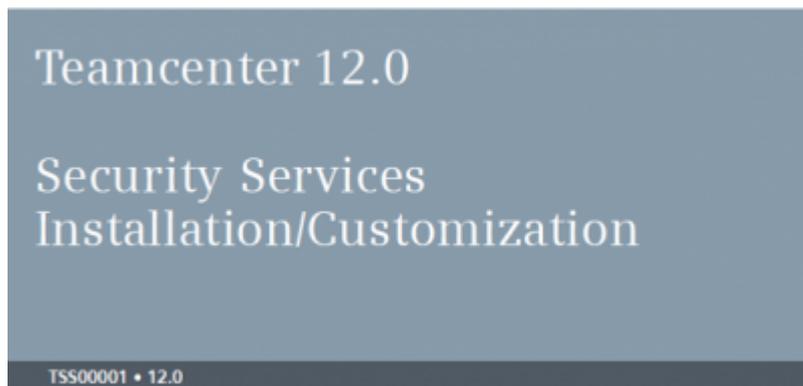


Table of Contents

Handbuch Tc 12 Security Services	3
Impressum	3
1. Vorbedingungen Clientinstallation	3
2. 4-tier Client installation auf tccs umstellen	4
2.1 Feature Maintenance	4
2.2 Client Communication System Switch	4
2.3 Configuration Selection for Client Communication System	4
2.4 Forward Proxy Settings	5
2.5 Environment Settings for Client Communication System	5
2.6 Reverse Proxy Settings	6
2.6 Kerberos Authentication Settings	7
2.7 Secure Socket Layer (SSL) Settings	7
2.8 Client Tag Filter	8
2.9 Ergebnis	9
3. IIS auf Webserver konfigurieren	10
3.1 IIS installieren	10
4. C:\plm\SSO einrichten	11
5. Modify Tomcat server.xml	12
6. IIS konfigurieren	13
7. Installing Security Services	21
7.1 SSO Sources vorbereiten	21
7.2 SSO ICD kopieren	21
8. Tss-logiservice erstellen	22
8.1 Create the Login Service	22
9. Tss-idservice erstellen	27
9.1 Create the Identity Service	27
10. Tss-loginservices anpassen	31
10.1 LdapAdmin	31
10.2 Tss-idservices anpassen	35
11. TCServer Manager changes	40
11.1 tcenvpre.bat	40
12. TCServer Manager changes	41
12.1 4-tier Client installation auf tccs umstellen	41
12.2 Richclient 4-tier	43
13. AWC auf SSO umstellen	43

Handbuch Tc 12 Security Services



Oktober 2020 Patrick Granwehr Christoph Bühler



Achtung:

Dies ist nur ein Leitfaden. Bitte zusätzlich noch die originalen Dokumente mit einbeziehen...

-  security_admin.pdf
-  security_services_install.pdf
-  security_services_install_customization.pdf
-  security_services_release_bulletin.pdf
-  security_services_release_notes.pdf

Impressum

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1. Vorbedingungen Clientinstallation

Wenn Umgebung schon so aufgesetzt ist muss nur noch die Anpassung für SSO gemacht werden.

Ist weiter unten beschrieben.

Dies kann auch später mit der SSO konfiguration nach der web_tier konfiguration gemacht werden.

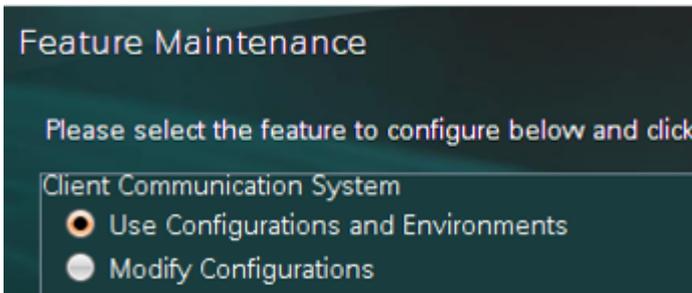
2. 4-tier Client installation auf tccs umstellen

Dieser Schritt ist nur notwendig, falls dieser nicht schon bei Grundinstallation des 4-tier RichClient gemacht wurde.

2.1 Feature Maintenance

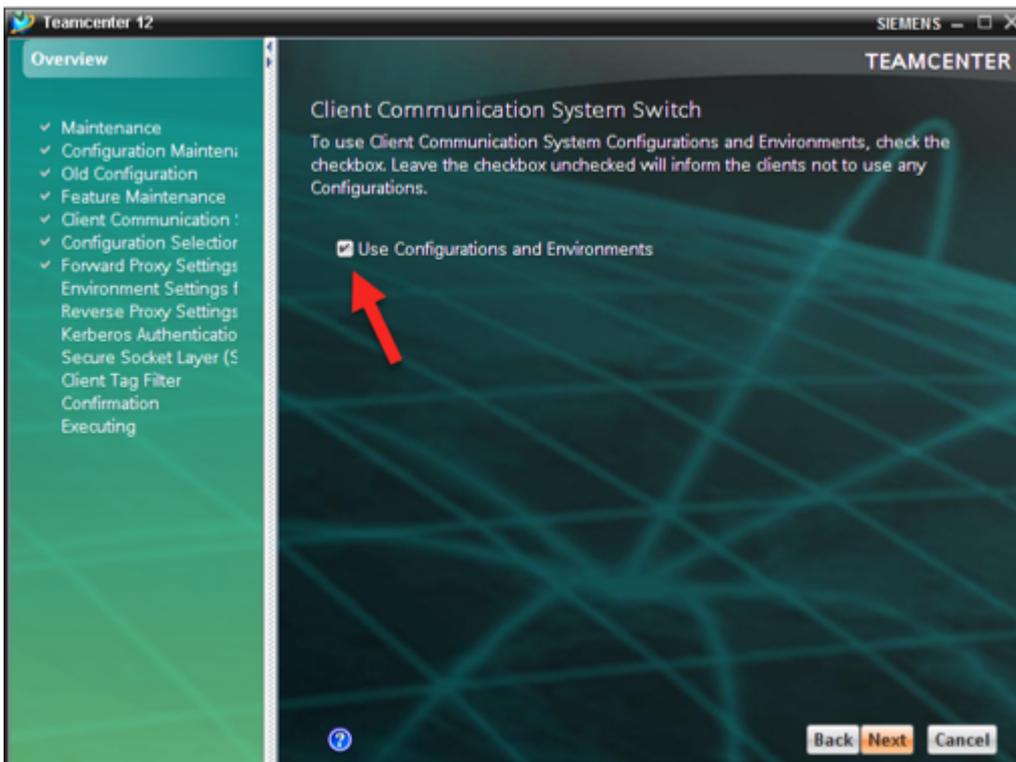
Client Communication System Use configurations and Environments

- Use configurations and Environments



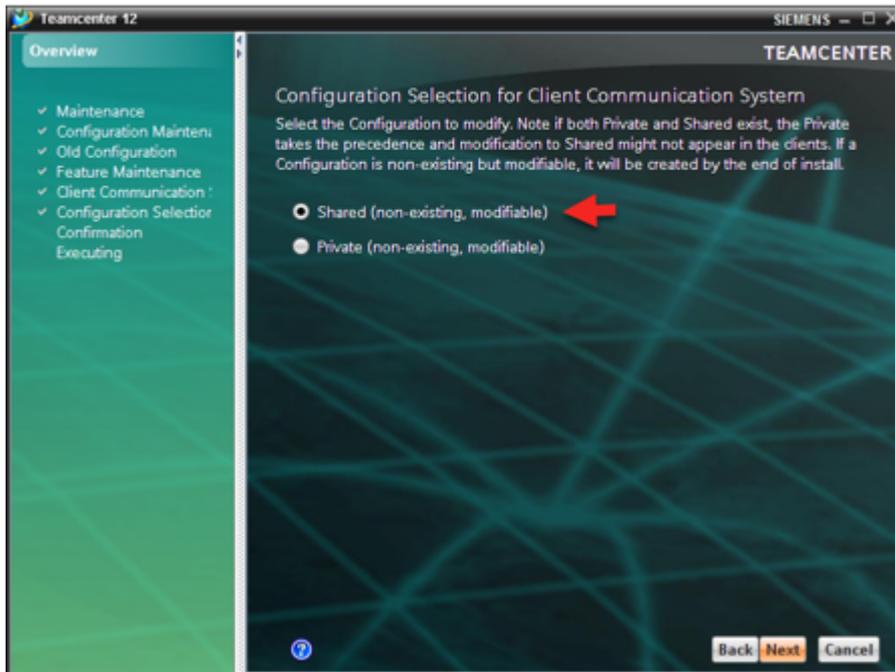
2.2 Client Communication System Switch

- Use Configuration and Environments



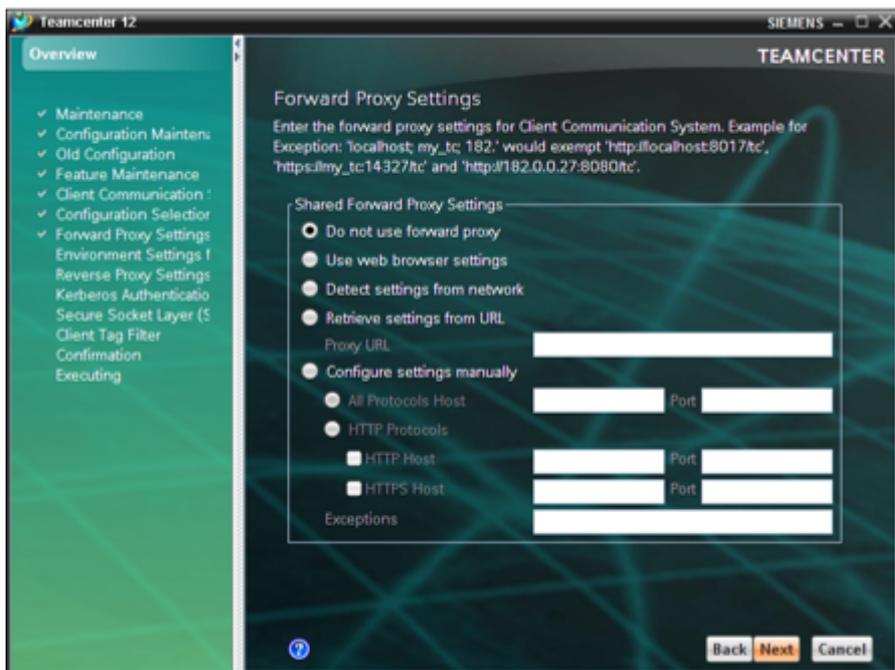
2.3 Configuration Selection for Client Communication System

- Shared (non-existing, modifiable)



2.4 Forward Proxy Settings

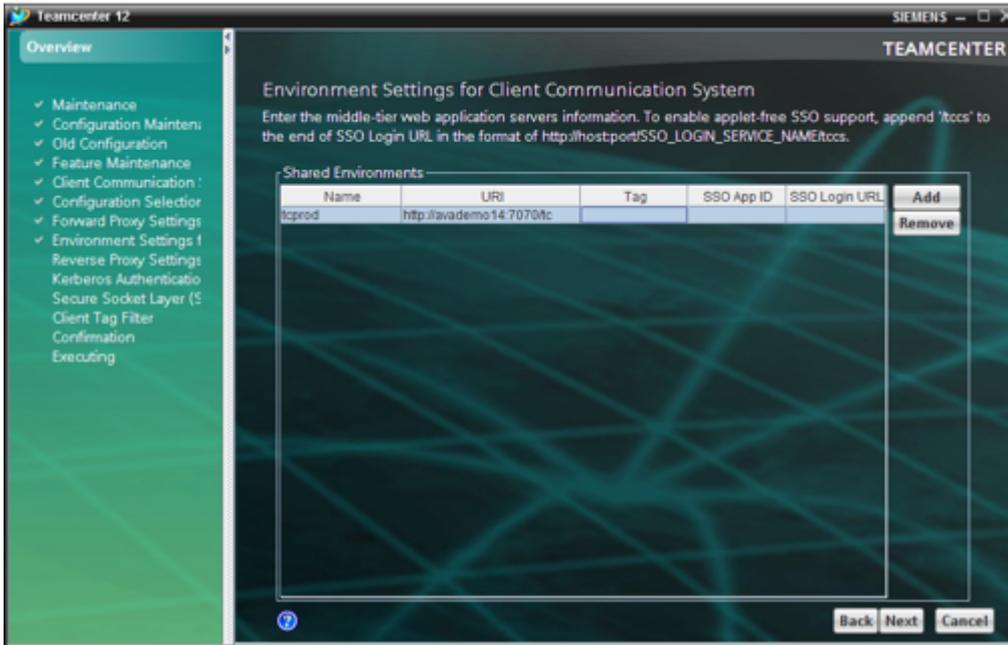
Do not use forward proxy



2.5 Environment Settings for Client Communication System

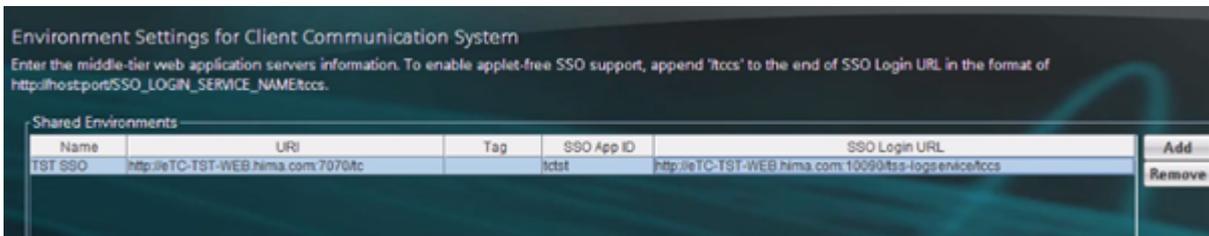
Add...

- Name: tcprod
- URI: <http://avademo14:7070/tc>
- Tag:
- SSO App ID:
- SSO Login URL:



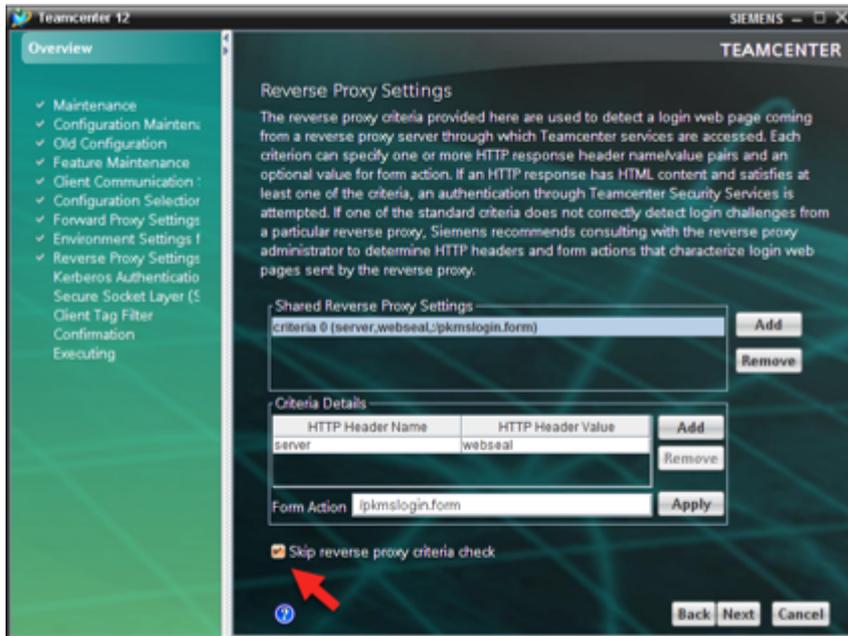
Add...

- Name: TST SSO
- URI: <http://eTC-TST-WEB.hima.com:7070/tc>
- Tag:
- SSO App ID: tctst
- SSO Login URL: <http://eTC-TST-WEB.hima.com:10090/tss-logservice/tccs>



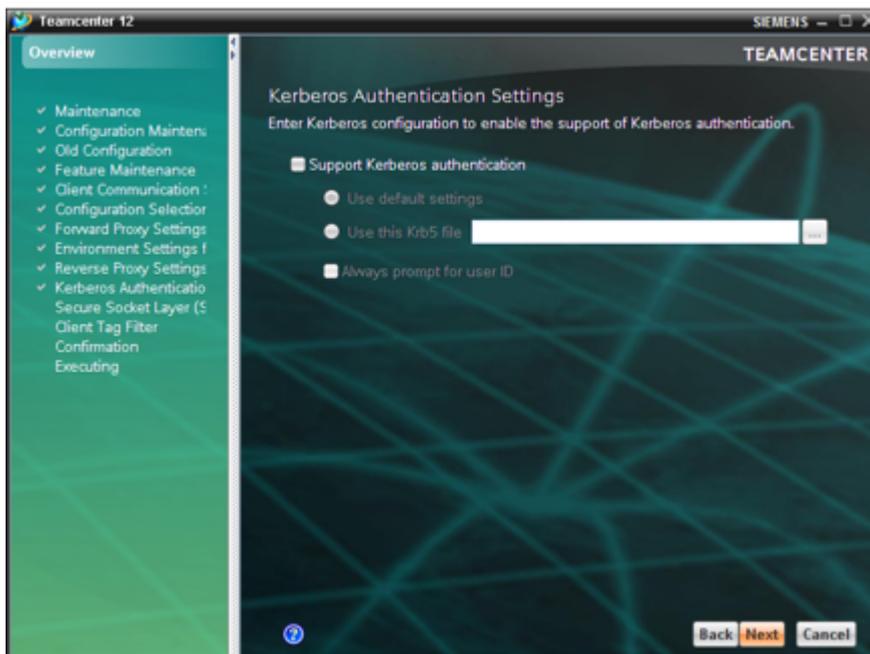
2.6 Reverse Proxy Settings

- Skip reverse proxy criteria check



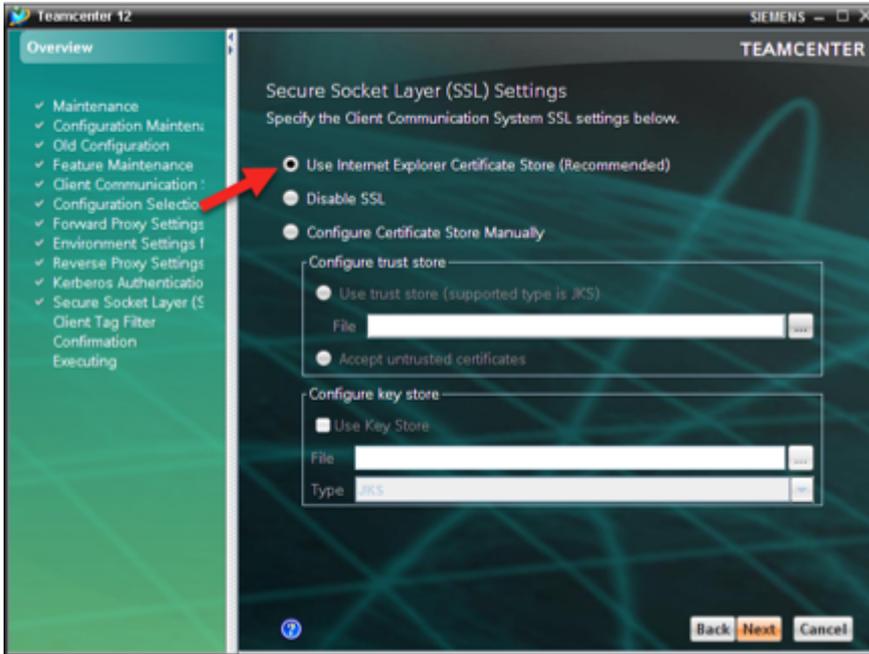
2.6 Kerberos Authentication Settings

Next...



