



# SAP Ariba Webinar

## Ariba Network Enterprise Supplier APIs

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May 7<sup>th</sup>, 2020

INTERNAL

# Agenda

1. Introduction to SAP Rest APIs and the SAP Ariba Developer Portal
2. How can Enterprise Suppliers access the SAP Ariba Developer Portal
  - Developer Portal initiated SSO for Suppliers
3. What APIs will be available on the SAP Ariba Developer Portal
  - Ariba Network Invoice Header Data Extraction API
  - Proof of Service APIs
4. Questions/Survey

# Introduction to SAP Rest APIs and the SAP Ariba Developer Portal

- What is the SAP Ariba Developer Portal?
- Who can access the SAP Ariba Developer Portal?
- What can APIs help us do?
- Can partners access APIs?
- Does SAP Ariba plan to provide more APIs?



# Developer Portal initiated SSO for Suppliers

## Feature at a Glance

Ease of implementation  High-Touch  
Geographic relevance  Global

# Introducing: Developer Portal initiated SSO for Suppliers

## Customer challenge

Currently Ariba Network suppliers with an Enterprise account do not have access to the SAP Ariba Developer Portal to find information regarding APIs.

## Meet that challenge with SAP Ariba

With this release, Ariba Network suppliers who have an enterprise account will be able to use single sign on (SSO) to access the SAP Ariba Developer Portal. They can also sign in directly to the SAP Ariba Developer Portal to view details about the APIs available for use.

## Experience key benefits

This feature provides Ariba Network Suppliers with an Enterprise account the ability to:

- Use SSO to access the SAP Ariba Developer Portal from the Account Settings page in the Ariba Network
- Access all APIs that can be used by AN Suppliers
- View details about APIs, including, but not limited to product documentation, runtime URLs, endpoint information, and swagger documentation.

## Solution area

- SAP Ariba Network (Enterprise Account)

## Implementation information

This feature is automatically on for all customers with the applicable solutions but requires **customer configuration**.

## Prerequisites and Limitations


- In order to access the API Developer Portal, your company must have an Ariba Network Supplier Enterprise account.
- For details see “Steps to begin using the SAP Ariba APIs” in the help for The SAP Ariba Developer Portal.
- All queries made to this API must be authenticated using OAuth authentication. For details see “Developer Portal Authentication” in the help for The SAP Ariba Developer Portal.




## Feature at a Glance

# Introducing: Developer Portal initiated SSO for Suppliers

## Detailed feature information

This feature introduces a new section in the Account Settings section of the Ariba Network called API Management.

 **Ariba Network** Enterprise Account [AW Options...](#)

Account Settings

Save

Close

Customer Relationships

Users

Notifications

Account Hierarchy

Application Subscriptions

Account Registration

API management

Ariba Developer Portal(Automatic Log In)

Developer Portal

API Client ID Configuration

Client ID	Status	Modified Date	Modified By
<div><div></div><div>965e8dcb-fd78-4e60-a6a</div></div>	Active	2020-03-02 22:35:56 America/Los_Angeles	dpsupplier@ariba.com

# Feature at a Glance

## Introducing: Developer Portal initiated SSO for Suppliers

### Detailed feature information

The API Client ID Configuration section allows a company to input the Client ID created by the SAP Ariba Developer Portal for the applications they create to access their data via APIs.

SAP

Ariba Network

Enterprise Account

AW Options...

⚙️

?

JL

Account Settings

Save

Close

Customer Relationships

Users

Notifications

Account Hierarchy

Application Subscriptions

Account Registration

API management

Ariba Developer Portal(Automatic Log In)

Developer Portal

API Client ID Configuration

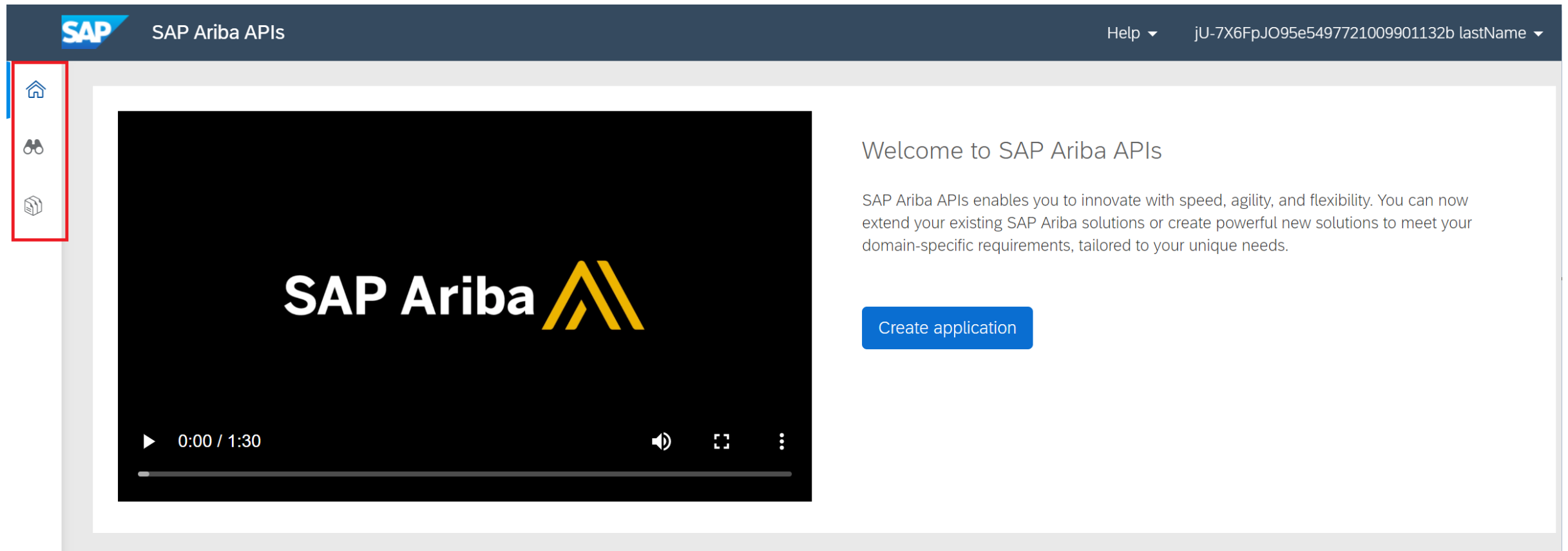
Client ID	Status	Modified Date	Modified By
<div><div></div><div>965e8dcf-fd78-4e60-a6a</div></div>	Active	2020-03-02 22:35:56 America/Los_Angeles	dpsupplier@ariba.com

## Feature at a Glance

# Introducing: Developer Portal initiated SSO for Suppliers

## Detailed feature information

Upon clicking the Developer Portal link in the Ariba Network Account Settings API Management tab, a supplier will be automatically logged in and see the below screen. The icons on the left hand side of the page allow you to navigate to different sections of the portal.





