Teamcenter SLM 2412 – App Documentation

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1. Introduction

Teamcenter SLM is an innovative app designed to enhance your service management capabilities within Salesforce Service Cloud. This is a comprehensive solution that brings together the power of Salesforce Service Cloud with advanced service lifecycle management functionalities. By integrating seamlessly with the Salesforce environment, Teamcenter SLM enables you to optimize your service operations, improve customer satisfaction, and drive business growth.

2. App Overview

Teamcenter The "Teamcenter SLM " app is a powerful and innovative solution that bridges the gap between Teamcenter's product lifecycle management (PLM) capabilities and Salesforce's Service Cloud platform. This app seamlessly integrates engineering data and servicing information from Teamcenter, providing a digital thread that connects the entire product lifecycle. By leveraging the Service Bill of Materials (SBOM) from Teamcenter, the app enables the creation of configured assets in Salesforce. These assets hold comprehensive information about the product configuration and its history, empowering customer service representatives with valuable insights to deliver top-notch support.

Moreover, the app utilizes the servicing information defined in Teamcenter to generate standardized work type templates in Salesforce, streamlining service processes and ensuring consistent and efficient handling of customer cases. Beyond these capabilities, users can personalize date formats and language settings to their preferences, enhancing data presentation, analysis, and user experience. Moreover, the app introduces 3D visualization, allowing users to interact with assets in a three-dimensional format for improved understanding and analysis, thereby revolutionizing customer service operations and fostering collaboration between engineering and service teams. Ultimately, it drives enhanced customer satisfaction by delivering the right information at the right time.

3. System Requirements

- A. The user should have the following licenses/accesses:
 - a. STA -- Service Technician Access License. (For viewing data from Teamcenter)
 - b. Salesforce License Dependency on service cloud or field service.

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

B. Version Compatibility Matrix:

App Version	SLM-Microservice	Teamcenter
Teamcenter SLM 2412	2412 or latest patch	2412
	2406.0001 or latest patch	2406
	2312.0003 or latest patch	2312

This matrix indicates which versions of the Salesforce app are compatible with specific versions of Teamcenter. Please ensure that you use the corresponding SLM Microservice (SLM-MS) and Teamcenter (TC) or Active Workspace (AW) version based on the Salesforce app version you are installing.

Based on the compatibility, SLM microservices can be downloaded from the following link: SLM-MS

- C. MFE Vis microservice: Installation of MFE Vis microservice is a prerequisite for asset visualization in SLM Salesforce app. (MFE Vis microservice is part of Teamcenter AW kit)
- D. Active Workspace should be https enabled.

4. Active Workspace Gateway Configuration

- 1. Please follow this link to setup a gateway configuration if not already done.
- 2. Add below in "additionalCookieAttributes" in microservice gateway config.json

```
"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"]
        }
   1
```

5. App installation & configuration

- A. Enable knowledge in Salesforce org in which you want to install the application (Setup -> Knowledge Settings)
- **B.** Install the app: The app can be installed from <u>Salesforce AppExchange</u>. In case of difficulty, we are here to assist you. Kindly reach out to us via the details mentioned in the support and contact information section of this document.
- C. Create permission set: Create new permission set say "SLM Permissions":
 - a. Assign full access to below objects under "Object Settings":
 - i. Knowledge Asset Junctions
 - ii. Assets
 - b. Assign below "System Permissions":
 - i. Author Apex
 - ii. Customize Application
 - c. Assign all siemensslm namespace apex classes under "Apex Class Access".

Permission Sets	
Permission Set	
3LM permissions	
Q. Find Settings K Clone Edit Properties Manage Assignments View Summ	ary
Apex Class Access Edit	
Apex Class Name	Installed Packa
siemensslm.AssetListViewHelper	Teamcenter SI
siemenssim.AssetTriggerHandlerClass	Teamcenter S
siemensslm.AssetTriggerHandlerClassTest	Teamcenter S
siemenssim.BatchCreateAssets	Teamcenter S
siemensslm.BatchCreateCopies	Teamcenter S
siemenssim BatchDeleteBOMLines	Teamcenter S
siemenssim Batchi inkAssets	Teamcenter

D. Users' creation:

- a. Create integration user: To communicate with Teamcenter in the background, create a user with user license "Salesforce Integration" and Profile "Minimum Access – API Only Integrations". Once created:
 - i. Assign "Salesforce API Integration" Permission Set License to this user.
 - ii. Assign these permission sets: "Integration Users Permissions" and "SLM Permissions"