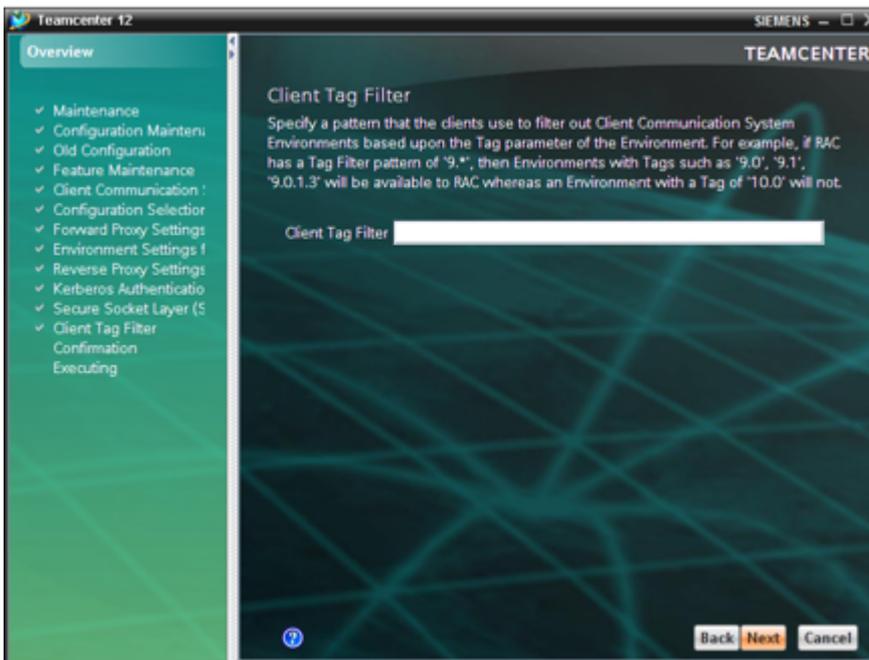
2.7 Secure Socket Layer (SSL) Settings

- Use Internet Explorer Certificate Store (Recommended)

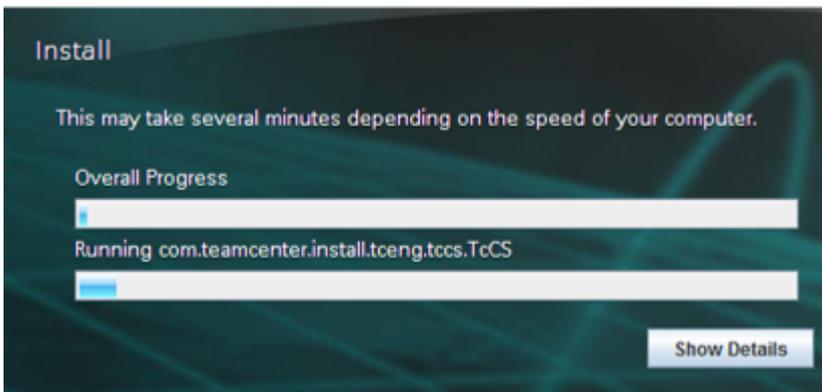
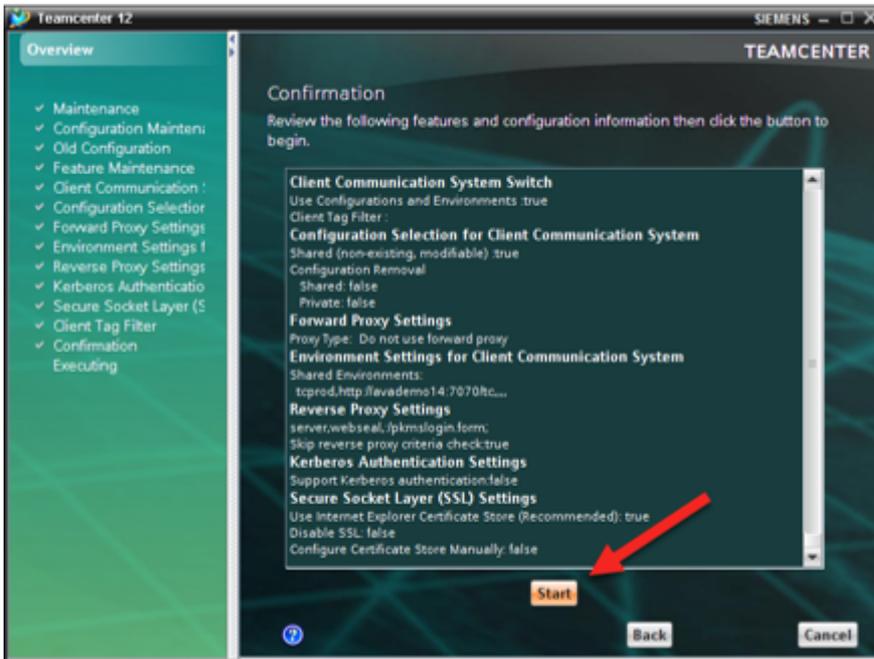


2.8 Client Tag Filter

Next...



Confirmation



close

2.9 Ergebnis

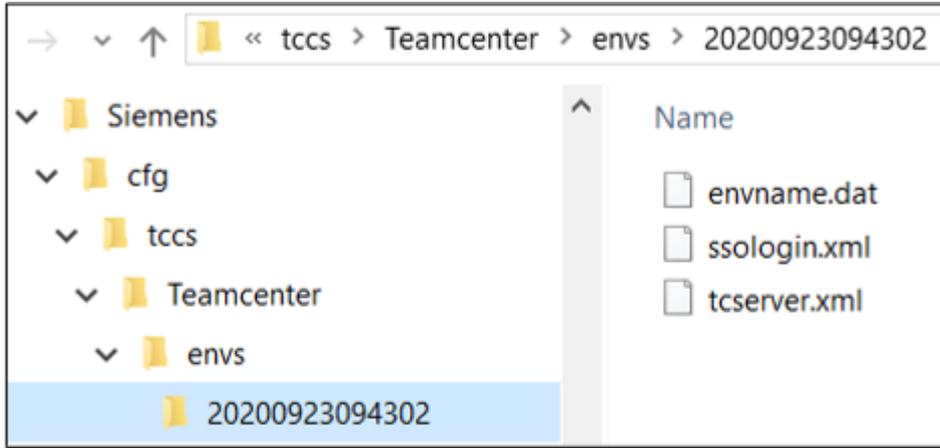
In C:\plm\tc12\portal\plugins\configuration_12000.2.0\client_specific.properties

```

66 #
67 # Runtime and custom entries below this line
68 PortalViewer_Cache=C:/plm/tc12/portal/temp
69 PortalViewer_Optional_Licenses=Simplified_Rendering,ECAD,Concept
70 httpServerCount=1
71 portalCommunicationTransport=tccs
72 tccsVersionFilter=
73 jttoasciiCommand=C:/plm/tc12/jtutilities/bin/jttoascii
74 fileCacheEnabled=true
75 iiopServerCount=0
76

```

Siemens Ordner in C:\ProgramData\

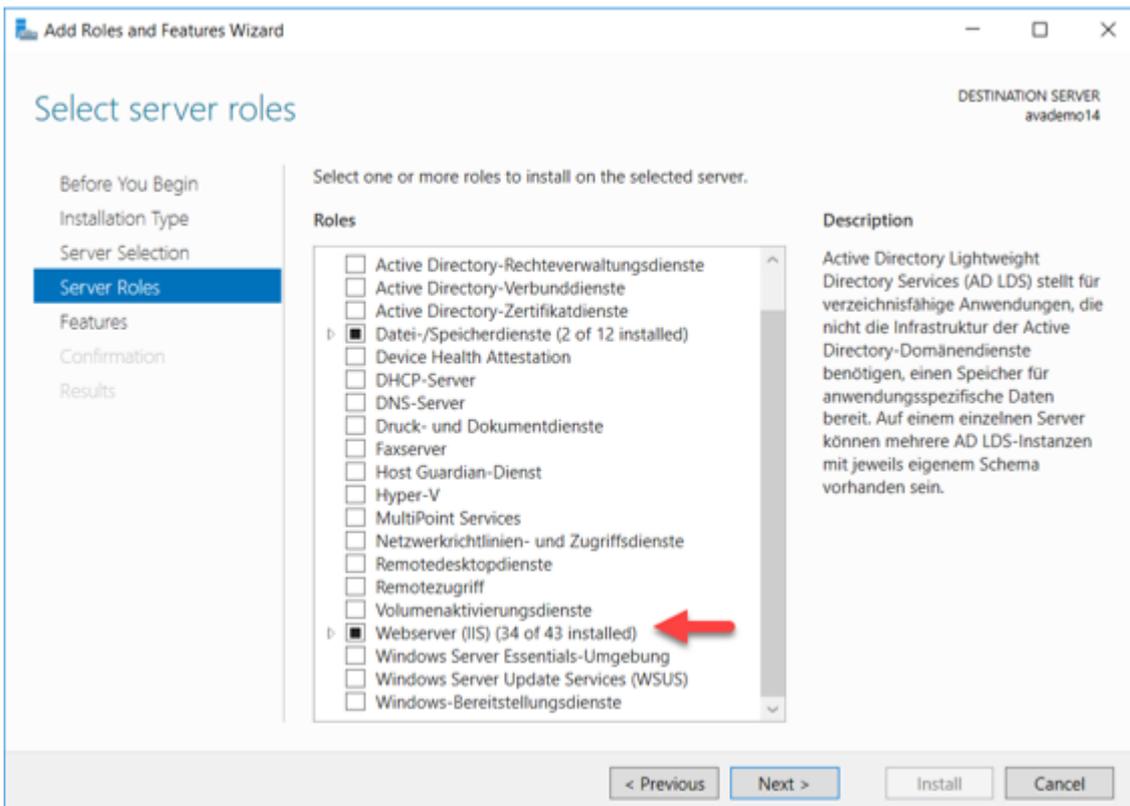
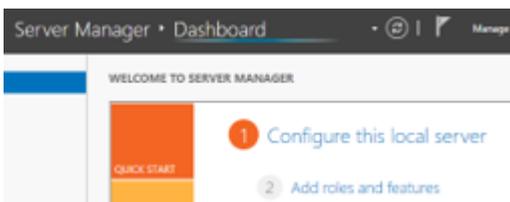


3. IIS auf Webserver konfigurieren

Die IIS Webserverkonfiguration wird wegen der Verifizierung Kerberos authentication benötigt.

3.1 IIS installieren

3.1.1 Configure Microsoft IIS



Common HTTP Features

- Default Document
- Directory Browsing
- HTTP Errors
- Static Content
- HTTP Redirection

Health and Diagnostics

- HTTP Logging
- Logging Tools
- Request Monitor
- Tracing

Performance

- Static Content Compression
- Dynamic Content Compression

Security

- Request Filtering
- Basic Authentication
- Client Certificate Mapping Authentication
- Digest Authentication
- IIS Client Certificate Mapping Authentication
- IP and Domain Restrictions
- URL Authorization
- Windows Authentication

Application Development

- .NET Extensibility 4.x
- ASP
- ASP.NET 4. x
- CGI
- ISAPI Extensions
- ISAPI Filters
- Server Side Includes

Note

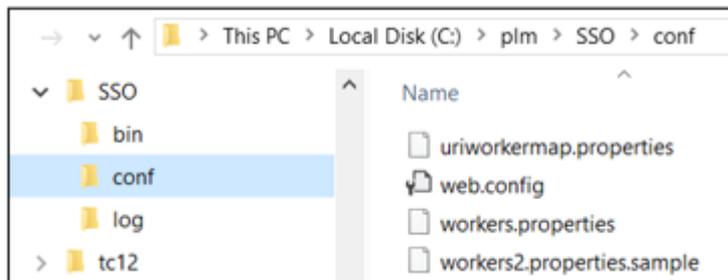
Install only the available ASP.NET 4.x role services. Do not install ASP.NET 3.x role services.

Management Tools

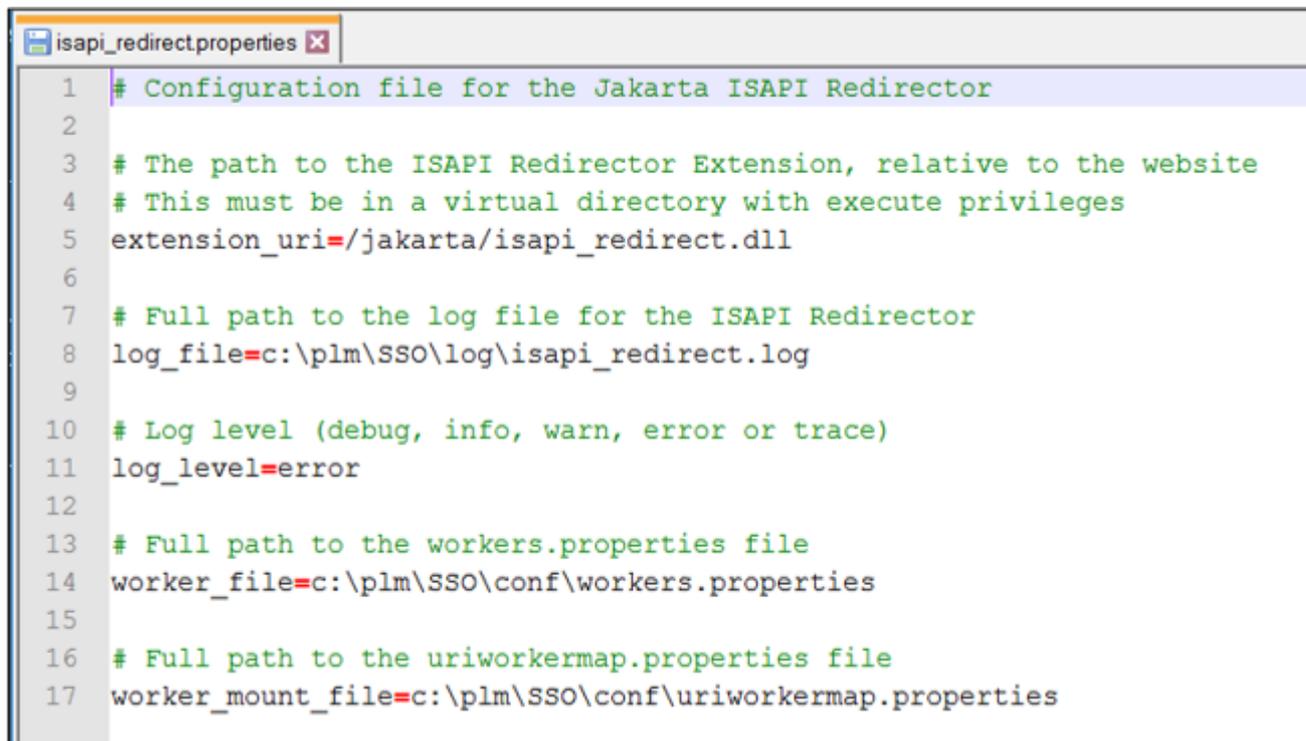
- IIS Management Console

4. C:\plm\SSO einrichten

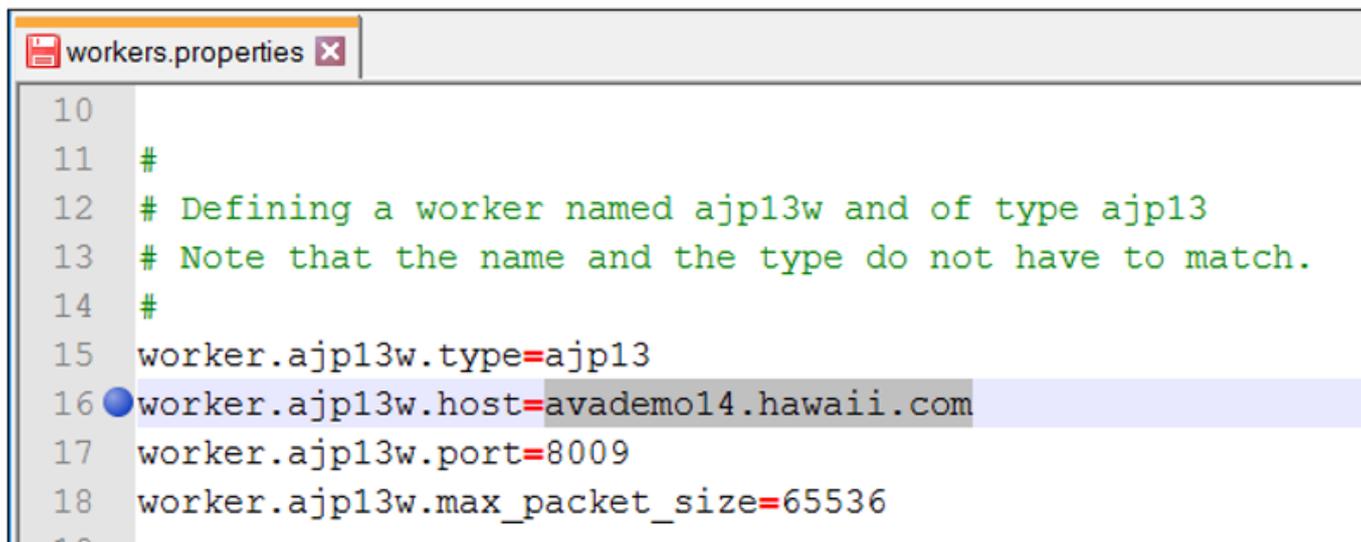
1. Ordner SSO von ... \avaCentralRepository\avaSSO\c\plm\SSO nach c:\plm kopieren



2. Pfade prüfen in: "C:\plm\SSO\bin\isapi_redirect.properties"



3. In "C:\plm\SSO\conf\workers.properties" host anpassen



5. Modify Tomcat server.xml

In "C:\plm\webapp\apache-tomcat-9.0.16\conf\server.xml" anpassen:

```
server.xml x
114
115 <!-- Define an AJP 1.3 Connector on port 8009 -->
116 <!-- <Connector port="8009" protocol="AJP/1.3" redirectPort="8443" /> -->
117 <Connector port="8009" protocol="AJP/1.3" redirectPort="8443" secretRequired="" maxTh
118
```

```
<!-- <Connector port="8009" protocol="AJP/1.3" redirectPort="8443" /> -->
<Connector port="8009" protocol="AJP/1.3" redirectPort="8443"
secretRequired="" maxThreads="800" packetSize="65536" URIEncoding="UTF-8"
tomcatAuthentication="false"/>
```

