



Teamcenter Service Lifecycle for SFDC - Installation and Setup Guide

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1. System Requirements

Before you begin the installation, ensure that your environment meets the following requirements:

1. Users must have the specified licenses and access permissions to utilize the full functionality.
 - **Service Technician Access (STA) License**—Required for viewing data from Teamcenter.
 - **Salesforce License**—Dependent on Service Cloud or Field Service.

User	Licenses
Siemens Technician	SLM for CRM (Basic)
Siemens Supervisor	SLM for CRM Asset Manager (Basic)

2. Version compatibility matrix

The following matrix shows the compatibility between versions of the Salesforce app, TCSLMPhysicalStructure Microservice and specific versions of Teamcenter. It is crucial to align these versions for proper functionality.

App Version	TCSLMPhysicalStructure Microservice	Teamcenter
Teamcenter SLM 2606	2606 or latest patch	2606
	2512 or latest patch	2512
	2506 or latest patch	2506
	2412.0001 or latest patch	2412
	2406.0002 or latest patch	2406
	2312.0005 or latest patch	2312

Note

Ensure you use the corresponding TCSLMPhysicalStructure Microservice and Teamcenter (TC) or Active Workspace (AW) version based on the Salesforce app version you are installing.

Based on compatibility requirements, you can download the required TCSLMPhysicalStructure microservices using this link: [TCSLMPhysicalStructure-MS](#)

For information about configuring microservices using Deployment Center (DC), see the following topics:

- [Configure TCSLMPhysicalStructure Microservice versions earlier than 2512](#)
- [Configure TCSLMPhysicalStructure Microservice version 2512](#)
- [Configure TCSLMPhysicalStructure Microservice versions 2606 and later](#)

3. The installation of the MFE Vis microservice is a prerequisite for enabling asset visualization within the Teamcenter Service Lifecycle for SFDC application.

Note

The MFE Vis microservice is included as part of the Active Workspace kit.

4. For secure communication and data transfer, Active Workspace must be HTTPS enabled.
5. Teamcenter needs to be exposed to the internet to facilitate communication with Salesforce.

2. Active Workspace Gateway configuration

This section outlines the necessary configurations for your Active Workspace Gateway.

Procedure

1. If you have not already set up your gateway configuration, please follow the instructions provided via [this link](#).
2. Add specific attributes to the config.json file of your microservice gateway. You can find this file in the gateway folder inside the microservices folder. Locate the **additionalCookieAttributes** section and insert the following:

```
"additionalCookieAttributes": [  
  {  
    "cookieName": "XSRF-TOKEN",  
    "attributes": [ "Secure", "SameSite=None" ]  
  },  
  {  
    "cookieName": "_csrf",  
    "attributes": [ "Secure", "SameSite=None" ]  
  },  
  {  
    "cookieName": "JSESSIONID",  
    "attributes": [ "Secure", "SameSite=None", "Max-age=9999999999", "Expires=Session" ]  
  },  
  {  
    "cookieName": "TcSS-JSESSIONID",  
    "attributes": [ "Secure", "SameSite=None" ]  
  }  
]
```

3. Add *.force.com to both the **frame-src** and **frame-ancestors** arrays. To search for these arrays by their name, press Ctrl + F. Refer to the image below:

```
},
"frame-src": [
    "'self'",
    "https://*.siemens.com",
    "https://js.refiner.io",
    "*.eds.com",
    "*.walkme.com",
    "*.force.com",
    "usercode:"
],
"worker-src": [
    "'self'",
    "blob:",
    "data:",
    "*.walkme.com"
],
"frame-ancestors": [
    "'self'",
    "*.walkme.com",
    "*.force.com",
    "file:"
],

```

3. App Installation and Configuration

Salesforce knowledge settings

Before installing the application, ensure that knowledge is enabled in the Salesforce org.

Procedure

1. Navigate to **Setup**.
2. Search for and select **Knowledge Settings**.
3. Enable Knowledge.

Install the application

You can install the application from the [Salesforce AppExchange](#).

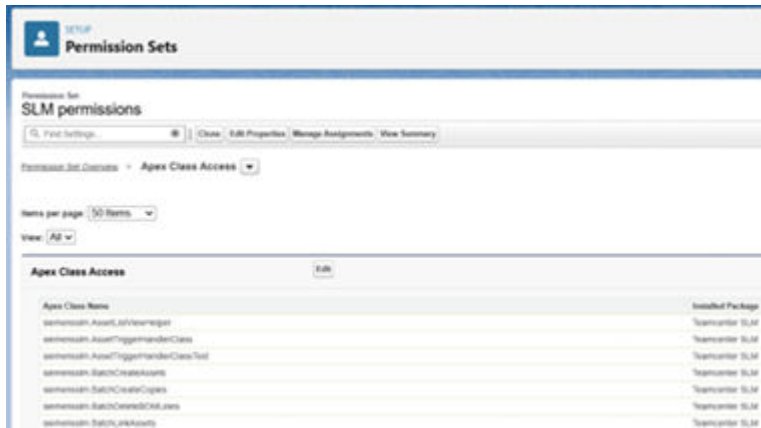
If you encounter any difficulties during this process, reach out to our support team using the contact information provided in this documentation. We are here to assist you!

Create permission set

You need to create a new permission set, for example, named **SLM Permissions**, and assign the necessary access levels.

Procedure

1. Assign full access to the following objects under **Object Settings**:
 - Work Plan Template
 - Work Step Template
 - Work Plan Template entry
 - Assets
2. Assign the following **System Permissions** within the permission set:
 - Author Apex
 - Customize Application
3. Assign all **siemensslm** namespace Apex classes under **Apex Class Access**.



User management

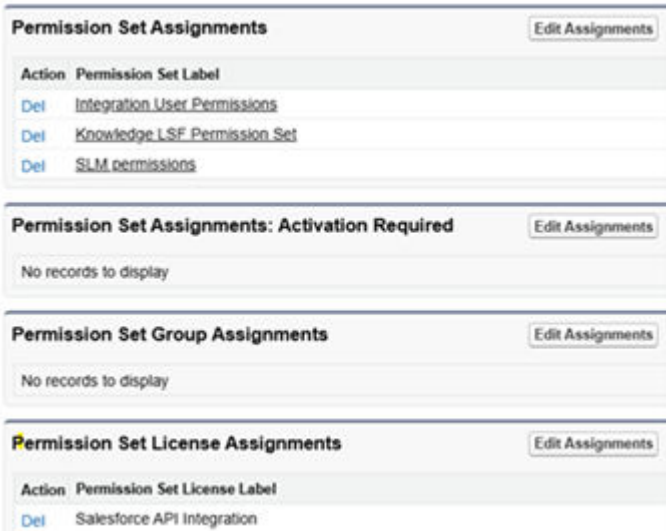
User setup is crucial for the application's functionality. This involves creating an integration user and end users.

Create integration user

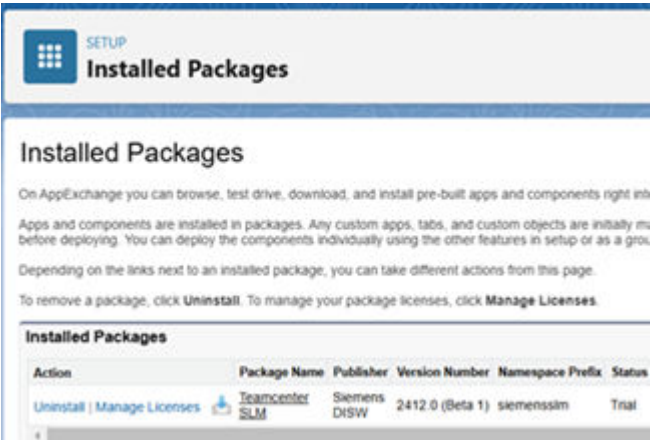
To facilitate background communication with Teamcenter, create a user with the user license as **Salesforce Integration** and the profile as **Minimum Access - API Only Integrations**.

Procedure

1. After creating the user license and profile, assign the **Salesforce API Integration** permission set license to this user.
2. Assign the following permission sets:
 - Integration Users Permissions
 - SLM Permissions



3. Assign the SLM app license to the integration user:
 - a. Go to **Installed Packages**.
 - b. Select **Manage Licenses**.
 - c. Click **Add Users**, select the integration user, and click **Add**.



