Ariba® Network
Level 1 PunchOut Catalog Guide

February, 2022

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Deloitte.

SAP

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What is PunchOut Catalog?

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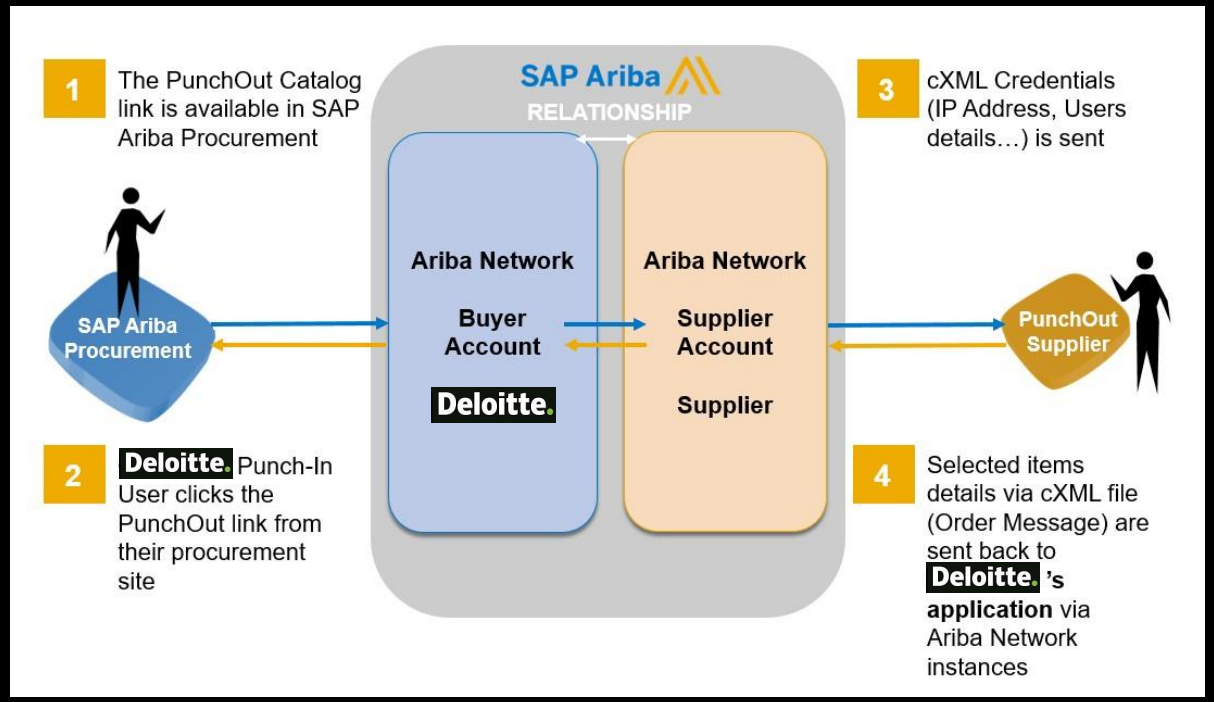
What is a PunchOut Catalog?

- The PunchOut Catalog is directly hosted by the supplier in their website and allows end users to go directly to supplier's website and search for items

- The supplier is controlling and maintaining the content of their Catalog, according to their contract with **Deloitte**



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Requirements

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Deloitte PunchOut Requirements

- **Business and Technical Requirements on catalog content**

Talk with **Deloitte** about which products to make available on your PunchOut site. For the best user experience, you should understand the high-level business requirements of your customers.

Find out **Deloitte** technical requirements for product content and transactions. Develop the processes for addressing the issues that arise when two organizations enter into a trading relationship

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Deloitte PunchOut Requirements

- **Commodity Codes Required for Catalog Items:**

It is compulsory to associate a commodity code for each item in your catalog. A list of commodity codes is available in your Supplier Information Portal which is accessible from your Ariba Network account.

- **Configure Website to Accept Customer's ANID:**

You must configure your website in order to accept the ANID of **Deloitte.** Please make sure during the PunchOutSetupRequest configuration to add the ending "-t" to **Deloitte**'s ANID when you will create your catalog in your TEST account. **Deloitte** might also request different accesses for its users, therefore make sure you configure your website using the UserIDs.

- **Consult cXML Documentation:**

In order to help you to configure your website to transact via cXML data with Ariba Network, you should acknowledge the cXML requirements from **Deloitte.** You can find the **Deloitte** cXML Design Specification Guide and also refer to the Ariba cXML Solutions Guide and the cXML User Guide which are two guides available in your Supplier Information Portal.

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Deloitte PunchOut Requirements

cXML is an open language defined by public Document Type Definitions (DTDs). These DTDs define cXML so that it is extremely flexible, which encourages its wide adoption.

- Supplier's PunchOut site must communicate through **HTTPS (Hyper Text Transfer Protocol Secure)** - for more information, see "HTTPS Connections" in Ariba cXML Solution Guide
- HTTPS protects all parties in PunchOut sessions: your customer, Ariba Network, and your PunchOut site.
- Supplier needs to document the transaction process flow into and out of your PunchOut site and identify which messages need to be coded.

Ariba has documentation available to assist in defining the process. The technical developer should read the following guides, available on Ariba – login to your Ariba account > select Help in top right corner > *Help Center* > *Learning Center* > *For Administrator*:

- **Ariba cXML Solution Guide**

- **Security**

Your PunchOut site must communicate through HTTPS (Hyper Text Transfer Protocol Secure). HTTPS protects all parties in PunchOut sessions: Deloitte Ariba Network, and your PunchOut site.

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PunchOut Catalog Enablement - Timelines

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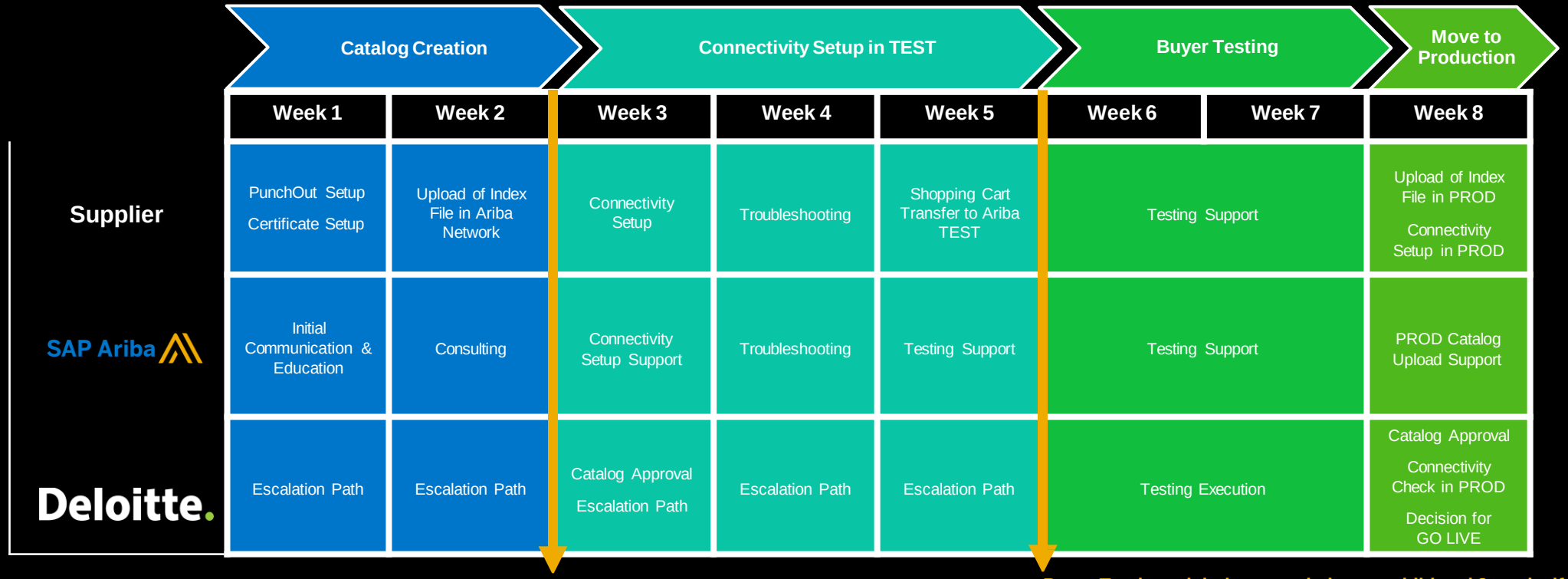
PunchOut Catalog Enablement - Timelines

