

## Starting Guide

### TARGET2/T2S-Consolidation

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# Starting Guide T2

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## Aim of this document

This document aims to assist participants of the T2 service in their concrete configuration of static data necessary for being able to send and receive cash transfers and perform the basic functions in the T2 service.

This document is no substitution for the respective user documentation, namely the UHBs and UDFSes for the CRDM, CLM and RTGS components. However, it aims to provide information on the basic / most prominent static data configurations and the **sequence in which they should be entered**.

The steps described in the following sections have to be performed in the Graphical User Interface (GUI) of either the CRDM, the CLM or the RTGS component by user(s) of each party granted with the relevant roles. The roles have to be granted to the users by the admin user(s) which have been setup by the respective CB.<sup>1</sup>



### IMPORTANT General Remark:

If you use roles in the 4-eyes principle (recognisable by the designation 4E), reference data entries have to be confirmed by a second user.

The second user can access the necessary confirmation screen in the CRDM GUI via the path: Common – Services – Data Changes.

Further Details can be found in [Step 6](#).

If you have any questions or proposals for amending this document, please do not hesitate to contact us by e-mail ([targetservices-test@bundesbank.de](mailto:targetservices-test@bundesbank.de)).

For technical questions, we provide a template on our homepage for opening a ticket with the responsible colleagues: <https://www.bundesbank.de/content/885444>

Please feel free to send it to "[targetservices-test@bundesbank.de](mailto:targetservices-test@bundesbank.de)".

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<sup>1</sup> The overview of roles and privileges is also available in Excel format: <https://www.bundesbank.de/content/875172>

## Business context of technical terms:

In order to technically verify who is allowed to send messages or perform specific actions in T2 and to address network traffic to the relevant parties, a unique identifier is needed. The T2 service is therefore making use of the so called distinguished name (DN).

For **U2A users** the DN is required to identify the person who is allowed to perform an action via the GUI.

**A2A users** are required to be able to send (and receive) ISO compliant messages to/from T2.

A **distinguished name (DN)** identifies a person or an application interacting with T2. A DN is a sequence of attribute-value assertions separated by commas.

In concrete terms, there are two DNs involved for a correct set-up:

- The **User Certificate Distinguished Name (DN1)** is used to sign the payload of a message e.g. pacs.009 as the **Business Sender**, i.e. to create the signature which has to be added to the Business Application Header (BAH, head.001) of a message. To create a User Certificate Distinguished Name see Step 2.
- The **Party Technical Address (DN2)** is used to establish the NSP connection with ESMIG: On the one hand, it is used by the **Technical Sender** of a message. On the other hand, it should be mentioned as Requestor DN in the technical header of a message.

In most cases, Business Sender (DN1) and Technical Sender (DN2) are the same. They may differ e.g. in case a service provider establishes the network connectivity / sends the message.

## Mandatory configurations

### Step 1: Creation of the Party Technical Address

Done by the CB

The creation of the Party Technical Address (DN2) in CRDM and its linkage to the desired Network Services (e.g. T2CLM.SWIFT.MSGSNF) is done by the Central Bank based on the registration form.

The notation of a Party Technical Address is as follows:

- Attributes (cn, ou, o) in lower case.
- No space after comma

#### IMPORTANT:

We recommend A2A users to choose all 15 Network Services, that are available per NSP (except SWIFT, SWIFT.NOTIF, SIA and SIA.NOTIF as they are only relevant for TIPS). This is not relevant for U2A only users.

### Step 2: Creation of the User Certificate Distinguished Name and its linkage to a user

The following description is **valid for U2A- and A2A-Users**.

If the Participant intends to operate using the **A2A** channel, at least one A2A-User is required, representing the Participant's back-office application. In this case the User's System User Reference field should match the one foreseen to be used in the messages' Business Application Header (BAH) field /Document/AppHdr/Fr/FlId/FinInstnId/ClrSysMmbld/Mmbld.

**U2A-Users** may be created to represent users interacting with the Graphical User Interfaces.

CRDM does not make a distinction between A2A- and U2A-Users. Proper configuration of certificates is required to enable each channel.