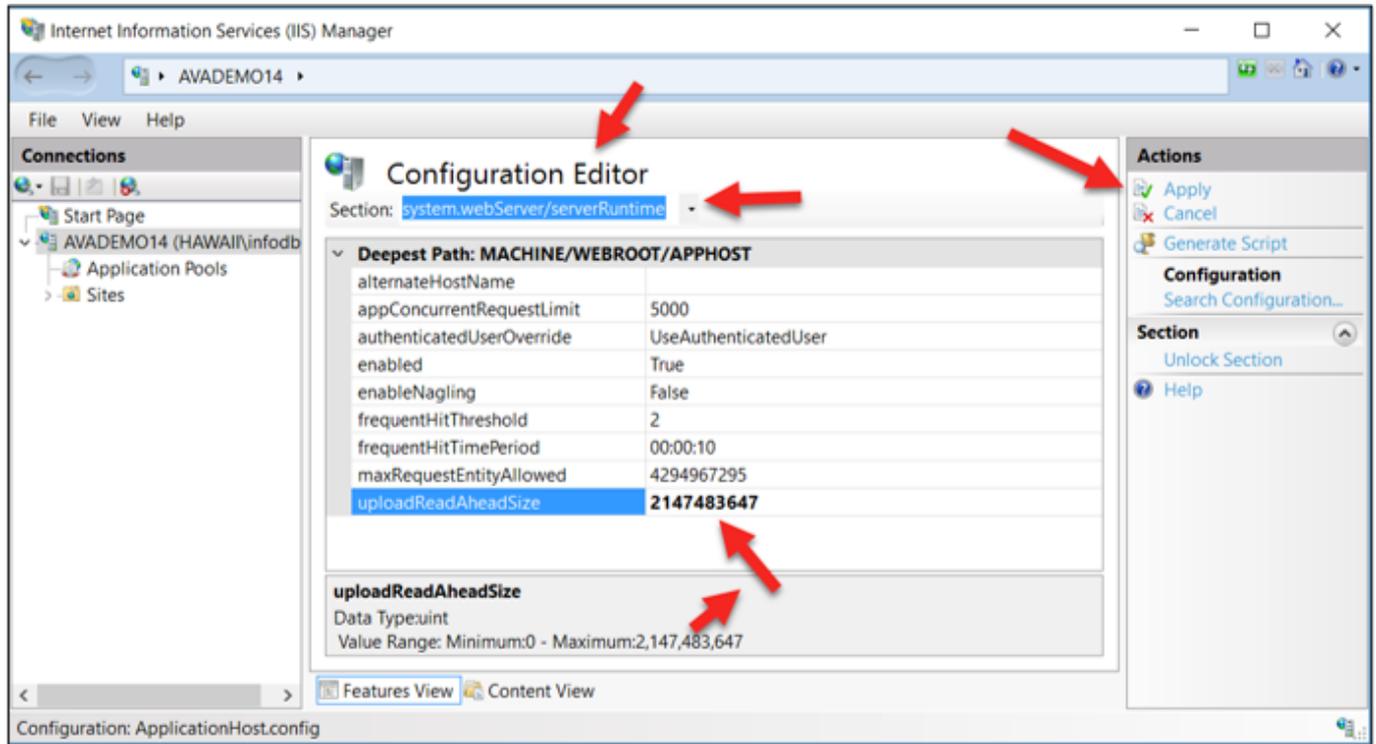
6. IIS konfigurieren

1. Configuration Editor

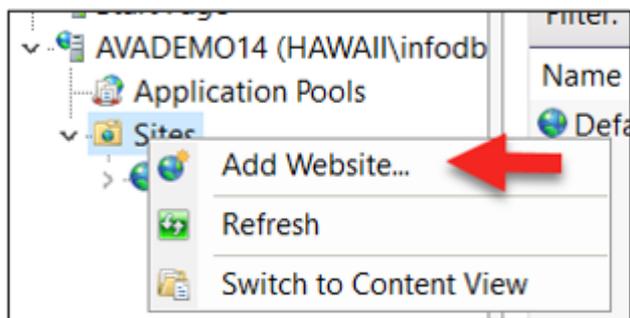
The screenshot shows the IIS Manager Configuration Editor for the 'system.webServer/webSocket' section. The 'Deepest Path' table is expanded, showing the 'receiveBufferLimit' property set to '2147483647'. The 'Data Type' is 'uint' and the 'Value Range' is 'Minimum:4,096 - Maximum:2,147,483,647'. Red arrows point to the 'Connections' pane, the 'Configuration Editor' title, the 'Deepest Path' table, the 'receiveBufferLimit' value, and the 'Actions' pane.

Deepest Path:	
enabled	True
pingInterval	00:00:00
receiveBufferLimit	2147483647

receiveBufferLimit
Data Type:uint
Value Range: Minimum:4,096 - Maximum:2,147,483,647



2. Website hinzufügen



Add Website ? X

Site name: Application pool:

Content Directory

Physical path:

Pass-through authentication

Binding

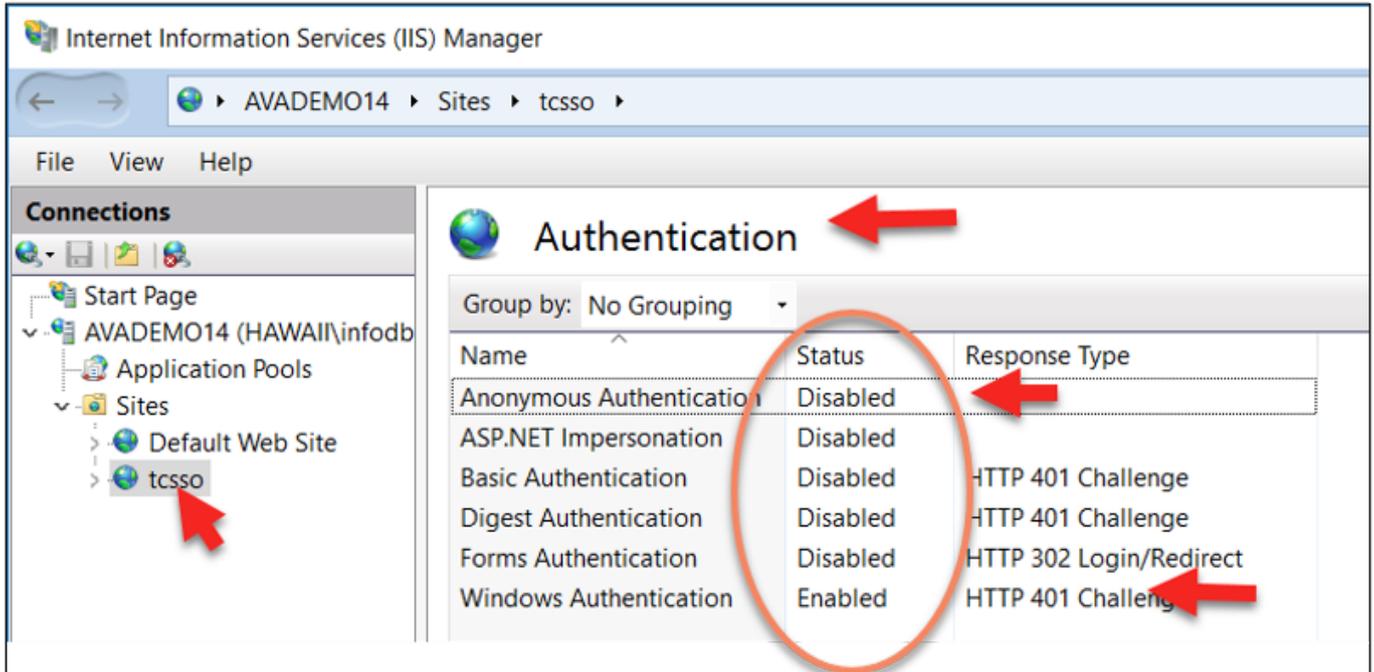
Type:	IP address:	Type:	Port:
<input type="text" value="http"/>	<input type="text" value="All Unassigned"/>	<input type="text"/>	<input type="text" value="10090"/>

Host name:

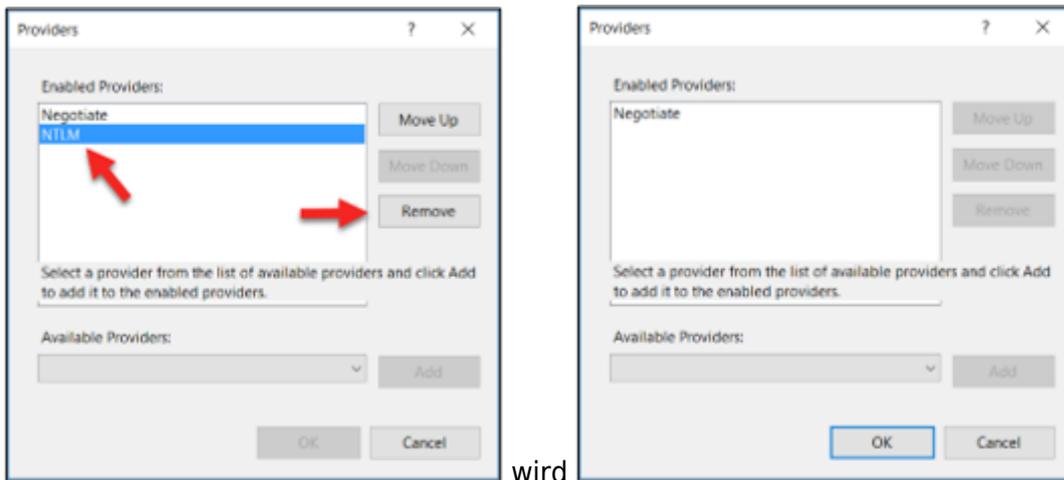
Example: www.contoso.com or marketing.contoso.com

Start Website immediately

3. Remove NTLM

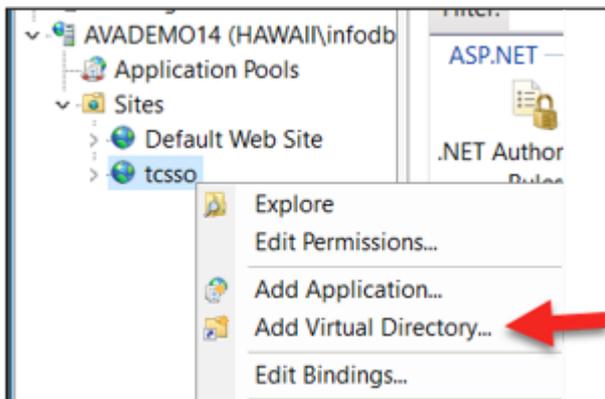


RMB Windows Authentication, Providers



wird

4. Virtuelle Verzeichnis hinzufügen



Add Virtual Directory ? X

Site name: tcsso
Path: /

Alias:
jakarta ←

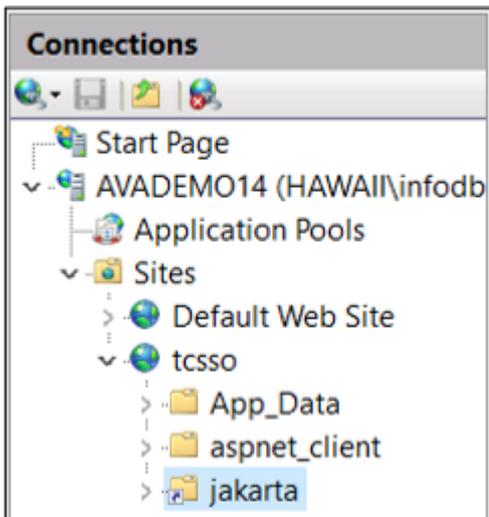
Example: images

Physical path:
C:\plm\SSO\bin ← ...

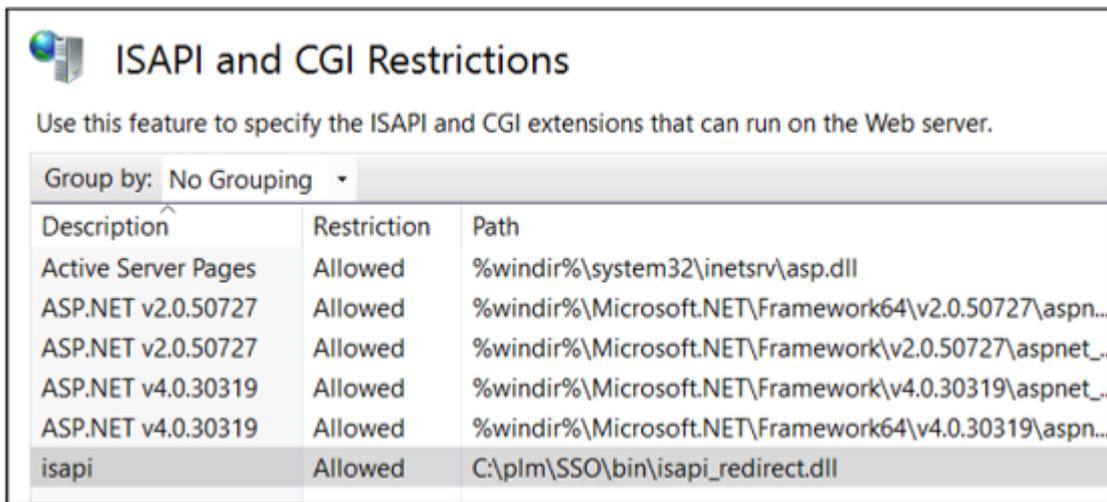
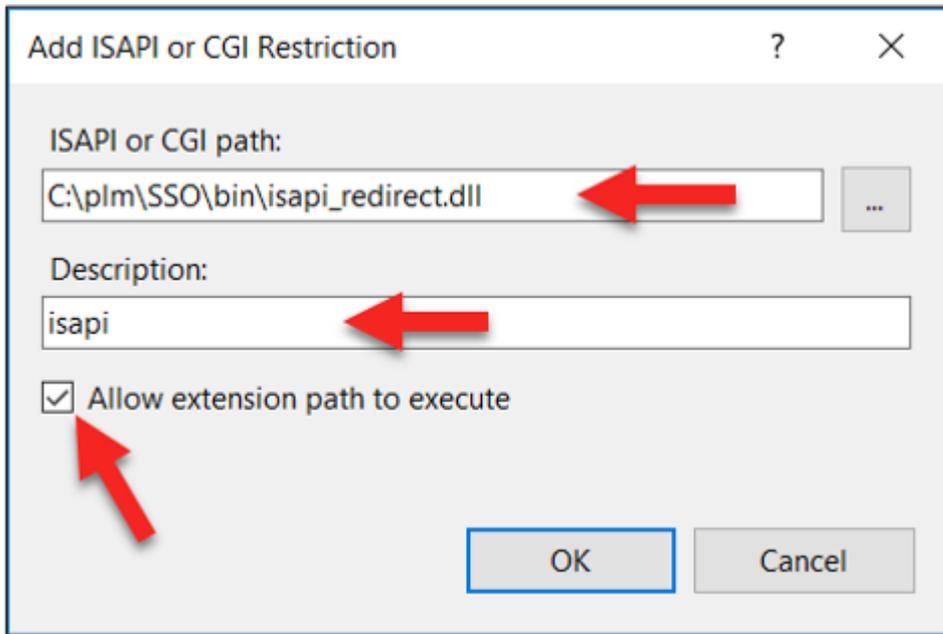
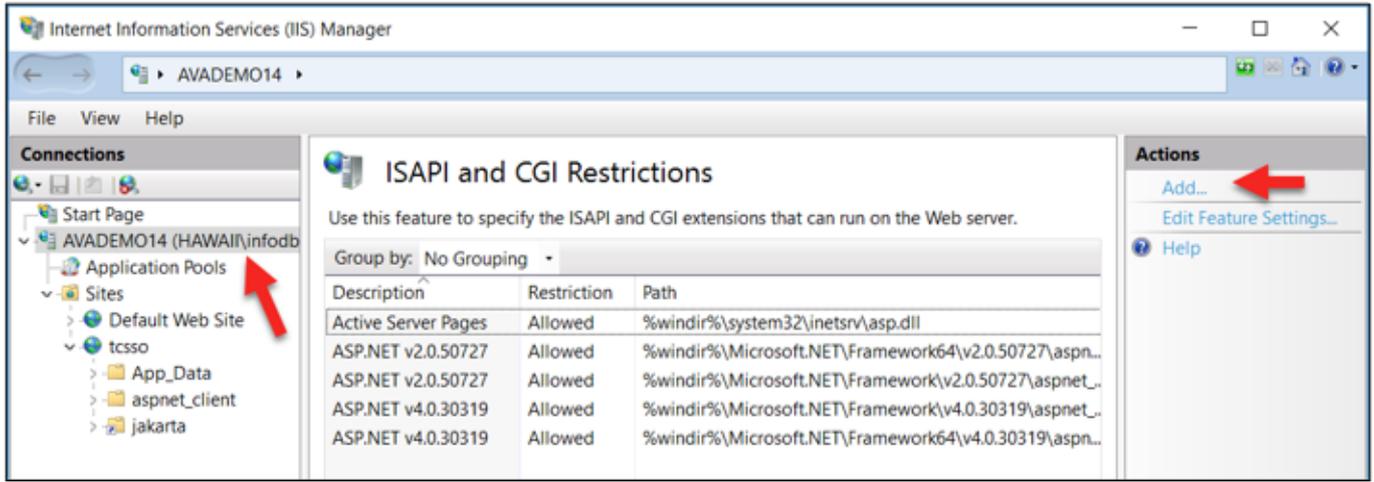
Pass-through authentication

Connect as... Test Settings...

OK Cancel



5. ISAPI and CGI Restrictions



6. ISAPI-Filter

Internet Information Services (IIS) Manager

AVADEMO14

ISAPI Filters

Use this feature to configure ISAPI filters that process requests made to the Web server.

Group by: No Grouping

Name	Executable	Entry Type
ASP.Net_2.0.50727.0	%windir%\Microsoft.NET\Framework\v2.0.50727\asp...	Local
ASP.Net_2.0.50727-64	%windir%\Microsoft.NET\Framework64\v2.0.50727\a...	Local
ASP.Net_4.0_32bit	%windir%\Microsoft.NET\Framework\v4.0.30319\asp...	Local
ASP.Net_4.0_64bit	%windir%\Microsoft.NET\Framework64\v4.0.30319\a...	Local

Actions

- Add...
- View Ordered List...
- Help

Add ISAPI Filter

Filter name:

isapi

Executable:

C:\plm\SSO\bin\isapi_redirect.dll

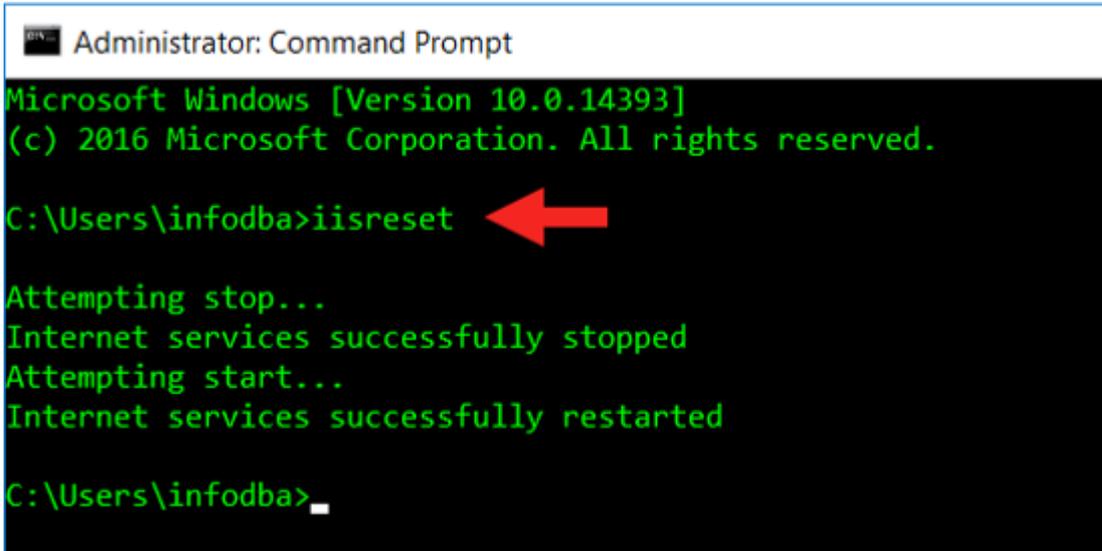
OK Cancel

ISAPI Filters

Use this feature to configure ISAPI filters that process requests made to the Web server.