Buyer's Prerequisites to Start:

- Catalog Requirements Completed
- Catalog Approvers Identified
- Commodity Codes & UoM Loaded
- Supplier Master Data Enriched (Supplier ANID Added)
- Escalation Path Defined
- Catalog Content Clarified with Supplier

Supplier's Prerequisites to Start:

- Secured Web Shop Available
- IT Resources for Configuration Available
- Catalog Content Clarified with Buyer
- AN Trading Relationship Established
- AN Test Account Created



In case of Supplier without experience on SAP Ariba PunchOut, creation phase may take longer

Buyer Testing might be extended up to additional 8 weeks if transaction integration is requested by the Supplier

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Level 1 PunchOut

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Level 1 PunchOut

- Level 1 PunchOut enables users to search for the items directly on your website.
- Procurement solutions display a hyperlink instead of product or pricing details. When users click this hyperlink, their web browser displays a page from your local website where they can add items to the cart. Once finish with this page, they click a button that returns the order information to SAP Ariba. The fully configured products and their prices appear within the procurement solution on users' purchase orders.
- PunchOut first requires you to provide a PunchOut index catalog and load into Ariba Network Supplier Account. Second, your PunchOut site sends cXML messages to SAP Ariba via Ariba Network to populate requisitions with line items.

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PunchOut Configuration

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Configure your cXML profile

You must configure your cXML profile and set options in your Ariba Network account to connect with you cXML-enabled application.

You can set the following options:

- **Authentication method**

You can select **shared secret** or **digital certificate** authentication. Ariba Network and cXML-enabled applications (such as PunchOut websites) authenticate each cXML document they receive to ensure that they are legitimate.

- **PunchOut URL**

Ariba Network receives PunchOut requests from buyers and routes them to suppliers' PunchOut sites. There are two methods you can use to specify the URLs of your PunchOut site.

- URL specified on your PunchOut site
- URL specified on Ariba Network

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Authentication Methods

When you configure your Ariba Network account, you select from two available cXML authentication methods: shared secret, or digital certificate.

- **Shared Secret**: (default) You enter a confidential text string into your Ariba Network account and configure your cXML application with that same string (if the shared secrets do not match, documents cannot be delivered). Then, those applications insert the shared secret string in cXML documents they generate. Each application authenticates received cXML documents by comparing the shared secret in them to the one it knows.

Shared secret authentication is simple to set up, it is free, and it requires little maintenance.

- **Digital Certificate**: You purchase and maintain a client digital certificate from a trusted certificate authority. Then, you enter that certificate into your Ariba Network account. Ariba Network and your application refer to that digital certificate for authentication. The certificate does not appear in the cXML document or attached to the document; instead, the TLSv1 protocol exchanges it before the document exchange takes place.

Digital certificate authentication requires more setup, certificates cost money, and they expire over time. However, it might be more compatible with your organization's security strategy.

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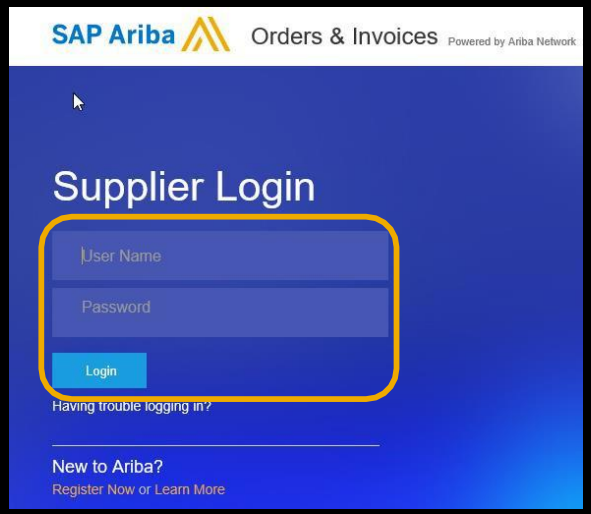
PunchOut Configuration Steps on Ariba Network

Your cXML setup must be created on Ariba Network in your **TEST and PRODUCTION account.**

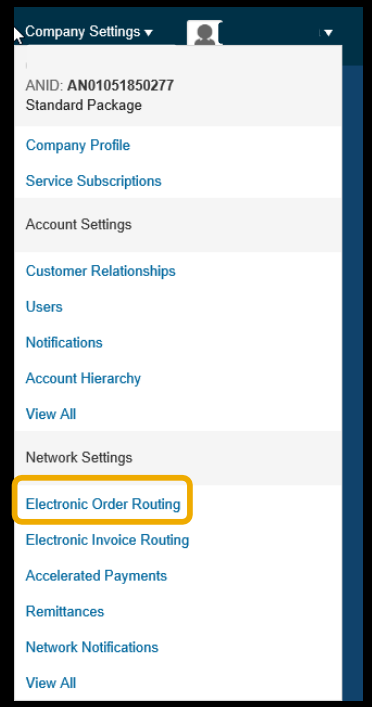
1 Access your Ariba Network Account

Go to: http://supplier.ariba.com
Enter your **Username** & **Password** and click **Log In** to access your Production account.



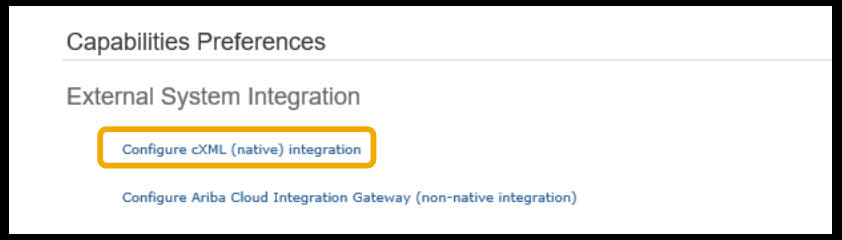
2 Access the Electronic Order Routing page

Click **Electronic Order Routing** at **Administration Navigator**.



3 Access the cXML Setup Page

Under cXML Setup click on **Configure cXML setup.**



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PunchOut Configuration Steps on Ariba Network