#### Step 2a: Creation of the User Certificate Distinguished Name

GUI: CRDM

Necessary Screen: Certificate Distinguished Names - New<sup>2</sup>

Path: Common – Access Rights Management – Certificate Distinguished Names – New

Enter the DN (DN1) of the person or application that shall interact with TARGET<sup>3</sup>. Your Network Service Provider assigns the DN.

<sup>2</sup> CRDM UHB v2.0 chapter 2.3.3.5

<sup>3</sup> Common Errors:

 **IMPORTANT:**

Please exercise particular caution to the correct notation for User Certificate Distinguished Names.

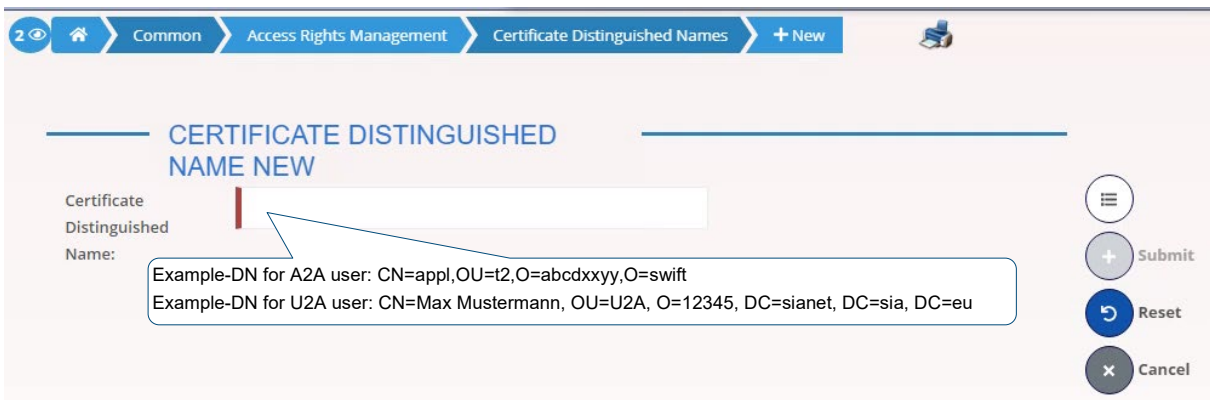
The correct notation depends on the type of the DN:

→ U2A DN:

- Attributes (CN, OU, O) in upper case.
- Space after comma
  - *Example SWIFT:*  
`CN=Max-Mustermann, OU=t2, O=abcdxyxy, O=swift`
  - *Example SIA:*  
`CN=Max Mustermann, OU=U2A, O=12345, DC=sianet, DC=sia, DC=eu`

→ A2A DN:

- Attributes (CN, OU, O) in upper case.
- No space after comma
  - *Example SWIFT:*  
`CN=appl,OU=t2,O=abcdxyxy,O=swift`
  - *Example SIA:*  
`CN=appl,OU=t2,OU=cert,OU=tips,O=12345,DC=sianet,DC=sia,DC=eu`



## Step 2b: Creation of a User

GUI: CRDM

Necessary Screen: User - New/Edit<sup>4</sup>

Path: Common – Access Rights Management – Users – New

- Error E041 indicates incorrect notation of A2A DN.
- Error DRCA002 "Distinguished Name already used" also occurs with deleted DNs as well as with existing DNs that differ only with respect to upper and lower case letters. In these cases, please contact [targetservices-test@bundesbank.de](mailto:targetservices-test@bundesbank.de) with the current as well as the new DN and we will forward the issue.

<sup>4</sup> CRDM UHB v2.0 chapter 2.3.3.3

## Step 2c: Link the User Certificate Distinguished Name with the User

GUI: CRDM

Necessary Screen: User Certificate Distinguished Name Link - New<sup>5</sup>

Path: Common – Access Rights Management – User Certificate Distinguished Name Links – New

This step has to be performed for each user.

<sup>5</sup> CRDM UHB v2.0 chapter 2.3.3.7

### Step 3: Grant roles to the User

The following description is **valid for U2A- and A2A-Users** and is to be performed for each user.