## Feature at a Glance

# Introducing: Developer Portal initiated SSO for Suppliers

## Detailed feature information

The discover icon takes suppliers to a page where they can view all available APIs under the Network Suppliers tab. Clicking on each API will provide a description of the API, a link to product documentation, rate limit information (if applicable), environment details (URLs), swagger documentation, endpoint information, and samples of successful and unsuccessful responses that can be retrieved from the API.

The screenshot displays the SAP Ariba APIs Developer Portal. The top navigation bar includes the SAP logo, 'SAP Ariba APIs', a 'Help' dropdown, and a user ID 'jU-7X6FpJO95e5497721009901132b lastNar'. Below the navigation bar, a breadcrumb trail shows '6JHCHG' > 'BC3J5Y' > 'NETWORK SUPPLIERS' > 'TNZEAU'. The 'NETWORK SUPPLIERS' tab is highlighted with a red box. On the left sidebar, a 'REST' section is visible, containing a list of APIs. The 'Ariba Network Invoice Extraction API' is selected and highlighted with a red box. The main content area displays details for this API, including its version 'v1 (Active)', a description of its functionality, a link to documentation, and information about rate limits and release notes.

**REST**

- Ariba Network Invoice Extraction API
- Buyer Supplier API
- supplierApi321
- supplierapi

**Ariba Network Invoice Extraction API**

✓ Version v1 (Active) ▼

The Invoice Extraction API enables you to retrieve invoice header details from the Ariba Network.

For complete documentation of this API, see [Ariba Network Invoice Extraction API](#).

Rate Limit (Requests): No specific API limits in place for this API but dynamic run time throttling is in effect.

**Release Notes**

This is the first version.

**Environment Details**

## Feature at a Glance

# Introducing: Developer Portal initiated SSO for Suppliers

## Detailed feature information

The manage icon allows a supplier admin to access create a new application, view the API applications that have been created, and make changes to any existing applications. The changes are listed under the actions button and include assigning the application to a developer, generating OAuth secrets, whitelisting IP addresses, and deleting an application.

The screenshot displays the SAP Ariba APIs Developer Portal interface. The top navigation bar includes the SAP logo, 'SAP Ariba APIs', a 'Help' dropdown, and a user profile 'jU-7X6FpJO95e5497721009901132b lastName' with a dropdown arrow. The left sidebar contains navigation icons: a home icon, a magnifying glass icon, and a cube icon (highlighted with a red box). The main content area is divided into two tabs: 'Applications' (highlighted with a red box) and 'Users'. Below the 'Applications' tab, there is a search bar with a search icon, a filter icon, and a plus icon. A list of applications is shown, including 'demo3' and 'demo4', both marked as 'Active'. Each application entry includes a search bar with the text 'op supplier' and a dropdown arrow. The details for 'subuser1' are displayed on the right, showing it was created by 'Peter Parker'. The details section includes fields for 'Developed by' (Peter Parker), 'Organization' (dp supplier), 'Summary' (subuser1), and 'Last updated' (Mar 3, 2020). An 'Actions' dropdown button is located in the top right corner of the details section.

Application Name	Status	Developer	Organization	Summary	Last updated
demo3	Active	Peter Parker	dp supplier	subuser1	Mar 3, 2020
demo4	Active	Peter Parker	dp supplier	subuser1	Mar 3, 2020

## Feature at a Glance

# Introducing: Developer Portal initiated SSO for Suppliers

## Detailed feature information

Within the manage section, an admin can also manage the users that have access to the SAP Ariba Developer Portal. Here an organization admin can add and remove users as well as change their roles and reset passwords. The two roles that exist today are Organization Admin and Developer.

The screenshot displays the SAP Ariba APIs interface for managing users. The top navigation bar includes the SAP logo, 'SAP Ariba APIs', a 'Help' dropdown, and a user profile 'jU-7X6FpJO95e5497721009901132b lastName'. The main content area has a sidebar with icons for home, search, and a cube. The top navigation shows 'Applications' and 'Users' (highlighted with a red box). The 'Users' section features a search bar and a list of users. The first user, 'jU-7X6FpJO95e5497721009901132b lastName' (Organization Admin), is selected. Their details are shown on the right, including 'Joined' date (Feb 27, 2020), 'Email' (snagaraj@ariba.com), and 'Organization' (dp supplier). An 'Actions' dropdown is present. Below the details, a 'Roles' section (highlighted with a red box) shows two roles: 'Organization Admin' (enabled with a blue toggle) and 'Developer' (disabled with a grey toggle).

Users
<div>JL</div> <div>jU-7X6FpJO95e5497721009901132b lastName</div> <div>Organization Admin</div>
<div>PP</div> <div>Peter Parker</div> <div>Developer</div>
<div>RK</div> <div>Richard Kumar</div> <div>Developer</div>