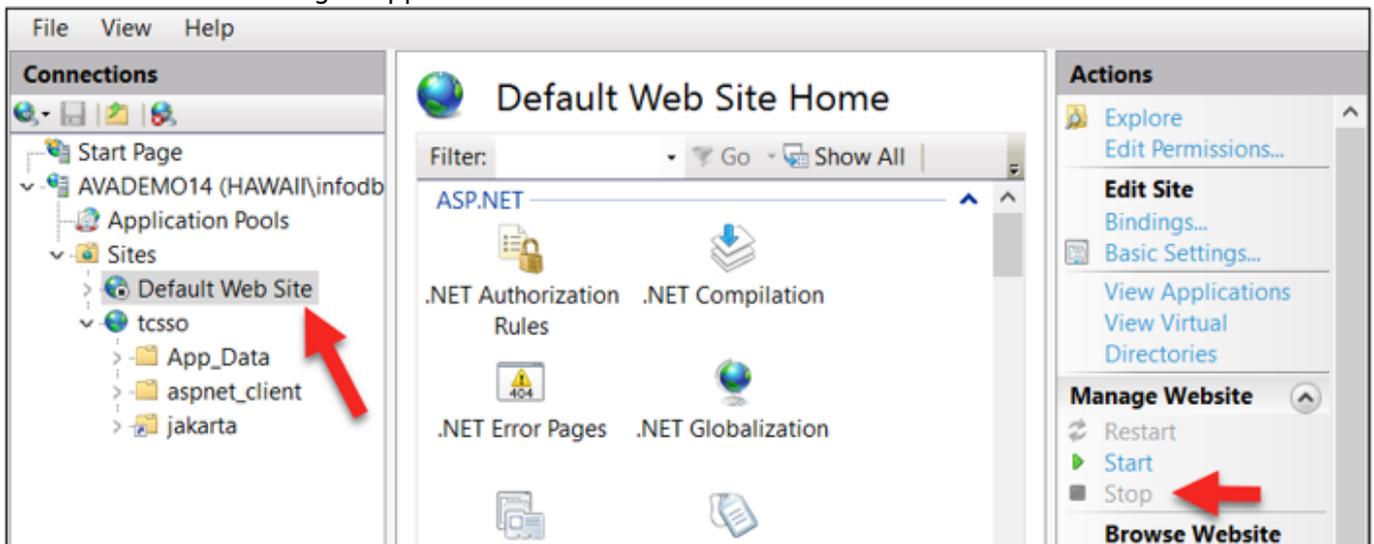
Group by: No Grouping

Name	Executable	Entry Type
ASP.Net_2.0.50727.0	%windir%\Microsoft.NET\Framework\v2.0.50727\asp...	Local
ASP.Net_2.0.50727-64	%windir%\Microsoft.NET\Framework64\v2.0.50727\a...	Local
ASP.Net_4.0_32bit	%windir%\Microsoft.NET\Framework\v4.0.30319\asp...	Local
ASP.Net_4.0_64bit	%windir%\Microsoft.NET\Framework64\v4.0.30319\a...	Local
isapi	C:\plm\SSO\bin\isapi_redirect.dll	Local

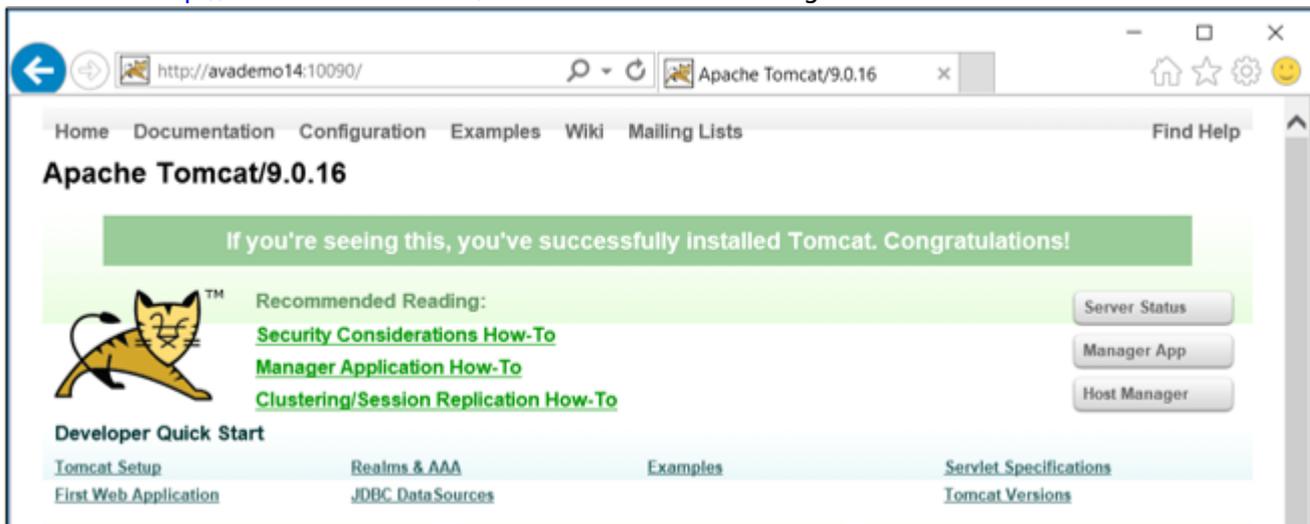


7. Default Web Site deaktivieren

Bleibt auch bei Reboot gestoppt...



IIS testen: <http://avademo14:10090/> IIS wird auf Tomcat umgeleitet

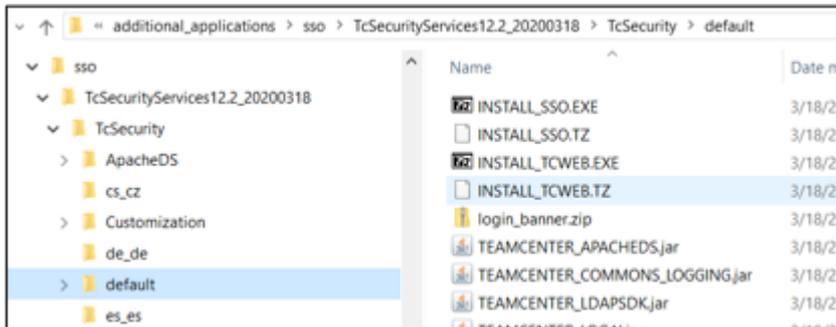


7. Installing Security Services

7.1 SSO Sources vorbereiten

In aktuell installiertem Patch, z.B.

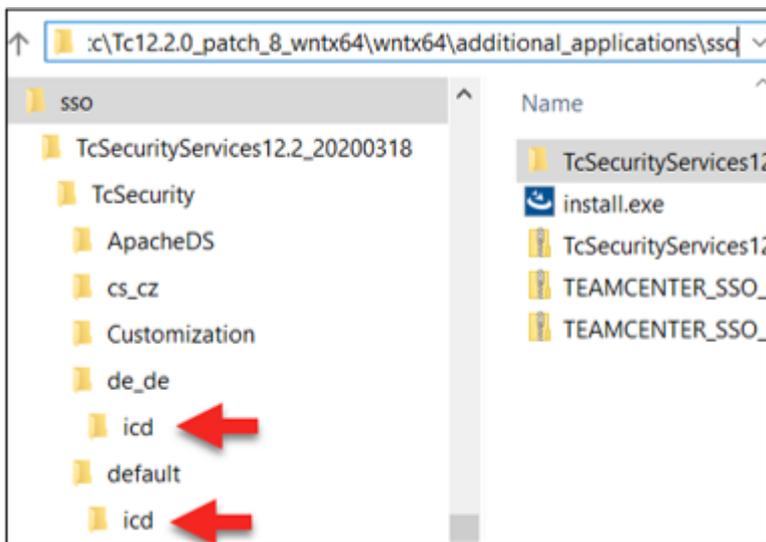
...\Tc12.2.0_patch_8_wntx64\wntx64\additional_applications\sso\TcSecurityServices12.2_20200318.zip
 ip
 entpacken:



Folgendes ausführen:

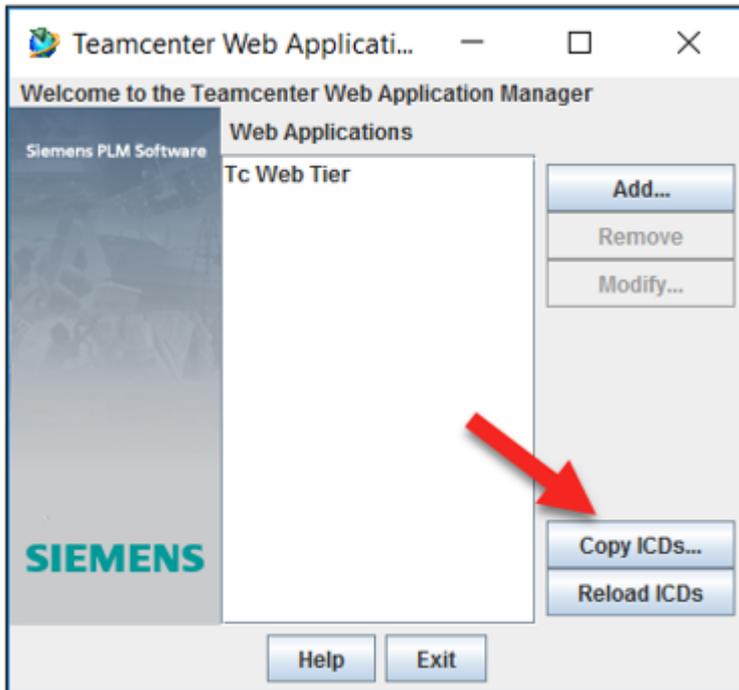
...\wntx64\additional_applications\sso\TcSecurityServices12.2_xx\TcSecurity\default\INSTALL_SSO.EXE
 ...\wntx64\additional_applications\sso\TcSecurityServices12.2_xx\TcSecurity\de_de\INSTALL_SSO_DE_DE.EXE

Ergebnis: icd Folders

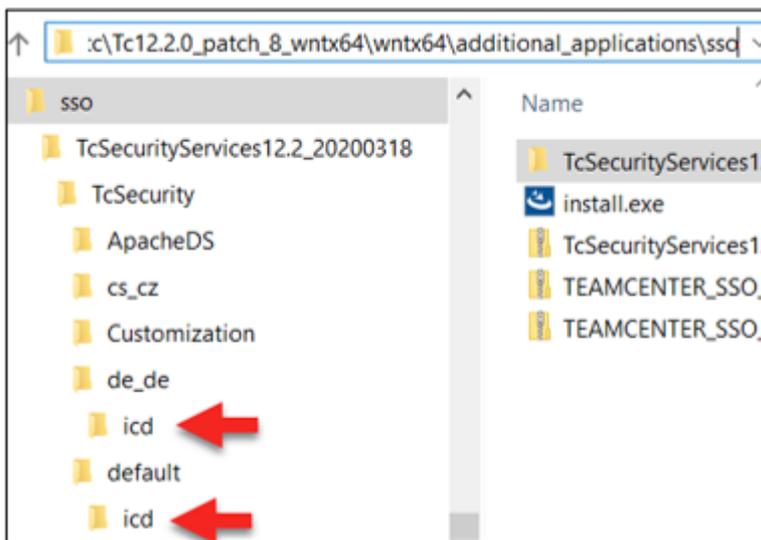


7.2 SSO ICD kopieren

Start "C:\plm\web_tier\insweb.bat"



Zuvor extrahierte ICD einlesen



8. Tss-logiservice erstellen

8.1 Create the Login Service

1. Start the Web Application Manager

- `c:\plm\web_tier\insweb.bat`

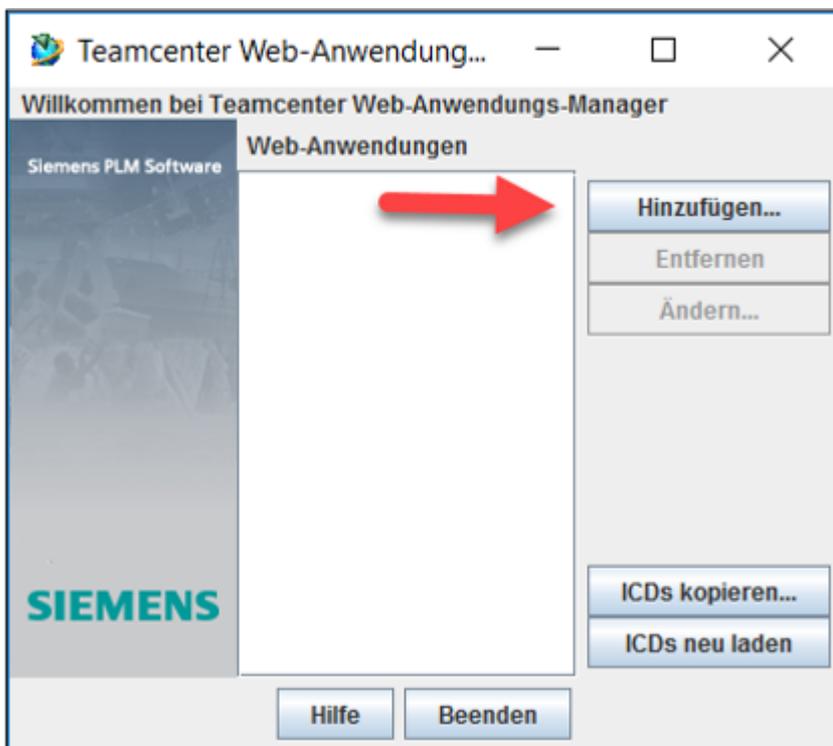
```
C:\Windows\system32\cmd.exe

C:\plm\web_tier>java -mx80m -cp jars\insweb.jar;jars\jdom.jar com.teamcenter.install.insweb.gui.Insweb
Loading of com.teamcenter.install.insweb.gui.TextBundle_de_DE ... succeeded.
Loading of com.teamcenter.install.insweb.struct.TextBundle_de_DE ... succeeded.
Loading of com.teamcenter.install.common.gui.TextBundle_de_DE ... succeeded.
```

Java must be installed...

Teamcenter Web-Anwendungs-Manager

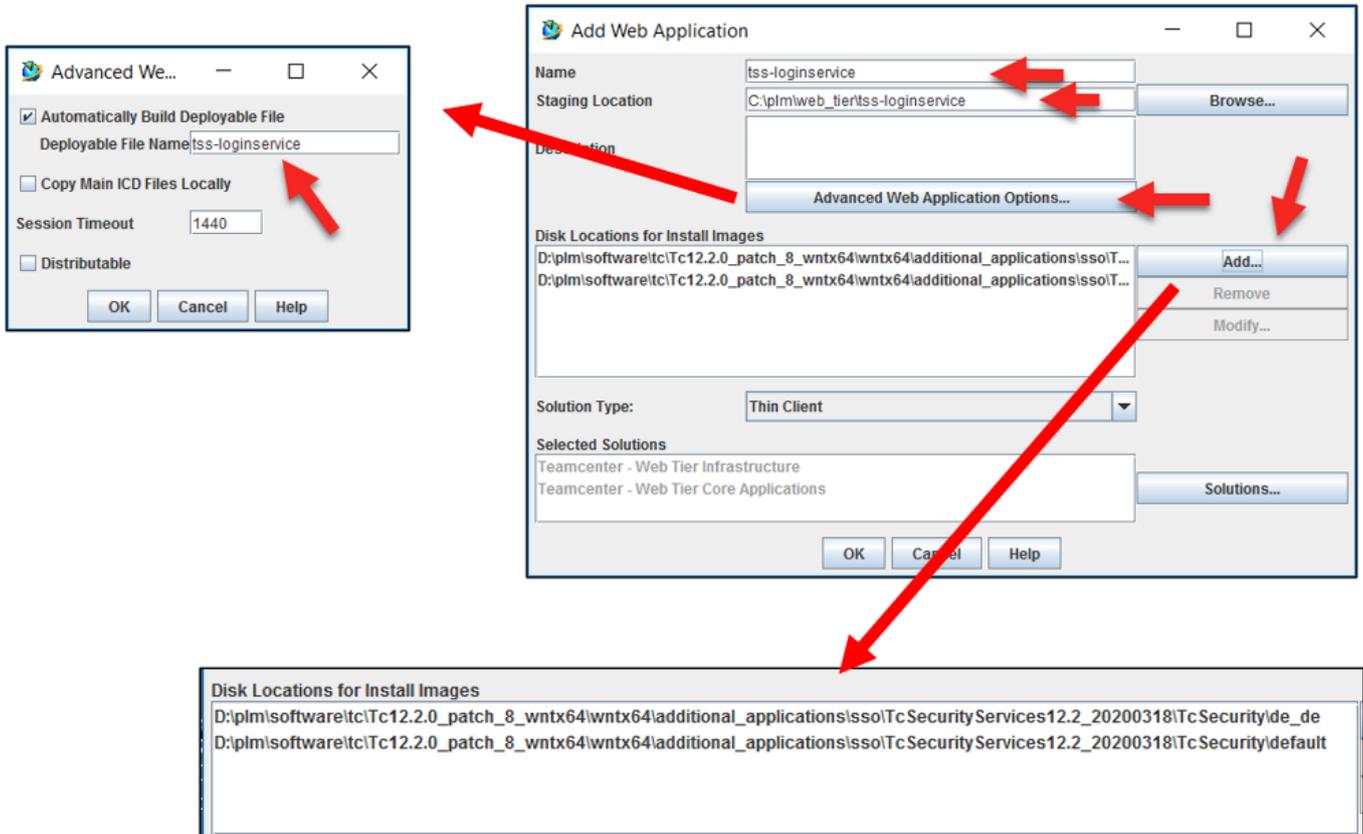
- Select: **Hinzufügen...**



2. Add Web Application

- Name: tss-loginservice
- Staging Location: c:\plm\web_tier\tss-loginservice
- Advanced Web Application Options...

Zu verwendende Datei: tss-loginservice



3. Disk Locations for Install Images

- Add...

Enter disk locations

The **Disk Locations for Install Images** box contains the default path to the installation files for the Teamcenter solutions on the software distribution image. For this install, select the directory containing the **INSTALL_TCWEB.EXE/TZ** and **INSTALL_SSO.EXE/TZ** files for your system. You can change this default path if necessary by selecting one default path and clicking **Modify**.