GUI: CRDM

Necessary Screen: Grant/Revoke Role - New/Edit<sup>6</sup>

Path: Common – Access Rights Management – Grant/Revoke Roles – Grant/Revoke Roles Search Screen → Search Button (specify the "Login Name")

The screenshot shows the 'GRANT/REVOKE ROLES' interface for User A2AT2. The interface is divided into two main sections: 'Available roles that can be granted to the User' and 'Roles already granted to the User'. The 'Available roles' section contains a list of roles with checkboxes, including 'AH T2S CMB Manager 2EP', 'AH Access Rights Admin 2E', 'AH Access Rights Admin 4E', 'AH Bill Reader 2E', 'AH CLM Manager 2E', 'AH CLM Manager 4E', 'AH CRDM AMG Manager 2E', 'AH CRDM AMG Manager 4E', 'AH CRDM Access 2E', 'AH CRDM Configuration Manager 2E', 'AH CRDM Configuration Manager 4E', 'AH CRDM Liquidity Manager 2E', 'AH CRDM Liquidity Manager 4E', and 'AH CRDM Reader 2E'. The 'Current Granted Roles' section contains a list of roles with checkboxes, including 'AH CLM Reader 2E', 'AH RTGS Liquidity Transfer Mngr 4E', and 'AH RTGS Payment Manager 4E'. There are navigation arrows between the two sections.

The Eurosystem has created harmonised roles to make it easier for you to maintain the authorisations of your users. The overview of roles and privileges is also available in Excel format: <https://www.bundesbank.de/content/875172>

The User Handbook of each service provides the information for which screen / action which privilege is needed. The list mentioned above provides the role to be assigned to a user, which includes the needed privilege.<sup>7</sup>

<sup>6</sup> CRDM UHB v2.0 chapter 2.3.3.15

<sup>7</sup> The links to the User Handbooks can be found here [Documentation & FAQs | Deutsche Bundesbank](#) or on page 2 of the following complete overview of the documents on the TARGET2/T2S consolidation project: <https://www.bundesbank.de/en/tasks/payment-systems/target2-t2s-consolidation/overview-of-available-and-upcoming-documents-on-the-target2-t2s-consolidation-project-860130>



## Step 4: Creation of the DN-BIC Routing

The following description is **NOT relevant for U2A-only Users**.

The DN-BIC Routing is the precondition to receive pacs.- and selected camt.-messages<sup>8</sup>. It is **only relevant for the RTGS settlement service** (and TIPS). The Party Technical Address (DN2) that shall receive pacs.- and selected camt.-messages needs to be linked written and stored as Certificate DN to the BIC of an Authorised Account User (AAU-BIC) of the RTGS DCA<sup>9</sup>.

In order to identify Direct Participants, Multi-Addressee and Addressable BICs for the RTGS Directory, the **Authorised Account User (AAU)** is used to store the reference data (BIC and participant type) in CRDM.

For the following Participation Types chosen as AAU a DN-BIC Routing needs to be established:

- “Direct”,
- “Multi Addressee – Branch of Direct Participant” and
- “Multi Addressee – Credit Institution”
- **NOT** for “Addressable BICs”.

The creation of the AAU is done by the Central Bank based on the registration form.

The following entries are necessary for a correct DN-BIC Routing:

- 1) Creation of the DN that shall receive messages from RTGS, as **Party Technical Address** (via the registration form). Please use the correct notation: attributes in lower case / no space after comma.<sup>10</sup>
- 2) Creation of the DN that was entered as Party Technical Address, as **Certificate Distinguished Name** (see Step 2a), please use the notation for an A2A DN: attributes in upper case / no space after comma.<sup>11</sup>
- 3) -Creation of the DN that was entered as Party Technical Address and Certificate Distinguished Name, for the **DN-BIC Routing**. During this creation, the notation used for the Party Technical Address OR the notation used for the Certificate Distinguished Name can be used. Please consider the correct notation for the information after “=” (the exact notation provided by the NSP).

<sup>8</sup> DN-BIC Routing is used for the following message types: pacs.004/008/009/010 and camt.056/029 in RTGS.