jU-7X6FpJO95e5497721009901132b lastName

Role: Organization Admin

Joined Feb 27, 2020

Email snagaraj@ariba.com

Organization dp supplier

Actions

Roles

Organization Admin ☒

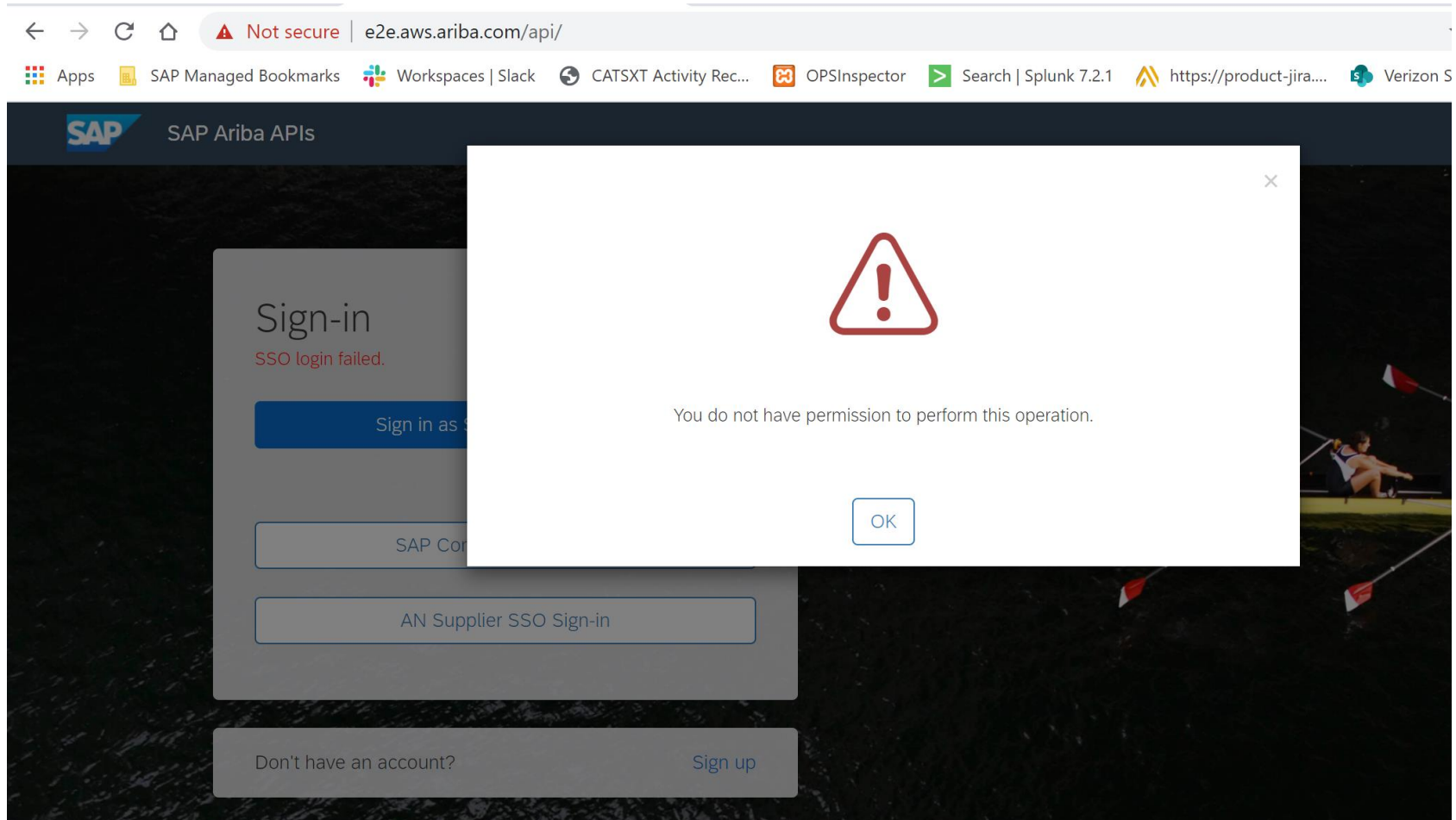
Developer ☐

## Feature at a Glance

# Introducing: Developer Portal initiated SSO for Suppliers


## Detailed feature information

Suppliers that do not have an Enterprise account will receive the following message if they try to access the SAP Ariba Developer Portal:



# Ariba Network Invoice Header Data Extraction API

## Feature at a Glance

Ease of implementation  High-Touch  
Geographic relevance  Global

# Introducing: Ariba Network Invoice Header Data Extraction API

## Customer challenge

Buyers and Suppliers may have various use cases where extracted data from header information of invoices transacted through the Ariba Network would build the data foundation.

Such use cases could be the list of invoices which have been rejected and require corrections or the list of invoices which have pending approvals.

## Meet that challenge with SAP Ariba

Ariba Network now provides an API which enables customers to access the Network and extract the relevant header information from one or many invoices.

## Experience key benefits

The invoice header API may help customers streamline their work and expedite the end to end invoice processing and automation cycle

## Solution area

- SAP Ariba APIs
- SAP Ariba Developer Portal
- Ariba Network

## Implementation information

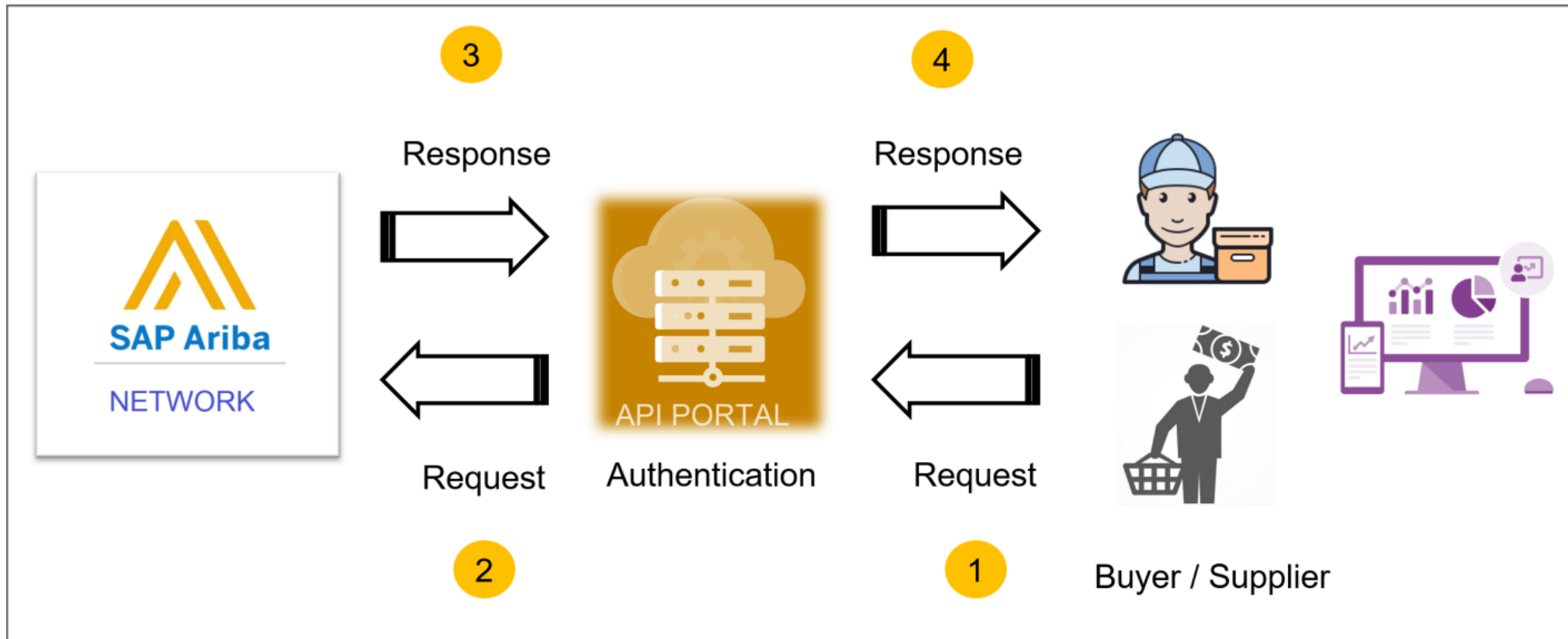
This feature is automatically on for all customers with the applicable solutions but requires **customer configuration**.