Note

Additional language support requires the same process for each **INSTALL_SSO_locale.EXE** file. Add this location to the list of disk locations. For example, the *install-roofide_de* location contains the following files for the German language:

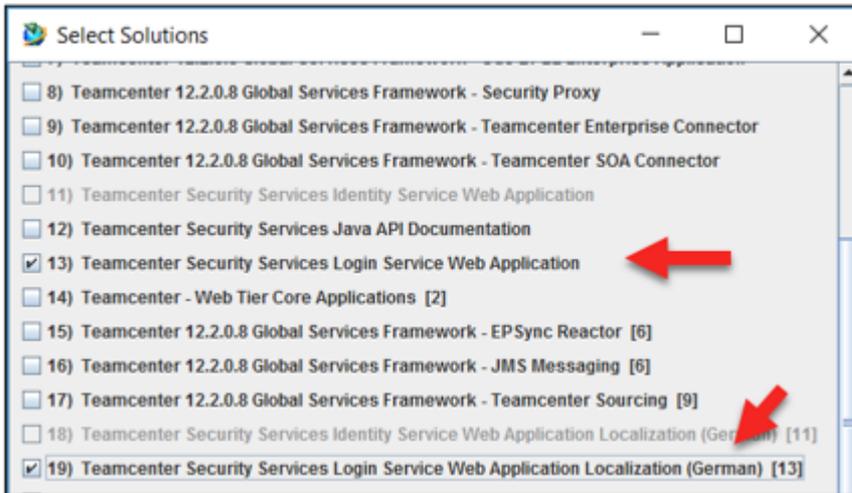
- TEAMCENTER_SSO_LOGINSERVICE_DE_DE.jar
- TEAMCENTER_SSO_LDAPIDPROVIDER_DE_DE.jar
- TEAMCENTER_SSO_LOGINSERVICE_HELP_DE_DE.jar

4. Solution Typ: → Thin Client

Lösungstyp:

5. Selected Solutions

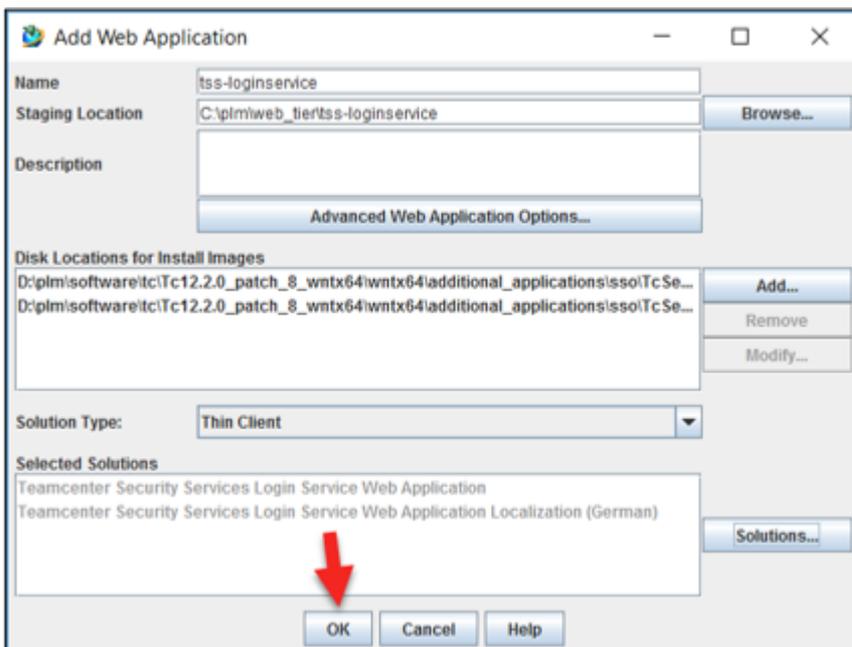
- Select the following:
 - **Security Services Login Service Web Application** (required)
 - **Language** (optional)



- Confirm with: OK

6. Terminate Add Web Application

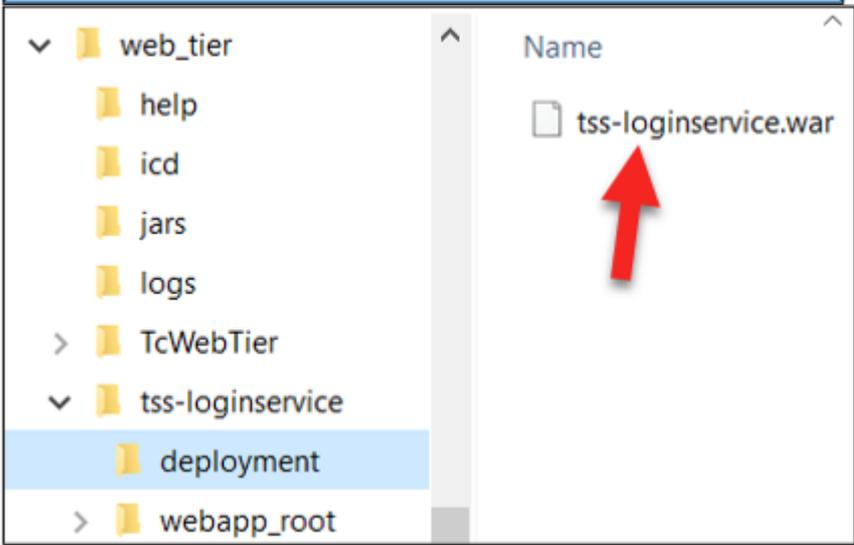
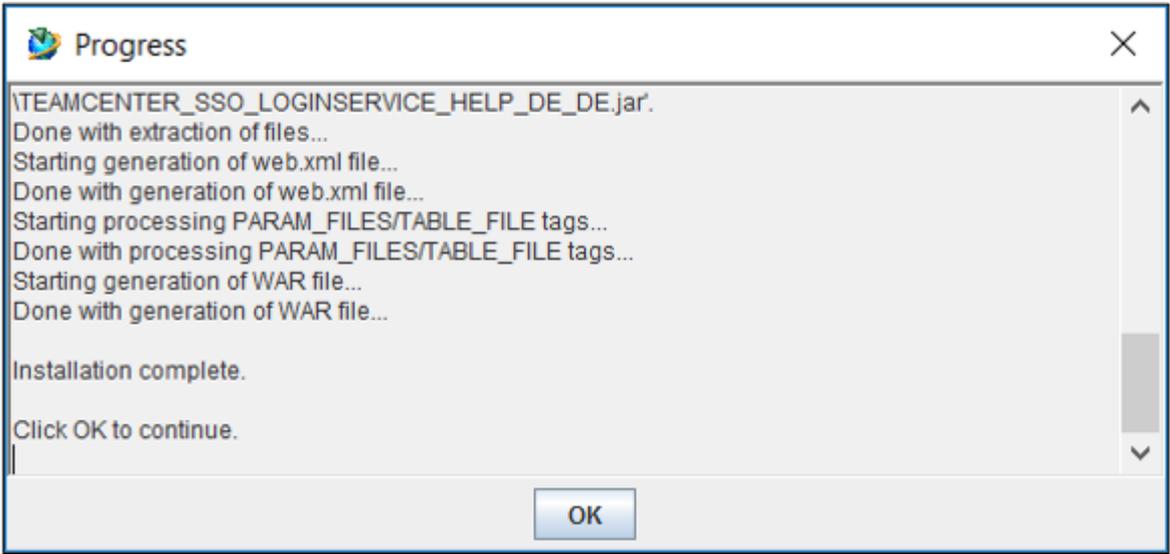
- Check entries...



- Confirm with: OK

7. Progress:

- Confirm with: OK

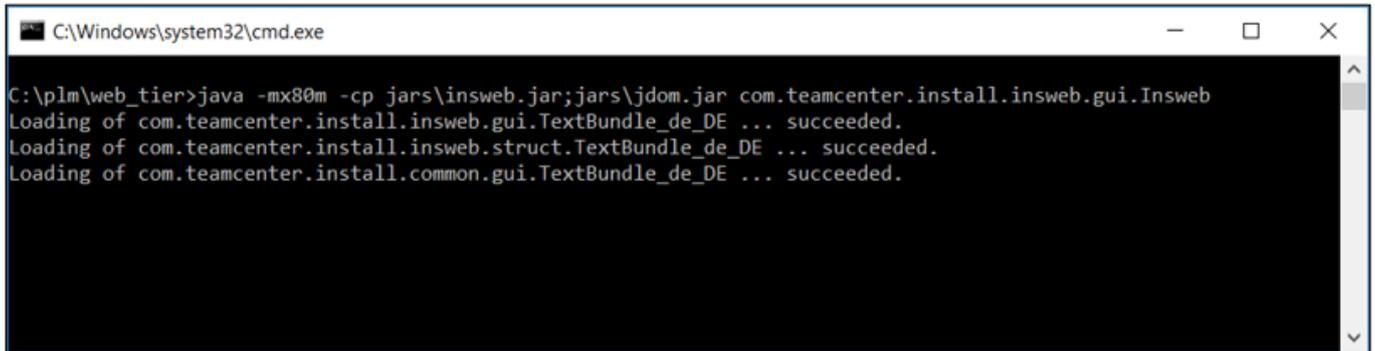


9. Tss-idservice erstellen

9.1 Create the Identity Service

1. Start the Web Application Manager

- c:\plm\web_tier\insweb.bat

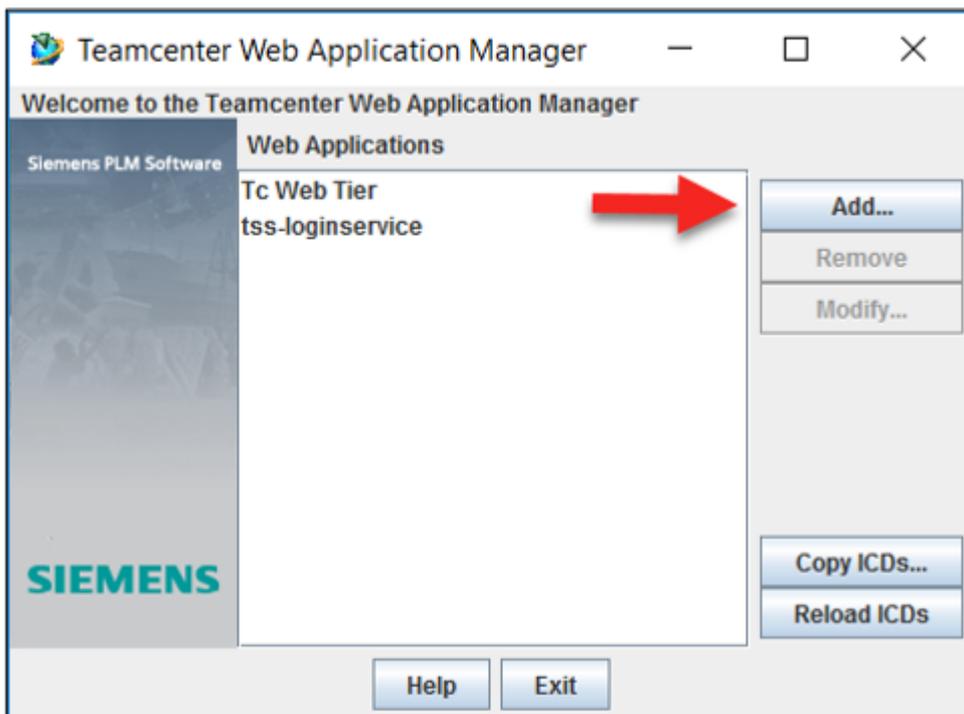


```
C:\Windows\system32\cmd.exe

C:\plm\web_tier>java -mx80m -cp jars\insweb.jar;jars\jdom.jar com.teamcenter.install.insweb.gui.Insweb
Loading of com.teamcenter.install.insweb.gui.TextBundle_de_DE ... succeeded.
Loading of com.teamcenter.install.insweb.struct.TextBundle_de_DE ... succeeded.
Loading of com.teamcenter.install.common.gui.TextBundle_de_DE ... succeeded.
```

Teamcenter Web-Anwendungs-Manager

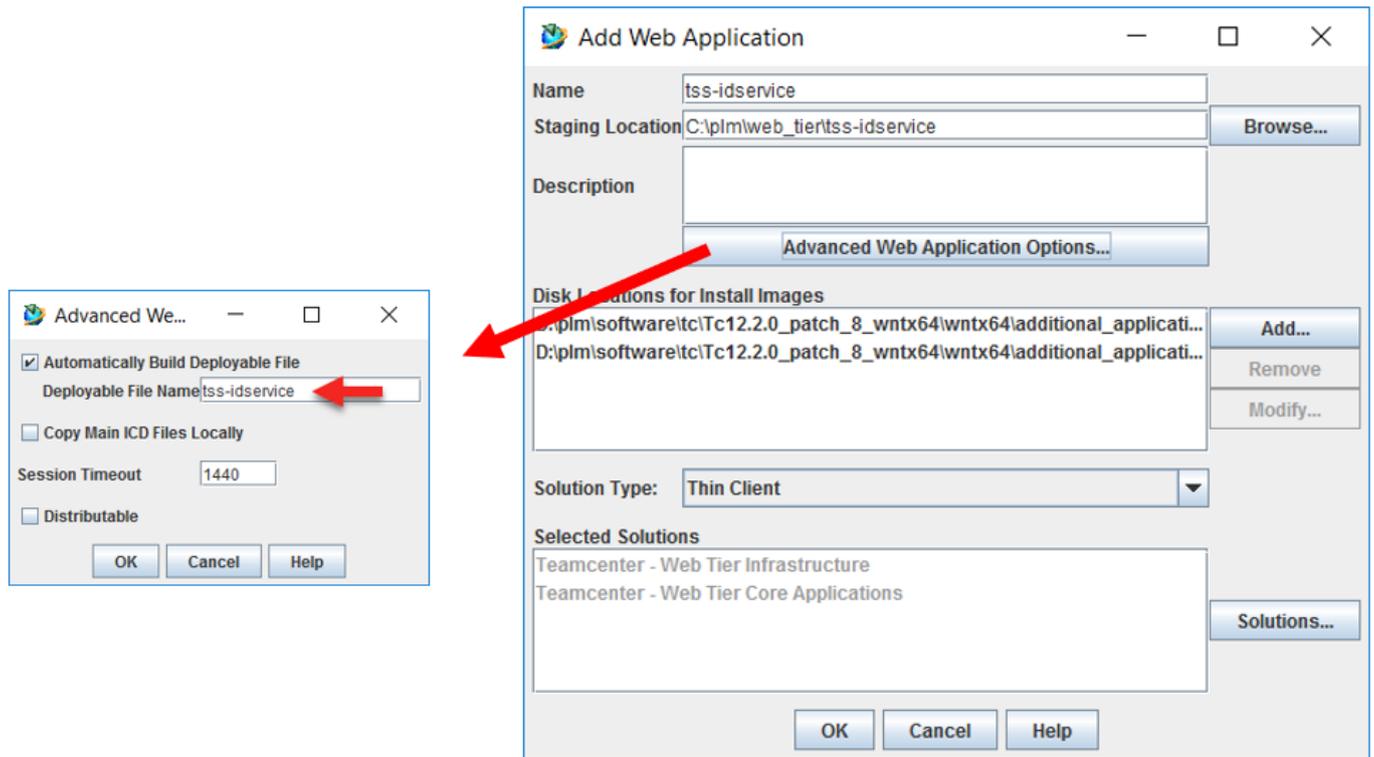
- Select: **Hinzufügen...**



Add Web Application

- Name: tss-idservice
- Staging Location: c:\plm\web_tier\tss-idservice
- Advanced Web Application Options...

Zu verwendende Datei: tss-idservice



2. Disk Locations for Install Images

- Add...



3. Solution Typ: → Thin Client

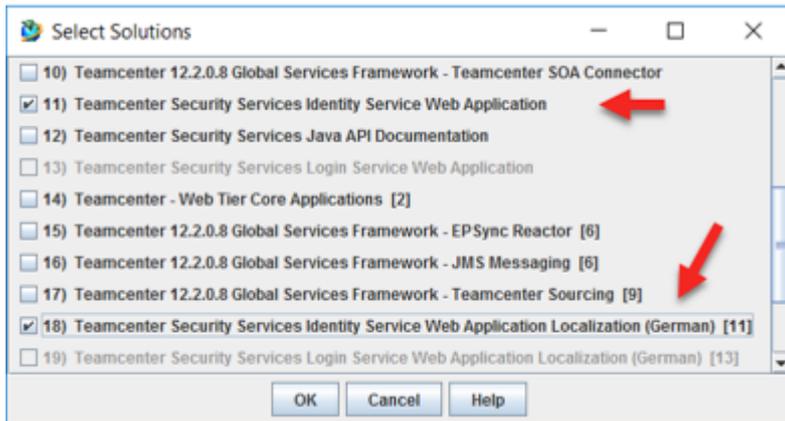


4. Selected Solutions



Select the following:

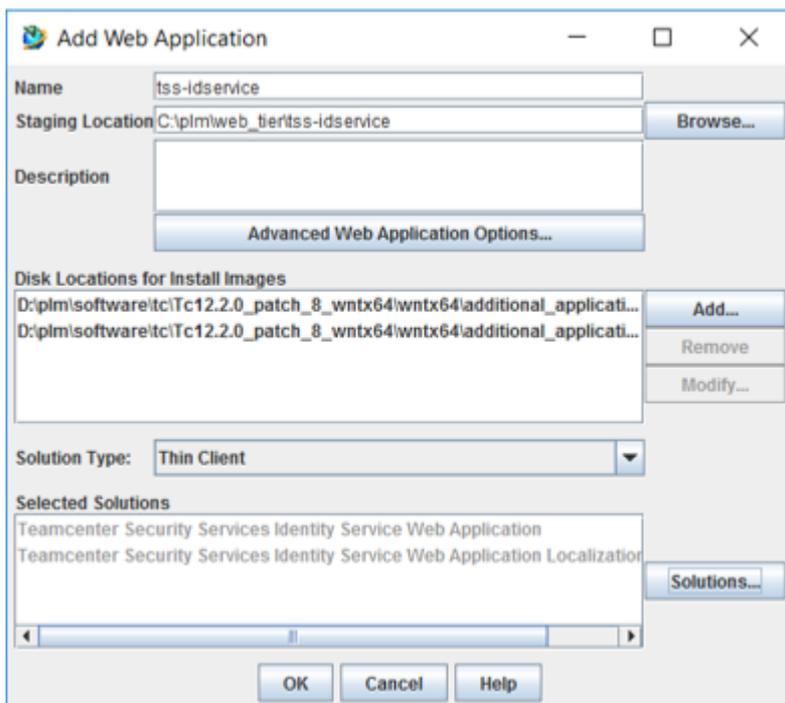
- **TC Security Services Identity Service Web Application** (required)
- **Language** (optional)



- Confirm with: OK

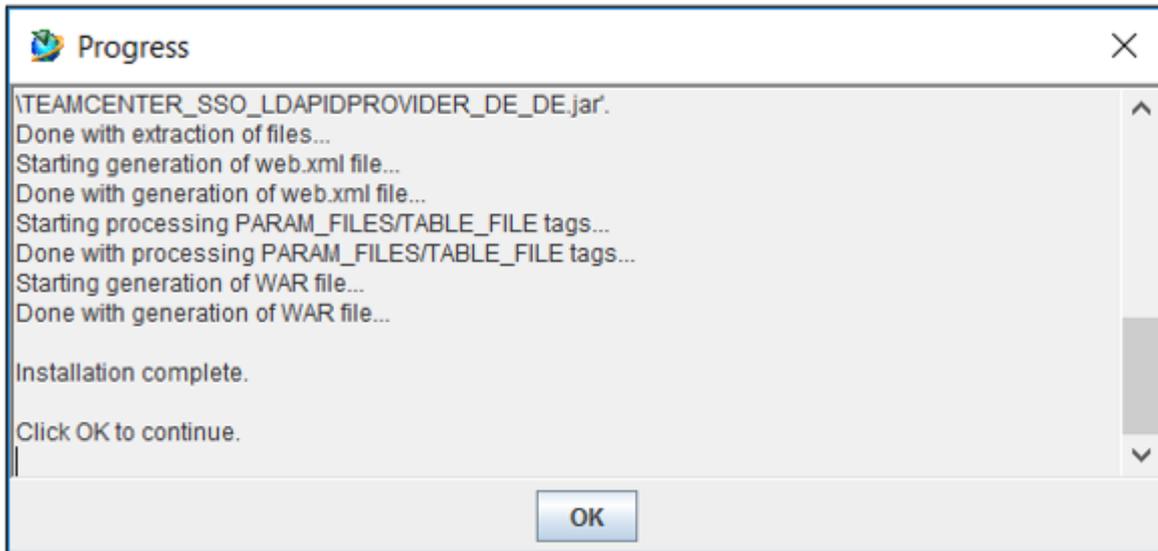
Terminate Add Web Application

- Check entries...