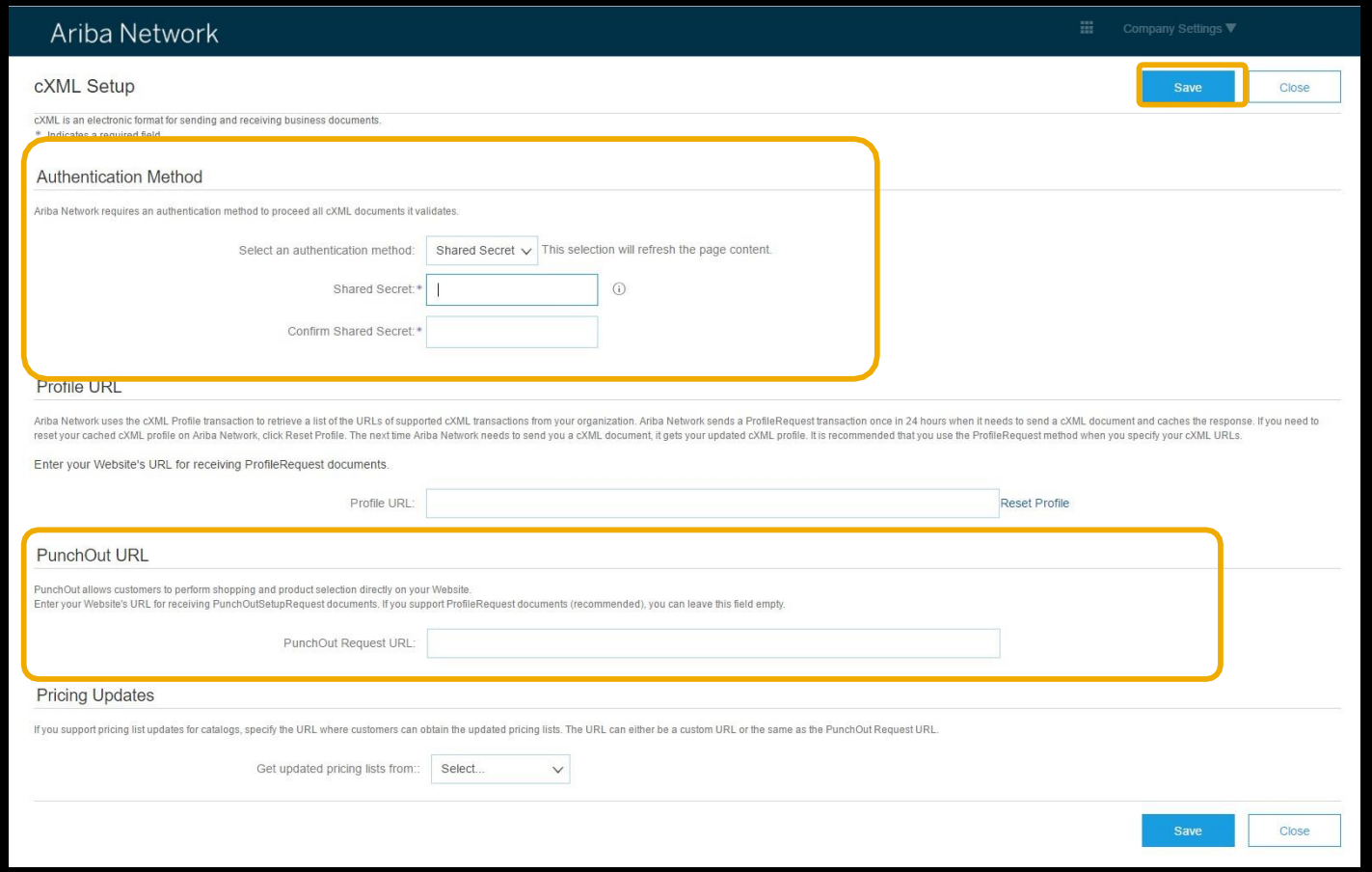
4 Configure your Shared Secret

You need to enter a **Shared Secret** to authenticate your cXML documents.

5 Configure your PunchOut URL

You need to enter your **PunchOut URL.** You should have **a secured link** in order to create your PunchOut (beginning with: **https://...**).

Click **OK.**



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PunchOut Message Flow

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PunchOut Message Flow

Each step in the PunchOut process can be described through a message flow.
A PunchOut session is comprised of various cXML messages that pass between SAP Ariba Procurement, Ariba Network, and your PunchOut site. They include:

- User Login
- PunchOut Site Selection
- PunchOutSetupRequest
- PunchOut authentication
- PunchOutSetupResponse
- Shopping
- PunchOutOrderMessage
- Requisition Approval
- Order Request

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PunchOut Message Flow

Login

- A user at a buying organization first logs in to SAP Ariba Procurement and creates a requisition. This step is important, because it means the user has been authenticated by the buying organization. During PunchOut, Ariba Network authenticates the buying organization, not the user.

Site selection

- Next, the user searches for products and services in the procurement application and selects your PunchOut item. As you offer a PunchOut Level 1 the user punches out to see all your products by selecting your company name.

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PunchOut Message Flow

PunchOutSetupRequest

- SAP Ariba Procurement generates a cXML PunchOutSetupRequest document and sends it through an HTTP Post to Ariba Network. Ariba Network authenticates it and forwards it through an HTTP Post to your PunchOut site.
- When the buying organization registers on Ariba Network, it configures a SharedSecret. PunchOutSetupRequest documents sent to Ariba Network identify the customer based on the Identity element in the From element and populate the Credential domain with the customer's NetworkID. Each buying organization has its own NetworkID.
- When Ariba Network determines who the request is from and who it is to, it deletes the customer's shared secret and uses the one from your Ariba Network account. This shared secret allows the PunchOutSetupRequest to effectively log in to your PunchOut site. You never see your customer's SharedSecret and do not have to maintain a separate password/login for each user or customer. The end user can be identified in Contact and Extrinsic elements.

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PunchOut Message Flow

- **From Credential**

This element identifies the originator of the POSR (the buying organization). For example:

```
<From>
<Credential domain="NetworkID">
<Identity>AN01011030865</Identity>
</Credential>
</From>
```

- **To Credential**

This element identifies the supplier (the destination of the POSR). For example:

```
<To>
<Credential domain="NetworkID">
<Identity>YourANID</Identity>
</Credential>
</To>
```

- **Sender Credential**

When a procurement application creates the POSR document, the Sender credential specifies the identity and shared secret of the buying organization. **When Ariba Network forwards the document to the supplier, it changes the Sender credential to specify the identity of Ariba Network and uses the supplier's SharedSecret.**

- This example shows a PunchOutSetupRequest that has passed through Ariba Network.

```
<Sender>
<Credential domain="AribaNetworkUserId">
<Identity>sysadmin@ariba.com</Identity>
<SharedSecret>abracadabra</SharedSecret>
</Credential>
<UserAgent>SAP Ariba Procurement 7.1</UserAgent>
</Sender>
```

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PunchOut Message Flow

Authentication

- When your PunchOut site receives the PunchOutSetupRequest document, it performs the following tasks:

Authenticates Ariba Network based on the Sender and SharedSecret

Verifies the From identification

- You can now initiate a session because the user's organization is a certified Ariba Network member. Your PunchOut site can generate a shopping page for the PunchOut session.
- Your PunchOut site must perform authentication through the domain, buyer identity, and shared secret. You cannot deploy it if it performs authentication any other way, for example with a user ID or with a user-entered password.

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PunchOut Message Flow

PunchOutSetupResponse

- Your PunchOut site redirects the user. It issues a PunchOutSetupResponse document to Ariba Network with your StartPage URL, which is the shopping page of your PunchOut site. Ariba Network forwards the PunchOutSetupResponse to SAP Ariba Procurement.
- All PunchOutSetupResponse documents sent to Ariba Network must contain a 200 status code and the StartPage Uniform Resource Locater (URL). Any deviation from this constitutes an invalid cXML response. The following example provides a correct cXML response:

```
<!DOCTYPE cXML SYSTEM "http://xml.cxml.org/schemas/cXML/1.2.014/cXML.dtd">
< cXML payloadID = "958074700772234234242" timestamp = "2015-06-10T12:59:09-07:00">
   <Response>
      <Status code = "200" text = "success"/>
      <PunchOutSetupResponse>
         <StartPage>
            <URL>https://punchout.company.com/Servlet/sessionid=7006</URL>
         </StartPage>
      </PunchOutSetupResponse>
   </Response>
```

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PunchOut Message Flow

Shopping

- SAP Ariba Procurement opens your PunchOut site in a new window using the StartPage URL you supplied. The user selects and configures products or services. Selecting an item adds it to a shopping cart or basket on your site.

