# Table of Contents

Overview 03
Overall Business Flow 04
   1. User Login 04
   2. LTSD Flow 05
      1. Inbound LTSD 05
      2. Outbound LTSD 12
      3. LTSD Renewals 18
   3. Other Functionalities 21
Siemens and Henkel aim to promote the taXchain platform to digitize the current heavy paper-based process relating to Tax and customs across Europe by connecting various participants in the ecosystem to a distributed blockchain network for data and information exchanges, besides bringing trust transparency enhancing the experience among the platform participants. As a first step, the founders propose deploying Long Term Supplier Declarations (LTSD) use case in the taXchain platform.

This platform will allow interested manufacturers and suppliers without any technology dependency. Furthermore, the participants will have the flexibility of connecting to this platform either by building their software or using the software provided by taXchain's SaaS provider.

This document provides step-by-step instructions to assist users in familiarizing themselves with the taXchain platform business flow offerings.

Some of the details of the platform are listed below:

a. Name: taXchain LTSD (Long term Supplier Declaration) Platform

b. Underlying Protocol: Hyperledger Fabric 2.2

c. UAT URL: https://taXchain-uat.krypc.com

d. Production URL: https://taXchain.krypc.com
Overall Business Flow

The platform lets the participating company users create a LTSD request and manage the LTSD throughout its lifecycle.

1. User Login

Before the user can log in, the company user representative needs to be part of the ecosystem.

After the company has been added to the DLT network, the user can follow the appended process to log in.

There are two ways of testing the login:

a. First, choose the company the user represents.

b. If you choose Siemens, you can either log in using your company email credentials xxx@siemens.com:

c. On tapping the “Continue” button, the page will be redirected to your company login screen:

d. After the user credentials are verified on the side of the company, the user will be redirected to the respective landing page of the platform.
g. On successful validation of user credentials, the page gets redirected to the appropriate dashboard.

2. LTSD Flow
There are two ways the LTSD journey can start. These are:

a. Inbound LTSD:
In this case, the LTSD request is initiated by the customer.
Overall inbound LTSD flow captured in the platform:
1. Creation of LTSD Request Draft:
User Type: Customer

The first process to raise an LTSD request is done by creating a LTSD request draft. After that, the draft can be updated as many times as required.

a. Fill in the LTSD related data field
   - “Supplier” will have a pre-filled list of all participating companies.
   - “Address” field will be pre-populated with the address provided by the company during the registration phase.
   - “Validity Period” needs to be filled with “Valid From” and “Valid To” dates.
   - You will only be able to give a date range that is not longer than two years; the “Valid To” date needs to be newer than the “Valid From” date, and the “Valid To” date must not be older than one year.

b. Fill in the materials data covered in the LTSD

A user can either type in the relevant material details or upload a file containing the material data. The sample file format can be downloaded by clicking on the “Click to download sample file” link.
   - To upload the material details CSV file, click on the “Upload csv” button
   - A file explorer view opens. Select the relevant file to upload.

   - You can add more materials to the list by uploading another material list csv or manually adding more materials.
   - Click on “Save Draft” button to save the LTSD draft.

   NOTE: Drafts are not saved in the DLT
2a. Deletion of LTSD Request Draft:
User Type: Customer

A draft LTSD can be deleted from the LTSD list report by clicking the bin icon:

![Image of LTSD list report with a draft LTSD marked for deletion.]

2b. Requesting LTSD to be issued by the concerned supplier:
User Type: Custom

An inbound LTSD draft can be moved to the “request” state after the LTSD draft is finalized.

![Image of LTSD request page with an inbound LTSD draft marked as requested.]

After the LTSD draft is saved as “requested,” the LTSD request also appears in the outbound LTSD report list in the supplier’s log-in.

![Image of outbound LTSD report list with a LTSD request marked as requested.]
3a. Withdrawal of a requested LTSD:
User Type: Customer

The requesting user can withdraw a requested LTSD before the supplier issues or rejects the requested LTSD.

To reject a requested LTSD, the customer can visit the inbound LTSD list report page, select the appropriate LTSD in request status and withdraw the same by clicking on the “Set to Withdrawn” button.

After the LTSD gets withdrawn, the record with the updated status is visible to both the supplier and customer in the outbound and inbound LTSD list report, respectively.

3b. Rejection of requested LTSD:
User Type: Supplier

Supplier users can reject a LTSD that the customer requests.
When rejecting a LTSD request, the supplier must provide appropriate comments on the rejection reason.

