



HOW-TO GUIDE

How To... Configure SAP Business Technology Platform, Cloud Foundry Environment for CTS

Version 1.3

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THE BEST RUN

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DOCUMENT HISTORY

Document Version	Description
1.3	<ul style="list-style-type: none">• Edited the 5.1 Configuring an HTTP Destination
1.2	<ul style="list-style-type: none">• Updated guide to reflect the brand name change from <i>SAP Cloud Platform</i> to <i>SAP Business Technology Platform (SAP BTP)</i>:<ul style="list-style-type: none">○ Changed Title from <i>How To... Configure SAP Cloud Platform Cloud Foundry for CTS</i> to <i>How To... Configure SAP Business Technology Platform Cloud Foundry Environment for CTS</i>○ <i>SAP Cloud Platform, Cloud Foundry environment is now SAP BTP, Cloud Foundry environment.</i>○ <i>Exchanged some graphics which also contained SAP SCP</i>• Added more detailed information on creating HTTP destinations
1.1	Minor corrections
1.0	First official release of this guide

TYPOGRAPHIC CONVENTIONS

Icon	Description
<i>Example Text</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Cross-references to other documentation
Example text	Emphasized words or phrases in body text, graphic titles, and table titles
Example text	File and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
Example text	User entry texts. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example text>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE TEXT	Keys on the keyboard, for example, F2 or ENTER.

ICONS

Icon	Description
	Caution
	Important
	Note
	Recommendation or Tip
	Example

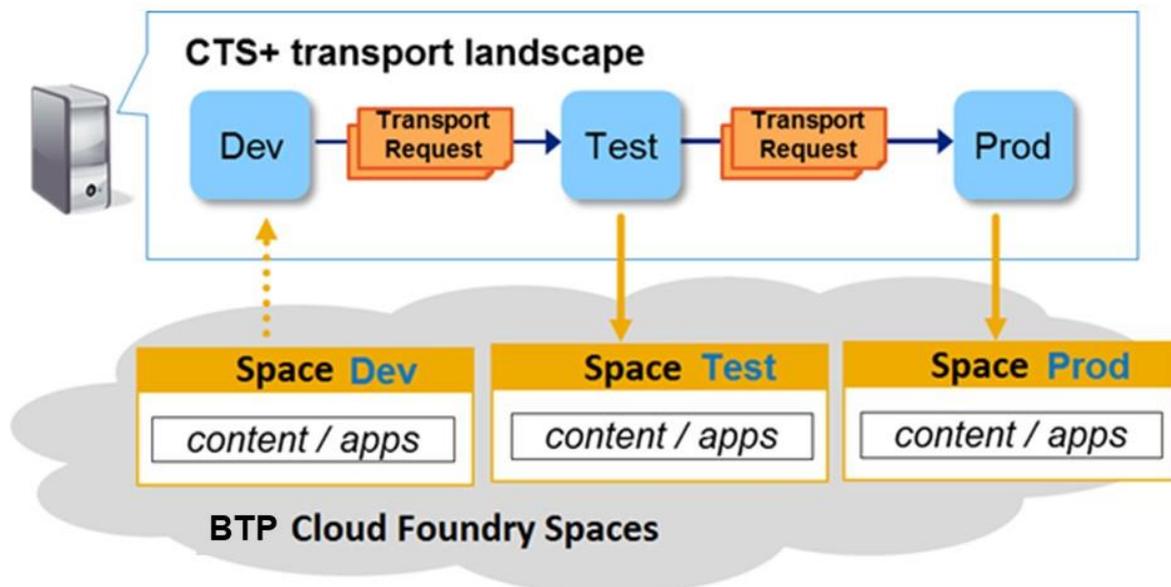
1 SCENARIO

The Change and Transport System (CTS) of ABAP has been enhanced so that it can be used for transporting non-ABAP objects as well – this is known as CTS+ or enhanced CTS. In the remainder of this document, the abbreviation CTS is used for the system where the transport landscapes are configured and for the fact that CTS can also be used for non-ABAP transports.

In this guide, you can find information on how to use CTS for transporting applications running on the SAP BTP, Cloud Foundry environment. This guide shows step by step – including sample screenshots - how the configuration is done. Afterwards you will be able to transport Cloud Foundry applications bundled in Multi-Target Application (MTA) archives to Cloud Foundry spaces. If you already use CTS, for example, to manage non-ABAP transports for applications like the SAP Enterprise Portal or to transport your BW ABAP objects, you might be interested in using the same tool to transport the Cloud Foundry content as well. With the integration of Cloud Foundry into CTS, this is now possible. You can model a landscape for your Cloud Foundry spaces in CTS like for any other non-ABAP application supported by CTS. When doing that, you associate logical systems in TMS to the spaces you have in Cloud Foundry.

Note that in the remainder of this document, the representations of the Cloud Foundry spaces in CTS will be called *systems* (for example, *logical non-ABAP system*, *source or export system*, as well as *target or import system*).

The following figure shows a sample transport route modeled in CTS+.



CTS does not limit your landscape to one source and one target system. All the options that you might know from TMS are available for systems associated with Cloud Foundry spaces as well. You can, for example, have several systems in a row or more than one target system at once.

To implement the scenario, you need a physical system where CTS is configured. For the setup described in this guide, you must use a SAP NetWeaver system on release 7.4 or higher.

In order to trigger the transport, you must create a transport request for the first system in the transport route (Dev in the example above) and attach the MTA archives that you want to transport to it using the Transport Organizer tool in CTS. Afterwards you need to release the transport request. You can then start the import into the next logical system from the transport route, which will trigger the import into the corresponding Cloud Foundry space.

2 BACKGROUND INFORMATION

- [SAP Business Technology Platform documentation](#)
- [Guides for CTS](#)
- [The Multi-Target Application Model](#)
- [Documentation for CTS including CTS Plug-In](#)
- [Central note for CTS+: 1003674](#)
- [Security for the Enhanced Change and Transport System \(CTS+\)](#)

3 PREREQUISITES

To be able to use CTS with SAP BTP, Cloud Foundry environment as described in this guide, your systems must fulfill the following prerequisites:

- CTS System: SAP NetWeaver 7.4 or higher
- If CTS System is on state lower than SAP NetWeaver 7.4 SP10: CTS plug-in installed on the CTS system (taken from the latest available SL Toolset 1.0 CTS plug-in). SAP Note for installing the SAP CTS Plug-In of SL Toolset: [1665940](#)
- SAP Notes [2236955](#) and [1160362](#) must be applied to the CTS system.

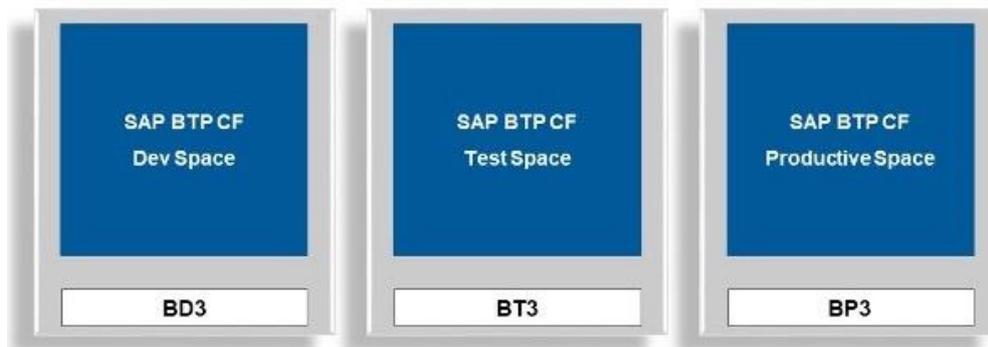
4 RESTRICTIONS AND RECOMMENDATIONS

You must use a system, such as the CTS system, which is on SAP NetWeaver 7.4 and at least on SP10 or has CTS plug-in installed (for SPs below SP10).

5 BASIC CONFIGURATION FOR CTS

You must do configurations on your CTS system and on the Cloud Foundry spaces to be able to use CTS. This chapter helps you with these configurations. It provides a step-by-step guide. (Remember: You may have to install the CTS plug-in on the CTS system.)

Sample Landscape



In the sample landscape shown in the picture above, you can see three systems associated with Cloud Foundry spaces:

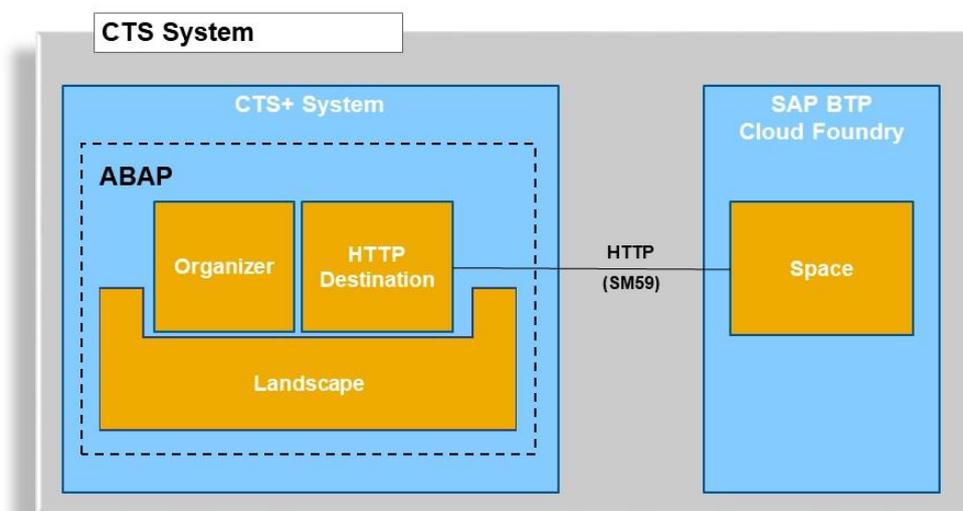
- **BD3** represents the development CF space – also called export or source system
- **BT3** is the test CF space – also called import or target system
- **BP3** is the productive CF space – also called import or target system

This landscape is used as an example in the following chapters explaining the configuration.