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PunchOut Message Flow

PunchOutOrderMessage

- When done selecting items on your PunchOut site, the user clicks a Transfer Basket to SAP Ariba Procurement link. Your site issues a PunchOutOrderMessage document to SAP Ariba Procurement (in an HTML hidden form field) that lists the content of the user's shopping cart.
- The window displaying your PunchOut site disappears and the description of the PunchOut items appears in the user's requisition. This information acts as a quote, not an actual order. When the quote is approved in SAP Ariba Procurement, it generates a purchase order.
- To alleviate user confusion, your checkout process should use the following sequence of buttons:
  - Add item to basket
  - Transfer basket to SAP Ariba Procurement
- To allow users to return to the PunchOut site and make changes to it, the PunchOutOrderMessage document should have the operationAllowed="edit" attribute.

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PunchOut Order Message Flow

```
            <PunchOutOrderMessageHeader operationAllowed="edit">
                <Total>
                    <Money currency="USD">300</Money>
                </Total>
            </PunchOutOrderMessageHeader>
            <ItemIn quantity="1">


<ItemID>
                    <SupplierPartID>101</SupplierPartID>
 <SupplierPartAuxiliaryID>5
 </SupplierPartAuxiliaryID>
                </ItemID>
                <ItemDetail>
                    <UnitPrice>
                        <Money currency="USD">2051</Money>
                    </UnitPrice>
                    <Description xml:lang="en"><ShortName><![CDATA[MVL-D SQL CAL 2008 SNGL USER
CAL]]></ShortName><![CDATA[MVL-D SQL CAL 2008 SNGL USER CAL]]></Description>
                    <UnitOfMeasure>TT</UnitOfMeasure>
                    <Classification domain="SupplierPartID">101</Classification>
                    <Classification domain="UNSPSC">43172204</Classification>
<Extrinsic name="ContractID">1234</Extrinsic>
<Extrinsic name="cas#">1234</Extrinsic>
<Extrinsic name="Hazmat">1234</Extrinsic>
<Extrinsic name="Recycle">1234</Extrinsic>
<Extrinsic name="GreenFlag">1234</Extrinsic>                </ItemDetail>
<Tax>
<Money currency="USD">5.24</Money>
<Description xml:lang="en">Tax Description</Description>
</Tax>
              </ItemIn>
        </PunchOutOrderMessage>
    </Message>
</cXML>
```

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PunchOut Message Flow

Requisition Approval

- SAP Ariba Procurement submits the requisition for approval within the buying organization. It does not update you on the progress of the requisition until after it has received all required approvals and has been turned into a purchase order.
- If managers in the approval chain deny a requisition, they can use PunchOut to go to your site to remove line items or delete the requisition. You should reach an agreement with customers about how canceled requisitions should be handled.

OrderRequest

- Upon approval of the requisition, SAP Ariba Procurement generates an OrderRequest document and transmits it to you through Ariba Network. This document contains the purchase order details required for processing.

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Publication of a Catalog on Ariba Network

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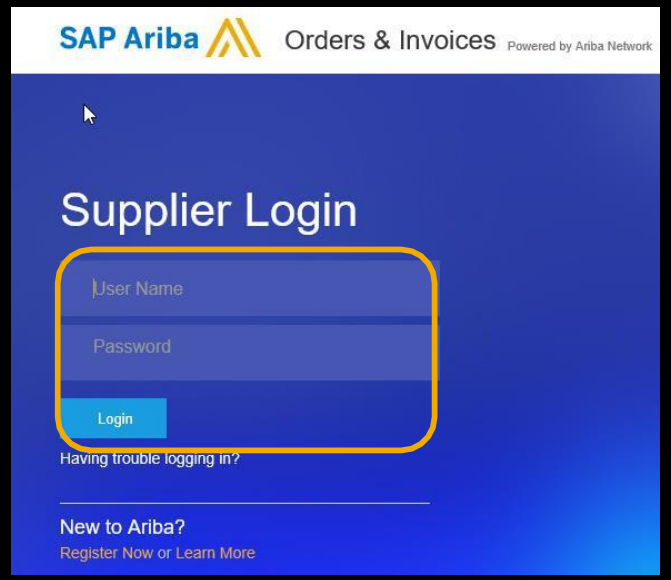
Publication of Catalog on Ariba Network

Your catalog on Ariba Network **must first be created in your TEST account.**
You will load your catalog on your production account only after publication and validation of the catalog in your TEST account.

1 Access your Ariba Network account

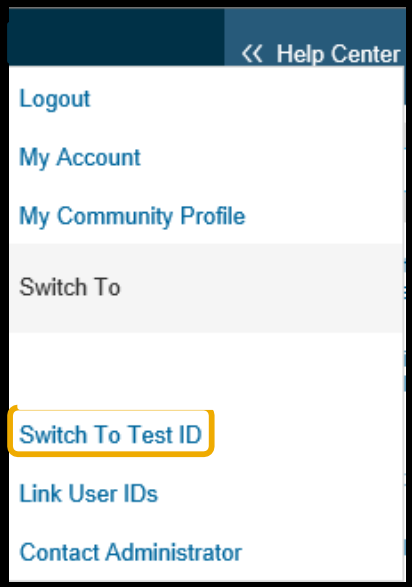
Go to: http://supplier.ariba.com

Enter your **Username** & **Password** and click **Log In** to access your Production account.

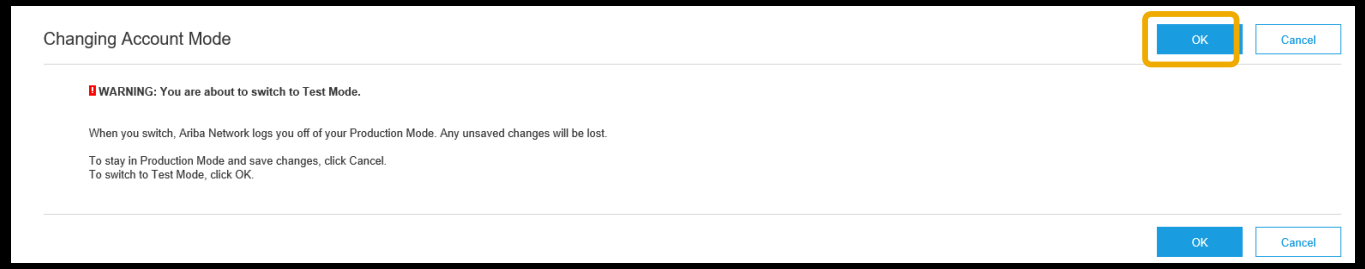


2 Switch to your Test Account

At User Navigator click Switch to Test Account.



Click OK.



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Publication of Catalog on Ariba Network