## Prerequisites and Limitations

- In order to create an application and request access to use the SAP Ariba APIs relevant to this feature, access to the SAP Ariba developer portal is required. The access to the APIs is restricted to Ariba Network suppliers with Enterpriseaccounts. Standard Account suppliers are not able to access the SAP Ariba Developer Portal.
- All queries made to this API must be authenticated using OAuth authentication.
- API client ID in Ariba Network must be configured

## Feature at a Glance

### Introducing: Ariba Network Invoice Header Data Extraction API



## Feature at a Glance

# Introducing: Ariba Network Invoice Header Data Extraction API

### API filters

Users may use certain filters as parameters in extension to the endpoint URL.

- **buyerANID** - The customer's ANID. The invoices corresponding to that particular buyerANID will be fetched.
- **supplierANID** - The supplier's ANID. The invoices corresponding to that particular supplierANID will be fetched.
- **documentNumber** - Same as the invoice number. The user can get header level information for a particular document.
- **invoiceStatus** - Invoice Status indicates where the invoice stands in regard to your processing of the document. The invoice status can be (INVOICE\_SENT, INVOICE\_FAILED, INVOICE\_REJECTED, INVOICE\_APPROVED, INVOICE\_PAID, INVOICE\_CANCELED, INVOICE\_OBSOLETE, INVOICE\_IN\_PROGRESS, INVOICE\_PENDING\_APPROVAL, INVOICE\_NOT\_KNOWN ).
- **routingStatus** - Routing Status indicates whether an invoice is queued, sent, acknowledged, or if routing failed. The routing status can be ("Sent", "Failed", "On Hold", "Queued", "Acknowledged", "Obsoleted")
- **startDate** - Search by the date on which Ariba Network received the invoice. The maximum date range is 31 days.
- **endDate** - Search by the date on which Ariba Network received the invoice. The maximum date range is 31 days.
- **documentPurpose** - Search the documents based on the document purpose. The purpose values can be ("standard", "creditMemo", "debitMemo", "lineLevelCreditMemo", "lineLevelDebitMemo")



## Feature at a Glance

### Introducing: Ariba Network Invoice Header Data Extraction API (Sample Response)

```
1  {
2    "content": [
3      {
4        "documentNumber": "inv-055",
5        "supplierName": "jUnitOrg - jrkJViDFb5d5139fd50810",
6        "supplierANID": "AN02000000218",
7        "buyerName": "jUnitOrg - aZ4WiYb05d51344950180",
8        "buyerANID": "AN02000000214",
9        "createdDate": "2020-01-14T08:24:33+05:30",
10       "routingStatus": "Sent",
11       "documentStatus": "Sent",
12       "payloadId": "1578990273948-7350184166859023869@127.0.0.1",
13       "documentDate": "2020-01-14T08:24:33+05:30",
14       "netTerms": null,
15       "documentStatusComments": "The document was added to the pending queue for download.",
16       "documentStatusDate": "2020-01-14T13:57:03+05:30",
17       "externalInvoiceNumber": null,
18       "externalOrderNumber": "647532238",
19       "numberOfItems": 1,
20       "purpose": "standard",
21       "signFromCountry": null,
22       "signToCountry": null,
23       "tax": {
24         "amount": 251.52,
25         "currencyCode": "USD"
26       },
27       "totalAmount": {
28         "amount": 1823.52,
29         "currencyCode": "USD"
30       },
31       "type": "TypeContract"
32     },
33   ]
34 }
```

