": "TRUE"` name:value pair, using the Supplier Data API to return high-level data on suppliers' questionnaires, and retrieving more detailed questionnaire data with the Questionnaire Details API.
March 2018	Using the Supplier Reporting API to retrieve supplier data	Fixed incorrect runtime URL
January 2018	n/a	Initial publication.

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