<sup>9</sup> For setup of the DN-BIC Routing it is necessary that at least one Party Technical Address and at least one Authorised Account User are created.

<sup>10</sup> In case the notation of the Party Technical Address is not correct, you will receive an error 8002.

<sup>11</sup> A link to a user (User Certificate Distinguished Name Link) is necessary if this DN shall also be used to send messages to TARGET (see Step 2c).

### Example:

The party MARKDEFFXXX has the DN **cn=test,o=abcxxx,o=nsp** and wants to use it for receiving e.g. pacs.-messages.

In this scenario, the DN should be present in CRDM as:

- Party Technical Address (PTA) **cn=test,o=abcxxx,o=nsp**
- Certificate DN **CN=test,O=abcxxx,O=nsp**
- DN-BIC Routing **CN=test,O=abcxxx,O=nsp**  
 \_\_\_\_\_ **oder**  
 \_\_\_\_\_ **cn=test,o=abcxxx,o=nsp**
- will be linked to the AAU "MARKDEFFXXX" being the "direct participant" of an RTGS DCA.

The notation of **the attributes** (upper or lower case) is determined by the use / creation of the DN in CRDM.  
 The **information after the „=“** has in any case to be written as provided by the NSP.

The configuration in this example leads to the result that an incoming pacs.-message addressed to "MARKDEFFXXX" in the Business Application Header (BAH) will be sent from RTGS to the technical address "**cn=test,o=abcxxx,o=nsp**".

### -IMPORTANT:

This means that all the DNs that shall receive the messages mentioned in the footnote from RTGS have to be setup:  
 as a Party Technical Address in CRDM (via the registration form). Please consider the correct notation: Attributes lower case / without spaces after the comma).<sup>-12</sup>  
 as Certificate Distinguished Name (see Step 2a, the notation of an A2A DN has to be used) in CRDM.  
 In CRDM the DN used in the DN-BIC Routing is validated against both—the Party Technical Address and the Certificated Distinguished Name.

After the Party Technical Address has been created by the Central Bank and after the DN has been set up as Certificate Distinguished Name by the participant, the Party Technical Address can be linked to the Authorised Account User (DN-BIC Routing).  
 As a result, incoming pacs.—and selected camt.—messages addressed to this AAU-BIC will be sent to the linked DN.

### Scenario 1:

In most cases, the DN used as Party Technical Address (Technical Sender of a message) is also stored as Certificate Distinguished Name (Business Sender signing the message). For

<sup>12</sup> In case the notation of the Party Technical Address is not correct, you will receive an error 8002.

example, the party MARKDEFFXXX has the DN **cn=test,o=abcxxx,o=nsf** and wants to use it for receiving e.g. pacs. messages.

In this scenario, the DN should be present in CRDM as:

Party Technical Address (PTA), captured by the CB: **cn=test,o=abcxxx,o=nsf**

Certificate DN of a A2A DN — **CN=test,O=abcxxx,O=nsf** (see Step 2a)

DN-BIC Routing — **CN=test,O=abcxxx,O=nsf** — same as certificate DN of the A2A user — will be linked to the AAU “MARKDEFFXXX” being the “direct participant” of an RTGS-DCA.

An incoming pacs. message addressed to “MARKDEFFXXX” in the Business Application Header (BAH) will be sent from RTGS to “**cn=test,o=abcxxx,o=nsf**”.

### **Scenario 2:**

If the party MARKDEFFXXX will use the DN **cn=test,o=abcxxx,o=nsf** as Party Technical Address/Technical Sender and another one as Certificate DN/Business Sender signing the message (**CN=test,O=abcdef,O=nsf**), the DNs should be captured in CRDM as:

Party Technical Address (PTA) — should include all the DNs used for incoming and outgoing messages — captured by the CB: **cn=test,o=abcxxx,o=nsf**

Certificate DN of both the technical sender DN and the DN that signs the BAH: both are captured using the A2A user notation — **CN=test,O=abcxxx,O=nsf** and **CN=test,O=abcdef,O=nsf** — see Step 2a.