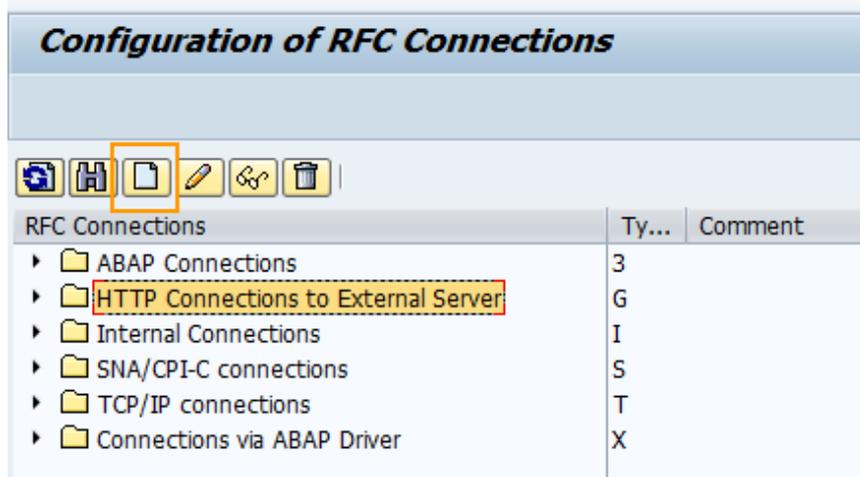
5.1 Configuring an HTTP Destination

You must create an HTTP destination on the CTS system for every Cloud Foundry target space (every system where you would like to execute imports).

For more information on configuring an HTTP destination in an ABAP system, see [Establishing a Connection Using a Destination \(SM59\)](#).



1. Go to transaction **SM59**.
2. Mark HTTP Connections to *External Server* and choose *Create*.



3. Enter a name in the field *RFC Destination*, for example, `BT3_DESTINATION` (you need a destination for each target system).

CAUTION

The name that you enter in the field *RFC Destination* will automatically be converted into upper case as soon as you save the destination. Later, you must enter the name of the destination when you define the target system in **STMS**. Make sure that you use the correct writing in there.

4. On the tab *Technical Settings*, enter the details of the target system.
 - a) Depending on the account in which BTP region and CF instance it relies on, enter the specific hostname of the SAP Cloud Deployment service as *Target Host* and leave the *Service No.* field empty: `deploy-service.cf.<domain>`, where `<domain>` is the domain of your target subaccount.

The domain is derived from the Cloud Foundry API endpoint that you can find in the SAP BTP Cockpit in the *Overview* of your subaccount.

For more information, see [Deploying Applications in Regions and Regions and API Endpoints Available for the Cloud Foundry Environment](#).

Example 1

Cloud Foundry API endpoint: `api.cf.eu10-004.hana.ondemand.com`

SAP Cloud Deployment service URL: `deploy-service.cf.eu10-004.hana.ondemand.com`

Example 2

Cloud Foundry API endpoint: `api.cf.eu10.hana.ondemand.com`

SAP Cloud Deployment service URL: `deploy-service.cf.eu10.hana.ondemand.com`

- b) Then, enter the *Path Prefix* using the following:
`/slprot/<target_org_name>/<target_space_name>/slp`

NOTE

You need to escape special characters in your org and space name with a proper URL encoding. For example, replace space characters with %20, and commas with %2C.

Example with URL encoding for organization 'Example Company Test Org' and space 'Example Company Test Space':

```
/slprot/Example%20Company%20Test%20Org/Example%20Company%20Test%20Space/slp
```

- c) Finally, configure the *HTTP Proxy Options* according to your network configuration.

RFC Destination	BT3_DESTINATION	
Connection Type	G	HTTP Connection to External Serv
Description		
Description 1	Destination targeting SAP BTP Cloud Foundry	
Description 2		
Description 3		

Administration	Technical Settings	Logon & Security	Special Options
----------------	---------------------------	------------------	-----------------

Target System Settings	
Target Host	deploy-service.cf.<domain>
Service No.	
Path Prefix	/slprot/<target_org_name>/<target_space_name>/slp

HTTP Proxy Options	
Global Configuration	
Proxy Host	
Proxy Service	
Proxy User	
Proxy PW Status	is initial
Proxy Password	

- 5. Go to the *Logon & Security* tab and configure the logon to the target system according to your needs. Make sure to check the *Active* checkbox for SSL and note the *Cert. List* as it is required below.

Currently CTS+ for SAP BTP Cloud Foundry environment supports only 'Basic Authentication'.

The Cloud Foundry user that you enter in here needs to have at least the role *SpaceDeveloper* in the corresponding Cloud Foundry target space. More information on

the roles is available in the SAP Business Technology Platform Documentation under [Working with Role Collections](#).

NOTE

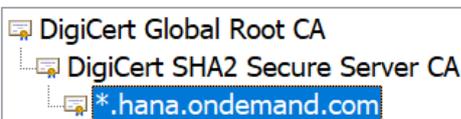
All import processes of Cloud Foundry content for this target system triggered by CTS use this username and password by default.

6. Repeat these steps for each target system.

5.2 Import SSL Certificate

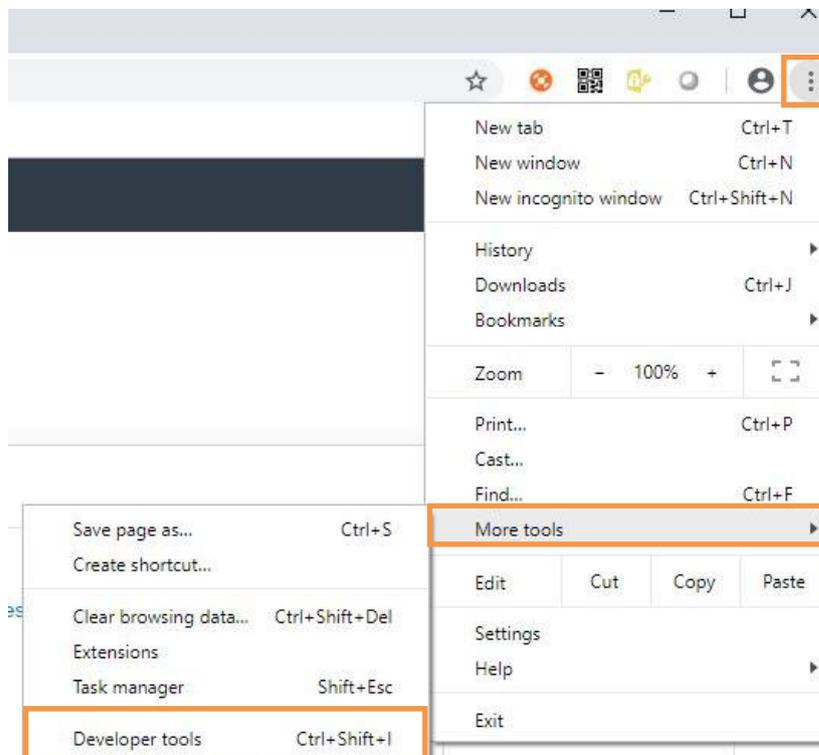
The CTS system must validate the server certificate to ensure the server identity and to prevent man-in-the-middle attacks. This means that the root certificate of the certificate authority that was used to sign the Cloud Foundry server certificate needs to be imported. This is the certification path for the `hana.ondemand.com` domain:

Certification path

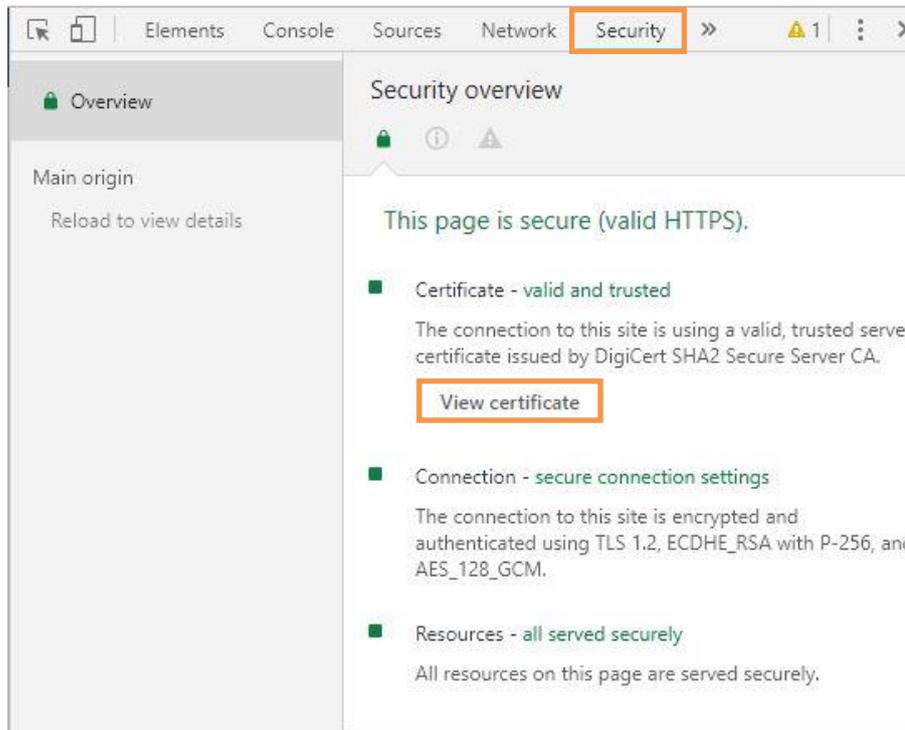


The following is a step-by-step description for exporting the root certificate using Google Chrome and importing it using the transaction STRUST. These steps are exemplary for Google Chrome. However, the certificate can also be exported from another browser, from the operating system, or can be downloaded from digicert (<https://www.digicert.com>).