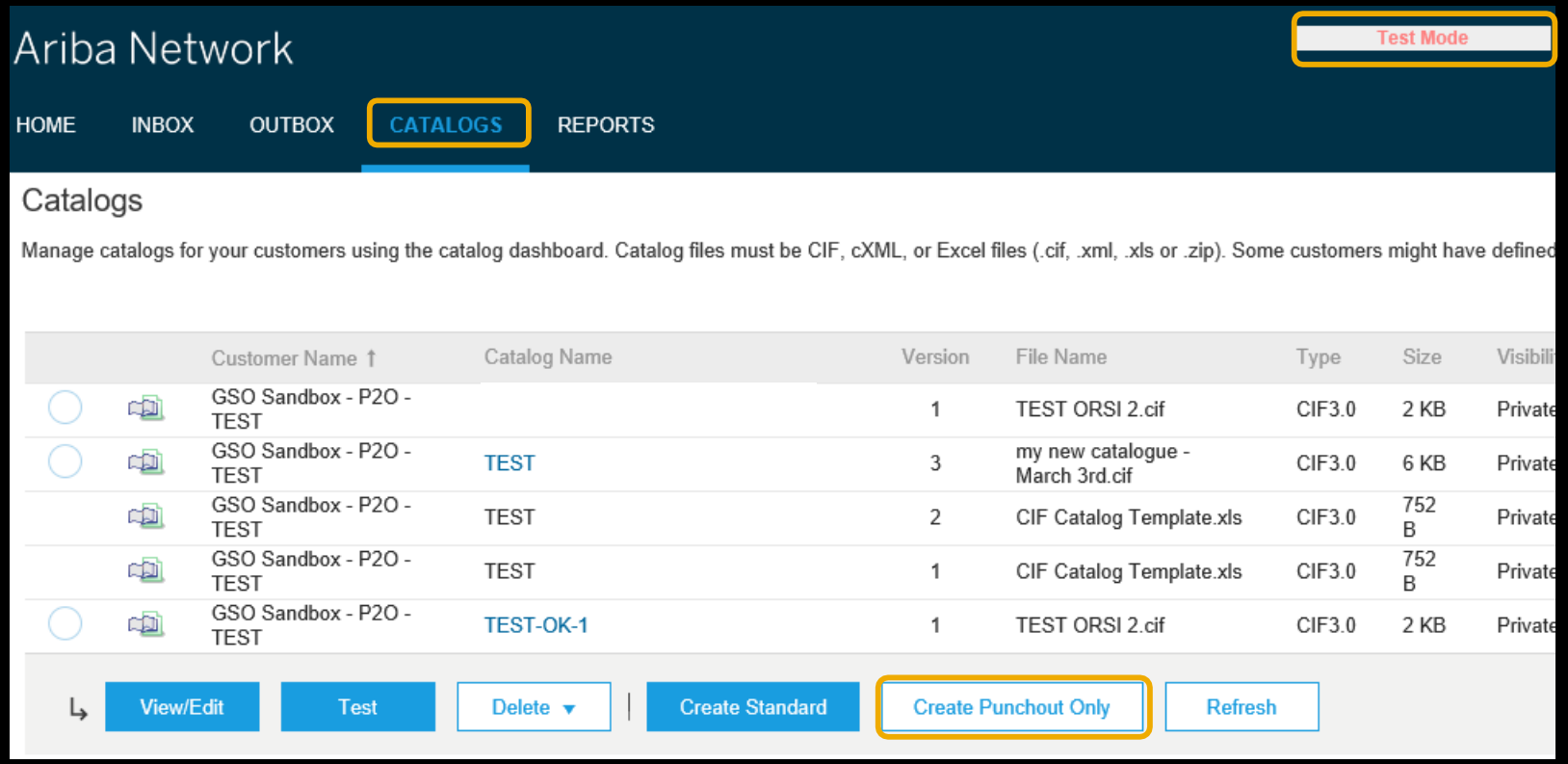
3 Catalogs tab

Be sure you are in your Ariba Network Supplier Test account and click the **Catalogs tab** on your Home Dashboard.

The Catalogs page is displayed.

4 Create your Catalog

Click on the button **Create PunchOut Only.**



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Publication of Catalog on Ariba Network

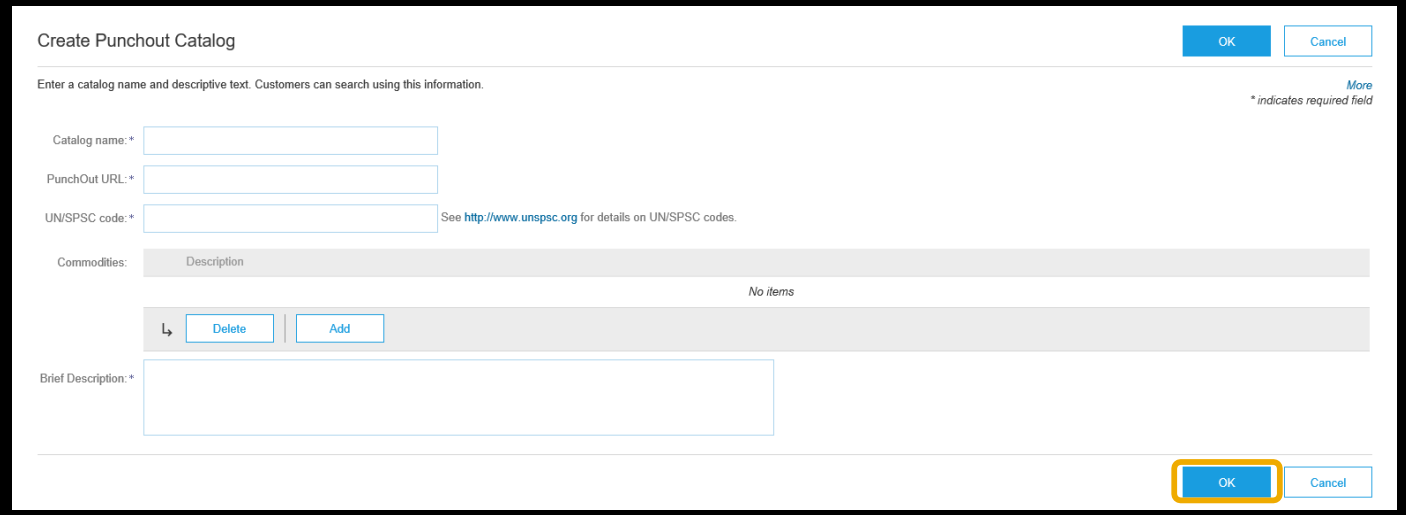
5 Catalog Information

Enter information about your PunchOut Catalog.
The Catalog Administrator of the Buying organization can identify your catalog from each of these fields on Ariba Network:

- **Catalog Name:** ex. Supplier_Customer_Country (or it depends on Buyer´s requirements)
- **PunchOut URL:** Enter the prefix https://
- **UN/SPSC code:** The UNSPSC code corresponding to the items' family/group of your catalog. Your customer will request to add a specific UNSPSC. If not, you will have to choose the most representative code as only one value is accepted.
- **Brief Description:** Describe briefly the content of your catalog or add **Keywords**

Click **OK.**

Note: The UNSPSC codes used in catalogs support version 13.5. However, it can translate any earlier version to 13.5 and vice versa.



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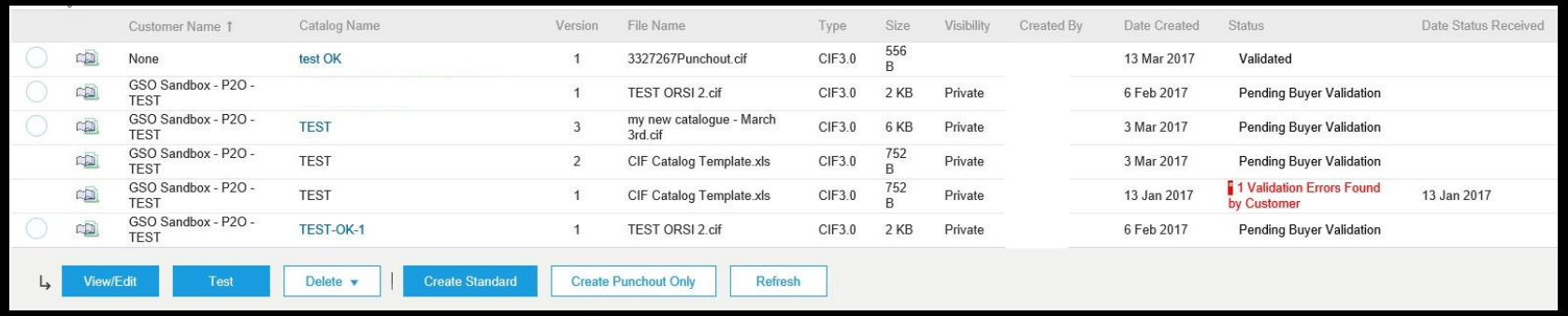
Publication of Catalog on Ariba Network

6 Create your Catalog

After this step the catalog is validated, but not published yet.