Permis	sion Set Assignments	Edit Assignments
Action	Permission Set Label	
Del	Integration User Permissions	
Del	Knowledge LSF Permission Set	
Del	SLM permissions	
'ermis	sion Set Assignments: Activation Required	Edit Assignments
No reco	ords to display	
Permis	sion Set Group Assignments	Edit Assignments
No reco	ords to display	
Permis	sion Set License Assignments	Edit Assignments
Action	Permission Set License Label	
	Salesforce API Integration	

 Assign SLM app License to Integration User in "Installed Packages": (Installed Packages -> Manage Licenses -> Add Users -> Select this user & click "Add")

SETUP Installed Pack	ages	A			
Installed Package	s				
On AppExchange you can browse, t	est drive, downlo	oad, and in	stall pre-built app	s and components	right into
Apps and components are installed before deploying. You can deploy the	in packages. An e components in	y custom a dividually u	ops, tabs, and cu ising the other fea	stom objects are in atures in setup or a	itially m s a grou
Depending on the links next to an in	stalled package,	you can ta	ke different action	ns from this page.	
To remove a package, click Uninsta	II. To manage yo	our packag	e licenses, click N	lanage Licenses.	
Installed Packages					
Action	Package Name	Publisher	Version Number	Namespace Prefix	Status
Uninstall Manage Licenses 📩	Teamcenter SLM	Siemens DISW	2412.0 (Beta 1)	siemenssim	Trial
•					

- b. Create/update actual user: Now it's time to create actual user or modify existing user who is going to use the app.
 - i. Technician user: Create new user (it must be a knowledge user) and assign "Siemens Technician" and "SLM permissions" permission sets. You can also do this for existing user.

- ii. Supervisor user: Create new user (it must be a knowledge user) and assign "Siemens Supervisor" and "SLM permissions" permission sets. You can also do this for existing user.
- E. Create connected app: Create a connected app in Salesforce say "SLM Connected App" with below settings
 - a. Enable OAuth Settings
 - b. Enable Device Flow
 - c. Enable Client Credentials Flow
 - d. Select OAuth scopes:
 - i. Manage user data via APIs (api)
 - ii. Manage user data via Web browsers (web)
 - iii. Perform requests at any time (refresh_token, offline_access)

Q app m	SETUP Manage Connected Apps	
~ Apps		-17
App Manager ✓ External Client Apps External Client App Manager	API (Enable OAuth Settings) Enable OAuth Settings Enable OAuth Settings Callback UBLo Ittps://login salesforce.com/serv/ces/oauth2/success	
 User Interface 		
App Menu	Use digital signatures	
Didn't find what you're looking for? Try using Global Search.	Selected OJuth Scopes Available OAuth Scopes Selected OAuth Scopes Access Analytics REST API Charts Geodata resources (ceclair_api) Access Connect REST API resources (hatter_api) Access Forget Resorved API (torgot password) Access Headless Porgot Password API (torgot password) Access Interaction API resources (interaction_api) Access Interaction API resources (interaction_api) Access Interaction API resources (interaction_api) Access Strainforce applications (interaction_api) Access Strainforce apaplications (interaction_api) Access Strainforce ap	÷
	Require Proof Key for Code Exchange (PRCE) Extension for Supported Authorization Flows Require Secret for Mes Server Flows Require Secret for Mess Server Flows Enable Client Credentials Flows Enable Authorization Code and Credentials Flows Flows Flows Flows Flows Flows Flows Flows Flows Flows	

iv. Save

- e. Manage -> Policies -> IP relaxation -> Relax IP Restrictions
- f. Client Credentials Flow -> Run As -> Select integration user
- g. Save
- h. Get Consumer Key and Consumer secret (Open connected app -> Manage consumer details). Save Consumer Key and Consumer Secret in microservices .env file:

CONSUMER_KEY= <key> CONSUMER_SECRET=<secret> DEV_MODE=0 SF_URL=<mv_domain> (In Salesforce go to setup -> s</mv_domain></secret></key>	search for
domains -> my domain)	
<pre> .env TCSOA_EXPAND_PAGE_SIZE=200 QUEUE_THRESHOLD=100 CONSUMER_KEY='' CONSUMER_SECRET='' TC_URL='' SF_URL='' DEV_MODE=0 </pre>	

- F. Add trusted URLs: Create two trusted URLs (for http and https) with below configurations enabled:
 - a. connect-src (scripts)
 - b. font-src (fonts)
 - c. frame-src (iframe content)