To reject a requested LTSD, the supplier will need to visit the outbound LTSD list report and select the appropriate LTSD with status as “requested.”
After the request LTSD has been rejected, the status of the LTSD gets updated in both supplier’s outbound LTSD list report and the customer’s inbound LTSD list report.

Appropriate notification is shown to the customer after the request gets rejected by the supplier.

3c. Issuance of LTSD:
User Type: Supplier

The supplier can issue an LTSD against a LTSD request coming from the customer.

To issue a LTSD, the supplier needs to visit the outbound LTSD list report and click on the customer requested LTSD:
On selection of the appropriate LTSD, the supplier will need to add additional details to the LTSD.

The additional details that need to be added in the LTSD data section are listed below:

- **Cumulation of countries as optional (Validity Period Section):** If the cumulation is chosen, the supplier needs to add a country or list of countries to the cumulation list.
- **Job Position (Issuing information section):** Supplier will need to provide appropriate inputs against the Job Position field.
- **Place (Issuing information section):** Supplier will need to provide details on the place of issuance of the referred LTSD.
- **Signee (Issuing information section):** Supplier will need to provide details of the Signee of the referred LTSD.

In the materials section, the supplier provides the following data:

- **Supplier material id** – this is a mandatory field
- **HS code** - Optional filed, can be selected from a pre-filled list
- **Country of Origin** - Mandatory filed that provides details about the country where the referred product gets manufactured
- **Region of Origin** - Optional field only needs to be provided if the country of origin is selected as “Germany.”
- **Preferential Countries** - Optional field. Supplier may either select one country from the list of countries listed out.
- **Country Specific Codes** - Option field; this will only be required if “JP” or Japan is selected as “Preferential Country.”

The details of materials can either be manually added or uploaded using the “Upload csv” button.

- To upload the material details CSV file, click on the “Upload csv” button.
- A file explorer view opens. Select the relevant file to upload.
• You can add more materials to the list by uploading another material list csv or manually adding more materials.
• Click on “Set to Issued” button to save the LTSD draft.

Example of a sample csv file:

<table>
<thead>
<tr>
<th>Customer</th>
<th>Supplier Material Number</th>
<th>Material Description</th>
<th>HS code</th>
<th>Country of Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>88356</td>
<td>IGNITION CABLE</td>
<td>0101290000 80</td>
<td>DE</td>
</tr>
<tr>
<td></td>
<td>88357</td>
<td>SCHELLE - KANBAN</td>
<td>0102290500 80</td>
<td>CN</td>
</tr>
<tr>
<td></td>
<td>88358</td>
<td>Leak detector spray Weicon</td>
<td>0102291030 80</td>
<td>DE</td>
</tr>
</tbody>
</table>

4. Rejection of issued LTSD:
User Type: Customer

A customer can reject an issued LTSD. While rejecting an issued LTSD, the customer needs to specify the reason of rejection in the comment section.

To reject an issued LTSD, the customer needs to visit the inbound LTSD list report and select the appropriate issued LTSD.
Click on “Set to Rejected” button to update the status of the issued LTSD to rejected.

The status of the issued LTSD gets updated to “Rejected” and is shown in both Customer’s inbound LTSD list report as well as Supplier’s Outbound LTSD list report.

b. Outbound LTSD: In this case, the LTSD is initiated by the supplier.

Overall outbound LTSD flow captured in the platform:

1. Create a new outbound LTSD draft
   User Type: Supplier

   a. Fill the LTSD related data field
• “Supplier” will have a pre-filled list of all participating companies.
• “Address” field will be pre-populated with the address provided by the company during the registration phase.
• “Validity Period” needs to be filled with “Valid From” and “Valid To” dates.
• You will only be able to give a date range that is not greater than two years; the “Valid To” date needs to be newer than the “Valid From” date, and the “Valid To” date must not be older than one year.

The additional details that need to be added in the **LTSD data section** are listed below:

- **Cumulation of countries as optional (Validity Period Section):** If the cumulation is chosen, the supplier needs to add a country or list of countries to the cumulation list.
- **Job Position (Issuing information section):** Supplier will need to provide appropriate inputs against the Job Position field.
- **Place (Issuing information section):** Supplier will need to provide details on the place of issuance of the referred LTSD.
- **Signee (Issuing information section):** Supplier will need to provide details of the Signee of the referred LTSD.

b. Fill in the materials data covered in the LTSD and click on “save draft” icon

In the materials section, the supplier provides the following data:

- **Customer Material ID:** this is optional field representing the customer’s id associated with the material
- **Supplier material id** – this is a mandatory field
- **HS code** - Optional filed, can be selected from a pre-filled list
- **Country of Origin** - Mandatory field that provides details about the country where the referred product gets manufactured
- **Region of Origin** - Optional field only needs to be provided if the country of origin is selected as “Germany.”
- **Preferential Countries** - Optional field. Supplier may either select one country from the list of countries listed out.
- **Country Specific Codes** - Option field; this will only be required if “JP” or Japan is selected as “Preferential Country.”