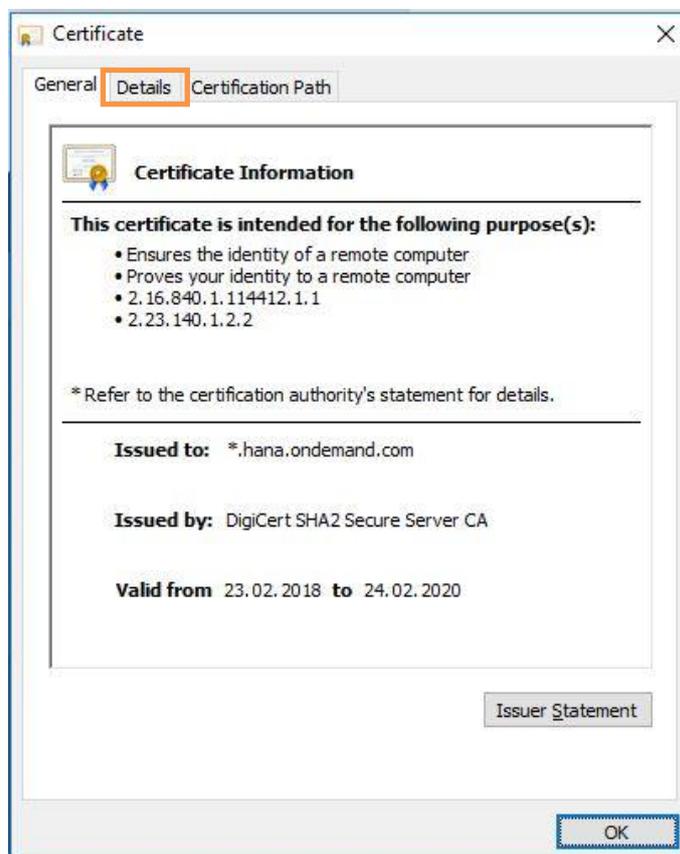
1. Start Google Chrome, and choose **⋮** -> *More Tools* -> *Developer Tools*.



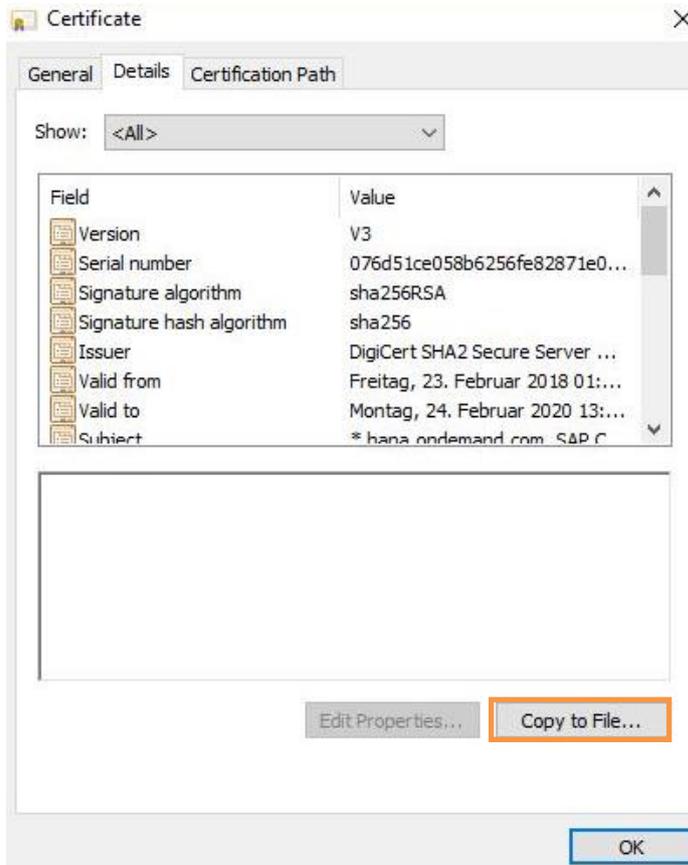
2. Choose *Security* and then *View certificate*.



3. On the *General* tab, you see that the certificate is issued to the `*.hana.ondemand.com` domain. Go to the *Details* tab.



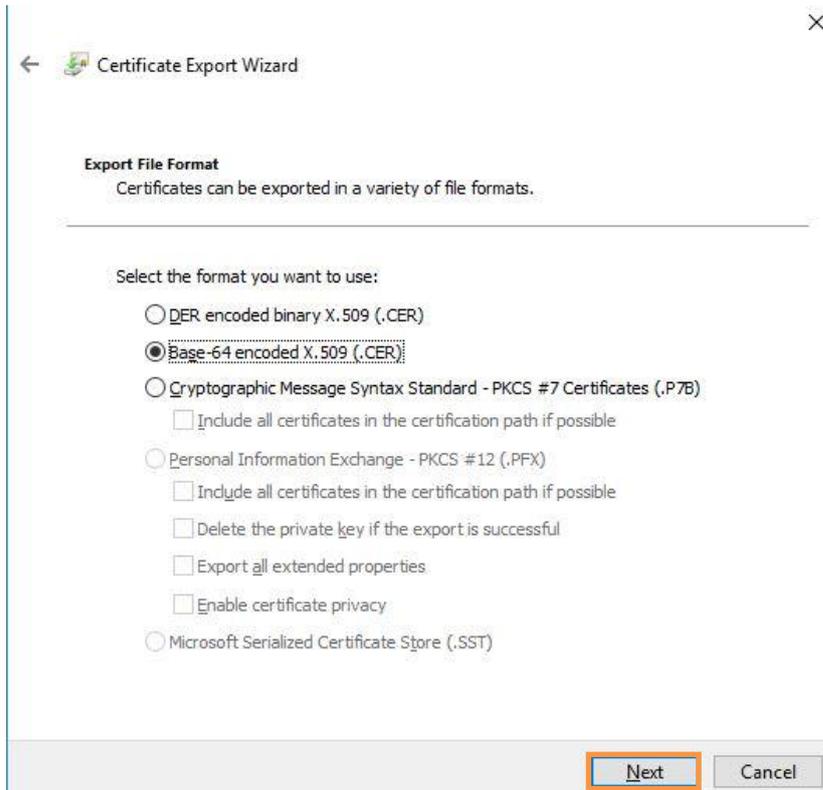
4. To download the certificate, choose *Copy to File...*



5. On the *Certificate Export Wizard*, choose *Next*.



6. Select *Base-64 encoded X.509 (.CER)* and click *Next*.



← Certificate Export Wizard

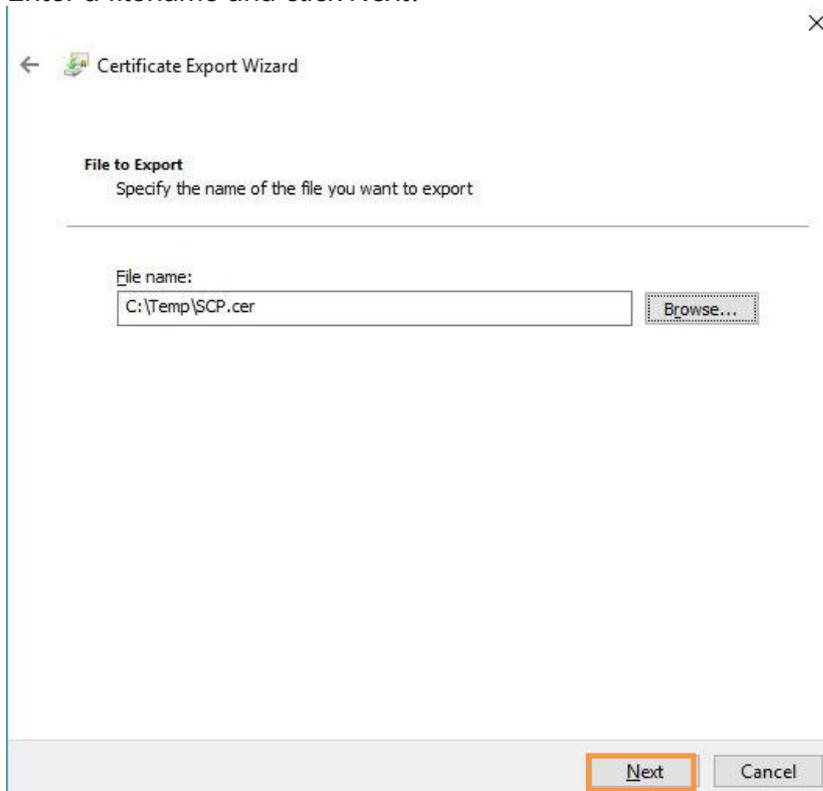
Export File Format
Certificates can be exported in a variety of file formats.