Create or update end user

Now, configure the actual users who will be interacting with the application. You can either create new users or modify existing ones.

Procedure

1. Technician user setup:
 - a. Create a new user.

Note

This user must be a Knowledge user.

- b. Assign the **Siemens Technician** and **SLM Permissions** permission sets.

Tip

You can also apply these settings to an existing user.

2. Supervisor user setup:

- a. Create a new user.

Note

This user must be a Knowledge user.

- b. Assign the **Siemens Supervisor** and **SLM Permissions** permission sets.

Note

You can also apply these settings to an existing user.

Set up external client app

Configure OAuth authentication to enable secure access to Salesforce data without requiring users to manually log in for each integration request.

Prerequisites

- Access to Salesforce Setup with administrative privileges
- Integration user account created in Salesforce
- Production organization URL for production environments

Procedure

1. In Salesforce, go to **Setup**.
2. In the **Quick Find** box, search for **App Manager**.
3. Click **New External Client App**.

Setup Home Object Manager

app mana

Apps

App Manager

External Client Apps

External Client App Manager

Lightning Out 2.0 Apps

Lightning Out 2.0 App Manager

Didn't find what you're looking for? Try using Global Search.

SETUP Lightning Experience App Manager

New Lightning App New External Client App

28 items • Sorted by App Name • Filtered by All app menu items - TabSet Type, App Type

App Name ↑	Developer Name	Description	Last Modified Date	App T...	Vis...
1 All Tabs	AllTabSet		08/04/2026, 12:19 am	Classic	
2 Analytics Studio	Insights	Build CRM Analytics dashboards and apps	08/04/2026, 12:19 am	Classic	✓
3 App Launcher	AppLauncher	App Launcher tabs	08/04/2026, 12:19 am	Classic	✓
4 Approvals	Approvals	Manage approvals and approval flows	08/04/2026, 12:22 am	Lightning	✓
5 Bolt Solutions	LightningBolt	Discover and manage business solutions designed for your industry.	08/04/2026, 12:22 am	Lightning	✓
6 Business Rules Engine	ExpressionSetConsole	Create and maintain business rules that perform complex lookups and calculations.	30/04/2026, 3:23 pm	Lightning	✓
7 Community	Community	Salesforce CRM Communities	08/04/2026, 12:19 am	Classic	✓
8 Content	Content	Salesforce CRM Content	08/04/2026, 12:19 am	Classic	✓
9 Data Manager	DataManager	Use Data Manager to view limits, monitor usage, and manage recipes.	08/04/2026, 12:19 am	Lightning	✓
10 Digital Experiences	SalesforceCMS	Manage content and media for all of your sites.	08/04/2026, 12:19 am	Lightning	✓
11 Force.com	Force.com	Start Here	08/04/2026, 12:19 am	Classic	✓
12 Marketing CRM Classic	Marketing	Track sales and marketing efforts with CRM objects.	08/04/2026, 12:19 am	Classic	✓

4. In the **Basic Information** section, do the following:
 - a. In the **External Client App Name** field, enter the application name.
 - b. In the **Contact Email** field, enter the contact email address for the application.

Policies Settings Package Defaults

Configure basic settings for the external client app and plugins.

Edit

Basic Information

* External Client App Name
Integration_App

* Contact Email
siemens.com

Contact Phone
Enter a phone number...

Icon URL
Enter a URL...

Description

* API Name
Integration_App

* Distribution State
Local

Info URL
Enter a URL...

Logo Image URL
Enter a URL...

5. In the **API (Enable OAuth Settings)** section, do the following:
 - a. Select **Enable OAuth**.
 - b. In the **Callback URL** field, enter: `https://login.salesforce.com/services/oauth2/success`.
 - c. In the **OAuth Scopes** field, select the required scopes for your integration.

API (Enable OAuth Settings)

☒ Enable OAuth

App Settings

* Callback URL

https://login.salesforce.com/services/oauth2/token

*** OAuth Scopes**

Available OAuth Scopes

- Full access (full)
- Access Connect REST API resources (chatter_api)
- Access Visualforce applications (visualforce)
- Access unique user identifiers (openid)
- Access custom permissions (custom_permissions)
- Access Analytics REST API resources (wave_api)
- Access Analytics REST API Chatter feed data resources (eclair_api)

Selected OAuth Scopes

- Manage user data via APIs (api)
- Perform requests at any time (refresh_token, offline_access)

Cancel Create

- d. Select **Enable Client Credentials Flow** and **Enable Device Flow** check boxes.
- e. Click **Create**.

Flow Enablement

☒ Enable Client Credentials Flow

☐ Enable Authorization Code and Credentials Flow

☒ Enable Device Flow

☐ Enable JWT Bearer Flow

☐ Enable Token Exchange Flow

Security

☒ Require secret for Web Server Flow

☒ Require secret for Refresh Token Flow

☒ Require Proof Key for Code Exchange (PKCE) extension for Supported Authorization Flows

☐ Enable Refresh Token Rotation

☐ Issue JSON Web Token (JWT)-based access tokens for named users

☐ Limit Idle Refresh Token Time-to-Live (TTL) to 30 Days

☐ Enforce Refresh Token IP Allowlist

Cancel Create

The external client app is created.

6. Navigate to the **Policies** tab and do the following:
 - a. From the **Permitted Users** list, select **All users can self-authorize**.

Policies Settings Package Defaults

Configure policies to customize the external client app and plugins for this Salesforce organization. Edit

▼ App Policies

* Start Page ⓘ
None ▼

▼ OAuth Policies

Plugin Policies

* Permitted Users
All users can self-authorize ▼

OAuth Start URL
Enter a URL...

Custom Scopes
You don't currently have any OAuth Custom Scopes defined. You can define them [here](#) before assigning to your app.

Apex Plugin Class
Search classes 🔍

- b. Select the **Enable Client Credentials Flow** check box.
- c. In the **Run As** field, enter the integration user's username.

OAuth Flows and External Client App Enhancements

☒ Enable Client Credentials Flow

* Run As (Username)
user2067250152@org.com

App Authorization

Refresh Token Policy

☐ Refresh token is valid until revoked
☐ Immediately expire refresh token
☒ Expire refresh token after specific time
☐ Expire refresh token if not used for specific time

* Refresh Token Validity Period
365

* Refresh Token Validity Unit
Day(s) ▼

* IP Relaxation
Relax IP restrictions ▼

☐ Enable Single Logout
☐ High Assurance Session Required

Session Timeout In Minutes ⓘ
1 - 1440

Custom Attributes +

- d. From the **IP Relaxation** list, select **Relax IP restrictions**.
- e. Click **Save**.

OAuth Flows and External Client App Enhancements

☒ Enable Client Credentials Flow
* Run As (Username)
user2067250152@org.com

App Authorization

Refresh Token Policy

☐ Refresh token is valid until revoked
☐ Immediately expire refresh token
☒ Expire refresh token after specific time
☐ Expire refresh token if not used for specific time

* Refresh Token Validity Period
365

* Refresh Token Validity Unit
Day(s)

*** IP Relaxation**
Relax IP restrictions

☐ Enable Single Logout
☐ High Assurance Session Required

Session Timeout In Minutes ⓘ
1 - 1440

Custom Attributes

+

The policy settings are saved.

7. Navigate to the **Settings** tab and do the following:
 - a. Click **OAuth Settings**, and then click **Consumer Key and Secret** to open the credentials.
 - b. Copy the **Consumer Key** and **Consumer Secret** values and paste them into the custom settings.
8. To set the Consumer Key, Consumer Secret, and Salesforce URL properties based on your version requirements, see the following topics:
 - [Configure TCSLMPhysicalStructure Microservice versions earlier than 2512](#)
 - [Configure TCSLMPhysicalStructure Microservice version 2512](#)
 - [Configure TCSLMPhysicalStructure Microservice versions 2606 and later](#)

Configure TCSLMPhysicalStructure Microservice versions earlier than 2512

- Save the Salesforce Org's **Consumer Key**, **Consumer Secret**, and **Salesforce (SF) URL** in the JSON file at the following path:

C:\Apps\tc\tc version folder\microservices folder\services_config folder\tcslmphysicalstructure.json as follows:

```
CONSUMER_KEY=<key>
CONSUMER_SECRET=<secret>
SF_URL=https://<My Domain URL>
```

Tip

To find your Salesforce My Domain URL, go to **Salesforce Setup** and search for domain > **My Domain** > **Current My Domain URL**.