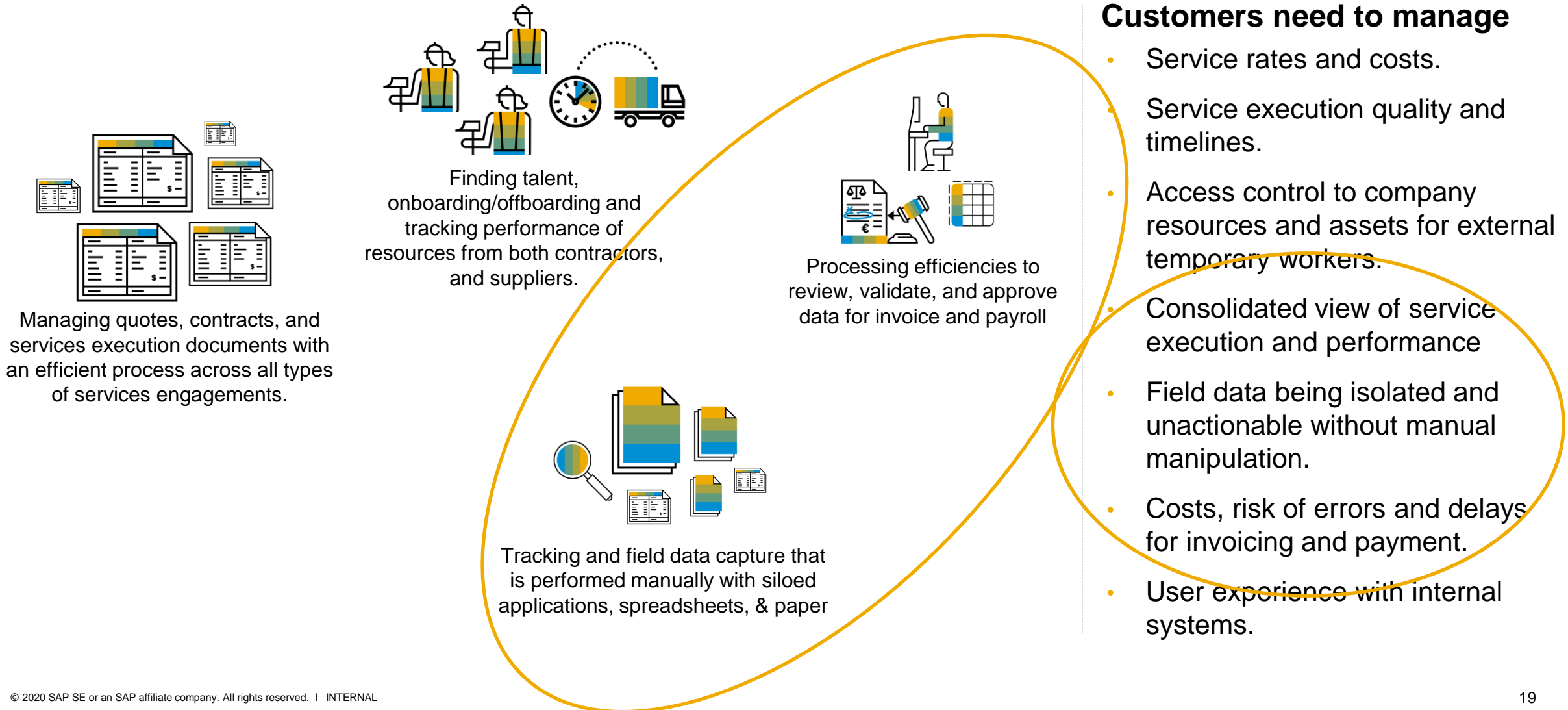


# Proof of Service API for Suppliers

Franck Dupas, SAP Procurement Solutions Management and Strategy  
May 7<sup>th</sup>, 2020

INTERNAL

# Challenges with procuring and managing services engagements





# The case of Oil & Gas Upstream industry

“Traditionally, field tickets have been recorded on **paper** and require a **signature of approval**.

The ticket is then processed through the supplier's back office and **sent via email or traditional mail** to the operator.

Historically paper field ticketing has experienced a **significant rejection rate** when invoices are received by the operator because there isn't a step in the process to validate if the service recorded on the field ticket matches the actual service performed.”

PIDX, Dec 3<sup>rd</sup> 2019

<http://www.pidx.org/field-ticket-business-process-guideline/>





# Business case for proof of service

According to PIDX, the digital field ticket process is:

- “simplifying the approval process,
- reducing invoice rejections and
- improving payment times for suppliers.

Additionally, it will **remove a significant amount of rework** by both operators and suppliers in the billing process and **save the industry millions of dollars each year.**”

PIDX, Dec 3<sup>rd</sup> 2019

<http://www.pidx.org/field-ticket-business-process-guideline/>

**Services/MRO** represents **huge spend category** in **asset intensive industries**, e.g. up to 70% in O&G.

Proof of service increases **trust** between trading partners.



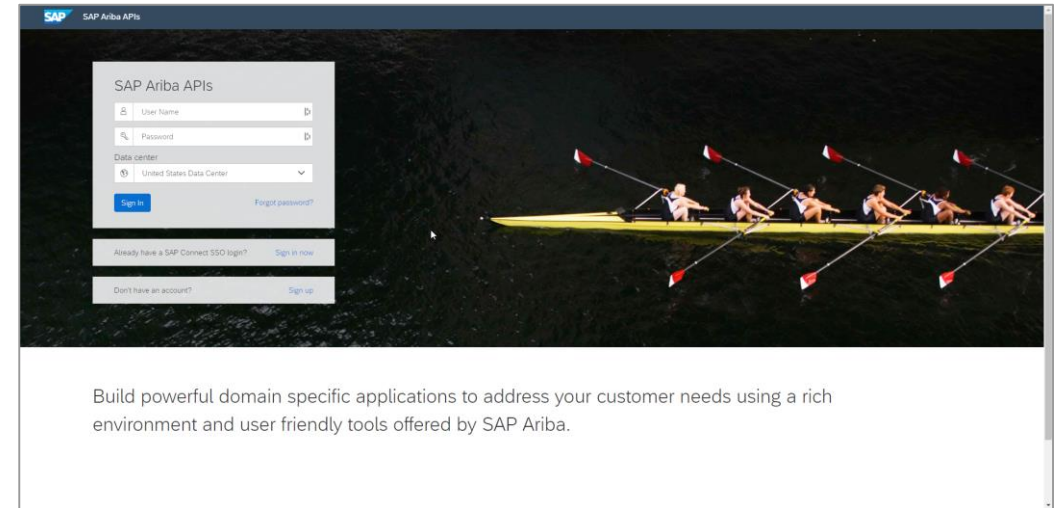
# Proof of Service API

Road map\*  
release 2005  
(May 2020)

Innovation: give Suppliers access to the SAP Ariba Developer Portal to consume APIs

Innovation: proof of service API

- Set permissions (buyer & supplier admins)
- Mandate for proof of service before service sheet
- API:
  - Get user list with permissions
  - Create (technician creates, supervisor creates on behalf of a technician)
  - View (technician, supervisor, buyer approver)
  - Update (supplier supervisor review, buyer approval)
  - Upload/download attachments



\* This is the current state of planning and may be changed by SAP at any time without notice.