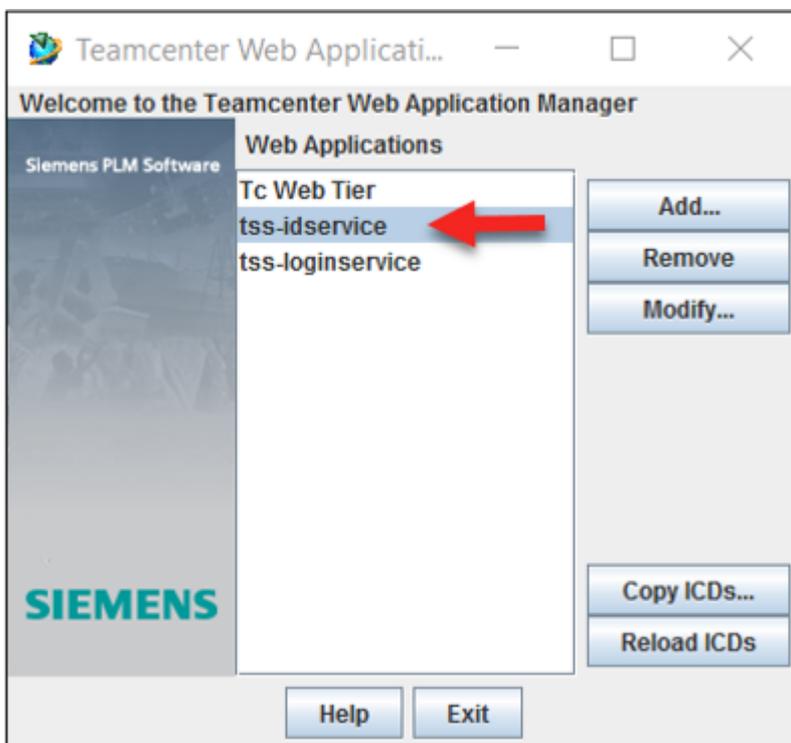


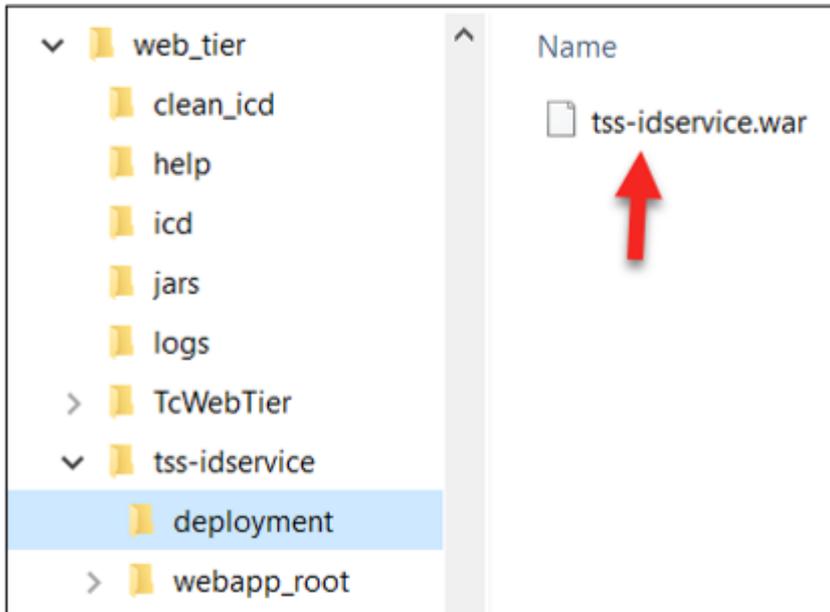
- Confirm with: OK

5. Progress:



- Confirm with: **OK**

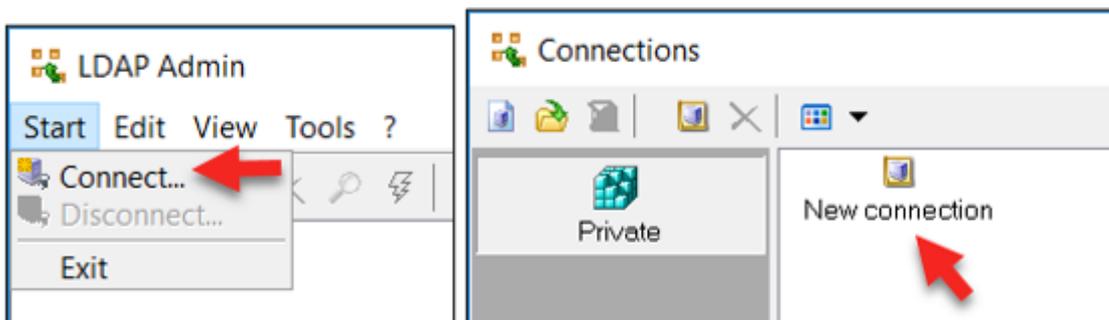


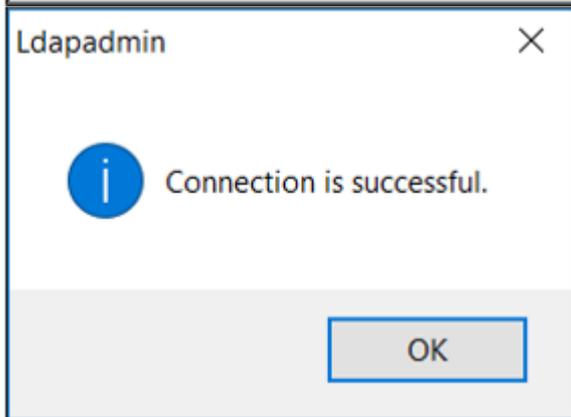
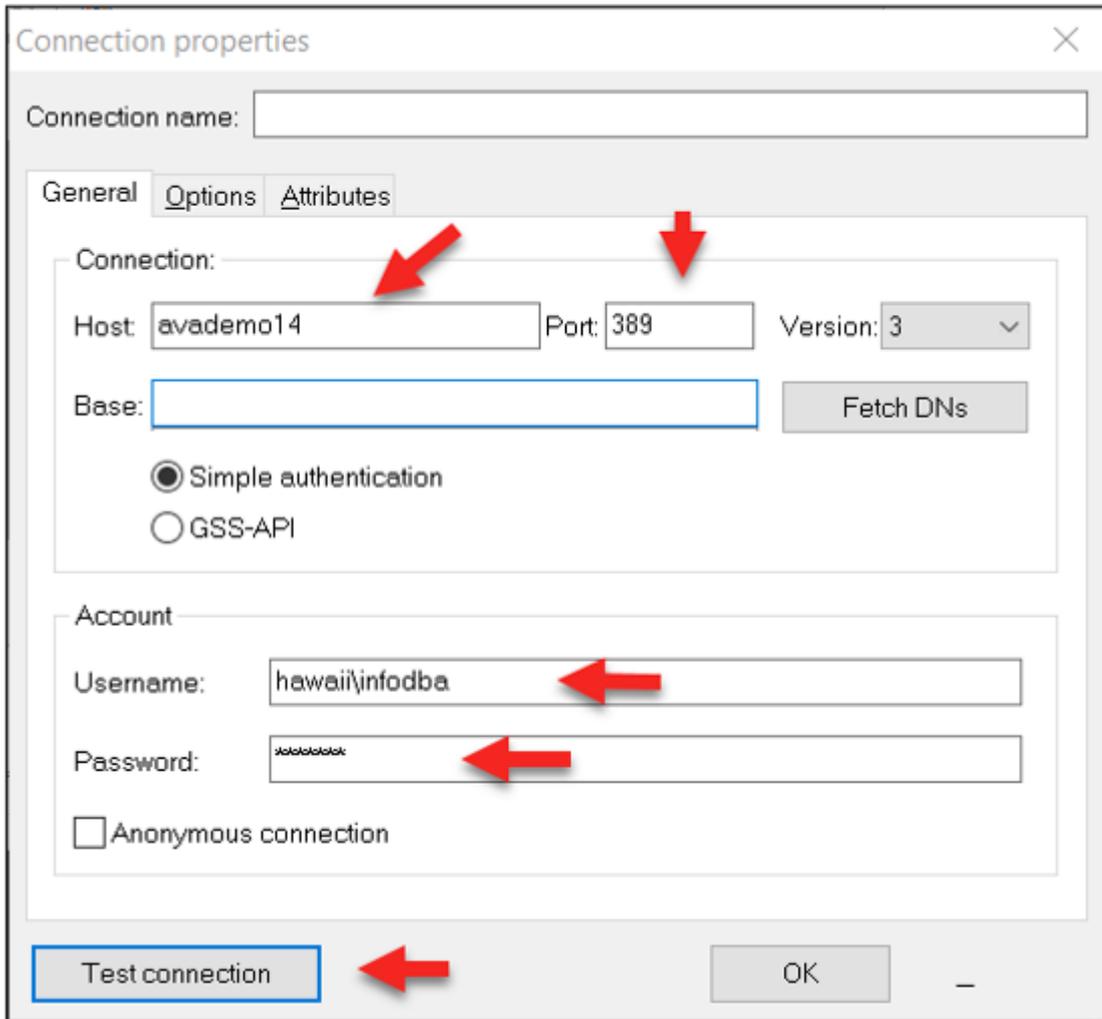


10. Tss-loginservices anpassen

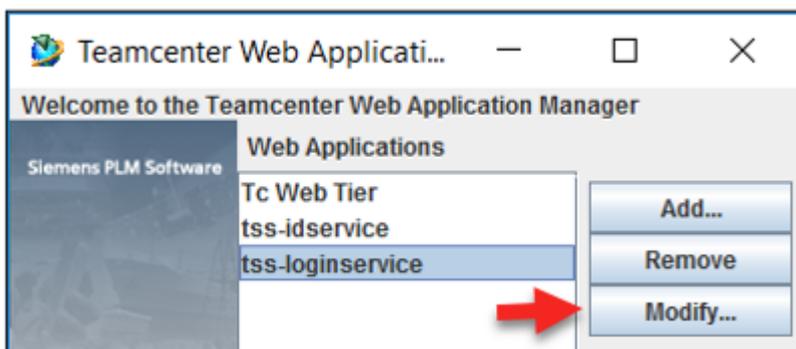
10.1 LdapAdmin

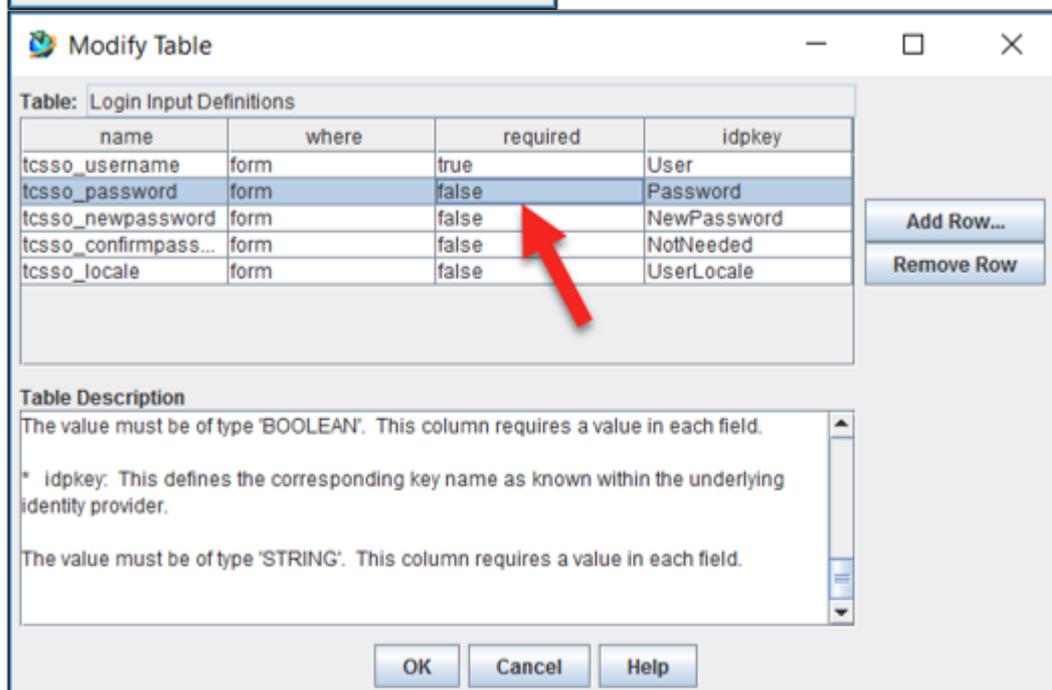
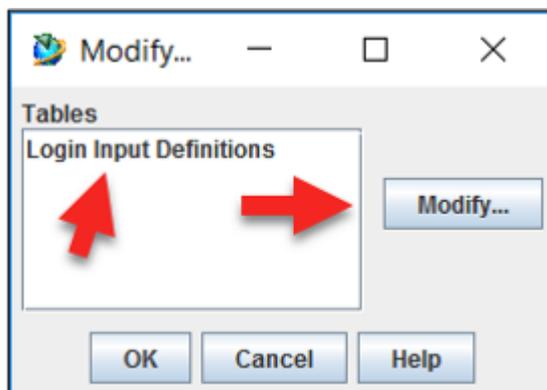
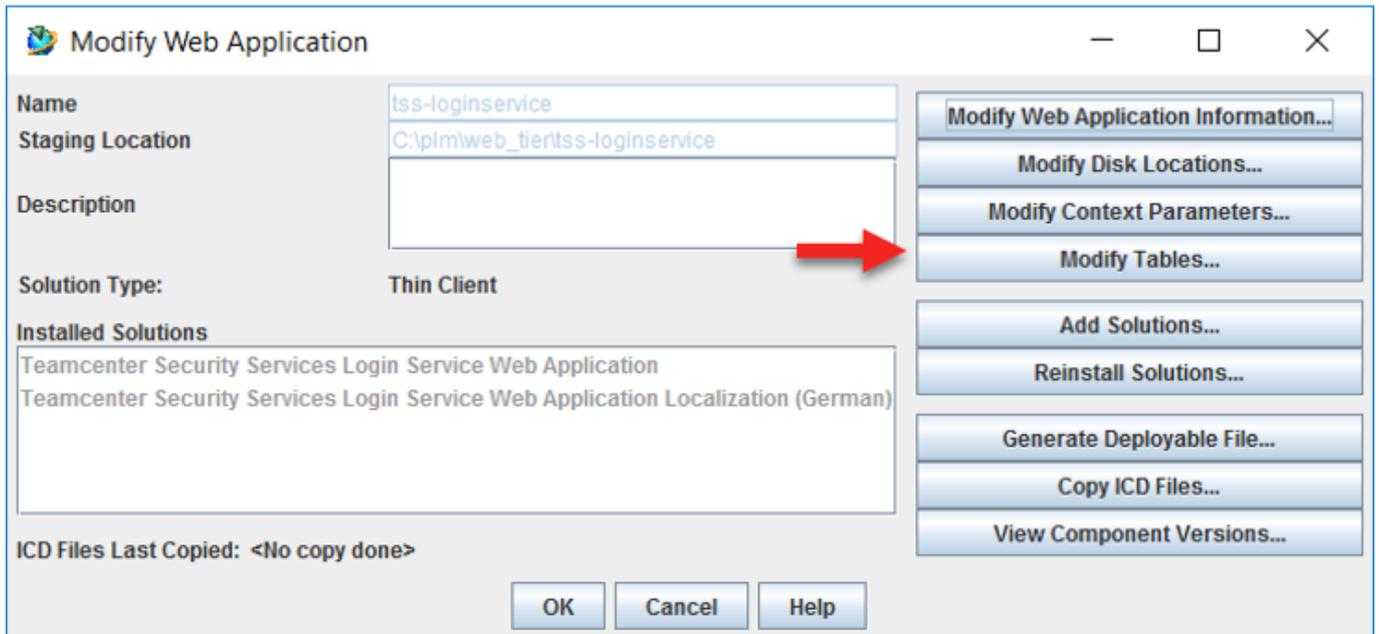
10.1.1 Mit LdapAdmin Loginuser überprüfen