-	
Setup Home Object	Manager 🗸
Q, trusted	C STUP Trusted URLs
' Security	Trusted URL Information
Trusted URL and Browser Policy Violations	API Name © TC_Trusted_URLs
Trusted URLs	URL https://albsf-1-amazonaws.com
Trusted URLs for Redirects	
Didn't find what you're looking for?	Active 0
Try using Global Search.	Content Security Policy (CSP) Settings
	To help prevent cross-site scripting (XSS) and other code injection attacks, the Lightning component framework uses CSP to impose restrictions on content. To control context.
	CSP Context All
	CSP Directives Select the directives that Lightning components, third-party APIs, and WebSocket connections can load from this trusted URL. Each CSP directive controls access to a Lightning or utility ward CSP-arenged away or LND siles.
	To use the <u>discloseConsection constant constant and the state of the connect-sc (script) directive.</u> Then add the trusted URL in the Security setti that directive, connections from Lipitaling to this trusted URL can use the Javascript methods in the tookt. Otherwise, you can't load JavaScript resources from a third intring part, add the third part (VEL can scate the add the static execute to your component.
	connect-src (scripts) 0
	font-src (fonts)
	frame.src (frame content) 0 🛛 🖉
	img-src (images)
	media-src (audio and video)

G. Custom Settings:

a. Go to Setup -> Custom Settings -> Click on Manage button of "TC_Settings" row -> Click on "New":

Custom Sett	ings	~.~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Custom Settings		
Use custom settings to create a data can be used by formula fie	and manage custom elds, Visualforce, Ape	data at the organizatic ex, and the Web Servic
View: All 🗸	<u>8W</u>	
Action Label ↑	Visibility	Settings Type
Manage 📥 <u>TC_Settings</u>	Public	Hierarchy

- b. Enter the Login URL details (Shared the dummy details below for your reference)
 - i. AWC_Path_c = 'awc'
 - ii. MS_Path_c = 'micro' (Microservice path i.e.: "micro" or "sd" will be as per AW gateway config.json)
 - iii. TC_SF_Route_c = 'tc/micro/tcslmassetmgmt/coc' (Microservice path i.e.: "micro" or "sd" will be as per AW gateway config.json)
 - iv. For TcX: TC_SF_Route_c = 'tc/micro/tcslmassetmgmt/tcxcoc' (Microservice path i.e.: "micro" or "sd" will be as per AW gateway config.json)
 - TC_URL_c = <Active Workspace gateway URL> (Ex: https://albsf-tc2312.eu-central-1.elb.amazonaws.com)

Q custom set	Custom Settings	
Custom Code		1: 5 11
Custom Settings	TC Settings Edit	
Didn't find what you're looking for? Iry using Global Search.	Provide values for the fields you created. This data is cac Edit TC_Settings	hed with the appli
	Connected_App_Secret ©	
	MS_Path O micro	
	SF_Environment ©	
	TC_SF_Route @ awc/tc/micro	o/tcslmassetmor

H. Remote Site Settings:

- a. Go to Setup -> Remote Site Settings -> Click on "TeamcenterEnv" row
- b. Remove test URL from Remote Site URL and enter your Active Workspace Domain Name URL and click on Save.

Q remote	Remote Site Settin	gs		
 Custom Code 			NI/A	
Remote Access	Remote Site Edit (Mana	aged)		
 Security 	Enter the URL for the remote site. All s-cor	trols, JavaScript OnClick comm	ands in custom	n buttons, Apex, and AJAX proxy calls can access this Web add
Remote Site Settings	This Domete Cite Colling is managed	d manning that you may anly add	odeje alkihoder	- Dissing Mass Information
ny anny along scalar	Remote Site Name Remote Site URL Disable Protocol Security	TeamcenterEnv https://albsf-1-amazonaws.co	com	
	Diaduc Protecti Security	TC Integration Env		
	Active			

- I. Knowledge setup for all the users:
 - a. Users ---> Make it knowledge user.
 - b. Open service setup --> Look for "Knowledge Setup" and click on it and follow the instructions.
 - c. Go to Object Manager (within service setup only) --> Open Knowledge (siemensslm_Knowledge_kav)
 - d. Go to Fields & Relationships --> Open Answer field --> Click on "Set Field-Level Security"
 - e. Check "Visible" column for All & save
 - f. Go to Page Layouts --> Open Knowledge Layout --> Drag & drop "Answer" field below "URL Name" & then Save
- J. Enable lightning web security: Open Setup -> Session Settings -> check the checkbox for lightning web security:



6. Support & Contact

Contact 1: Name: Bhupendrasing Patil Email: <u>bhupendrasing.patil@siemens.com</u>

Contact 2: Name: Ajay Dahibhate Email: ajay.dahibhate@siemens.com

7. Legal & License Information

License Name: Siemens Industry Software, Inc_ISVForce_USD License Type: ISVforce