Sample `tcsImphysicalstructure.json` file:

```

1  {
2    "tcsImphysicalstructure_service": {
3      "image": "tcsImphysicalstructure_service-2512",
4      "environment": [
5        "DSP=http://vc6s015:9090",
6        "ENDPOINT_TC=http://vc6s015:8000/tc",
7        "MSR=http://vc6s015:8787/eureka/v2/",
8        "STORAGEMODE=FMS",
9        "SF_URL=addyoursfurl.com",
10       "CONSUMER_KEY=addyourkey123",
11       "CONSUMER_SECRET=addyoursforgsecret456",
12       "LOG_LEVEL=info",
13       "NODE_ENV=production"
14     ],
15     "deploy": {
16       "replicas": 1
17     }
18   }
19 }

```

Warning

Ensure that all quotation marks and commas are correct. Validate the file with a JSON linter before you save it.

Configure TCSLMPhysicalStructure Microservice version 2512

- Open the JSON file at the following path:
`C:\Apps\tc\tc version folder\microservices folder\services_config folder\tcsImphysicalstructure.json`
- Add the **Salesforce Org's URL (SF URL)** to the JSON file:

```
SF_URL= https://<My Domain URL>
```

- Save the file.

Sample JSON file:

```
{
  "tcslmphysicalstructure_service": {
    "image": "tcslmphysicalstructure_service-2606",
    "environment": [
      "DSP=http://vc6s015:9090",
      "ENDPOINT_TC=http://vc6s015:8000/tc",
      "MSR=http://vc6s015:8787/eureka/v2/",
      "STORAGEMODE=FMS",
      "VAULT_TLS_ROOT=C:/Apps/tc/tc2606/TR/tc_vault_tls",
      "SF_URL=https://test.com",
      "LOG_LEVEL=info",
      "NODE_ENV=production"
    ],
    "deploy": {
      "replicas": 1
    }
  }
}
```

Tip

To find your Salesforce My Domain URL, go to **Salesforce Setup** and search for domain > **My Domain** > **Current My Domain URL**.

Configure TCSLMPhysicalStructure Microservice versions 2606 and later

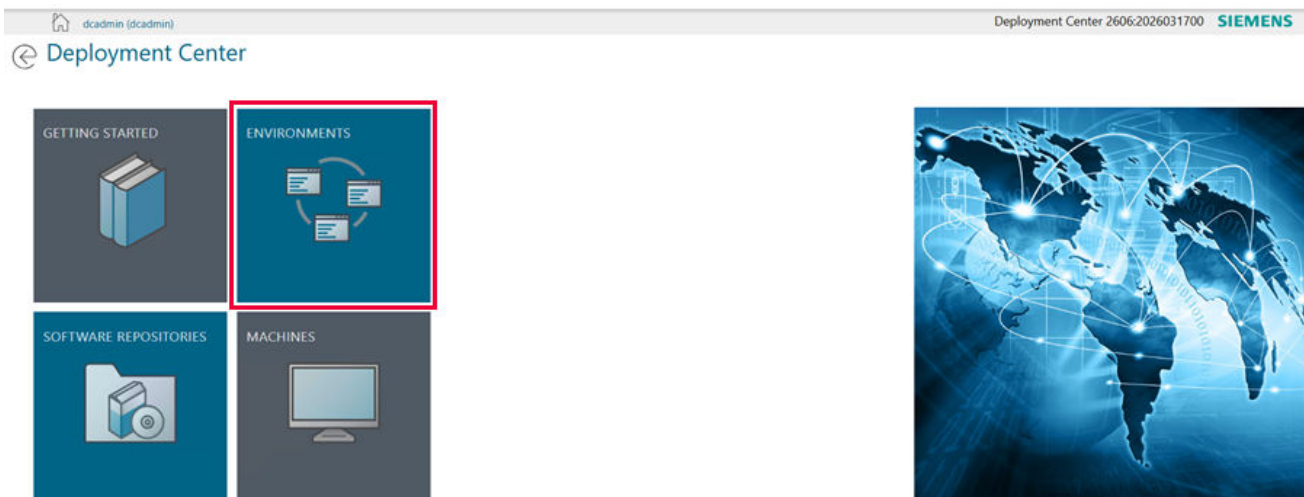
Set the Salesforce Org's **Consumer Key**, **Consumer Secret**, and **Salesforce (SF) URL** for microservice versions 2606 and later.

Prerequisites

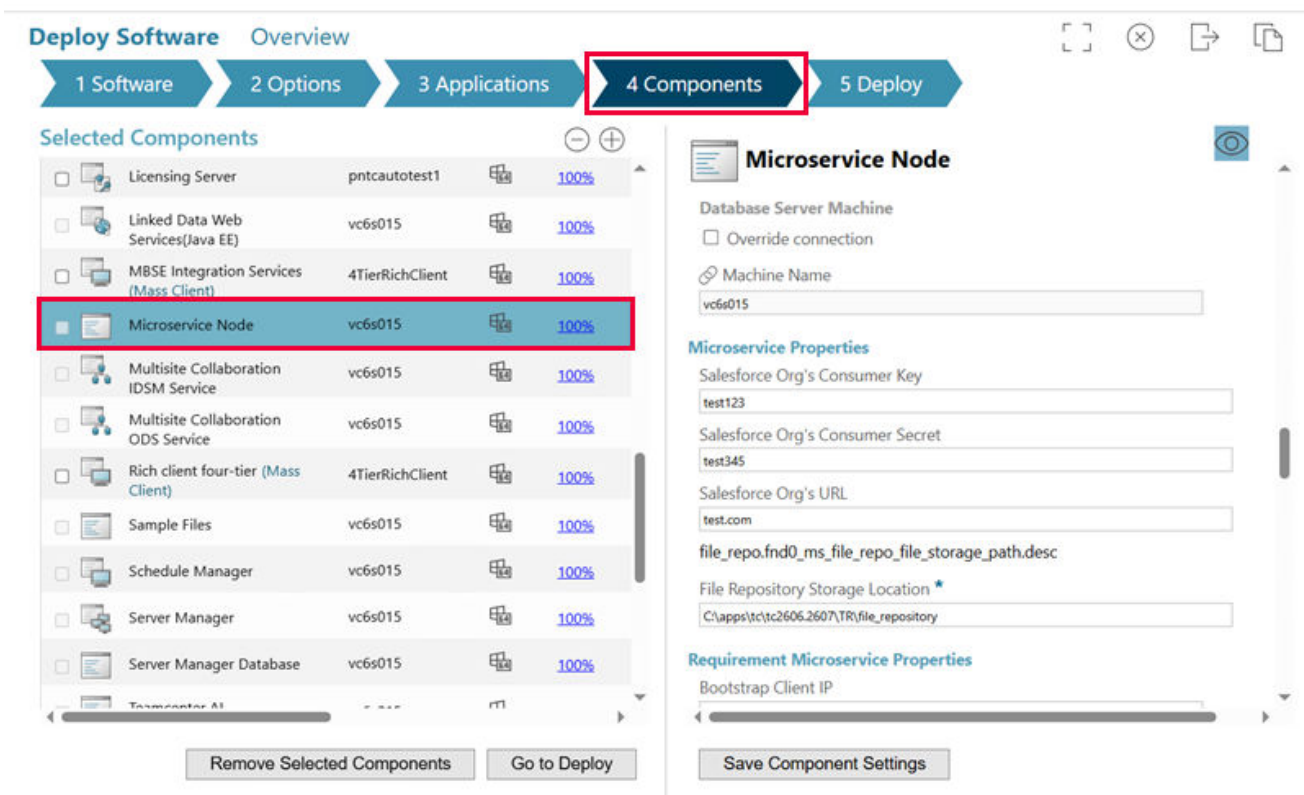
Install the TCSLMPhysicalStructure Microservice before you continue. If you have not installed it, see the *Installation of TCSLMPhysicalStructure Microservice* guide.

Procedure

1. Log on to Deployment Center and select the environment to which you want to add the Microservice Node.



2. On the **Environments** page, go to the **Components** tab.
3. In the **Selected Components** list, search for **Microservice Node** and select it.



4. In the **Microservice Node** panel, in the **Microservice Properties** section, enter the credentials for the **Salesforce Org's Consumer Key**, **Salesforce Org's Consumer Secret** and **Salesforce Org's URL**.