Select the format you want to use:

- DER encoded binary X.509 (.CER)
- Base-64 encoded X.509 (.CER)
- Cryptographic Message Syntax Standard - PKCS #7 Certificates (.P7B)
 - Include all certificates in the certification path if possible
- Personal Information Exchange - PKCS #12 (.PFX)
 - Include all certificates in the certification path if possible
 - Delete the private key if the export is successful
 - Export all extended properties
 - Enable certificate privacy
- Microsoft Serialized Certificate Store (.SST)

Next Cancel

7. Enter a filename and click *Next*.



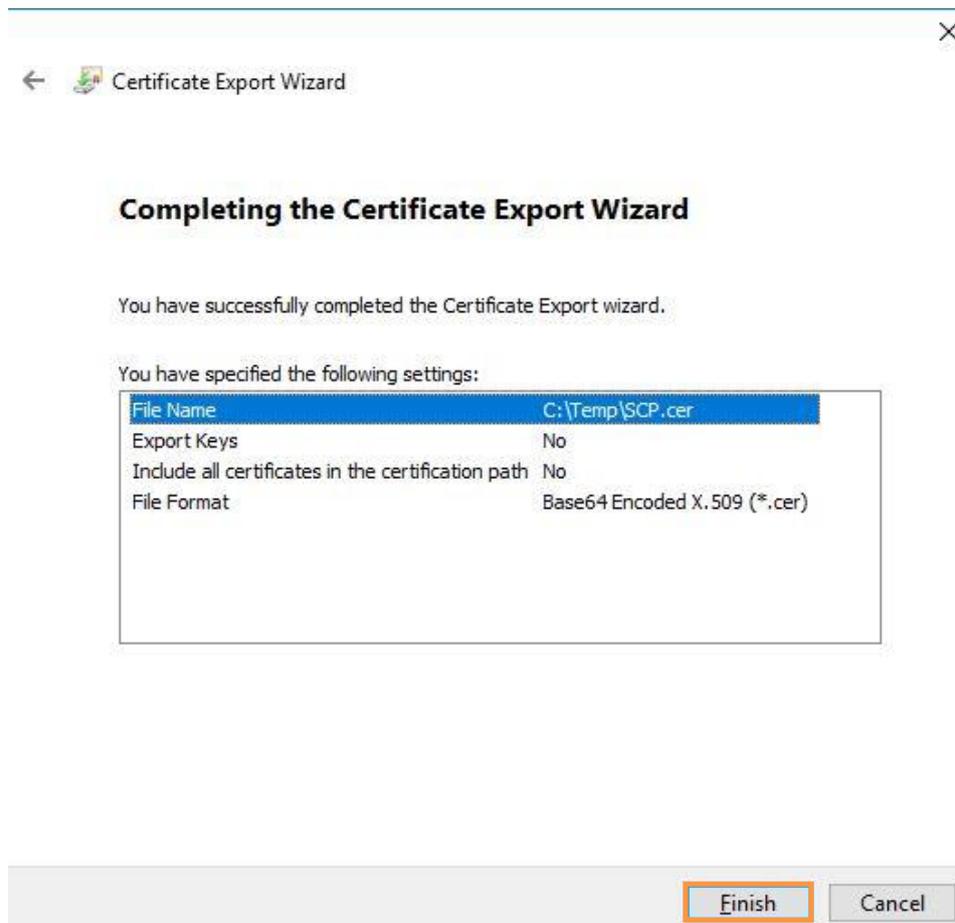
← Certificate Export Wizard

File to Export
Specify the name of the file you want to export.

File name:
C:\Temp\SCP.cer Browse...

Next Cancel

8. Click *Finish* on the next dialog. The certificate has now been exported.



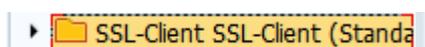
9. Click *OK*.



10. Log on to the CTS system and open transaction STRUST. Open the edit mode by clicking on the *Display <-> Change* button.



11. Select the certificate list on the left that you have specified in the previous chapter when setting up the HTTP connection.

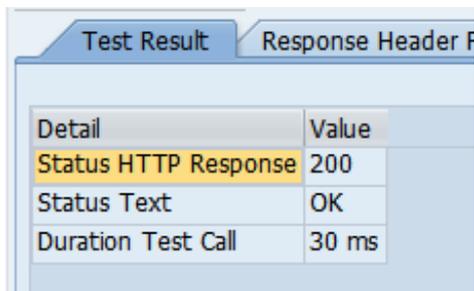


12. Click the *Import Certificate* button on the bottom left.

13. In the dialog enter the file name of the certificate file which has been exported in step 6.

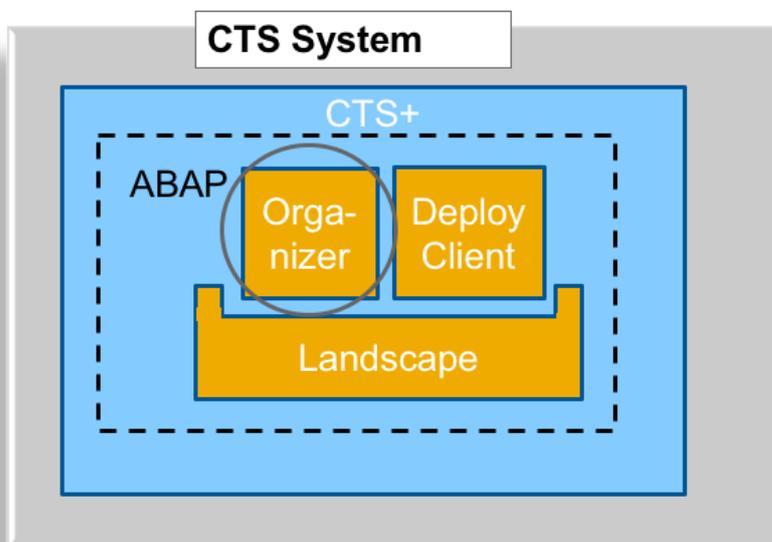
14. Click *Add to Certificate List* and leave the edit mode by clicking the *Display <-> Change* button on the top.

15. The connection test for the connection in transaction SM59 should be successful after importing the certificate.



Detail	Value
Status HTTP Response	200
Status Text	OK
Duration Test Call	30 ms

5.3 Configuring the Transport Organizer Web UI



CTS provides Transport Organizer Web UI, an ABAP Web Dynpro application, which is used to get detailed information about transport requests (for example, default request, target systems) and to create transport requests and attach objects manually. You must activate the ICF service **CTS_ORGANIZER** to run and use this application.

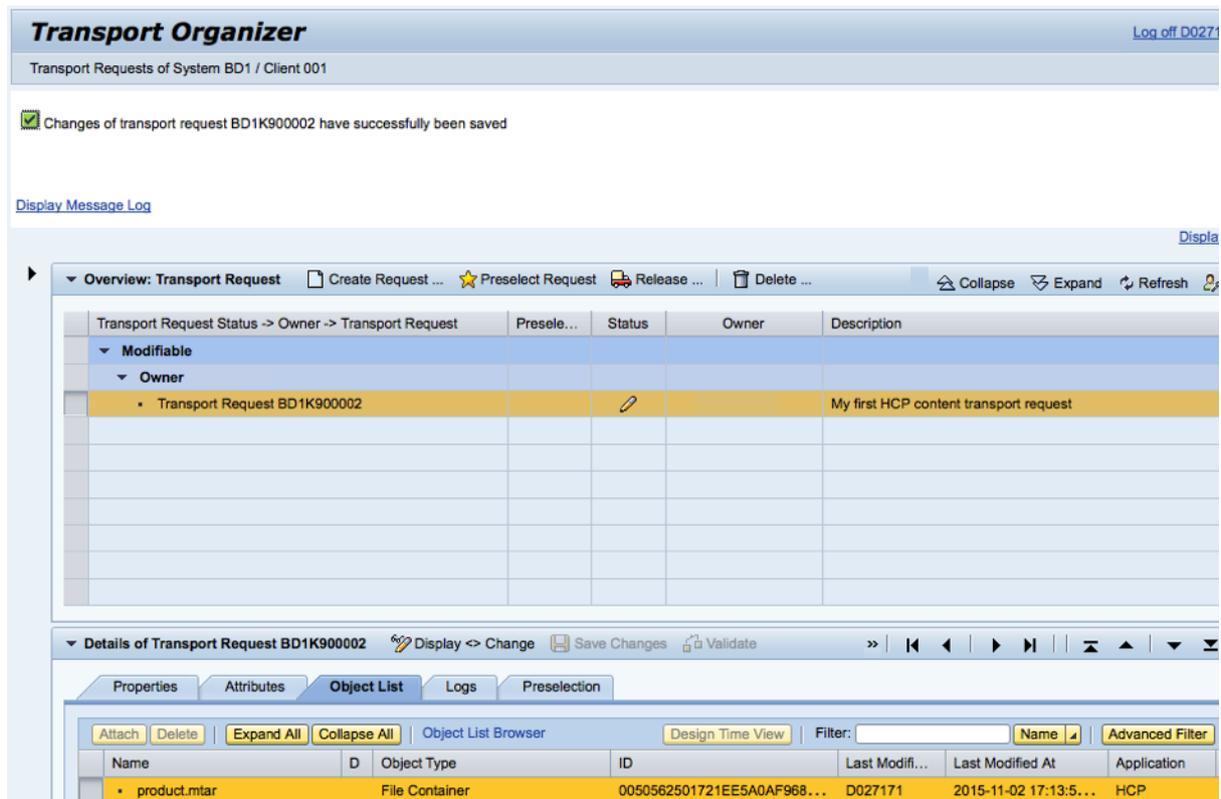
To use the Object List Browser to see a detailed list of objects attached to a transport request (as part of one file) you need to activate the ICF service **CTS_OBJECTLIST_BROWSER**.