DN-BIC Routing — **CN=test,O=abcxxx,O=nsf** — being the PTA using the notation of a Certificate DN — needs to be linked to the AAU “MARKDEFFXXX” being the “direct participant” of an RTGS-DCA.

An incoming pacs. message addressed to “MARKDEFFXXX” in the Business Application Header (BAH) will be sent from RTGS to “**cn=test,o=abcxxx,o=nsf**”.

### GUI: CRDM

Necessary Screen: Distinguished Name-BIC Routing - New/Edit<sup>13</sup>

Path: Common – Network Configuration – DN-BIC Routing – New

<sup>13</sup> CRDM UHB v2.0 chapter 2.3.6.2

**DN-BIC ROUTING NEW**

Enter and select the Party Technical Address that shall receive respective messages

Distinguished Name: Choose...

Direction: [Dropdown]

Participation Type: Direct

Valid From: yyyy-mm- [Calendar] [Close]

Valid To: yyyy-mm- [Calendar] [Close]

BIC (mandatory):

Choose the Participation Type of the AAU BIC the Party Technical Address shall be linked to (e.g. direct)

Choose the Authorised Account User (BIC)

	Filter...
<input type="checkbox"/>	ZYRUDEFFXX
<input type="checkbox"/>	ZYRVDEFFXX
<input type="checkbox"/>	ZYRWDEFFXX
<input type="checkbox"/>	ZYRXDEFFXX
<input type="checkbox"/>	ZYRYDEFFXX
<input type="checkbox"/>	ZYRZDEFFXX
<input type="checkbox"/>	ZYSADEFFXX
<input type="checkbox"/>	ZYSBDEFFXX
<input type="checkbox"/>	ZYSCDEFFXX
<input type="checkbox"/>	ZYSDDEFFXX

Submit  
Reset  
Cancel



**IMPORTANT:** Please take care that the BIC and the Participation Type match with the information stored in the Authorised Account User.

## Step 5: Routing-Configuration

This routing configuration is required to receive notifications and reports. This is **not relevant for U2A-only participants**. For A2A participants it is absolutely necessary to configure at least the default routing.



**IMPORTANT:** Without setting up a default routing in CRDM a CLM and RTGS participant will automatically be treated as U2A-only participant.

GUI: CRDM

Necessary Screen: Routing - New/Edit<sup>14</sup>

Path: Common – Network Configuration – Routing – New

<sup>14</sup> CRDM UHB v2.0 chapter 2.3.6.4

**ROUTING NEW**

Enter a description

Choose the relevant Network Service

Description:  Network Service:

Parent BIC:  Choose BIC Party BIC:  Choose BIC

Technical Address:  Default Routing:

Compression Flag:  Only relevant for T2S Sequence:

Size (lower bound):  Only relevant for T2S Size (upper bound):  Only relevant for T2S

Currency:  Only relevant for T2S Message Type:  Choose..

Positive:  Only relevant for T2S

Submit Reset Cancel

Choose the relevant Party Technical Address

Tick if this is the default routing for the service and the party.

If "default" is ticked, message type cannot be chosen.

**IMPORTANT:**

Please define a default routing for each Network Service (e.g. T2CLM.SWIFT.FILESNF and T2RTGS.SWIFT.MSGRT) you chose in the registration form. In case that specific messages within a network service shall be routed individually, a separate routing configuration for this specific message type needs to be set up in addition to your necessary default routing configuration.

## Step 6: Confirmation of tasks

If you use roles in the 4-eyes principle (recognisable by the designation 4E), reference data entries have to be confirmed by a second user.

GUI: CRDM

Necessary Screen: Data Changes – Search/List<sup>15</sup>

Path: Common – Services – Data Changes

Please Search your action you would like to confirm or revoke.

<sup>15</sup> CRDM UHB v2.0 chapter 2.2.1.1

Common Services Data Changes Search

### DATA CHANGES LIST

Action Type: All Users Reference: Object Identifier: 4-Eyes Identification:

Date of Update  
From: 2022-04-05 To: 2022-04-05

CRDM System User  
User: Parent BIC: Choose BIC Party BIC: Choose BIC

Status: Awaiting approval

Search Reset

Action Type	Users Reference	4-Eyes Identif	Object Identifier	CRDM Syste	CRDM Syste	Date Of Update	Status
Grant Roles - Creat				ADE		2022-04-05 14:02	Awaiting for Approva

Via the *Details*-Button further details regarding the selected action can be seen on the Data Changes - Details screen. The approval or revocation of the action can be done by clicking on the respective button on the bottom of the screen.