# Main differences between service sheet and proof of service

- Proof of service let **no commercial data** be visible by the worker. The worker (technician or contractor) does not need to or should not know about material or services prices and contractual conditions.
- Proof of service reports the **actual work done** by the contractor and 'signed and approved' by the buyer approver. In addition the supplier reviewer can maintain different charged quantities. Service sheets include only what the supplier intends to charge to the buyer.
- **Dispute resolution**
  - Between technician and assigner where technician can reject the work assigned.
  - Between technician and supervisor with proof of service review where the supervisor can reject the technician data entered on the proof of service.
  - Between buyer representative on site and supplier supervisor. The buyer can refuse to approve the proof of service.



## Feature at a Glance

### Introducing: **Proof of service API**

#### Detailed feature information

The introduction to the proof of service is available in the **Ariba Network for Suppliers** documentation **Receiving and fulfilling orders** in the chapter **Topics about proof of service** available at the address

<https://help.sap.com/viewer/45abc7c531754929a19c6a844bd5d6ec/cloud/en-US/00fdad1e3c414c8a9aea472bdb3fb531.html>

As it is written in this documentation:

- A proof of service can correspond to one line item in the purchase order.
- A proof of service can be created only at the purchase order line item level.
- A proof of service can be created only for service items.

There are two methods to view the data of a proof of service created using the API:

- With the proof of service report in Ariba Network
- With the View Proof of Service API



## Feature at a Glance

### Introducing: **Proof of service API**

#### **Proof of service header details (1/2)**

A proof of service (PoS) header includes the data presented below and on the next page.

Header field name (1/2)	Data type	Description
Document number	Alphanumeric	A unique identifier per supplier organization for the proof of service document
Location	Text	Location or site code where the service was performed
Start date	Date	Start date and time of the service provided
End date	Date	End date and time of the service provided
Description	Text	Description of the service that was completed. If the ticket is created from the purchase order (PO), then the service description from the PO will be copied over
Project Code	Text	Generic code describing the project, e.g. AFE code, etc.
PO Number	Alphanumeric	The purchase order (PO) to which the proof of service is linked
Accounting	Alphanumeric	Accounting code for the proof of service. Initially pulled from the PO
Creator	User id, first name, last name, AN id	The user who has created the proof of service
Create date	Date	Date of creation of the PoS
Completed by	Alphanumeric	The user identifier of the contractor who executed the task

## Feature at a Glance

### Introducing: **Proof of service API**

#### **Proof of service header details (2/2)**

A proof of service (PoS) header includes the data presented below and on the previous page.

Header field name (2/2)	Data type	Description
Status	List of values (see <a href="#">page 7</a> )	Status of the proof of service depending on the processing state. See allowed values later in this document
Reviewer	Alphanumeric	The supplier user identifier (field supervisor) who should review the proof of service, link to the purchase order line item and submit for approval
Review comment	Text	Comment added by the supervisor about the proof of service review
Approver	Alphanumeric	The Buyer user identifier who should approve or reject the proof of service
Buyer comment	Text	Comment added by the buyer about the PoS approval or rejection
Attachments	Document	Attachments to the proof of service, e.g. a picture
Total amount	Number	Sum for all proof of service items of the chargeable quantity multiplied by the unit price

## Feature at a Glance

### Introducing: **Proof of service API**

#### **Proof of service line item details**

The table below lists the details of the proof of service line item

Line item field name	Data type	Description
Line number	Number	Line number of the proof of service line item within the proof of service
PO Line number	Number	Line number of the PO service line item to which the proof of service line item is linked to
Type	Values	Type of the proof of service line item, Service or Material
Description	Text	Description of the material or service of the proof of service line item
Quantity	Number	Quantity of material used or service delivered for the task
Chargeable quantity	Number	Quantity of material or service to be charged and invoiced to the buyer
Unit of measure	Alphanumeric	The unit of measurement of the quantity of material or service
Unit price	Number	Price per unit of the item.
Currency	Currency code	Currency code for the payment of the service.
Start	Date and time	Start date and time of the service. Not for material
End	Date and time	End date and time of the service. Not for material
Comments	Text	Comments about the proof of service line item

## Feature at a Glance

### Introducing: **Proof of service API**

#### List of features

The following released features enable the actions available to process a proof of service:

Name	Feature identifier	Available only for
Getting user list using the Proof of Service API	NS-7318	Suppliers
Creating proof of service using the Proof of Service API	NS-7392	Suppliers
Updating proof of service using the Proof of Service API	NS-7401	Suppliers and Buyers
Viewing proof of service using the Proof of Service API	NS-7536	Suppliers and Buyers
Proof of Service API (Adding and downloading proof of service attachments)	NS-7273	Suppliers

All users can view all proof of service details, including attachments, except contractors (with only *Proof Of Service Create Access* permission) who cannot see the following details: **Project code**, **Accounting**, **Approver**, **Unit price**, **Chargeable quantity**, **Total amount**.

## Feature at a Glance

### Introducing: Proof of service API

#### Proof of service status, roles and details updates

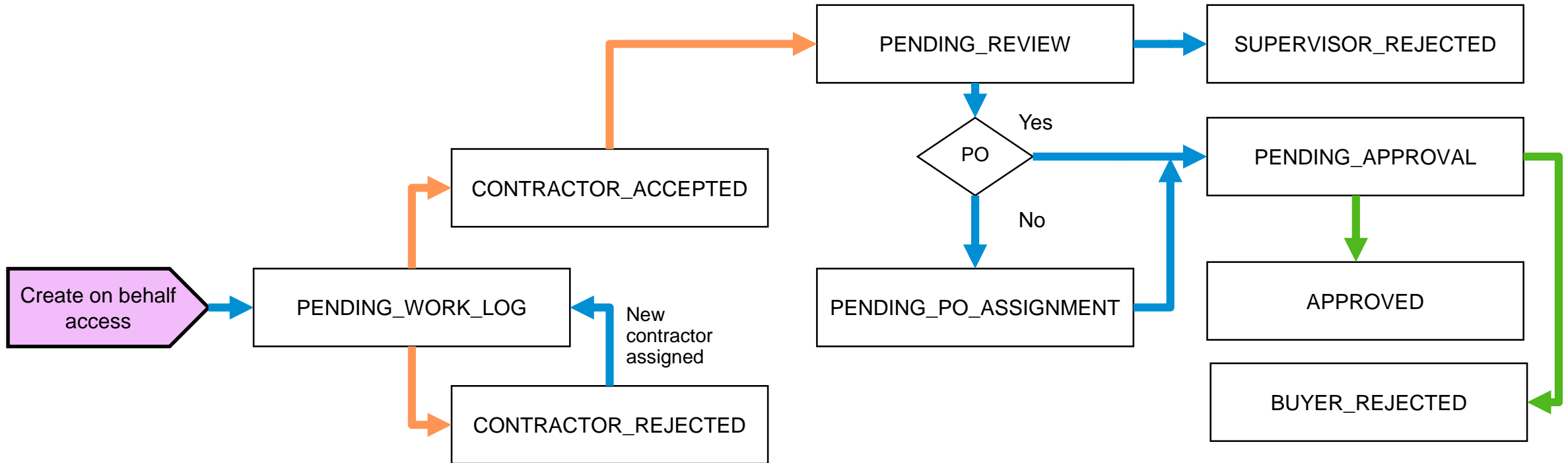
The following parameters can be updated by users with different roles, based on the proof of service (PoS) status:

Proof of service status	Contractor	Supplier user who creates PoS on behalf of contractor	Supervisor (reviewer)	Buyer (approver)
PENDING_WORK_LOG	Status	Status, contractor, reviewer, approver	None	None
CONTRACTOR_REJECTED	None	Status, contractor	None	None
CONTRACTOR_ACCEPTED	Status, location, description, start date, end date, file, and all line item parameters except line number and PO line number	None	None	None
PENDING_REVIEW	None	None	Status, location, description, start date, end date, accounting, project code, approver line items: line number, description, start date, end date, item type, comments, chargeable quantity, file, and all PO parameters	None
PENDING_PO_ASSIGNMENT	None	None	Status, accounting, project code, approver, and all PO parameters	None
SUPERVISOR_REJECTED	None	None	None	None
PENDING_APPROVAL	None	None	None	Status, accounting, buyer comment
BUYER_APPROVED	None	None	None	None
BUYER_REJECTED	None	None	None	None

## Feature at a Glance

### Introducing: **Proof of service API**

#### Proof of service status transitions for use case 1



A supplier **PoS assigner** (with Proof Of Service Create On Behalf Access permission), creates a PoS with purchase order information and assigns it to a contractor. The **contractor** accepts the PoS and completes it with execution details or rejects it, in which case the PoS assigner will need to reassign it to another contractor. A **supervisor** reviews the PoS, selects the approver, and submits the PoS. The buyer **approver** accepts or rejects the PoS.

#### Legend

Permissions

Contractor actions

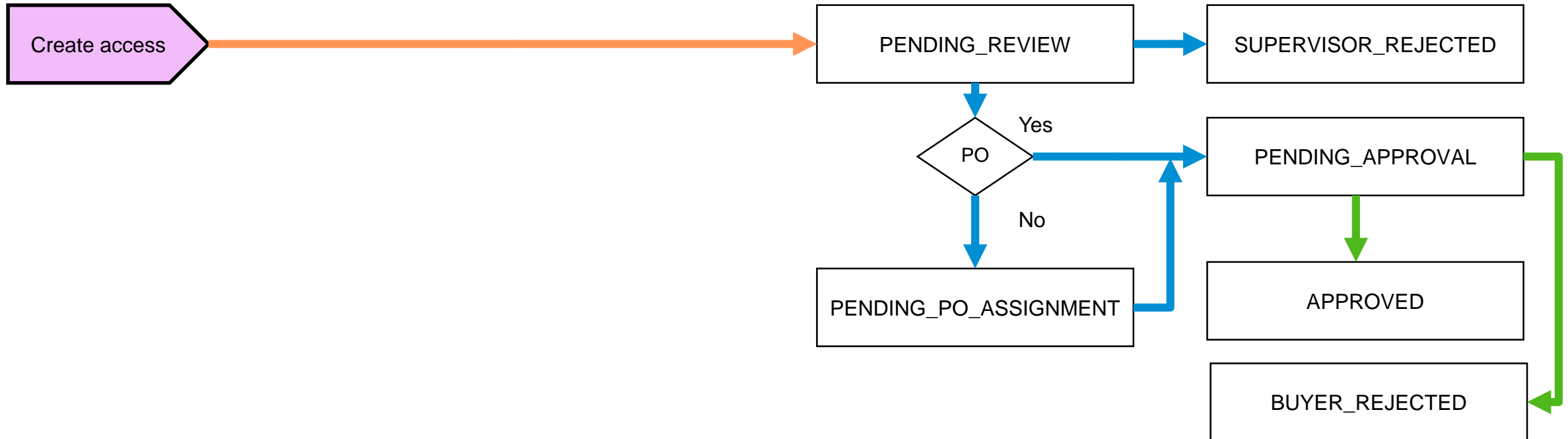
Buyer approver actions

Supplier assigner or supervisor actions

## Feature at a Glance

### Introducing: Proof of service API

#### Proof of service status transitions for use case 2



A **contractor** (with *Proof Of Service Create Access* permission) creates a proof of service. PoS is reviewed by a supplier **supervisor** (with *Proof Of Service Review Access* permission) who rejects or accepts the PoS. The supervisor rejects the PoS or adds purchase order information and selects the approver, and submits the PoS. The buyer **approver** (with *Proof Of Service Approval Access* permission) accepts or rejects the PoS.