Tip

To find your Salesforce My Domain URL, go to **Salesforce Setup** and search for domain > **My Domain** > **Current My Domain URL**.

Microservice Properties

If Kubernetes is the container manager for the Microservice Node, this field not used.

File Repository Storage Location *

C:\apps\tc\tc2606\TR\file_repository

Salesforce Org's Consumer Key

3MVG9jGfKGWHGQBxGqciT4r8uoKrDvdYcTxDjd8HUma_km4Pwq5asupjFjObNknOkyDeWOqp

Salesforce Org's Consumer Secret

DC2AB0F43C572BC351F1A98E502966C09EC8DF027087C074A1444D7D38D7CDB8

Salesforce Org's URL

https://ability-energy-8525-dev-ed.scratch.my.salesforce.com

5. Click **Save Component Settings** in the **Microservice Node** panel.
6. Click **Go to Deploy** to navigate to the **Deploy** tab.
7. Click **Generate Install Scripts** to generate the deployment script.

When script generation is complete, in the **Deploy Instructions** panel, under **Deploy Script Directory** section, copy the directory location.

Deploy Software Overview

1 Software 2 Options 3 Applications 4 Components 5 Deploy

Generate Install Scripts

The "Generate Install Scripts" button below will generate all the scripts necessary to deploy "Teamcenter Integrated Material Management 2512.011, Teamcenter Teamcenter 2606.2607, Teamcenter Teamcenter SLM Asset Management Service 2606" software into the "config1" environment. The scripts will be generated based on the configurations provided in the Components task. Click the "Generate Install Scripts" button to proceed or if a correction is needed, go back to the Components task and change the configurations. Then return here to "Generate Install Scripts".

Generate Install Scripts

Deploy Instructions

Deploy Script Directory
The zip files are located on the "VC6S015.NET.PLM.EDS.COM" machine in following directory locations:
- C:\Apps\DC\Repo\deploy_scripts\config1\install\20260525164150IST

Deploy Scripts
The table below provides a listing of the zip files that were generated, the target machine, and the component(s) that will be installed on to each target machine.

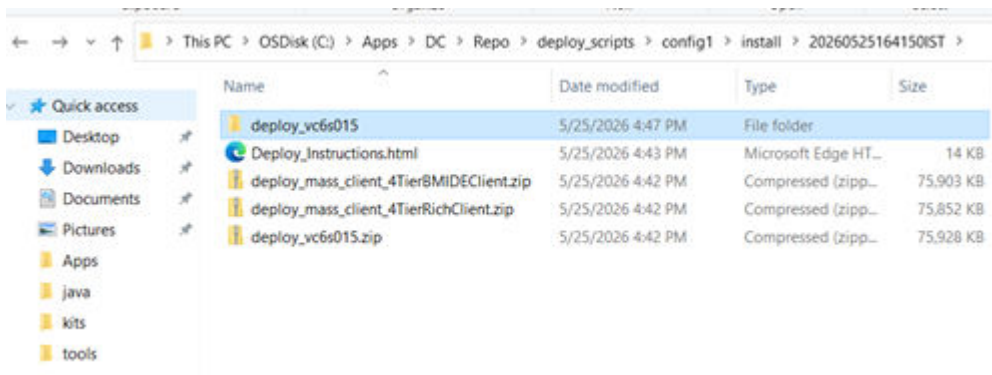
ZIP File Name	Target Machine	Component
deploy_vc6s015	vc6s015	Microservice Node Teamcenter Secrets Manager (by HashiCorp)
deploy_mass_client_4TierRichClient	4TierRichClient	Teamcenter Client Communication System MBSE Integration Services Rich client four-tier Document Management Teamcenter Client PDF Sign
deploy_mass_client_4TierBMIDClient	4TierBMIDClient	Teamcenter Client Communication System Business Modeler IDE 4 tier

► Environment Snapshot Information

8. In Windows File Explorer, go to the deployment script directory path that you copied.
9. Unzip and open the deploy_hostname folder.

Note

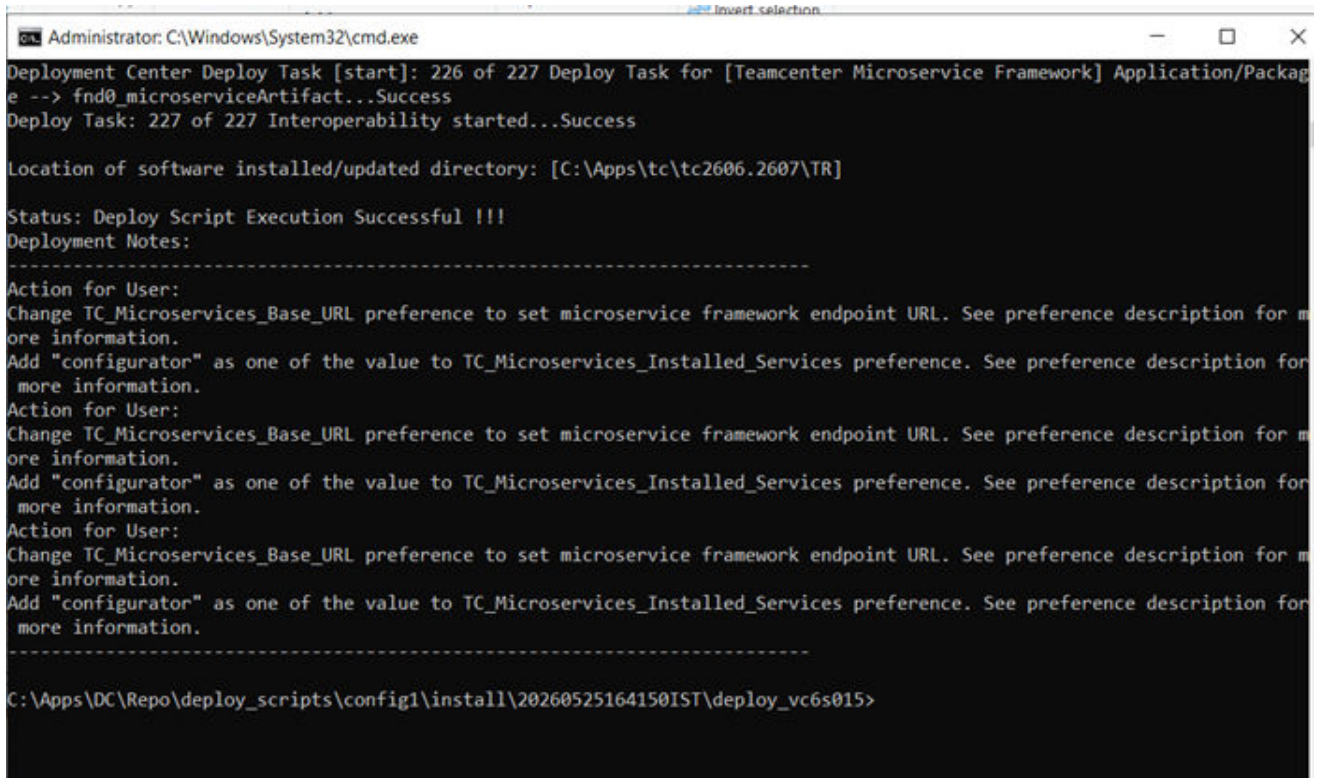
To check the host name, open a command prompt and enter the hostname command.



10. To run the deployment script, open a command prompt in administrator mode in the deploy_hostname folder and run:

```
deploy.bat -softwareLocation=C:\Apps\DC\Repo\Software
-dcusername=dcadmin -dcpassword=dcadmin
```

11. Wait until the tcslmphysicalstructure microservice deploys successfully.



```
Administrator: C:\Windows\System32\cmd.exe
Deployment Center Deploy Task [start]: 226 of 227 Deploy Task for [Teamcenter Microservice Framework] Application/Packag
e --> fnd0_microserviceArtifact...Success
Deploy Task: 227 of 227 Interoperability started...Success

Location of software installed/updated directory: [C:\Apps\tc\tc2606.2607\TR]

Status: Deploy Script Execution Successful !!!
Deployment Notes:
-----
Action for User:
Change TC_Microservices_Base_URL preference to set microservice framework endpoint URL. See preference description for m
ore information.
Add "configurator" as one of the value to TC_Microservices_Installed_Services preference. See preference description for
more information.
Action for User:
Change TC_Microservices_Base_URL preference to set microservice framework endpoint URL. See preference description for m
ore information.
Add "configurator" as one of the value to TC_Microservices_Installed_Services preference. See preference description for
more information.
Action for User:
Change TC_Microservices_Base_URL preference to set microservice framework endpoint URL. See preference description for m
ore information.
Add "configurator" as one of the value to TC_Microservices_Installed_Services preference. See preference description for
more information.
-----
C:\Apps\DC\Repo\deploy_scripts\config1\install\20260525164150IST\deploy_vc6s015>
```

12. After the TCSLMPhysicalStructure microservice is configured successfully, start the **Teamcenter Process Manager** service from **Windows Services** (services.msc) to start the TCSLMPhysicalStructure microservice.