	Customer Name	Catalog Name	Version	File Name	Type	Size	Visibility	Created By	Date Created	Status	Date Status Received
	None	test OK	1	3327267Punchout.cif	CIF3.0	556 B			13 Mar 2017	Validated	
	GSO Sandbox - P2O - TEST		1	TEST ORSI 2.cif	CIF3.0	2 KB	Private		6 Feb 2017	Pending Buyer Validation	
	GSO Sandbox - P2O - TEST	TEST	3	my new catalogue - March 3rd.cif	CIF3.0	6 KB	Private		3 Mar 2017	Pending Buyer Validation	
	GSO Sandbox - P2O - TEST	TEST	2	CIF Catalog Template.xls	CIF3.0	752 B	Private		3 Mar 2017	Pending Buyer Validation	
	GSO Sandbox - P2O - TEST	TEST	1	CIF Catalog Template.xls	CIF3.0	752 B	Private		13 Jan 2017	1 Validation Errors Found by Customer	13 Jan 2017
	GSO Sandbox - P2O - TEST	TEST-OK-1	1	TEST ORSI 2.cif	CIF3.0	2 KB	Private		6 Feb 2017	Pending Buyer Validation	

View/Edit | Test | Delete | Create Standard | Create Punchout Only | Refresh

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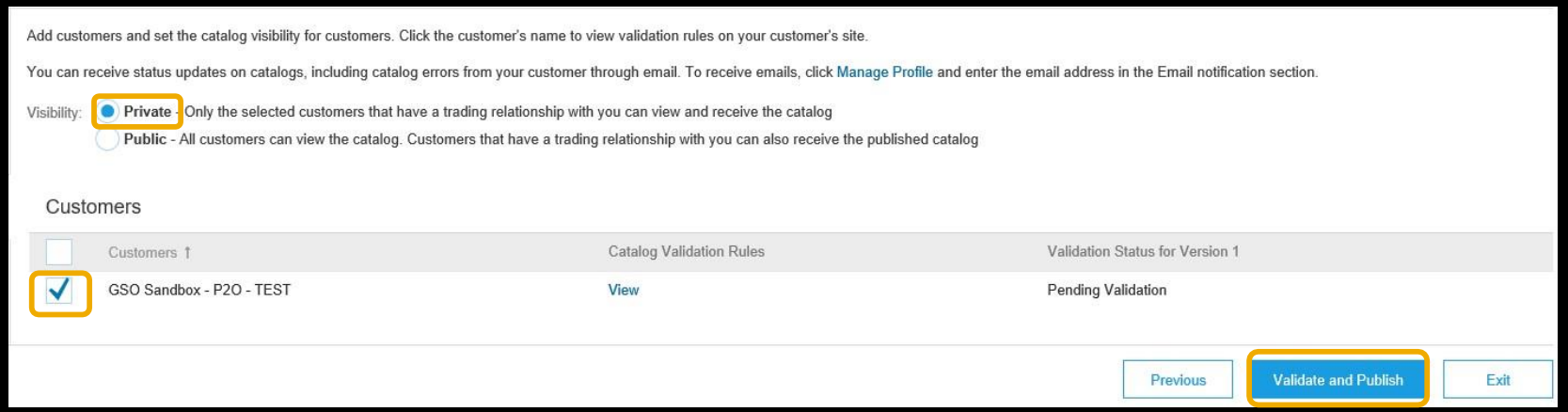
Validating and Publishing the Catalog

7 Catalog Subscriptions

Click on option 3 – Subscriptions.
Select **Private** and select **Deloitte** in your customers' list.

Note: If **Deloitte** is not part of the customer list, it means that the customer relationship has not been accepted yet on the Ariba Network.

Click on **Validate and Publish.**



If there are no errors in the catalog fields, the catalog link will be validated by customer and published.

If there are errors related to the fields the catalog file should be re-uploaded.

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Validating and Publishing the Catalog

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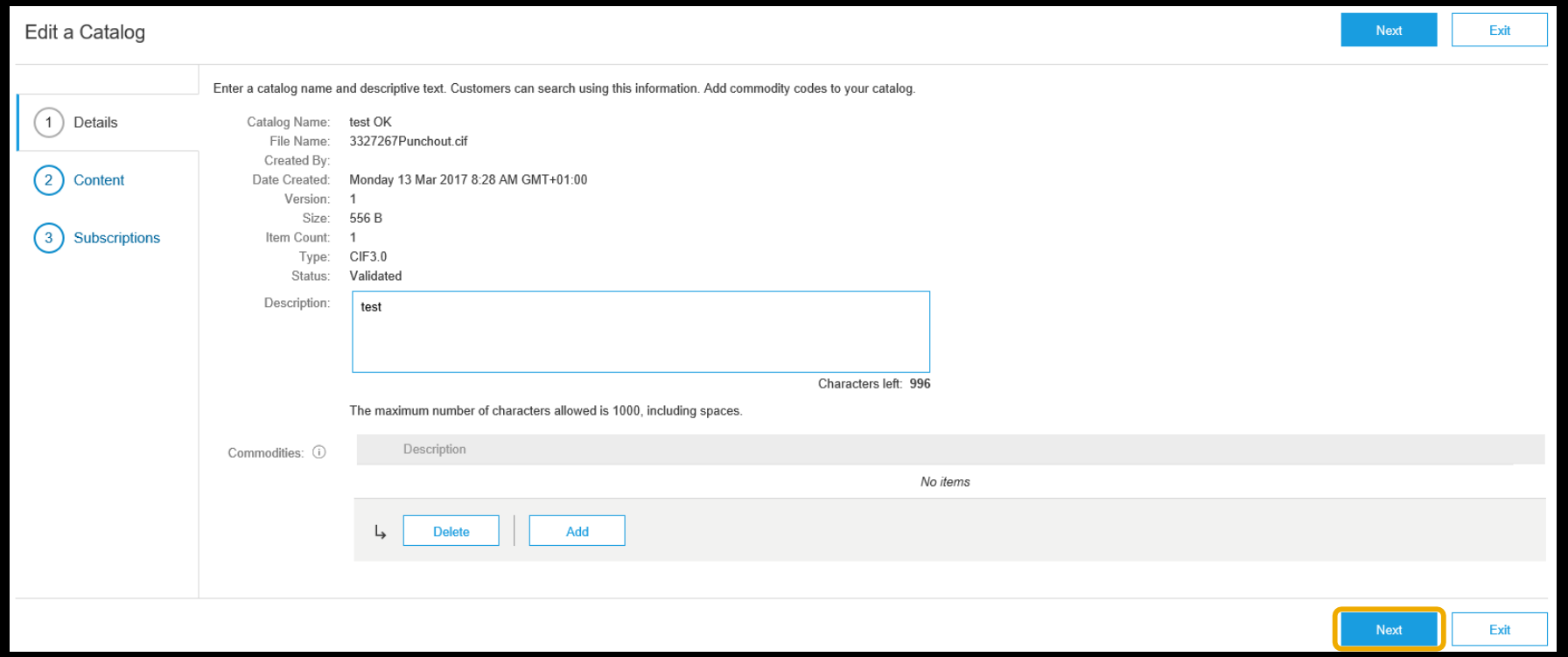
Click on **Exit.**
Click on **OK** when the warning message appears.