For more details, refer to [Activating Services for Transport Organizer Web UI](#).

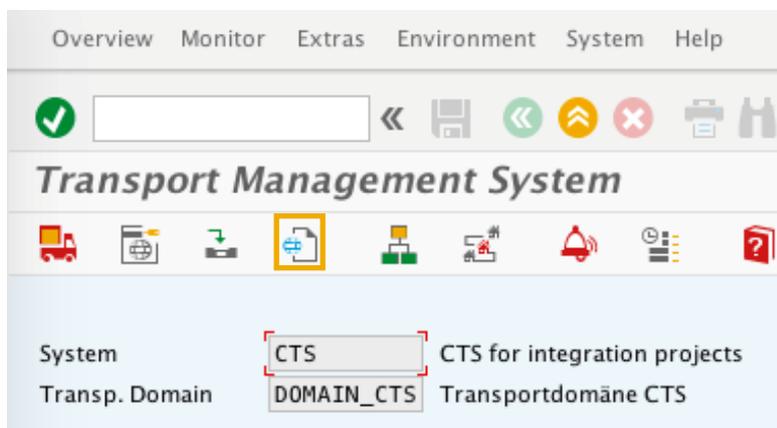
If CTS+ is already in use on the CTS system where you are doing the configuration, the services should already be activated. If not, activate them now.

If you receive error messages when running this application later or if you don't want to activate all ICF services read the error messages carefully and activate the services named in the error messages via transaction SICF.

The following figure shows the Transport Organizer Web UI.



To open the Transport Organizer Web UI, go to transaction *STMS* in CTS system and click on



6 CONFIGURE 'SCP_CF' AS APPLICATION TYPE

To use CTS with Cloud Foundry, you must define an application type for Cloud Foundry in CTS. The application type will then be used as unique identifier for Cloud Foundry content in CTS. For the Cloud Foundry integration with CTS, the application type SCP_CF is used.

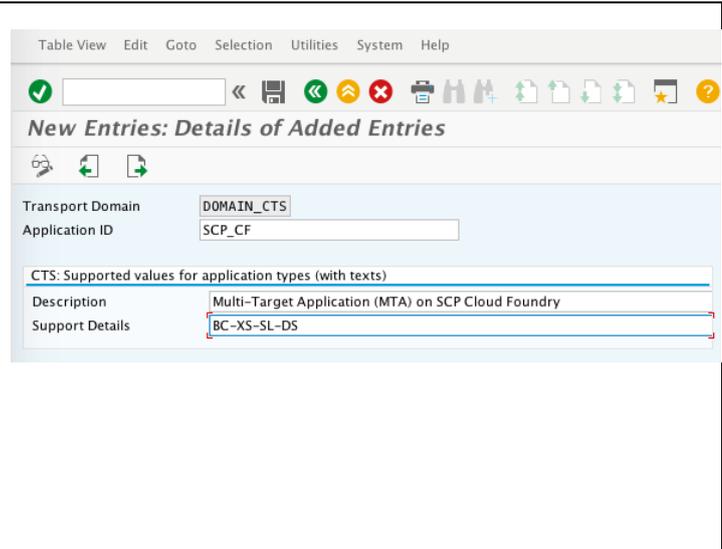
Documentation on how to do this is provided on the SAP Help Portal under [Configuring Source Systems for Further Applications](#).

The following steps describe how the application type is created and managed in CTS.

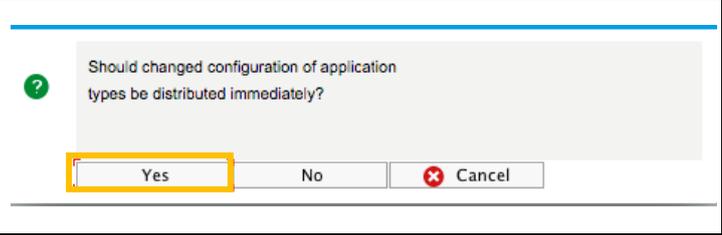
<p>Log on to your CTS system (Domain Controller) and open transaction <i>STMS</i>. Go to the <i>System Overview</i>.</p>																	
<p>To create a new application type, go to <i>Extras</i> → <i>Application Types</i> → <i>Configure</i>.</p>																	
<p>You can see a list of application types already created in your system. Choose <i>New Entries</i> if SCP_CF is not yet part of the list.</p>	<table border="1"> <thead> <tr> <th>Transport Domain</th> <th>Application ID</th> <th>Application description</th> <th>Support</th> </tr> </thead> <tbody> <tr> <td>DOMAIN_CTS</td> <td>BODS</td> <td>SAP Data Services and CTS+ integration.</td> <td></td> </tr> <tr> <td>DOMAIN_CTS</td> <td>BODS_2</td> <td>SAP Data Services and CTS+ integration</td> <td></td> </tr> <tr> <td>DOMAIN_CTS</td> <td>BODS_T</td> <td>Test DS import services</td> <td></td> </tr> </tbody> </table>	Transport Domain	Application ID	Application description	Support	DOMAIN_CTS	BODS	SAP Data Services and CTS+ integration.		DOMAIN_CTS	BODS_2	SAP Data Services and CTS+ integration		DOMAIN_CTS	BODS_T	Test DS import services	
Transport Domain	Application ID	Application description	Support														
DOMAIN_CTS	BODS	SAP Data Services and CTS+ integration.															
DOMAIN_CTS	BODS_2	SAP Data Services and CTS+ integration															
DOMAIN_CTS	BODS_T	Test DS import services															

On the next screen, you can enter your application type and some details. Use *SCP_CF* in here. A description and support details are required to give details on the application type and on how customers can get support in case of issues.

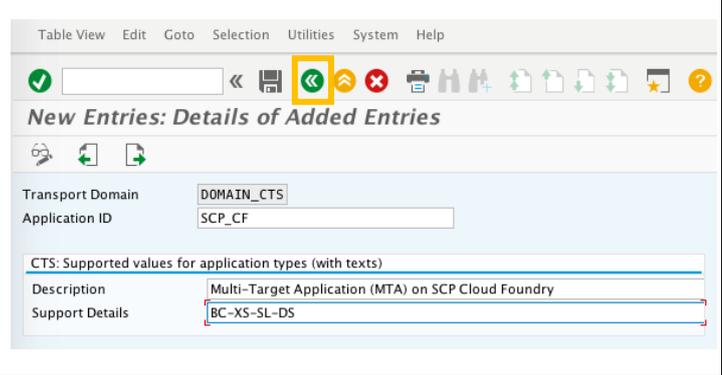
Use *Multi-Target Application (MTA) on SCP Cloud Foundry* as *Description* and *BC-XS-SL-DS* as *Support Details*. This is where your customers can get support in case of issues with Cloud Foundry content transports.



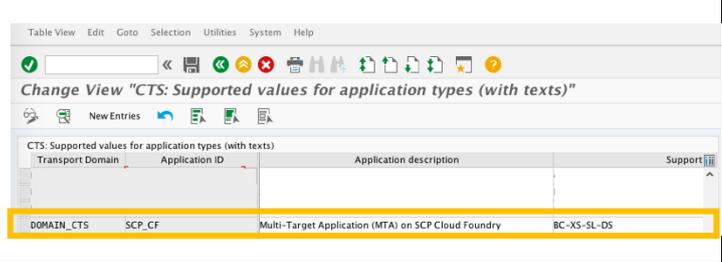
Save your entry and click *Yes* to distribute the new application type through your landscape.



The new application type has been saved. Click *Back* to return to the list of application types.



The new application type *SCP_CF* is now part of the list.



7 CONFIGURE THE CLOUD FOUNDRY TRANSPORT LANDSCAPE

The configuration of the Cloud Foundry transport landscape consists of several steps, which will be detailed in the following chapter.

As an example, we will set up a landscape of three systems as depicted in chapter [Basic Configuration for CTS](#), i.e., a development system (BD3) as the source system, a test system (BT3) and a production system (BP3) as the target systems.

1. CTS identifies systems resp. transport nodes via 3-digit System IDs (SIDs). You cannot derive a SID from the Cloud Foundry space directly. Therefore, think at first about the 3-digit SIDs that you would like to use to identify your Cloud Foundry space.

NOTE

SIDs consist of three characters (letters and / or numbers). They have to be unique within your transport domain, but they may be shared between different applications (i.e. Portal and SLD if they run on same NW AS JAVA instance).

As an example, we will use BD3 (development system), BT3 (test system) and BP3 (production system) in the following.

2. As soon as you define the SIDs for your Cloud Foundry spaces, you can start creating the representations for these systems in TMS and connect them with the help of transport routes. Details are described in the [Configure the Transport Landscape in TMS](#) below.