Add trusted URLs

Create two trusted URLs (one for HTTP and one for HTTPS) with the following configurations enabled:

- connect-src (scripts)
- font-src (fonts)
- frame-src (iframe content)

Configure custom settings

Procedure

1. Go to **Setup**.
2. Search for **Custom Settings**.
3. Click **Manage** for the TC_Settings row.

4. Click **New**.
5. Enter the following login URL details (These are dummy details for your reference):
 - a. Set AWC_Path_c to **awc**.
 - b. Set MS_Path_c to **tc/micro**. The microservice path, such as **micro** or **sd**, will be configured according to the Active Workspace gateway config.json.
 - c. Set TC_SF_Route_c to **tc/micro/tcslmassetmgmt/coc**. The microservice path, such as **micro** or **sd**, will be configured according to the Active Workspace gateway config.json.
 - d. For TcX, set TC_SF_Route_c to **tc/micro/tcslmassetmgmt/tcxcoc**. The microservice path, such as **micro** or **sd**, will be configured according to the Active Workspace gateway config.json.
 - e. Set TC_URL_c to **<Active Workspace gateway URL>**.

Example

https://albsf-tc2312.eu-central-1.elb.amazonaws.com

Update remote site settings

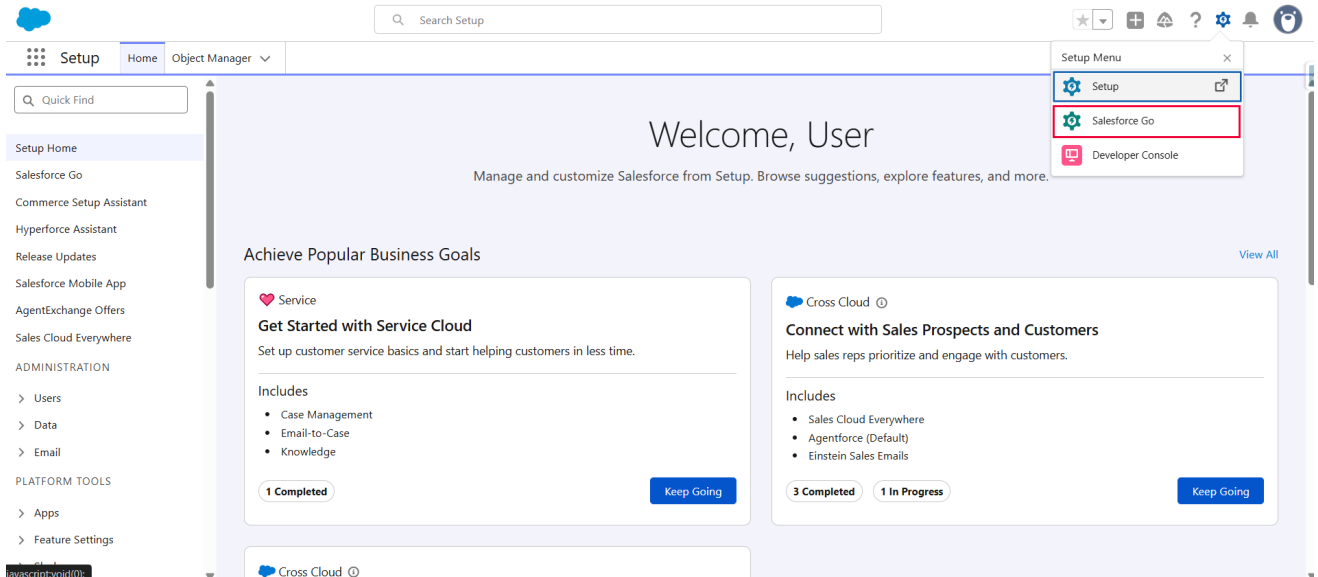
Procedure

1. Go to **Setup**.
2. Search for **Remote Site Settings**.
3. Click the **TeamcenterEnv** row.
4. Remove the test URL from the **Remote Site URL** field.
5. Enter your Active Workspace **Domain Name URL**.
6. Click **Save**.