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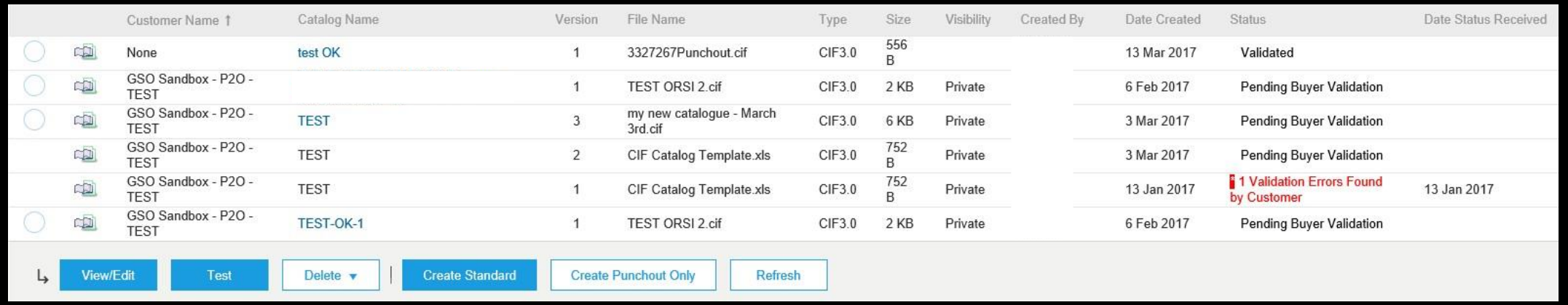
Validating and Publishing the Catalog

9

Your catalog has been successfully created.



		Customer Name	Catalog Name	Version	File Name	Type	Size	Visibility	Created By	Date Created	Status	Date Status Received
○		None	test OK	1	3327267Punchout.cif	CIF3.0	556 B			13 Mar 2017	Validated	
○		GSO Sandbox - P2O - TEST		1	TEST ORSI 2.cif	CIF3.0	2 KB	Private		6 Feb 2017	Pending Buyer Validation	
○		GSO Sandbox - P2O - TEST	TEST	3	my new catalogue - March 3rd.cif	CIF3.0	6 KB	Private		3 Mar 2017	Pending Buyer Validation	
		GSO Sandbox - P2O - TEST	TEST	2	CIF Catalog Template.xls	CIF3.0	752 B	Private		3 Mar 2017	Pending Buyer Validation	
		GSO Sandbox - P2O - TEST	TEST	1	CIF Catalog Template.xls	CIF3.0	752 B	Private		13 Jan 2017	1 Validation Errors Found by Customer	13 Jan 2017
○		GSO Sandbox - P2O - TEST	TEST-OK-1	1	TEST ORSI 2.cif	CIF3.0	2 KB	Private		6 Feb 2017	Pending Buyer Validation	

View/Edit | Test | Delete | Create Standard | Create Punchout Only | Refresh

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PunchOut Catalog Statuses

Catalog Status	Definition
Validating	Catalog is in the process of being validated against Ariba Network high-level syntactic and semantic validations.
Published	The catalog has been published to customers application manually loading catalogs. Ariba Network sends an email notification to your customer informing them your company has published a catalog.
# Errors Found by Ariba Network	The catalog failed during Ariba Network high-level validation. Ariba Network checks the catalog for syntactic and semantic errors. The network will also conduct a high-level validation of UNSPSC and Units of Measure codes, and checks for zero price values. These errors must be corrected first before the catalog can begin customer-specific validation rules. To view details of the error, click the "# Validation Errors Found by Ariba Network" link for this catalog on the catalog dashboard and view details of the error message within your Ariba Network account.
# Validation Errors Found by Customer	The catalog failed during validation of customer-specific rules in the SAP Ariba Procurement. During validation, the SAP Ariba Procurement validates the catalog against customer-specific validation rules. The catalog did not meet the customer's catalog rules and validation failed. To view details of the error, click the "# Validation Errors Found by Customer" link for this catalog on the catalog dashboard and view details of the error message by punching in to the SAP Ariba Procurement.
Pending Buyer Validation	The catalog is uploaded successfully in the SAP Ariba Procurement and is pending validation.
Validated by Customer	The catalog is successfully uploaded in the SAP Ariba Procurement, passing validation, but not yet approved by the customer.
Approved	The catalog has been approved by the customer during the approval process.
Rejected	The catalog has been denied by the customer during the approval process.
Activated	The catalog is activated and available to users in the SAP Ariba Procurement.
Deactivated	A catalog version activated earlier is now deactivated. Catalogs can change statuses from Activated to Deactivated states and back.
Deleted	The catalog has been deleted by the customer in the SAP Ariba Procurement.
Changed	The customer made some changes to the catalog

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Publication of Catalog on Ariba Network
Next Steps

After publication of your catalog, you have the possibility to test the connectivity to your site.
Please note that this functionality is available only on your Test account.

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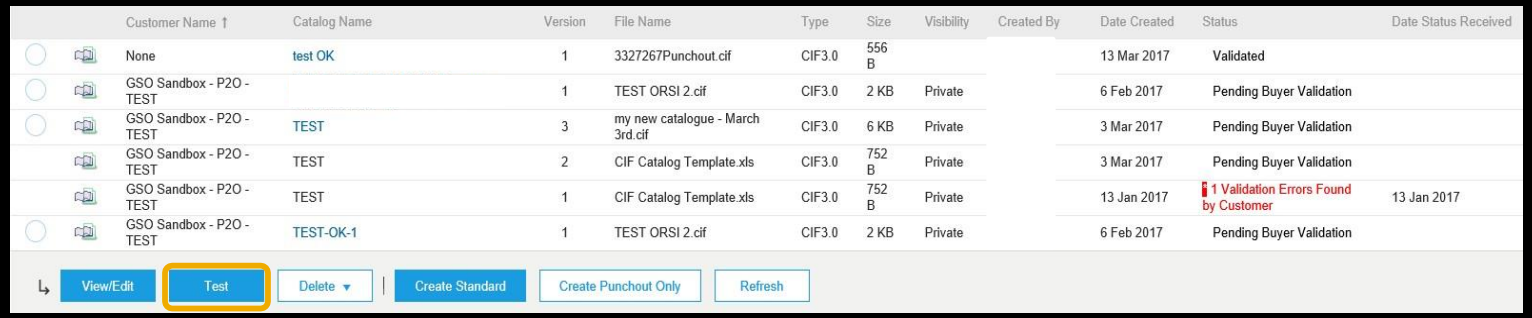
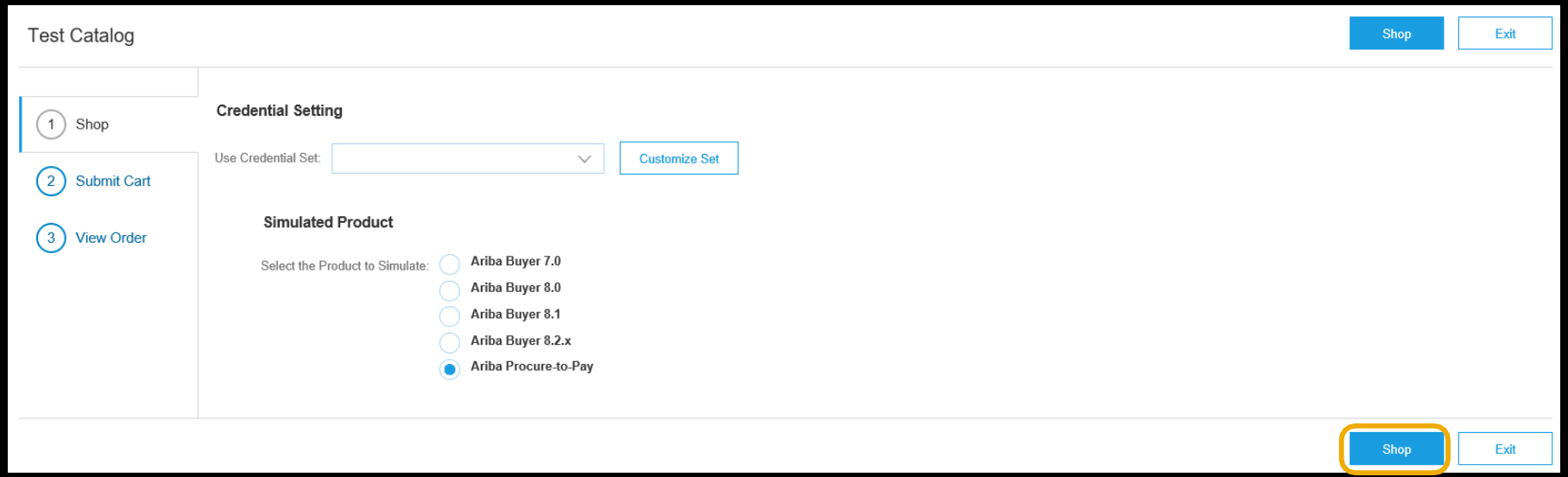
Select your catalog and click on the **Test** button.