The details of materials can either be manually added or uploaded using the “Upload csv” button.
- To upload the material details CSV file, click on the “Upload csv” button.
- A file explorer view opens. Select the relevant file to upload.
• You can add more materials to the list by uploading another material list csv or manually adding more materials.
• Click on “Set to Issued” button to save the LTSD draft.

Example of a sample csv file:

<table>
<thead>
<tr>
<th>Customer</th>
<th>Supplier Material Number</th>
<th>Material Description</th>
<th>HS code</th>
<th>Country of Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>88356</td>
<td>88356</td>
<td>IGNITION CABLE</td>
<td>0101290000 80</td>
<td>DE</td>
</tr>
<tr>
<td>88357</td>
<td>88357</td>
<td>SCHELLE - KANBAN</td>
<td>0102290500 80</td>
<td>CN</td>
</tr>
<tr>
<td>88358</td>
<td>88358</td>
<td>Leak detector spray Weicon</td>
<td>0102291030 80</td>
<td>DE</td>
</tr>
</tbody>
</table>

c. The status of the LTSD gets updated to “Draft” and is shown in the supplier’s Outbound LTSD list report

2a. Delete LTSD Draft
User Type: Supplier

A draft LTSD can be deleted from the LTSD list report by clicking the bin icon:
2b. Issue LTSD Draft

User Type: Supplier

a. Update the LTSD details as required and click on “Set to Issued” button to update the status of the draft LTSD to issued.

The status of the draft LTSD gets updated to “Issued” and is shown in both Customer’s inbound LTSD list report as well as Supplier’s Outbound LTSD list report.
Customer’s login

3a. Reject an issued LTSD
User Type: Customer

A customer can reject an issued LTSD. While rejecting an issued LTSD, the customer needs to specify the reason of rejection in the comment section.

To reject an issued LTSD, the customer needs to visit the inbound LTSD list report and select the appropriate issued LTSD.

The status of the issued LTSD gets updated to “Rejected” and is shown in both Customer’s inbound LTSD list report as well as Supplier’s Outbound LTSD list report.

Supplier’s Page
3b. Terminate an issued LTSD
To terminate an issued LTSD the supplier needs to visit the Outbound LTSD list report and select
the appropriate issued LTSD

A Supplier can terminate an issued LTSD by clicking on “Set to Terminated” button

The status of the Issued LTSD gets updated to “Terminated” and is shown in both Customer’s inbound LTSD list report as well as Supplier's Outbound LTSD list report.
c. LTSD Renewals

Renew LTSD:
In the outbound LTSD flow, an option is provided to the supplier user to renew an existing LTSD. The LTSD can be renewed when the LTSDs are in the following state:

i. Issued: When an issued LTSD is renewed, the validity of the dates in the Renewal screen gets pre-populated with the following data:
   • Valid From: This is un-editable field and will have a date value that is equal to 1 day greater than the expiry date of the referred issued LTSD
   • Valid To: This is an editable field and is pre-populated with a date that is 24 months from the Valid From date
   • All the other data in the LTSD is pre-populated with the original issued LTSD and can be further edited

ii. Terminated: When an issued LTSD is renewed, the validity of the dates in the renewal screen gets pre-populated with the following data:
   • Valid From: This is an editable field and will have a date value that is equal to 1 day greater than the expiry date of the referred terminated LTSD
   • Valid To: This is an editable field and is pre-populated with a date that is 24 months from the Valid From date
   • All the other data in the LTSD is pre-populated with the original Terminated LTSD and can be further edited

iii. Rejected: When an issued LTSD is rejected by a customer, the supplier has an option to renew the rejected LTSD. In such cases the renewal screen gets pre-populated with the following data:
   • Valid From: This is an editable field and will have a date value that is equal to the valid from of the referred rejected LTSD
   • Valid To: This is an editable field and is pre-populated with a date that is equal to the valid to date of the referred rejected LTSD
   • All the other data in the LTSD is pre-populated with the original rejected LTSD and can be further edited
Renewal LTSD:
In the inbound LTSD flow, an option is provided to the customer user to renew an existing LTSD. The LTSD can be renewed when the LTSDs are in the following state:

i. Requested: A requested LTSD can be renewed by the customer. In such cases the request renewal screen gets pre-populated with the following data set:
   - Valid from Date: The date value similar to the referred requested LTSD’s valid from date gets pre-populated and can be edited
   - Valid To: The date value similar to the referred requested LTSD’s valid to date gets pre-populated and can be edited
   - All the other data set pertaining to the referred requested LTSD gets pre-populated and can be edited

ii. Withdrawn: A withdrawn LTSD can be renewed by the customer. In such cases the request renewal screen gets pre-populated with the following data set:
   - Valid from Date: The date value similar to the referred requested LTSD’s valid from date gets pre-populated and can be edited
   - Valid To: The date value similar to the referred requested LTSD’s valid to date gets pre-populated and can be edited
   - All the other data set pertaining to the referred requested LTSD gets pre-populated and can be edited
iii. **Rejected**: A supplier rejected LTSD can be renewed by the customer. In such cases the request renewal screen gets pre-populated with the following data set:

- `Valid from Date`: The date value similar to the referred requested LTSD's valid from date gets pre-populated and can be edited.
- `Valid To`: The date value similar to the referred requested LTSD’s valid to date gets pre-populated and can be edited.
- All the other data set pertaining to the referred requested LTSD gets pre-populated and can be edited.

iv. **Issued**: A renewal request can be raised for an issued LTSD. In such cases the request renewal screen gets pre-populated with the following data set:

- `Valid from Date`: This is un-editable field and will have a date value that is equal to 1 day greater than the expiry date of the referred issued LTSD.
- `Valid To`: This is an editable field and is pre-populated with a date that is 24 months from the Valid From date.
- All the other data set pertaining to the referred requested LTSD gets pre-populated and can be edited.

---

![Image](https://example.com/image1.png)

![Image](https://example.com/image2.png)

![Image](https://example.com/image3.png)
3. Other Functionalities

List Report Filters:

The list report filters are made available for both inbound and outbound LTSD flows.

The filters that are made available to this report include the following:

- **Filter by organization**: Using this filter you can search for appropriate LTSDs that belong to the selected customer or supplier organization, the filter is pre-populated with the list of all organizations that have registered with TaXchain platform.

- **Filter by date**: This filter returns all the LTSDs whose ‘valid from’ date is either equal to or greater than the selected date in the filter.

- **Filter by date**: This filter returns all the LTSDs whose ‘valid to date’ is either equal to or lesser than the selected date in the filter.

- **Select a status**: This filter returns all the LTSD that are in the selected state. The filter is pre-populated with a list of the different statuses the current LTSDs are in with the inbound or outbound LTSD list respectively.

- **Select expiry records**: This filter allows the user to view the LTSD list report based on their expiry period. There are three criteria to select from:
  - **EXPIRED**: return the list of LTSD with valid to date lesser that today’s system date.
  - **EXPIRES_WITHIN_SIXMONTHS**: return the list of LTSD with valid to date that is 6 months from the current system date.
  - **EXPIRES_AFTER_SIXMONTHS**: return the list of LTSD with valid to date greater than 6 months from the current system date.

- **Search Material**: Allows the user to search for LTSD containing the supplier material ID that consists of letters that are entered in the search string.

**PDF download**

LTSD can be downloaded either by supplier or customer by visiting the LTSD list reports.

To download the LTSD, select the appropriate LTSD and click on the pdf button.
Manage Country:
This option is only made available to respective company admin users. This allows the admin to push a pre-set list of preferential country, DE regions, country specific codes, all countries and HS Codes into the system.
Add user:
This functionality is only available to the respective admin users. This functionality enables the admin to assign specific roles to the users joining in the system. The roles include:

a. ADMINISTRATION: A user with Administration access will be able to:
- Create new LTSD requests
- View the created LTSD
- View the list of companies participating the TaXchain platform
- Manage country list
- Update the participating users with appropriate access roles

b. READER: A user with Reader access will be able to:
- View the created LTSD

c. WRITER: A user with Writer access will be able to:
- Create new LTSD requests
- View the created LTSD

Note: A user can only be able to login into the system after the admin has assigned appropriate access to the respective user. The user access can be updated by admin as required