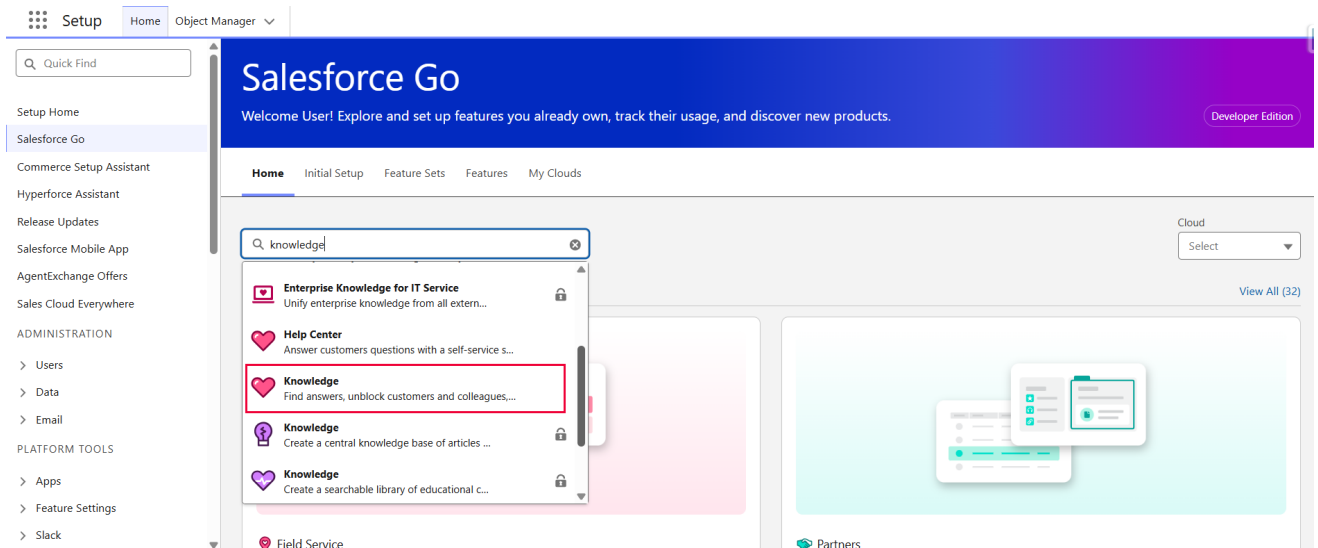
Knowledge setup for users

Procedure

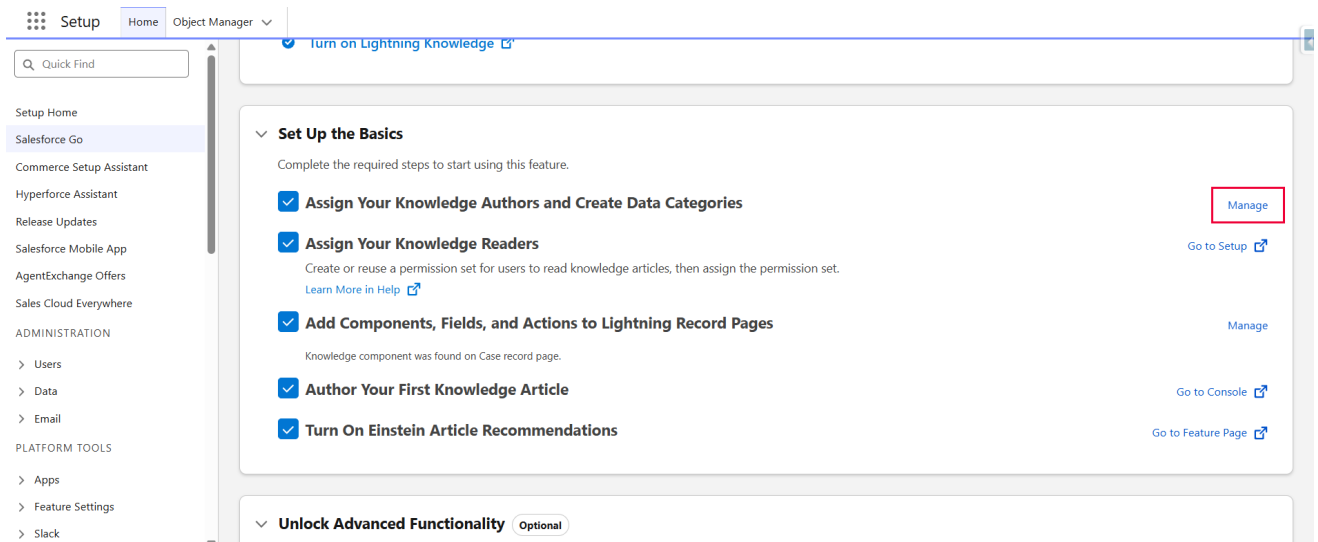
1. For each user who needs access to Knowledge, navigate to the user profile and select the option that marks them as a **Knowledge user**.
2. Click the **Gear** icon beside your profile.
3. In **Setup**, click **Salesforce Go**.



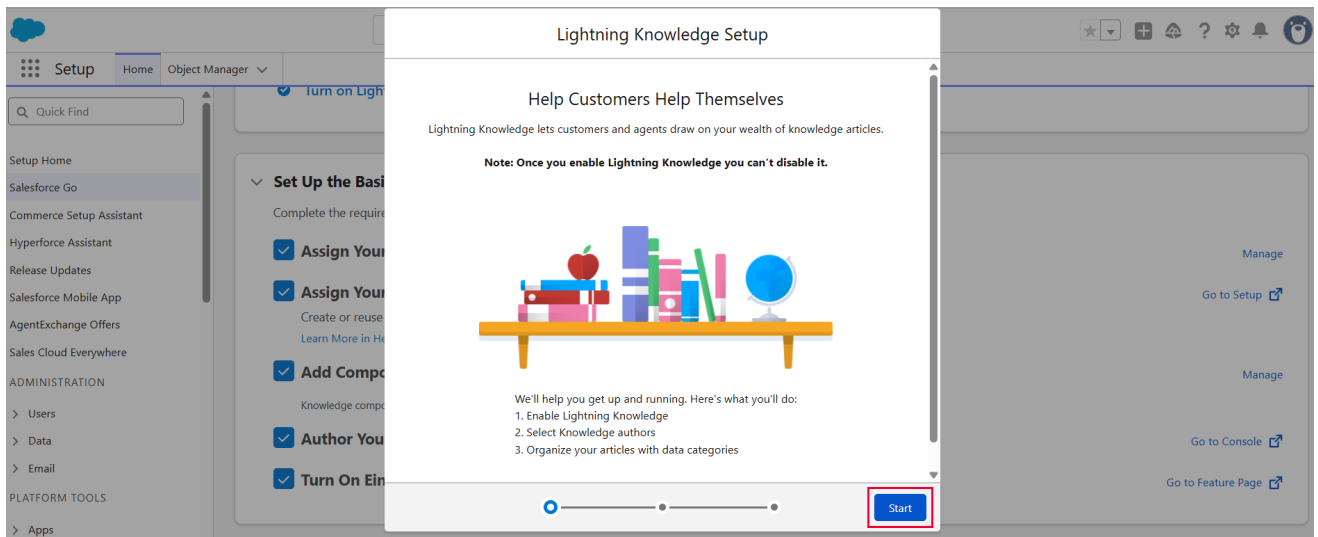
4. In the **Salesforce Go** page, search for **Knowledge** in the search box.



5. Click **Manage**. Follow the setup wizard, click **Next**, and then click **Finish**.



6. In the **Knowledge Setup** window, click **Start** and follow the steps.

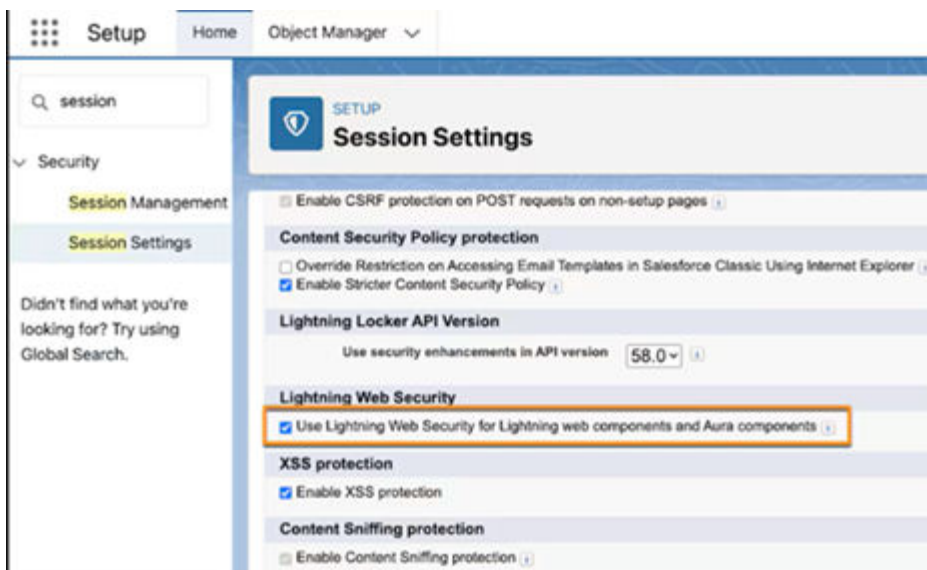


7. Go to **Object Manager**.
8. Open the **Answer** field.
9. Click **Set Field-Level Security**.
10. Select the **Visible** column for All and click **Save**.
11. Go to **Page Layouts**.
12. Open the **Knowledge Layout**.
13. Drag the **Answer** field to a position below the **URL Name** field.
14. Click **Save**.

Enable lightning web security

Procedure

1. Open **Setup**.
2. Navigate to **Session Settings**.
3. Select the **Lightning Web Security** checkbox.



4. Troubleshooting TCSLMPhysicalStructure Microservice

Verify microservice health

Verify that the TCSLMPhysicalStructure microservice is running and properly registered with the service registry by using health check URLs and reviewing service status.

Procedure

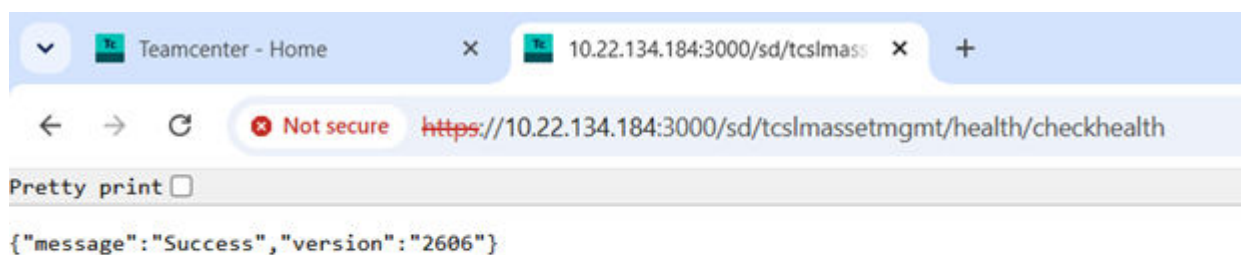
1. Check the microservice health status by accessing **one of the following URLs**:

Note

Ensure that you are logged in to Active Workspace before you proceed.