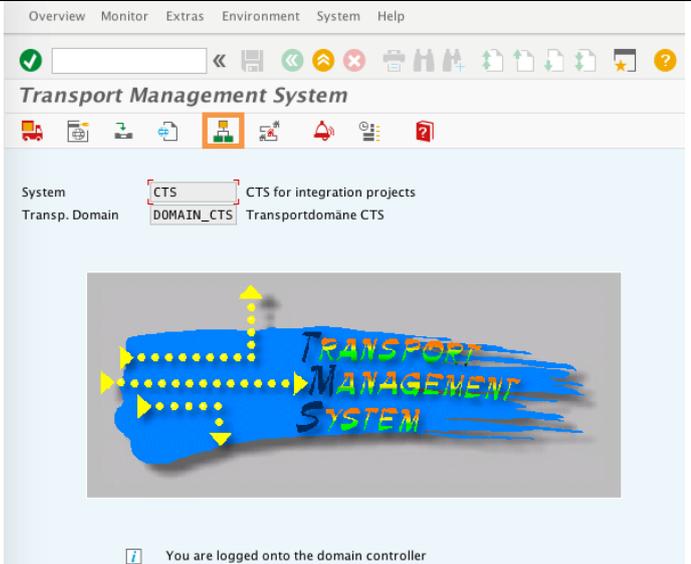
7.1 Configuring the Transport Landscape in TMS

Create the individual spaces of your Cloud Foundry transport landscape as non-ABAP systems in TMS. These systems identified with the corresponding SIDs represent the Cloud Foundry spaces in TMS.

Documentation on how to create non-ABAP systems in TMS is provided on the SAP Help Portal under [Defining and Configuring Non-ABAP Systems](#). This chapter shows how setting up the systems would work in our example.

7.1.1 Configuring the Development system (Export system)

Define a source system ('BD3') for your Cloud Foundry development space. You therefore must select the option 'Activate Transport Organizer' when creating the system representation in TMS.

<p>Log on to your CTS system (Domain Controller). Open transaction <i>STMS</i> and choose <i>System Overview</i>.</p>	
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<p>Choose <i>SAP System</i> → <i>Create</i> → <i>Non-ABAP System</i></p>																																																		
<p>Enter the SID of your development system (BD3 in our example) in the field <i>System</i>, a <i>Description</i> and choose <i>Activate Transport Organizer</i>. Select an appropriate client and then choose <i>Save</i>.</p>																																																		
<p>The system will be created and the system list will show up.</p>	<table border="1"> <thead> <tr> <th>System</th> <th>Typ</th> <th>Group</th> <th>Short text</th> <th>Release</th> <th>Status</th> <th>Conf</th> </tr> </thead> <tbody> <tr> <td>AT5</td> <td></td> <td>GROUP_CTS</td> <td>mo-3687c401e - target</td> <td>740</td> <td></td> <td></td> </tr> <tr> <td>BD1</td> <td></td> <td>GROUP_CTS</td> <td>BI Dev System</td> <td>740</td> <td></td> <td></td> </tr> <tr> <td>BD2</td> <td></td> <td>GROUP_CTS</td> <td>Data Services Dev system</td> <td>740</td> <td></td> <td></td> </tr> <tr> <td>BD3</td> <td></td> <td>GROUP_CTS</td> <td>BI SCP CF Dev Space</td> <td>740</td> <td></td> <td></td> </tr> <tr> <td>BD4</td> <td></td> <td>GROUP_CTS</td> <td>DS Dev Test</td> <td>740</td> <td></td> <td></td> </tr> <tr> <td>BDC</td> <td></td> <td>GROUP_BDC</td> <td>Backup DomainController CTS(+)</td> <td>740</td> <td></td> <td></td> </tr> </tbody> </table>	System	Typ	Group	Short text	Release	Status	Conf	AT5		GROUP_CTS	mo-3687c401e - target	740			BD1		GROUP_CTS	BI Dev System	740			BD2		GROUP_CTS	Data Services Dev system	740			BD3		GROUP_CTS	BI SCP CF Dev Space	740			BD4		GROUP_CTS	DS Dev Test	740			BDC		GROUP_BDC	Backup DomainController CTS(+)	740		
System	Typ	Group	Short text	Release	Status	Conf																																												
AT5		GROUP_CTS	mo-3687c401e - target	740																																														
BD1		GROUP_CTS	BI Dev System	740																																														
BD2		GROUP_CTS	Data Services Dev system	740																																														
BD3		GROUP_CTS	BI SCP CF Dev Space	740																																														
BD4		GROUP_CTS	DS Dev Test	740																																														
BDC		GROUP_BDC	Backup DomainController CTS(+)	740																																														

All Cloud Foundry users that should be allowed to attach Cloud Foundry content to transport requests have to have a corresponding user in the client of the CTS system that you are using

for transports (= the client where you activated the Transport Organizer Web UI). To transport non-ABAP objects, you can use the authorizations of the delivered role SAP_CTS_PLUS.

⚠ CAUTION

Do not use this role directly. Instead, use it as a template and copy it to your own role (Z_*). More information on the creation and maintenance of roles in ABAP you can find on the SAP Help Portal under [Role Administration](#).

Also please read note [1003674](#) for recent updates on authorizations required for the different releases.

7.1.2 Configuring the Test and Production System (Import Systems)

All other systems of your Cloud Foundry landscape – like e.g. test and production systems ('BT3', 'BP3') must be defined as target systems. This chapter describes how this is done.

<p>Choose SAP System → Create → Non-ABAP System</p>	
<p>When you create a non-ABAP target Cloud Foundry system which should use this new application type SCP_CF, you must choose <i>Other</i> as <i>Method(s)</i> and deselect all other options. Click <i>Save</i>.</p>	

<p>Click Yes to distribute the configuration.</p>									
<p>When saving the non-ABAP SCP_CF system, you are asked to define the deployment method for your system. Choose <i>New Entries</i>.</p>									
<p>On the next screen, choose SCP_CF as <i>Application Type</i> (F4-help). Choose HTTP-based Deployment (application-specific) as <i>Deploy method</i>. Enter the HTTP destination that you configured for this system before in chapter 5.1 Configuring an HTTP Destination. Make sure that you use the correct writing – this entry is case-sensitive. Destinations are stored in upper case.</p>									
<p>Save your entries and choose Yes to distribute the new application type through your landscape.</p>									
<p>Your entry is now saved. Click <i>Back</i> to return to the list. You can now see your details for handling the application type SCP_CF. Choose <i>Back</i> to return to the system.</p>	<table border="1" data-bbox="715 1451 1407 1554"> <thead> <tr> <th>Transport Domain</th> <th>System</th> <th>Application ID</th> <th>Deploy method for file objects</th> </tr> </thead> <tbody> <tr> <td>DOMAIN_CTS</td> <td>BT3</td> <td>SCP_CF</td> <td>HTTP-based Deployment (applicati...</td> </tr> </tbody> </table>	Transport Domain	System	Application ID	Deploy method for file objects	DOMAIN_CTS	BT3	SCP_CF	HTTP-based Deployment (applicati...
Transport Domain	System	Application ID	Deploy method for file objects						
DOMAIN_CTS	BT3	SCP_CF	HTTP-based Deployment (applicati...						

Create any other target system that you might need (e.g. for production system –‘BP3’) as shown before.

You can also extend the configuration of existing systems to be able to use them with new application types. To do so, do the following:

<p>Go to the system overview in TMS and double-click on the system where you would like to extend the configuration.</p>	<table border="1"> <thead> <tr> <th>System</th> <th>Typ</th> <th>Group</th> <th>Short text</th> <th>Release</th> <th>Status</th> <th>Conf</th> </tr> </thead> <tbody> <tr><td>BD3</td><td></td><td>GROUP_CTS</td><td>BI SCP CF Dev Space</td><td>740</td><td></td><td></td></tr> <tr><td>BD4</td><td></td><td>GROUP_CTS</td><td></td><td>740</td><td></td><td></td></tr> <tr><td>BDC</td><td></td><td>GROUP_BDC</td><td></td><td>740</td><td></td><td></td></tr> <tr><td>BE1</td><td></td><td>GROUP_CTS</td><td></td><td>740</td><td></td><td></td></tr> <tr><td>BE2</td><td></td><td>GROUP_CTS</td><td></td><td>740</td><td></td><td></td></tr> <tr><td>BP1</td><td></td><td>GROUP_CTS</td><td></td><td>740</td><td></td><td></td></tr> <tr><td>BP2</td><td></td><td>GROUP_CTS</td><td></td><td>740</td><td></td><td></td></tr> <tr><td>BP3</td><td></td><td>GROUP_CTS</td><td>BI SCP CF Prod Space</td><td>740</td><td></td><td></td></tr> <tr><td>BT1</td><td></td><td>GROUP_CTS</td><td></td><td>740</td><td></td><td></td></tr> <tr><td>BT2</td><td></td><td>GROUP_CTS</td><td></td><td>740</td><td></td><td></td></tr> <tr><td>BT3</td><td></td><td>GROUP_CTS</td><td>BI SCP CF Test Space</td><td>740</td><td></td><td></td></tr> </tbody> </table>	System	Typ	Group	Short text	Release	Status	Conf	BD3		GROUP_CTS	BI SCP CF Dev Space	740			BD4		GROUP_CTS		740			BDC		GROUP_BDC		740			BE1		GROUP_CTS		740			BE2		GROUP_CTS		740			BP1		GROUP_CTS		740			BP2		GROUP_CTS		740			BP3		GROUP_CTS	BI SCP CF Prod Space	740			BT1		GROUP_CTS		740			BT2		GROUP_CTS		740			BT3		GROUP_CTS	BI SCP CF Test Space	740		
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<p>In the details of your system, choose <i>Goto</i> → <i>Application Types</i> → <i>Deployment Method</i></p>																																																																																					
<p>Choose <i>New Entries</i> and proceed as described above for the creation of new systems.</p>	<table border="1"> <thead> <tr> <th>Transport Domain</th> <th>System</th> <th>Application ID</th> <th>Deploy method for file objects</th> <th>Deploy URI for a Deployer</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	Transport Domain	System	Application ID	Deploy method for file objects	Deploy URI for a Deployer																																																																															
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NOTE

The parameters `DEPLOY_DATA_SHARE` and `DEPLOY_WEB_SERVICE` are not required if you configure CTS+ for HTTP-based deployment. Nevertheless, they are automatically added to newly created non-ABAP systems in any case. In case of CTS+ using HTTP-based deployment, these parameters are simply ignored at runtime. The same is valid for the parameter `CTS_FILE_PROVIDER_URI`. There is no need to delete these parameters – neither if they were added automatically when you created the system nor if you decide to change the configuration of a certain non-ABAP system. The transport tool check will only report errors for these parameters if they are used for at least one transport configuration in the respective system.