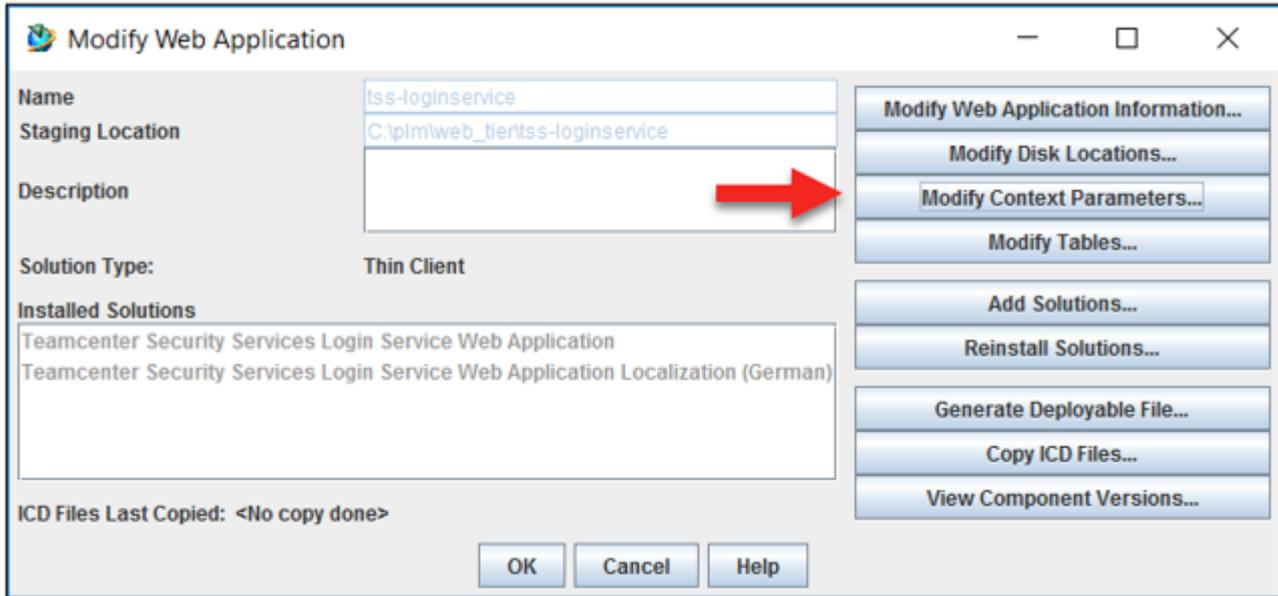


10.1.2 tss-loginservice anpassen, Modify Tables

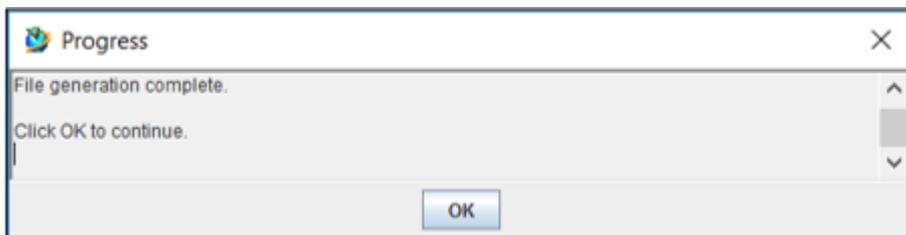




10.1.3 tss-loginservice anpassen, Modify Context Parameters



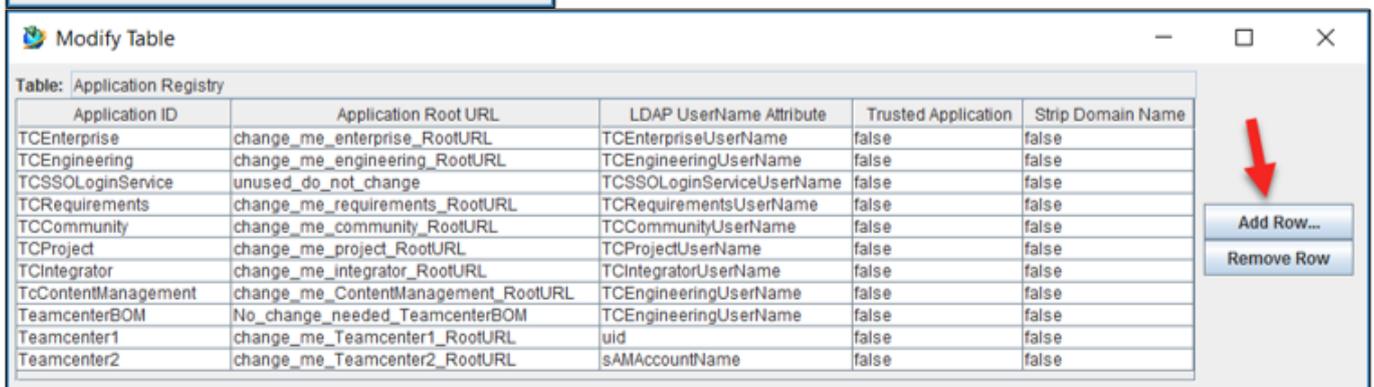
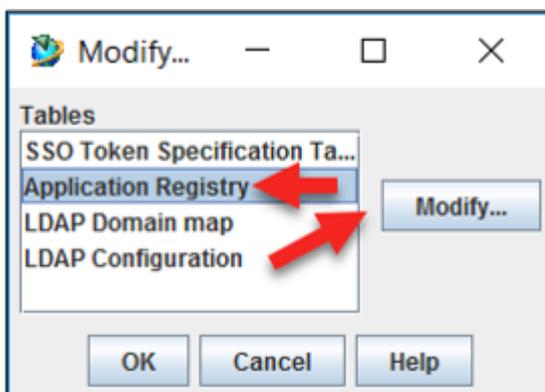
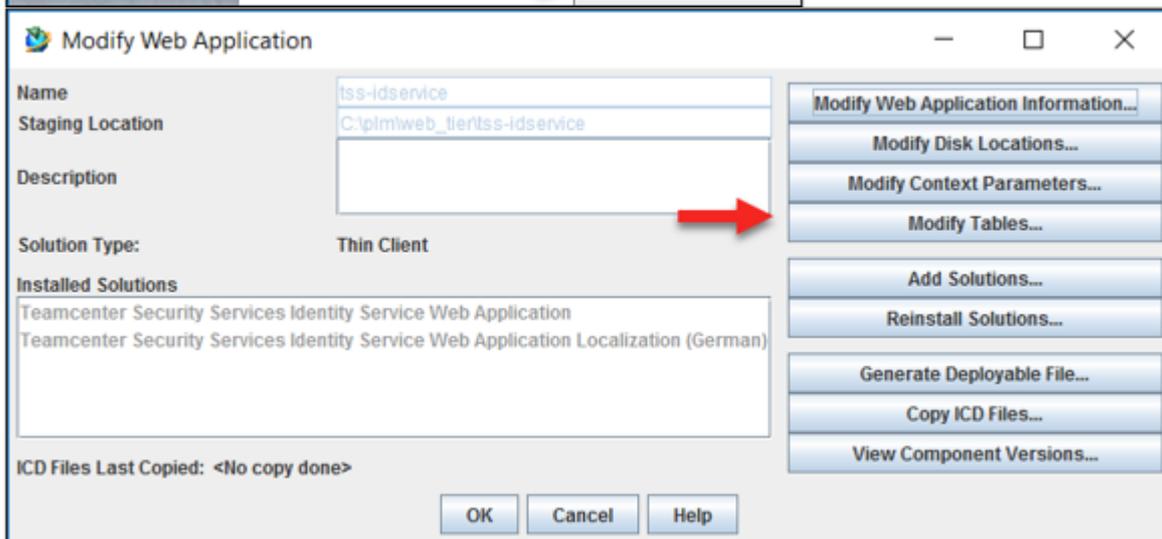
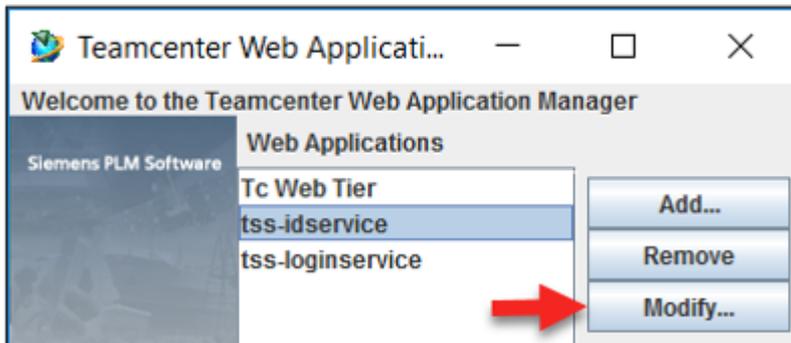
tcsso.login_service.sso_service_url:	http://avademo14.hawaii.com:7070/tss-idservice
identityServicePassword:	sicheres Passwort eingeben: 1nFodbAA
tcsso.behind_sso_gateway:	true
tcsso.gateway.field.type:	remote_user
tcsso.gateway.field.name:	REMOTE_USER
tcsso.login_service.enable_session_agent_applet:	false
tcsso.login_service.enableCsrf:	false



Req	Name	Value
<input type="checkbox"/>	webmaster	change_me_webmaster_name@change_me_email_domain
<input type="checkbox"/>	tcsso.login_service.appid	TCSSOLoginService
<input type="checkbox"/>	tcsso.login_service.http_connection_close	keep-alive
<input type="checkbox"/>	tcsso.login_service.rp_cookieNamePattern	PD-H-SESSION-ID, PD-S-SESSION-ID, SMSESSION
<input type="checkbox"/>	tcsso.login_service.proxyURL	
<input type="checkbox"/>	tcsso.login_service.sso_service_url	http://avademo14.hawaii.com:7070/tss-idservice
<input type="checkbox"/>	identityServicePassword	*****
<input type="checkbox"/>	tcsso.behind_sso_gateway	true
<input type="checkbox"/>	tcsso.gateway.field.type	remote_user
<input type="checkbox"/>	tcsso.gateway.field.name	REMOTE_USER
<input type="checkbox"/>	tcsso.username.filter.class	
<input type="checkbox"/>	tcsso.client.enable.notice.consent.logon.banner	false
<input type="checkbox"/>	tcsso.forgotten.password.URL	
<input type="checkbox"/>	tcsso.online_help.enable	true
<input type="checkbox"/>	tcsso.login_service.enable_session_agent_applet	false
<input type="checkbox"/>	tcsso.login_service.force_web_browser_login	false
<input type="checkbox"/>	tcsso.frame_ancestors	none
<input type="checkbox"/>	tcsso.federation_type	none
<input type="checkbox"/>	tcsso.federation_url	
<input type="checkbox"/>	tcsso.federation_reply_url	
<input type="checkbox"/>	tcsso.federation_logout_url	
<input type="checkbox"/>	tcsso.cors_whitelist	
<input type="checkbox"/>	DEBUG	warn
<input type="checkbox"/>	tcsso.login_service.enableCsrf	false

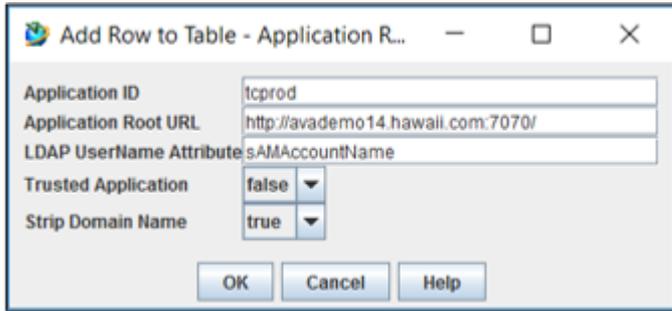
10.2 Tss-idservices anpassen

10.2.1 tss-idservice anpassen, Modify Tables

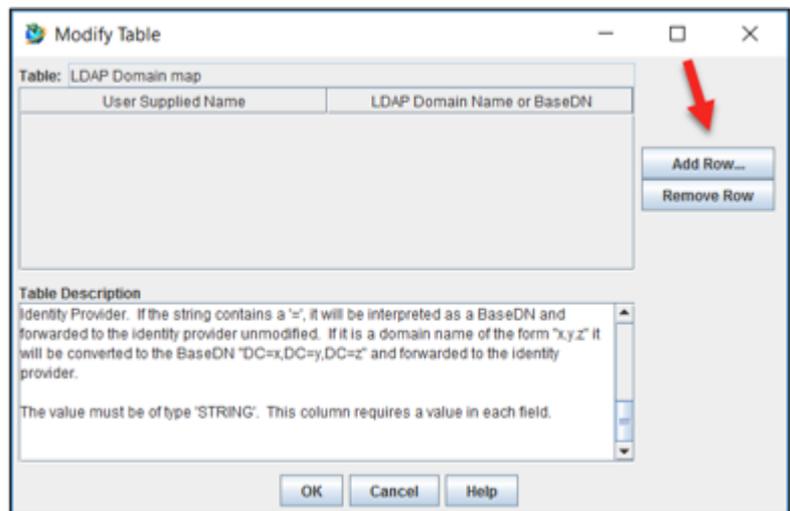
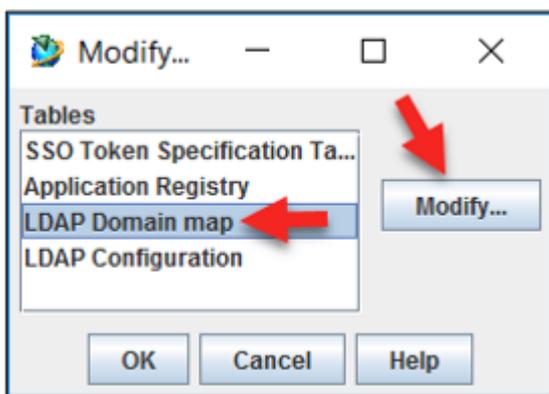
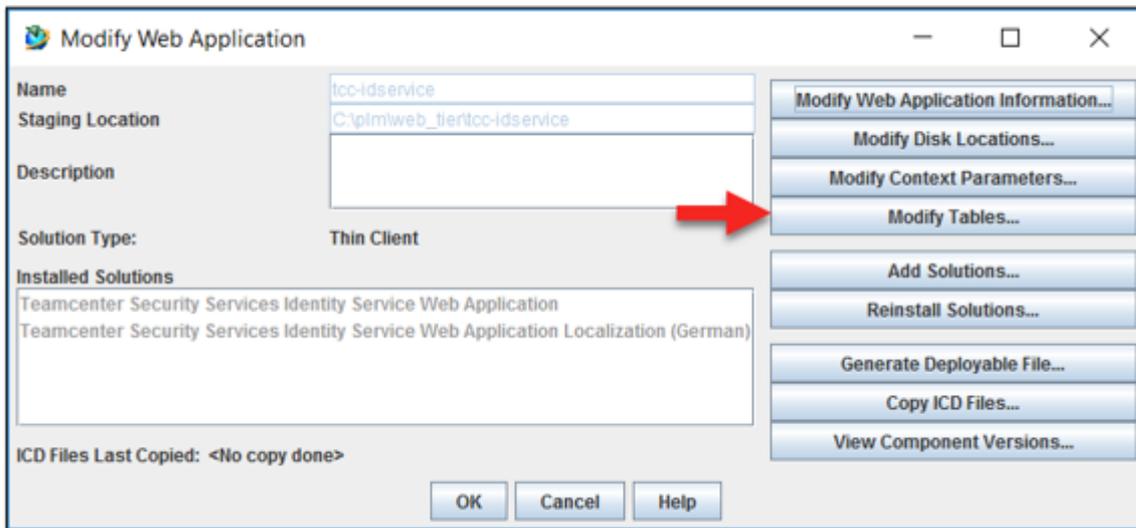


Application ID:	tcprod (SID...)
Application Root URL:	http://avademo14.hawaii.com:7070/

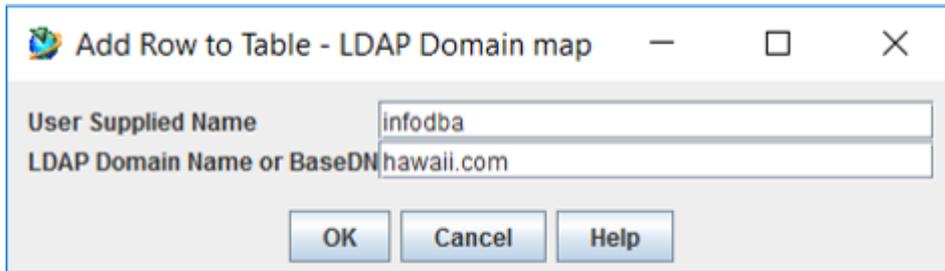
LDAP UserName Attribute:	sAMAccountName
Trusted Application:	false
Strip Domain Name:	true



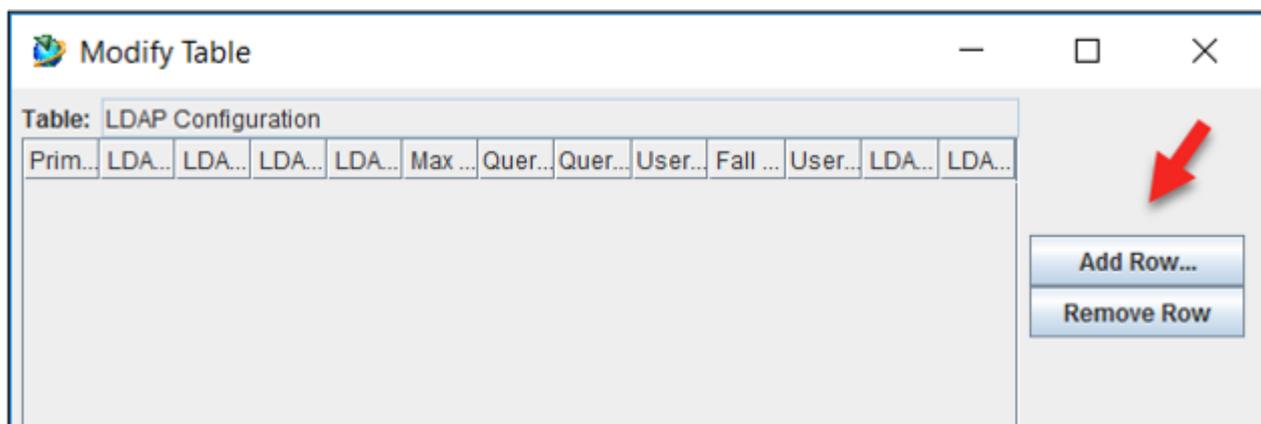
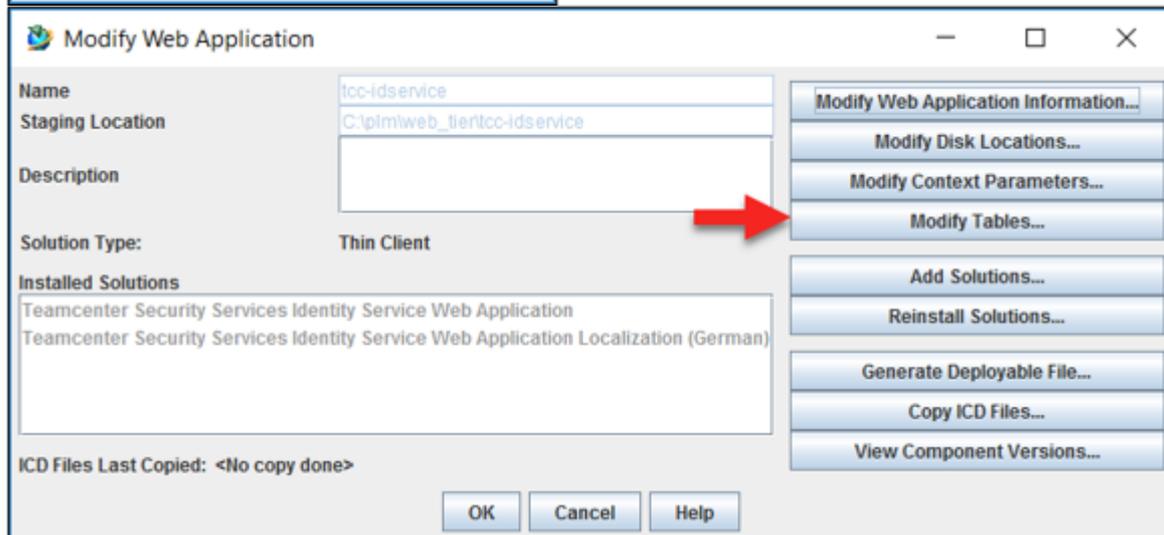
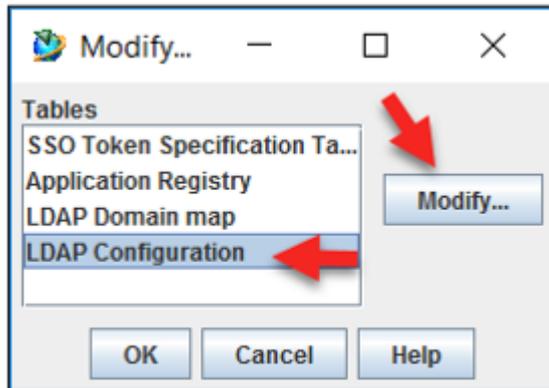
10.2.2 tss-idservice anpassen, Modify Tables