- `<awc_url>/sd/tcslmassetmgmt/health/checkhealth`
- `<awc_url>/tc/micro/tcslmassetmgmt/health/checkhealth`

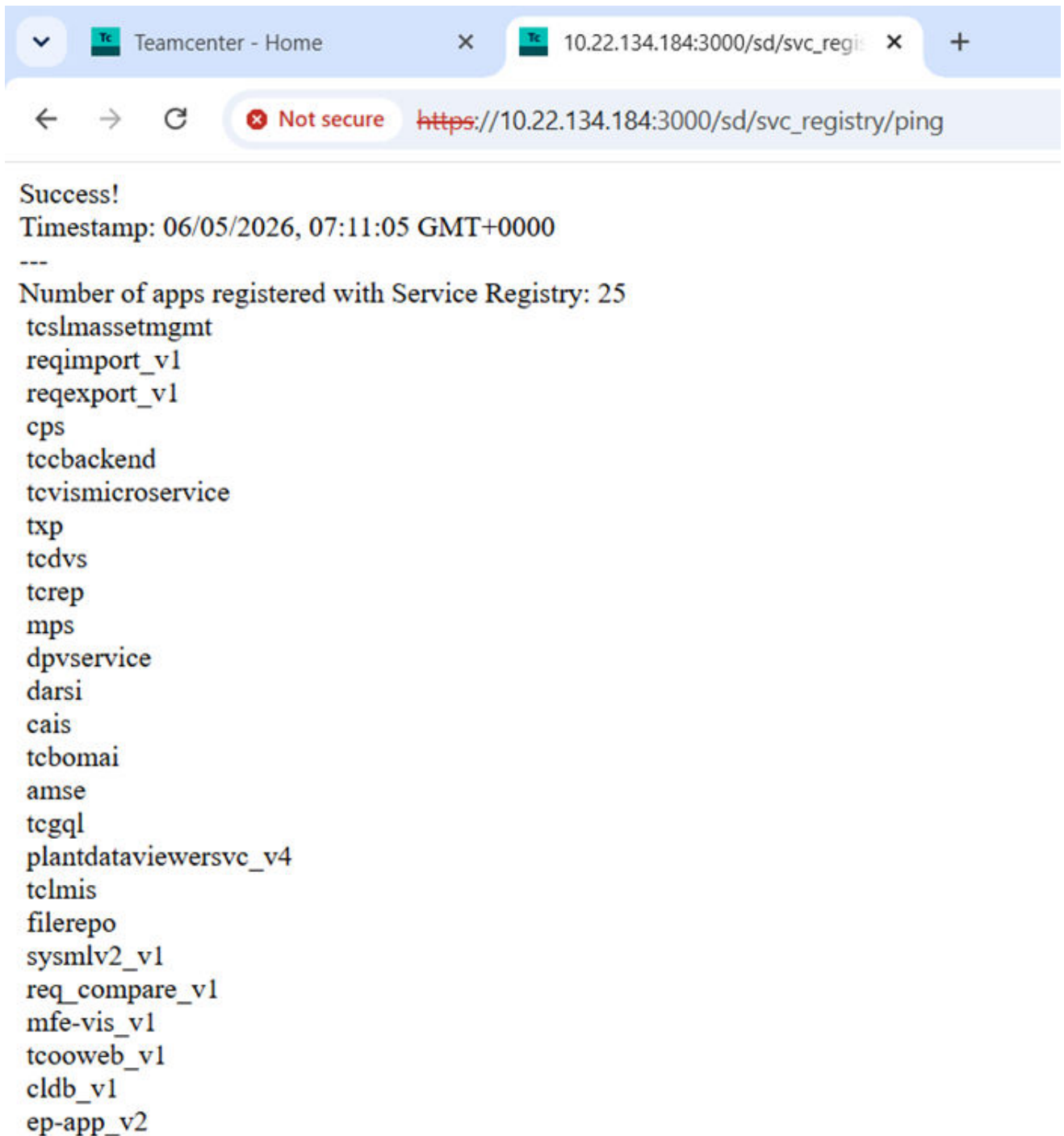
Expected output:



2. Verify the service registry ping by accessing the following URL:

- `<awc_url>/sd/svc_registry/ping`

Expected output:



3. Verify the service registration in the Eureka registry by accessing the following URL:
 - http://<eureka_host>:<eureka_port>/eureka/v2/apps

Results

The following results indicate successful microservice health:

- The service registry ping returns a successful response.
- The health check endpoints return a **200 OK** status with service health details.
- The Eureka applications endpoint lists **tcsImassetmgmt** as a registered application.

What to do next

If the health checks fail, perform the following actions:

- Verify that the microservice is running by checking the Teamcenter Process Manager or the service status.
- Confirm that the microservice port is not blocked or already in use.
- Check the microservice logs to ensure that it registered successfully with Eureka.
- Verify network connectivity between the Active Workspace gateway and the microservice host.

Note

Replace **<awc_url>** with your Active Workspace client URL, for example, **http://10.22.134.95:3000**.
 Replace **<eureka_host>:<eureka_port>** with your Eureka server address, for example, **10.22.134.172:8787**.

Resolve Deployment Center accessibility issues

If Deployment Center is not accessible through a browser in a Windows environment, ensure that the following four services are running.



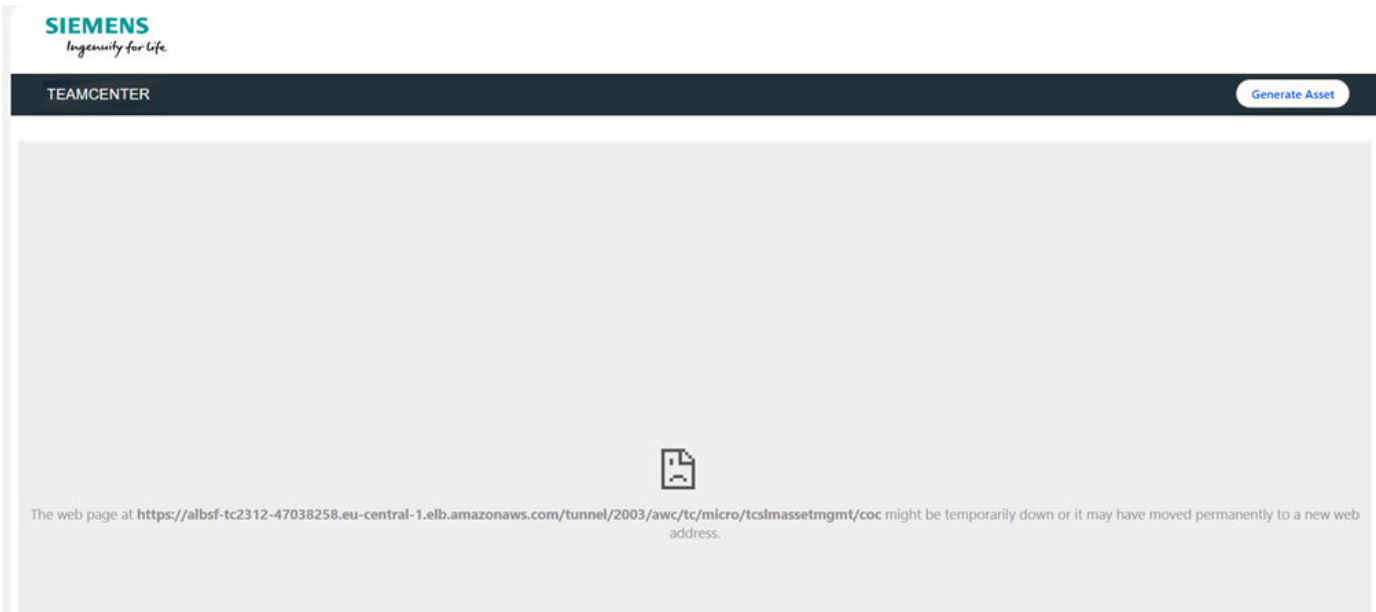
Name	Description	Status	Startup Type	Log On As
Data Sharing Service	Provides dat...	Running	Manual (Trig...	Local System
DCOM Server Process Launcher	The DCOML...	Running	Automatic	Local System
Declared Configuration(DC) service	Process Dec...		Manual (Trig...	Local System
Delivery Optimization	Performs co...		Manual (Trig...	Network Se...
Deployment Center Vault Service	DC_Vault_Se...	Running	Automatic	Local System
DeploymentCenter	Deployment...	Running	Automatic	Local System
Device Association Service	Enables pair...		Manual (Trig...	Local System

Name	Description	Status	Startup Type	Log On As
Radio Management Service	Radio Mana...		Disabled	Local Service
Remote Access Auto Connection Manager	Creates a co...		Manual	Local System
Remote Access Connection Manager	Manages di...	Running	Automatic	Local System
Remote Desktop Configuration	Remote Des...	Running	Manual	Local System
Remote Desktop Services	Allows users...	Running	Manual	Network Se...
Remote Desktop Services UserMode Port Redirector	Allows the r...	Running	Manual	Local System
Remote Procedure Call (RPC)	The RPCSS s...	Running	Automatic	Network Se...
Remote Procedure Call (RPC) Locator	In Windows ...		Manual	Network Se...
Remote Registry	Enables rem...		Automatic (Tri...	Local Service
RepositoryService	Repository S...	Running	Automatic	Local System
RepositoryService_Publisher		Running	Automatic	Local System
Resultant Set of Policy Provider	Provides a n...		Manual	Local System
Routing and Remote Access	Offers routi...		Disabled	Local System
RPC Endpoint Mapper	Resolves RP...	Running	Automatic	Network Se...
Secondary Logon	Enables star...		Manual	Local System

Resolve Salesforce embedded view access error

If the Salesforce embedded view displays a **page might be temporarily down or moved permanently** error, open the tunnel URL in a new browser tab to establish the connection.