You can check if the system can be reached: Return to system overview, select the target system, and check the import settings using *SAP System* → *Check* → *Transport Tool*. To get

the details about reported errors for non-ABAP systems, go to transaction SA38 and execute the program `RSTMS_NONABAP_SUPPORT`.

7.1.3 Transport Landscape: Defining Transport Routes

Now that you have created representations for the different systems (BD3, BT3 and BP3 in our example) in TMS, you must connect them with the help of transport routes.

Use client-independent transport routes.

More details on how to configure transport routes you can find on the SAP Help Portal under [Configuring Transport Routes](#).

<p>Log on to your CTS system (Domain Controller). Open transaction <i>STMS</i> and go to <i>Transport Routes</i></p>	
<p>The systems BD3, BT3 and BP3 that you just created are shown in the upper row of systems. The systems shown in here are not yet connected by transport routes. Switch to <i>Edit</i> mode.</p>	
<p>Click on system <i>BD3</i> and then click in the area where the transport routes are shown.</p>	
<p>Repeat the previous step for BT3 and BP3</p>	

<p>Choose <i>Add Transport Route</i></p> <p>Your mouse pointer is now a pencil. Draw a line from BD3 to BT3.</p>	
<p>A dialog box opens. Make sure that <i>Consolidation</i> is selected. A consolidation route is needed to connect a development system to e.g., a test system (from a system where you do an export to a system where you would like to import the transport request).</p> <p>Enter a name for the <i>Transport Layer</i>, e.g., ZBT3. The name must start with a Z.</p> <p> NOTE</p> <p>Create one standard transport layer (this is the default), not two separate ones for SAP- and custom transports as you might be familiar from configuring transport routes for ABAP systems.</p> <p>Choose <i>Transfer</i>.</p>	
<p>You must enter a <i>Short Description</i> for the Transport Layer in a second window if the transport layer does not yet exist. Choose again <i>Transfer</i>.</p>	
<p>A transport route has been added connecting BD3 with BT3. Now draw a line from BT3 to BP3.</p>	

<p>Choose <i>Delivery</i> for this transport route and click on <i>Transfer</i>. When you set up a delivery route, you are making sure that all transport requests that are imported into the route's source system are automatically flagged for import into the route's target system. Choose <i>Transfer</i>.</p>	
<p>Save the configuration</p>	
<p>Confirm that you would like to <i>Distribute and Activate</i> the configuration</p>	
<p>The transport route for BD3, BT3 and BP3 is now part of the configuration</p>	

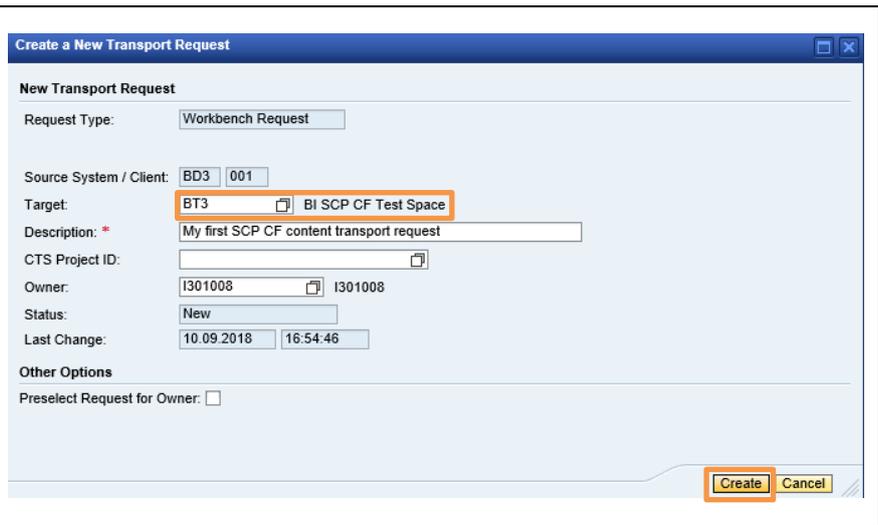
8 USE SAP BTP, CLOUD FOUNDRY ENVIRONMENT WITH CTS

8.1 Select Objects and Attach to Transport Request

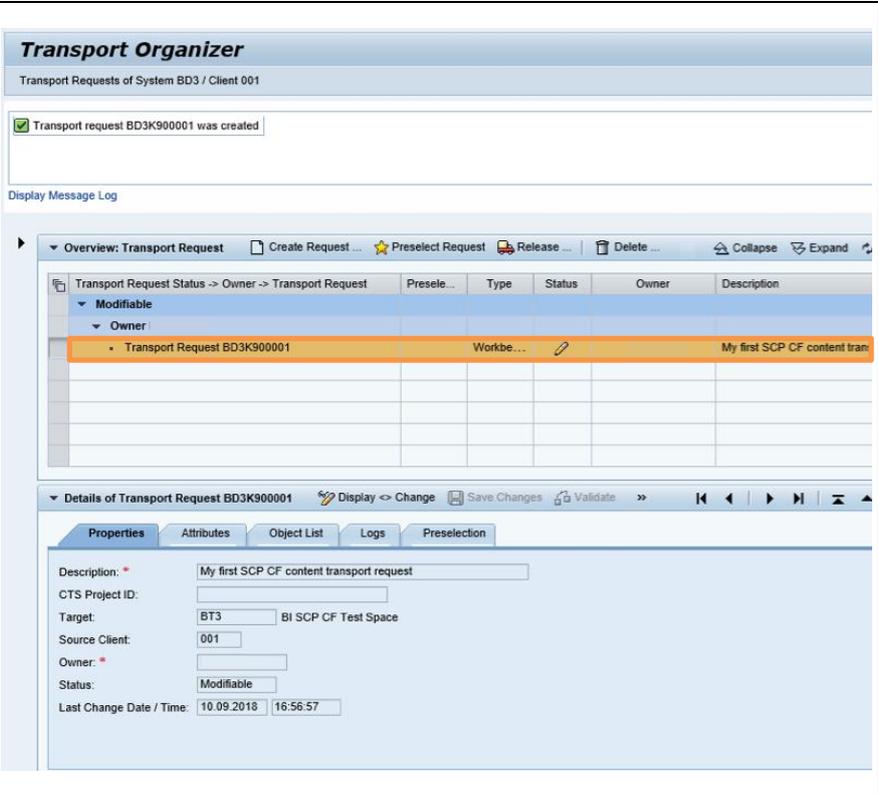
This section shows how to attach an MTA archive to a transport request.

<p>To add an MTA archive to a transport request in CTS, you first must start the Transport Organizer.</p> <p>To do this, log on to your CTS system, open transaction <i>STMS</i> and choose <i>Transport Organizer Web UI</i>.</p>	
<p>Select the first system in the transport route (source system), in our example, <i>BD3</i>.</p>	
<p>The Transport Organizer Web UI opens. You can either select an existing transport request or create a new one. To create a new one, choose <i>Create Request</i>.</p>	

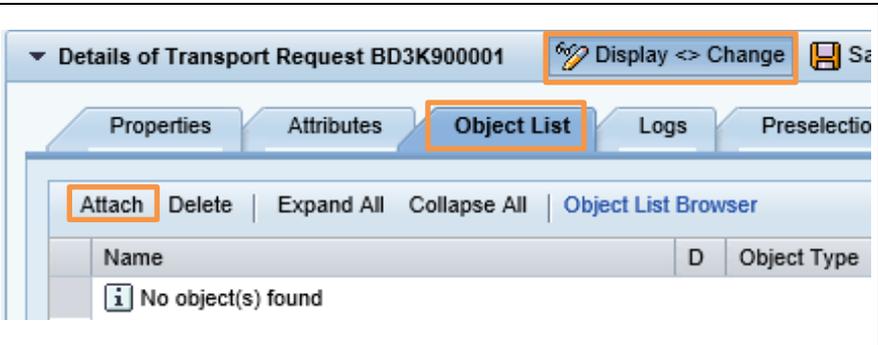
Enter a *Description*. In our example, we entered *My first SCP_CF content transport request*. Choose *Create*.



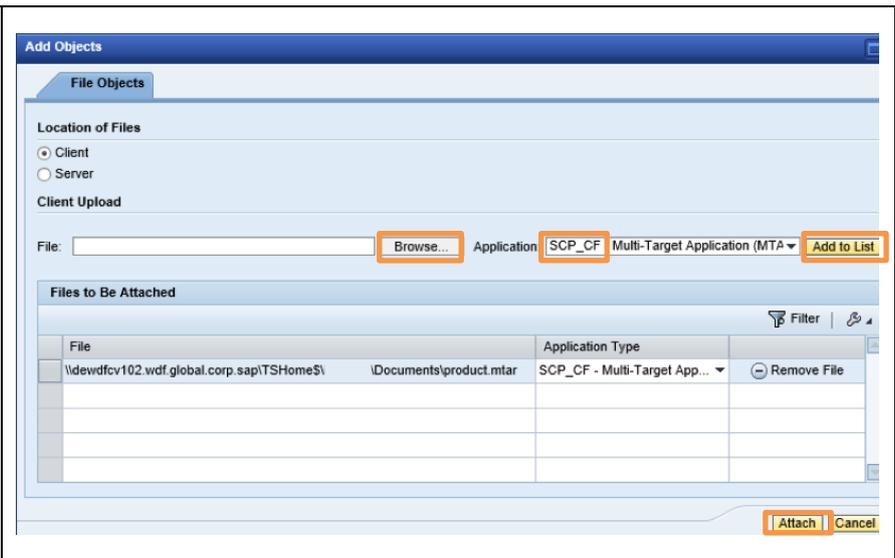
Afterwards the transport request is displayed in the overview.