User Supplied Name:	infodba (Domänenbenutzer welcher abfragen darf ob TC-User Mitglied in Domäne ist)
LDAP Domain Name or BaseDN:	hawaii.com

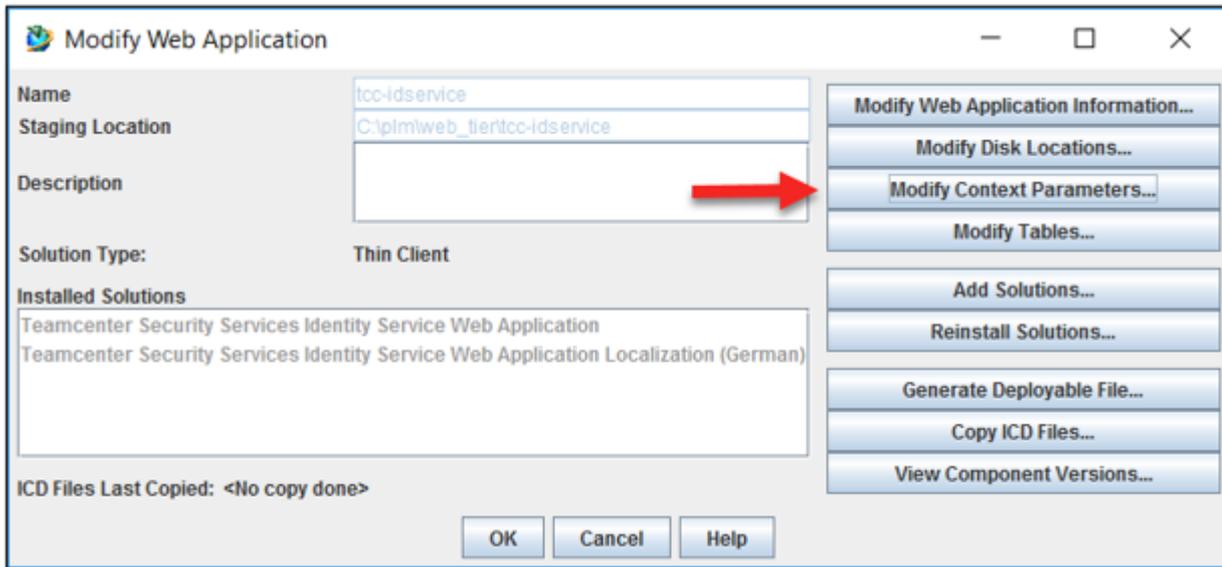


10.2.3 tss-idservice anpassen, Modify Tables

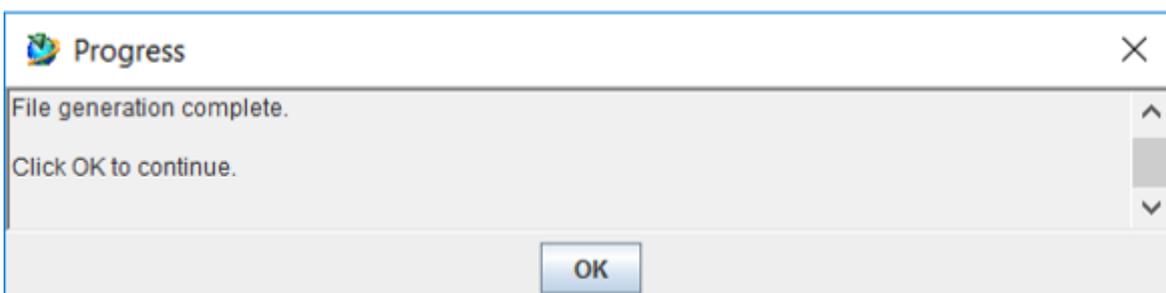
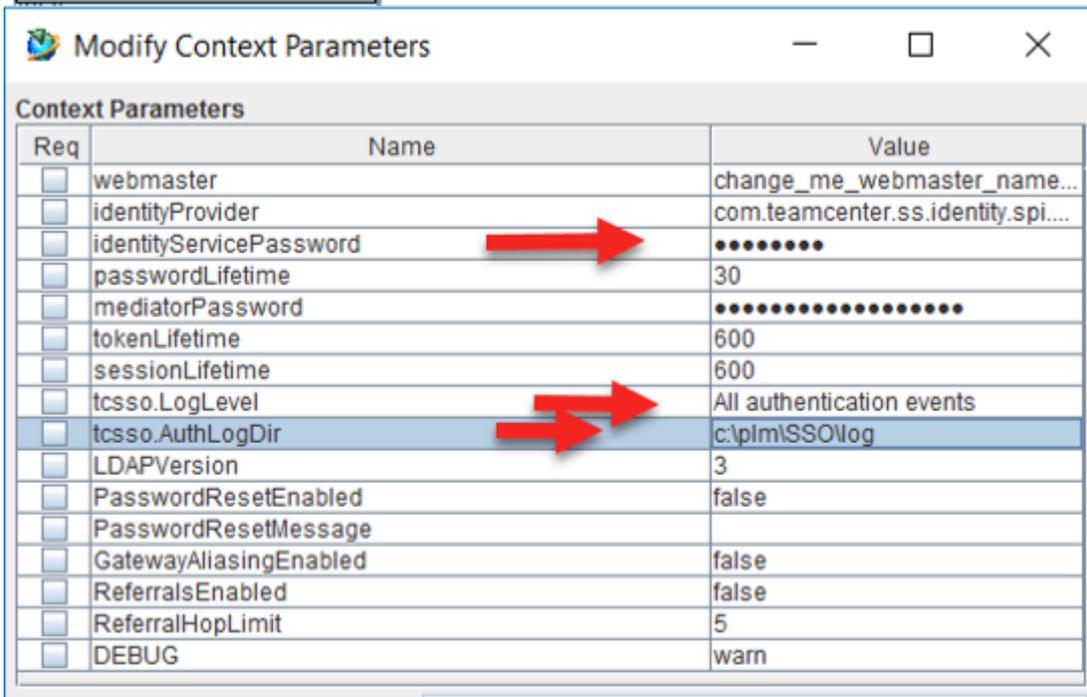
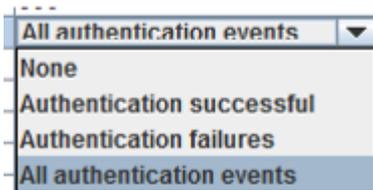


Primary LDAP:	Y
LDAP Host:	avademo14.hawaii.com
LDAP Port Number:	389
LDAP Port Number Override?:	N
LDAP Connect Type:	ldap
Max LDAP Connections:	20
Query DN:	infodba@hawaii.com
Query DN Password:	infodba (Passwort User)
UserObjectClass:	user
Fall back to User Attribute:	Y
User Attribute:	sAMAccountName
LDAP Connection Setup Delay:	-1
LDAP Connection Timeout:	0

10.2.4 tss-idservice anpassen, Modify Context Parameters

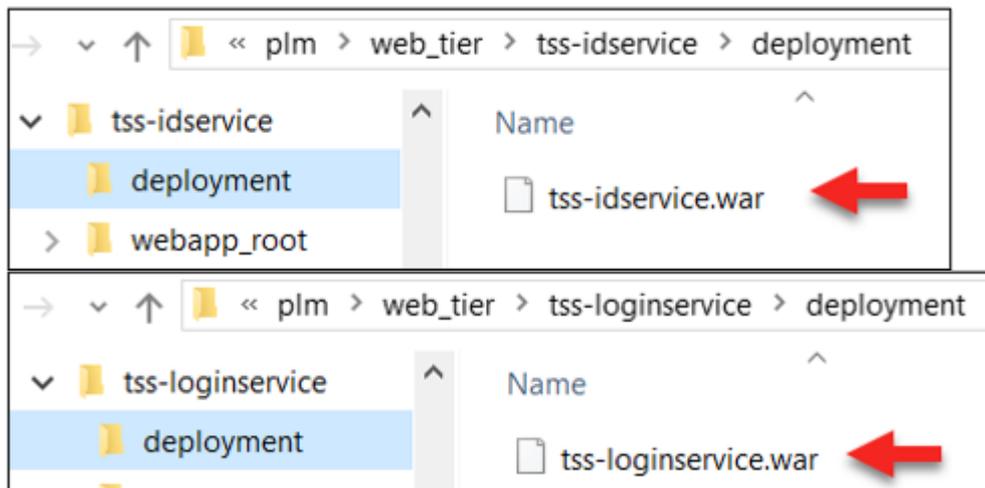


identityServicePassword:	sicheres Passwort eingeben: 1nFodbAA (gleiches wie bei loginservice!!!)
tcsso.LogLevel	Authentication failures
tcsso.AuthLogDir	c:\plm\SSO\log

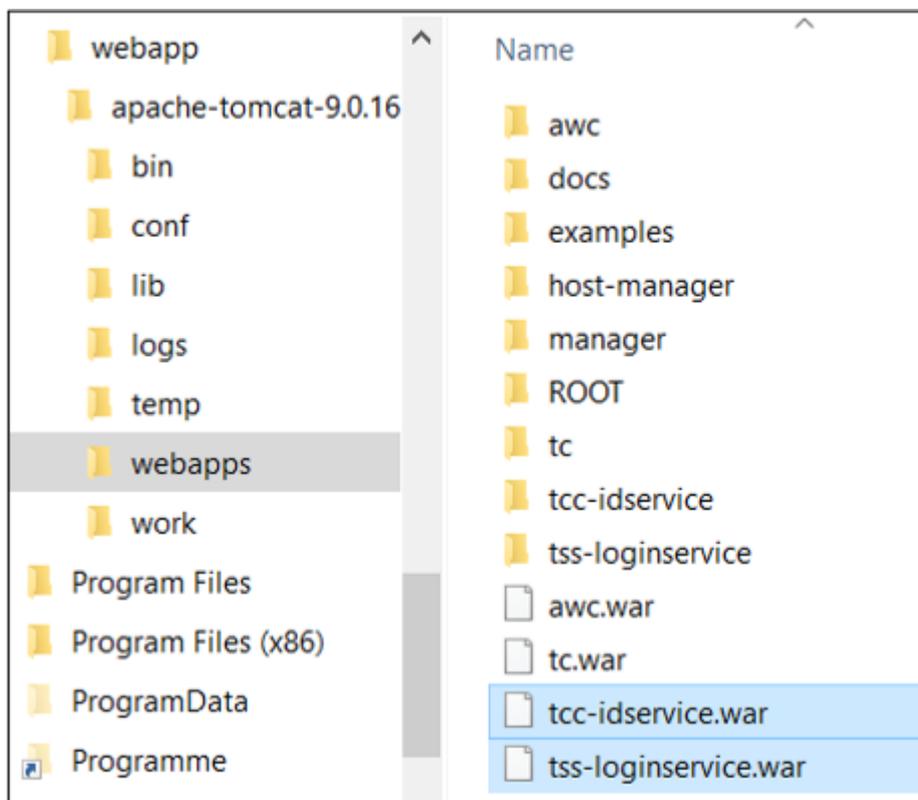


10.2.5 Deploy war-Files

Kopieren



nach



11. TCServer Manager changes

11.1 tcenvpre.bat

In Ordner <code>C:\plm\tc12\pool_manager\confs\tcprod</code> eine Datei mit folgendem Namen erstellen:

tcenvpre.bat

Inhalt:

```

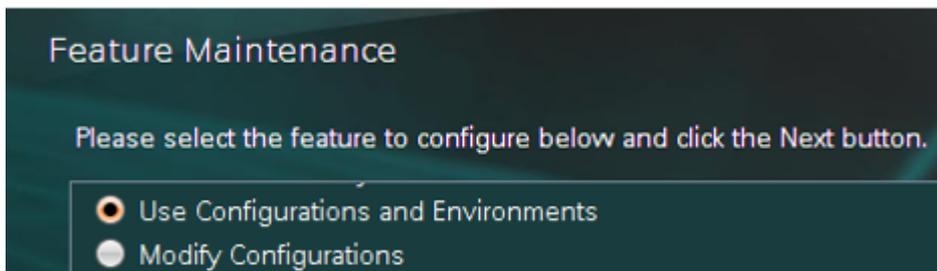
set TC_SSO_APP_ID=tcprod
set TC_SSO_Service=http://avademo14.hawaii.com:7070/tss-idservice
set TC_TMP_DIR=C:\temp\ServerManagerSSO
if not exist %TC_TMP_DIR% mkdir %TC_TMP_DIR%

```

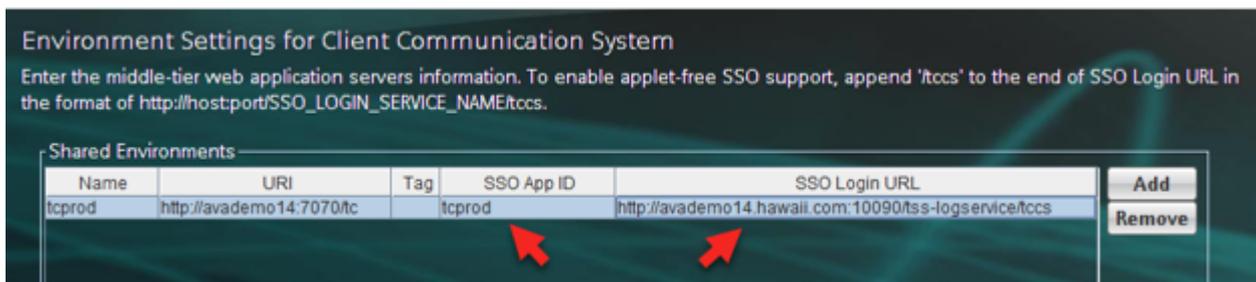
12. TCServer Manager changes

12.1 4-tier Client installation auf tccs umstellen

Feature Maintenance



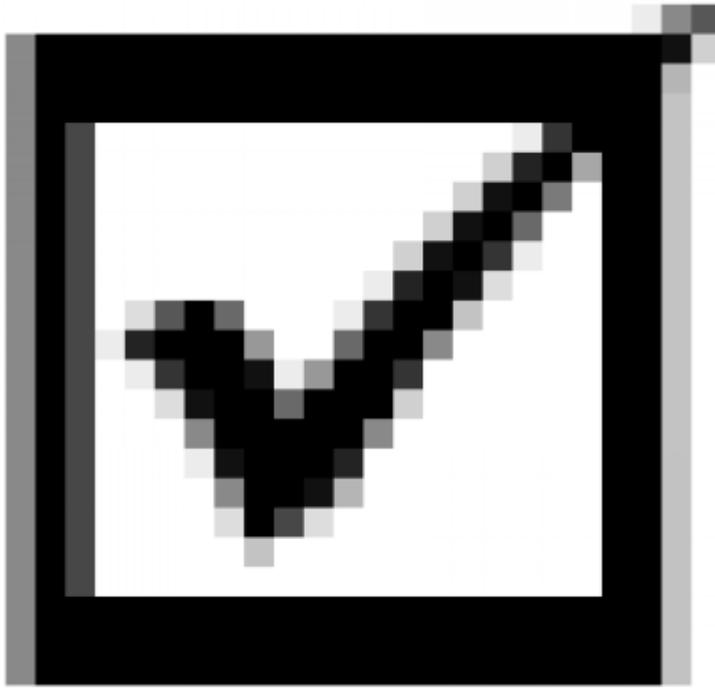
Environment Settings for Client Communication System



Anpassen:

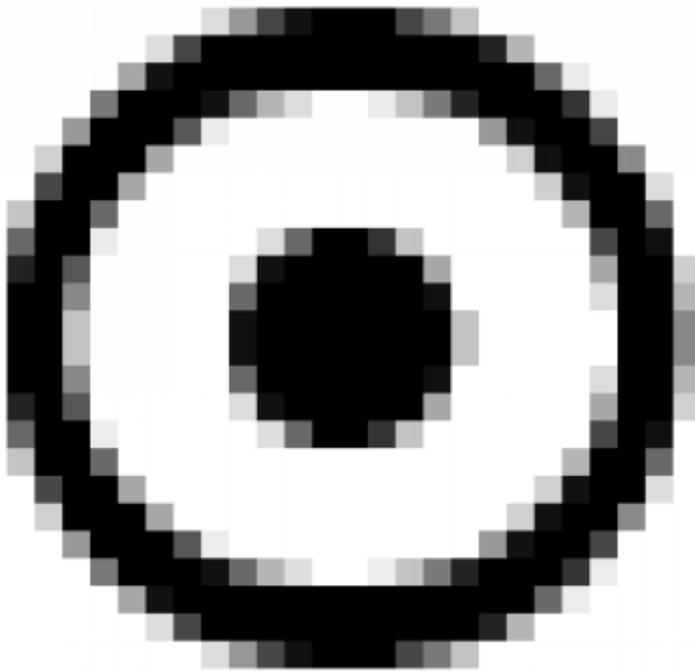
Name:	tcprod
URI:	http://avademo14:7070/tc
Tag:	
SSO App ID:	tcprod
SSO Login URL:	http://avademo14.hawaii.com:10090/tss-loginservice/tccs

Kerberos Authentication Settings



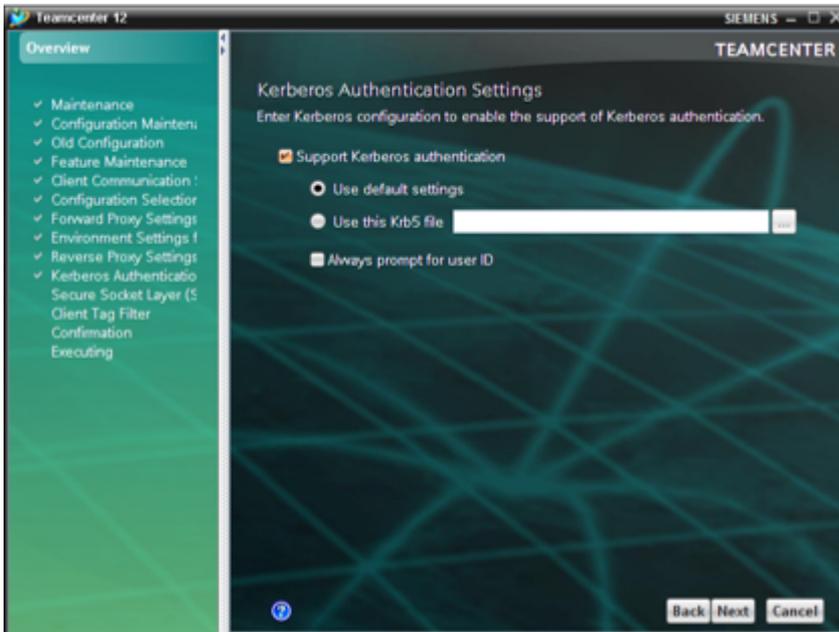
-

Support Kerberos authentication



-

Use default settings



12.2 Richclient 4-tier

Einmal anmelden:

Sollte nun ohne Passwortheingabe funktionieren

13. AWC auf SSO umstellen