#### Legend

Permissions

Contractor actions

Buyer approver actions

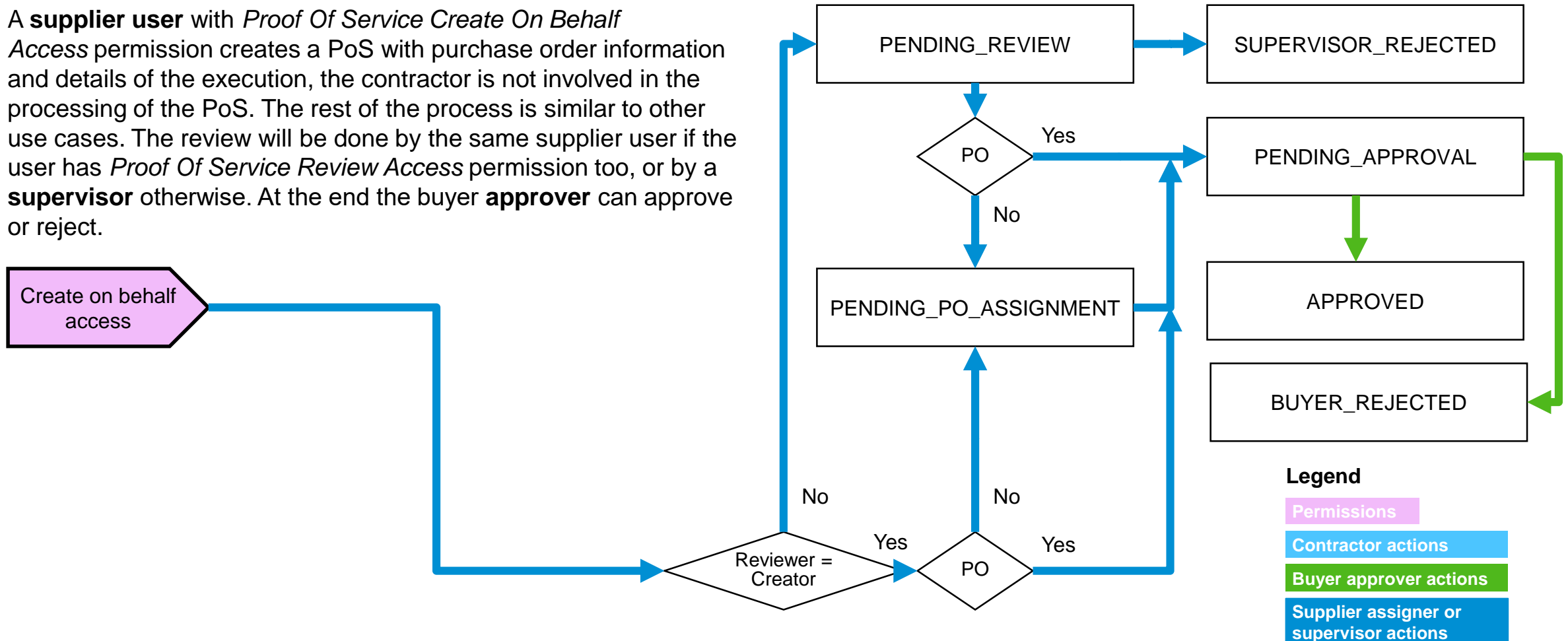
Supplier supervisor actions

## Feature at a Glance

### Introducing: Proof of service API

#### Proof of service status transitions for use case 3

A **supplier user** with *Proof Of Service Create On Behalf* Access permission creates a PoS with purchase order information and details of the execution, the contractor is not involved in the processing of the PoS. The rest of the process is similar to other use cases. The review will be done by the same supplier user if the user has *Proof Of Service Review Access* permission too, or by a **supervisor** otherwise. At the end the buyer **approver** can approve or reject.

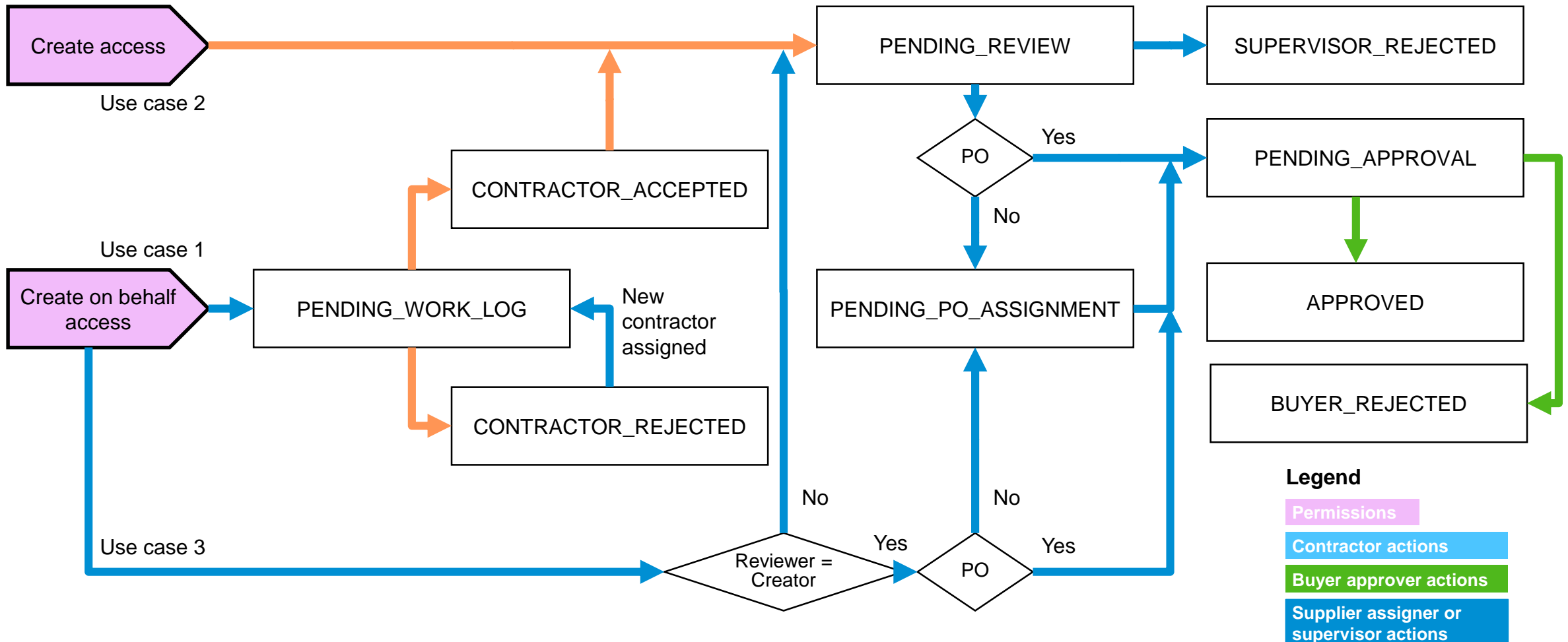




# Feature at a Glance

## Introducing: Proof of service API

### Synthesis: Proof of service status transitions all use cases



# Thank you.

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