On the next page, click on **Shop** to launch the connection attempt.





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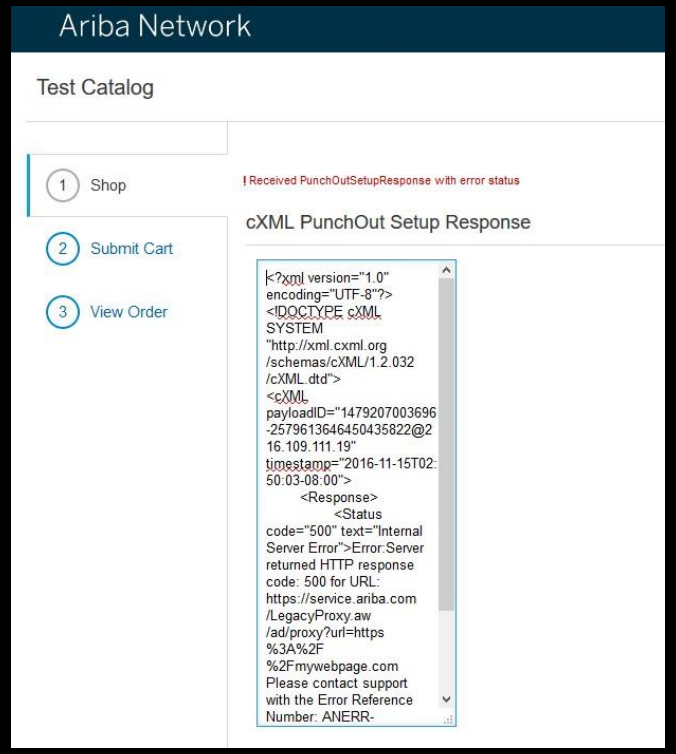
Publication of Catalog on Ariba Network

Next Steps

If you can connect to your catalog, the connectivity has been established successfully.
If you cannot access your catalog, an error message will be displayed, giving you the root cause of the connectivity issue.

Note: In case you need assistance to better understand this error message, please contact your Ariba Catalog Enablement Contact person to help you in the troubleshooting process.



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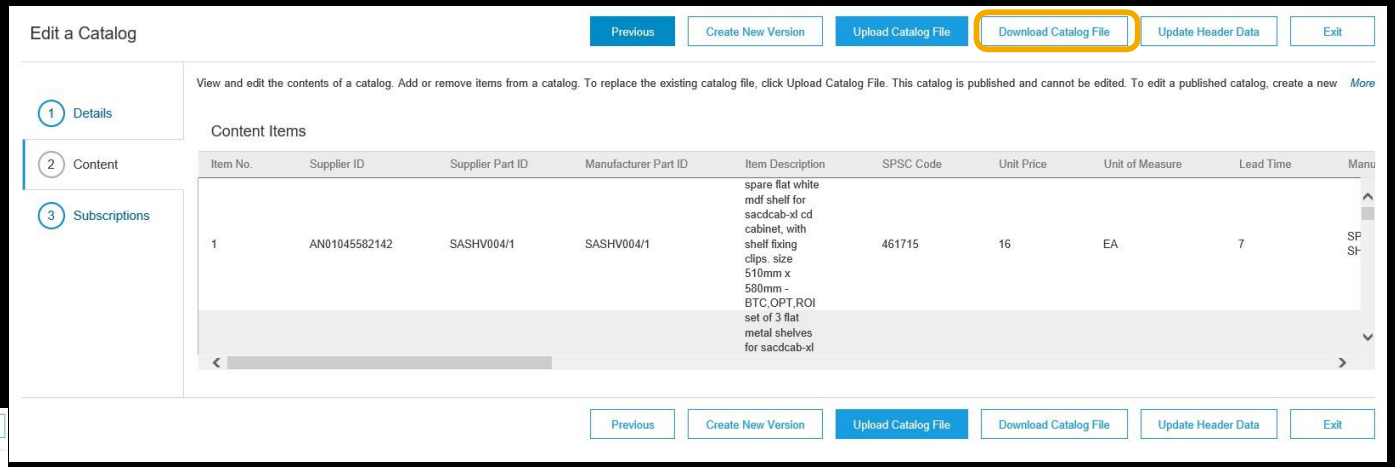
Index File Update Index File Update

Downloading and uploading the catalog in .cif format will allow you to have a quicker way to update any changes in the automatically created index file.

Click on **Download Catalog File** under the Content tab



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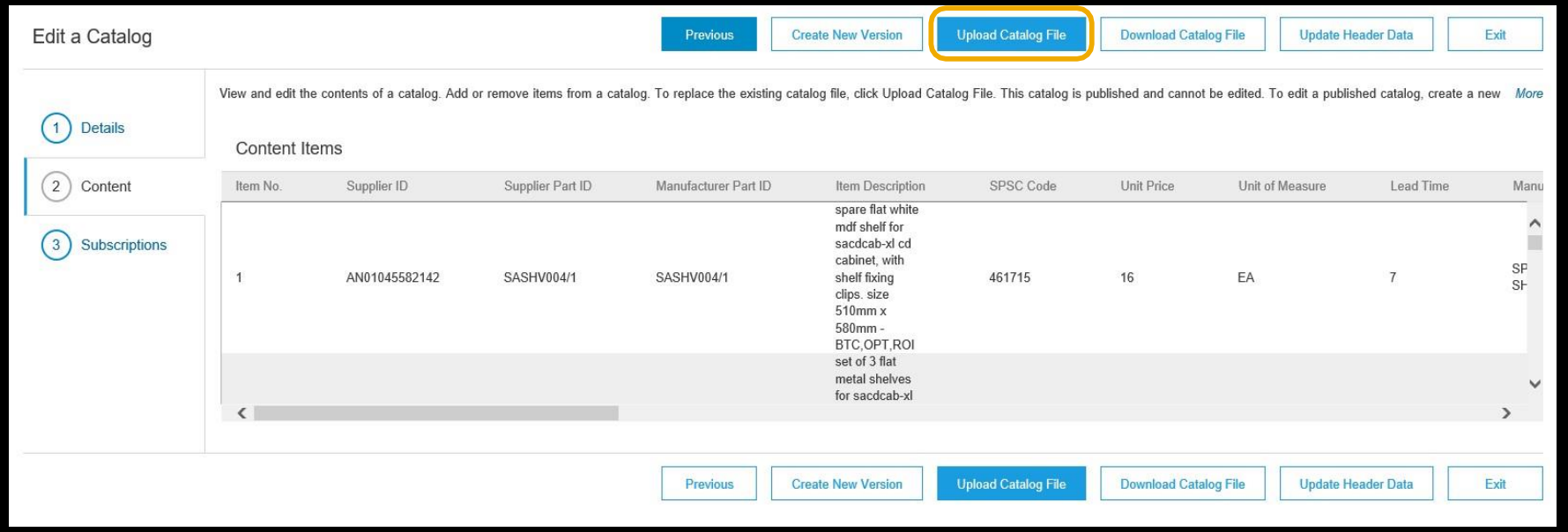
Index File Update

Click on **Upload Catalog File** under the Content tab.



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