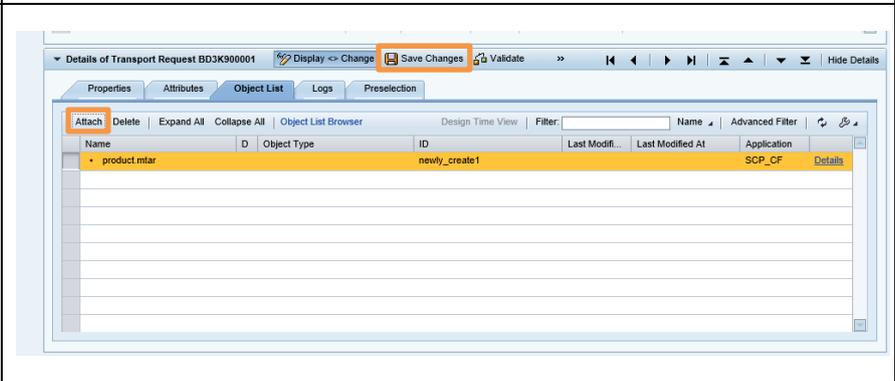
To attach an MTA archive to the transport request, select the *Object List* tab, choose *Display <-> Change*, and then *Attach*.



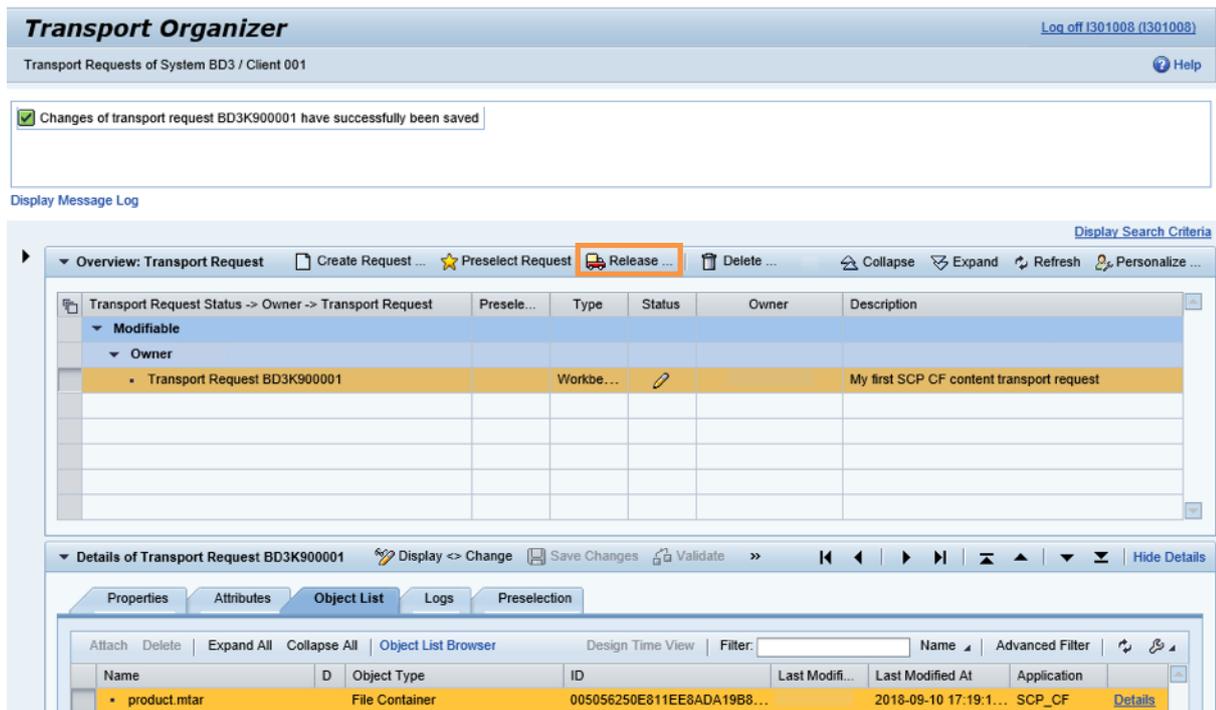
In the following dialog, select the MTA archive on your local machine using the *Browse* button, select *SCP_CF* as the *Application* and then choose *Add to List*. Then choose *Attach*.



As a result, you see the attached MTA archive in the object list. Click on *Save Changes*.



After you have added one or more MTA archives to a transport request, you can release the transport request. This is also done in the Transport Organizer Web UI. Mark the transport request that you would like to release and choose *Release*.



After releasing the transport request, it cannot be changed any more. It is no longer visible in the list of *Modifiable* transport requests in the Transport Organizer Web UI.

For information on Transport Organizer Web UI, see [Transport Organizer Web UI \(CTS_ORGANIZER\)](#).

NOTE

If you encounter problems when attaching objects or releasing the transport request, check whether you can find details for errors in the Application Log (transaction SLG1) for object CTSPLUS.

8.2 Importing Transport Requests with Cloud Foundry Content

All transport requests that are released become part of the import queue of the first target system. You can now import one, several, or all of them.

<p>Log on to your CTS system and open transaction <i>STMS</i>. Choose <i>Import Overview</i></p>													
<p>Double-click on the SID of your target system</p>	<table border="1"> <thead> <tr> <th>Queue</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>BT1</td> <td>BI Test System</td> </tr> <tr> <td>BT2</td> <td>Data Service test System</td> </tr> <tr> <td>BT3</td> <td>BI SCP CF Test Space</td> </tr> <tr> <td>BT4</td> <td>DS Test System</td> </tr> </tbody> </table>	Queue	Description	BT1	BI Test System	BT2	Data Service test System	BT3	BI SCP CF Test Space	BT4	DS Test System		
Queue	Description												
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<p>Mark transport requests that you would like to import and choose <i>Import request</i>.</p>	<table border="1"> <thead> <tr> <th>Number</th> <th>Request</th> <th>RC</th> <th>Owner</th> <th>Short Text</th> <th>St</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>BD3K90001</td> <td>◆</td> <td></td> <td>My first SCP CF content transport request</td> <td>■</td> </tr> </tbody> </table>	Number	Request	RC	Owner	Short Text	St	1	BD3K90001	◆		My first SCP CF content transport request	■
Number	Request	RC	Owner	Short Text	St								
1	BD3K90001	◆		My first SCP CF content transport request	■								

<p>Choose <i>Continue</i> to start the import immediately or define an appropriate time frame or event when the import should be started and choose <i>Continue</i> afterwards.</p>													
<p>Confirm that you want to import the transport request (click Yes).</p>													
<p>After having imported a transport request, a return code will be shown for each transport request to tell whether the import was successful or not. Refer to the next chapter to learn more about return codes.</p>	<table border="1"> <thead> <tr> <th>Number</th> <th>Request</th> <th>RC</th> <th>Owner</th> <th>Short Text</th> <th>St</th> </tr> </thead> <tbody> <tr> <td></td> <td>BD3K900001</td> <td>0</td> <td></td> <td>My first SCP CF content transport request</td> <td></td> </tr> </tbody> </table>	Number	Request	RC	Owner	Short Text	St		BD3K900001	0		My first SCP CF content transport request	
Number	Request	RC	Owner	Short Text	St								
	BD3K900001	0		My first SCP CF content transport request									

For more details on performing imports, see [Importing Transport Requests with Non-ABAP Objects](#).

NOTE

As of CTS Plug-In 2.0 SP02 (SL Toolset 1.0 SP05), a new browser-based Import UI is available. Alternatively, you can use the Import UI to perform imports. For more information, see [Performing Imports Using the Import Queue Web UI](#).

8.2.1 Meaning of Return Codes - Reading the Deployment Log-File on CTS side

Four different return codes can appear in the import queue

- RC = 0: The import has been successfully completed. Icon in the queue:

- RC = 4: Warning that not everything was ok but import in principle worked. Icon in the queue:
- RC = 8: Errors for the content occurred when importing. A subsequent transport is required. Icon in the queue:
- RC = 12: There were issues with the tool during the import. The transport request can be imported again after the issue has been fixed. Icon in the queue:

You can double-click on the icon for the return code for one transport request to learn more about the import. Especially if the RC is not zero, it might be interesting to find out what went wrong. Clicking on the return code will bring up the overview of the transport logs.

<p>You can click on the icon in front of the step <i>Deployment</i> to view the deployment log.</p>	
<p>You can see the deployment log. For more details, you can use the expand-buttons.</p>	

8.3 Advanced Usage of Cloud Foundry with CTS+

8.3.1 Tools for managing transports

In some cases, Cloud Foundry content should be kept in sync, resp. transported together with content from other applications, for example ABAP backend content. There are tools in SAP Solution Manager that can help you manage collections of change requests and keep changes that are made in different systems together. These tools are called Change Request Management (ChaRM) and Quality Gate Management (QGM). Details for both are provided on SAP Support Portal at <https://support.sap.com/en/solution-manager.html> -> *Change Control Management*.

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