When you access the embedded Salesforce view, the error message appears.



Perform the following steps to resolve the error.

Procedure

1. Copy the tunnel URL from the iframe source.
The URL format is similar to: `https://<awc_url>/tunnel/2003/awc/tc/micro/tcslmassetmgmt/coc`

2. Open a new browser tab and paste the copied URL into the address bar.
If the page loads correctly in the new tab, the embedded Salesforce view should now function properly in Active Workspace.

Resolve deployment script execution failures

1. Ensure that the following Teamcenter services are stopped during deployment and installation:
 - **Teamcenter Process Manager**
 - **Teamcenter Server Manager config1_PoolA**
 - **Tomcat_tc_AdminServer**
2. Restart these services after the deployment completes successfully.

Troubleshoot TCSLMPhysicalStructure microservice startup failures

When the TCSLMPhysicalStructure microservice fails to start, the issue is typically related to configuration errors, port conflicts, or missing runtime dependencies. Use the following steps to diagnose and resolve the startup failure.

Procedure

1. Check the microservice logs for errors.
Log file location (Windows): `C:\Apps\tc\<version>\microservices\logs\tcsImphysicalstructure.log`
2. Verify that the port configured for the microservice is not already in use.
Run the following command on Windows:


```
netstat -ano | findstr :<port_number>
```
3. Ensure the Java or Node.js runtime required by the microservice is installed and available in the system PATH.

Resolve Salesforce connection errors

Fix connection issues between the TCSLMPhysicalStructure microservice and Salesforce when you encounter 401 Unauthorized or Connection Refused errors.

Procedure

1. Verify that the **Consumer Key** and **Consumer Secret** are correct and have not been rotated or revoked in the **Salesforce Connected App** settings.

2. Confirm that the SF_URL value matches your Salesforce My Domain exactly.

Note

Ensure that the URL is in the format **https://yourcompany.my.salesforce.com** and does not include a trailing slash.

3. Check that the OAuth scopes for the Salesforce Connected App are enabled:
 - **full**
 - **refresh_token**
 - **api**
4. Check that the Salesforce Connected App **IP Relaxation** policy is set appropriately, or go to **Setup > Network Access** and verify that the server IP address hosting the TCSLMPhysicalStructure microservice is whitelisted.

Validate JSON configuration files

Check the tcslmphysicalstructure.json configuration file for syntax errors, special characters, and formatting issues that can prevent the microservice from starting.

Procedure

1. Validate the tcslmphysicalstructure.json file with a JSON validator to find syntax errors.

Use one of the following tools:

- **jsonlint**
- **Online JSON validator**

The validator identifies errors such as missing commas, mismatched brackets, or trailing commas.

2. Check for special characters or invisible Unicode characters that might have been introduced during copy-paste operations.
 - a. Open the file in a plain-text editor such as Notepad++ or Visual Studio Code (VS Code).
 - b. Enable the **Show All Characters** option to display non-printable characters.
 - c. Remove any invisible or special characters that should not be in the file.
3. Confirm that credential values do not contain unescaped special characters.

Special characters such as double quotes ("), backslashes (\), and other reserved JSON characters must be properly escaped.

Troubleshoot Active Workspace gateway connectivity

Resolve connectivity issues between the Active Workspace gateway and the TCSLMPhysicalStructure microservice by verifying configuration, testing network connectivity, and validating SLL/TLS certificates.

Procedure

1. Verify that the **config.json** file for the gateway is saved correctly and that you restarted the gateway service after making changes.
2. Confirm that the microservice URL configured in the gateway is reachable from the gateway host.
Run the following URL to test connectivity to the microservice health check endpoint:
<awc_url>/sd/tcslmassetmgmt/health/checkhealth
3. If you use HTTPS, ensure that the SLL/TLS certificates are valid and trusted by the gateway.
Self-signed certificates must be added to the trust store.

Resolve proxy and firewall issues

Configure proxy settings and firewall rules to allow the microservices to communicate with Salesforce through corporate network security controls.

Procedure

1. Configure proxy settings for the microservice if the environment is behind a corporate proxy.
 - Set the HTTP_PROXY and HTTPS_PROXY environment variables, or
 - Configure the proxy settings in the microservice configuration file.
2. Add Salesforce domains to the firewall allow-list.
Ensure that the following domains are allowed through the firewall:
 - ***.salesforce.com**
 - ***.force.com**
 - **login.salesforce.com**
3. Verify that outbound traffic on port 443 (HTTPS) is not blocked between the microservice host and Salesforce.

Resolve Deployment Center script generation issues

Fix issues that prevent Deployment Center from generating installation scripts by verifying configuration, service availability, and system resources.

Procedure

1. Ensure that all mandatory fields are filled in before you click **Generate Install Scripts**.

Verify that the following fields contain valid values:

- **Consumer Key**
- **Consumer Secret**
- **SF URL**

2. Check that the DC Vault service is running and accessible.

For more information, see [Resolve Deployment Center accessibility issues](#).

3. Verify sufficient disk space is available in the Deployment Script Directory path.

4. Review the Deployment Center logs for errors.

Log file location (Windows): C:\Apps\DC\Server\logs\

Troubleshoot Teamcenter Process Manager service issues

Resolve issues that prevent the Teamcenter Process Manager service from starting or initiating the microservice process by verifying service configuration, reviewing logs, and checking permissions.

Procedure

1. Open Windows Services by running **services.msc** and verify that the **Teamcenter Process Manager** service is configured for **Automatic** startup.
2. Check the **Process Manager** logs for errors related to starting the microservice process.
3. Ensure that the service account running **Teamcenter Process Manager** has sufficient permissions to access the microservice installation directory and configuration files.

Resolve microservice version compatibility issues

Ensure that the TCSLMPhysicalStructure Microservice version is compatible with the Teamcenter version and properly deployed to prevent version-related startup and runtime failures.

Procedure

1. Confirm that the installed TCSLMPhysicalStructure Microservice version matches the Teamcenter version based on the compatibility matrix in the System Requirements section.
2. If you are upgrading, ensure that the previous microservice version is fully uninstalled or stopped before you deploy the new version.

3. Clear any cached configuration by deleting temporary files in the microservice working directory before deployment.

Resolve CORS errors in browser

Fix Cross-Origin Resource Sharing (CORS) errors that prevent the browser from connecting to Salesforce by verifying gateway configuration, allowed origins, and clearing browser data.

Procedure

1. Verify that the `additionalCookieAttributes` section in the gateway **config.json** file is configured correctly, as described in the Active Workspace gateway configuration section.
2. Ensure that the Salesforce domain is included in the allowed origins configuration of the gateway.
3. Clear the browser cache and cookies, and then retry the connection.

Troubleshoot Salesforce timeout errors

Resolve timeout errors when connecting to Salesforce by checking network latency, adjusting timeout values, and verifying Salesforce service status.

Procedure

1. Check network latency between the microservice host and Salesforce.
Use ping or traceroute to test connectivity to `login.salesforce.com`
2. Increase the connection timeout values in the microservice configuration if the default values are too low for the network conditions.
3. Verify that Salesforce is not experiencing service disruptions by checking **status.salesforce.com**.

5. Contact and Support

For technical support, you can email the following experts:

1. **Name:** Bhupendrasing Patil
Email: bhupendrasing.patil@siemens.com
2. **Name:** Chetan Attarde
Email: chetan.attarde@siemens.com