### Details of selected data change

Action Type: Grant Roles - Create 4-Eyes Identification: Object Identifier:

CRDM System User - First User  
User: Party BIC: Parent BIC: MARKDEFFXXX

CRDM System User - Second User  
User: Party BIC: Parent BIC:

Date and Time: 2022-04-05 14:02:43 Status: Awaiting for Approval

Details of selected data change  
Status: Active Role Name: AH Access Rights Admin 4E  
Login Name:

Approve Revoke Copy Cancel

## Optional configurations

### 1. Create a Message Subscription

T2 does not sent notifications (except for errors) automatically to a party (e.g. camt.054 – Debit/Credit Notification). To receive notifications you have to actively subscribe for. This is done via the Message Subscription functionality.

One or several Message Subscription Rule Set(s) may be configured for a party per service.

#### Step 1a: Create a Message Subscription Rule Set

GUI: CRDM

Necessary Screen: Message Subscription Rule Set - New/Edit<sup>16</sup>

Path: Common – Messages and Reports – Message Subscription Rule Set – New

**MESSAGE SUBSCRIPTION RULE SET NEW**

Name:  *Enter a name for the set*

Service:  *Choose the relevant service (e.g. T2 CLM COMPONENT)*

Valid From:  *Enter a date in the future*

Valid To:

Positive/Negative parameter set:  *For T2 only "positive"*

Creator Parent BIC:

Creator Party BIC:  *Enter your Party-BIC11*

**Interested Parties**

Parent BIC:  Party BIC:

*At least one interested Party must be defined*

Parent BIC	Party BIC
No Rows To Show	

Total rows: 0

<sup>16</sup> CRDM UHB v2.0 chapter 2.3.4.3

## Step 1b: Create a Message Subscription Rule

GUI: CRDM

Necessary Screen: Message Subscription Rule - New/Edit<sup>17</sup>

Path: Common – Messages and Reports – Message Subscription Rule Set - Search/List –  
Choose a Message Subscription Rule Set – Details – Message Subscription Rule –  
Add Rule

**MESSAGE SUBSCRIPTION RULE NEW**

Service: T2 CLM COMPONENT

Rule Set Id: 500092140 Name: RTG5 Rule Set 002

Rule Set Valid From: 2020-01-11 Rule Set Valid To: 2020-12-31

Sequence #:

Valid From:  Valid To:

Boolean Expression:

Predicates

OR

Click "Add Group" to create a rule with the relevant parameters (e.g. Group Name, Message Type "camt.054" and Cash Account "Account Number of the relevant account").

Predicates

A Rule must contain at least a Message Type, a Cash Account, a Multi-addressee B/C, a Business Case Code, a Priority, a Underlying Message Type

Group camt.054

Message Type = camt.054

Cash Account = RDEURZYEEDEFFXXX

+

AND

Within a Group several parameters may be summarised („AND“-connection).

OR

One Rule may consist of several Groups („OR“-connection).

<sup>17</sup> CRDM UHB v2.0 chapter 2.3.4.4



Examples<sup>18</sup>:

Business Case	Parameter	Parameter value
Receive a camt.054 (credit/debit notification) for all your accounts in one settlement service (e.g. CLM)	Message type <sup>19</sup>	Camt.054
Receive a pacs.002 for all your accounts in RTGS	Message type <sup>20</sup>	Pacs.002
Receive a camt.054 (credit/debit notification) for one specific account in one settlement service (e.g. CLM)	Message type	Camt.054
	Cash Account	MDEEURBANKDEFFXXX
Receive a camt.077 (Invoice)	Message type	Camt.077

## 2. Report Configuration

The Report Configuration needs to be set up to receive reports like the RTGS Directory and/or the Statement of Accounts (camt.053).

The following description is **relevant for U2A- and A2A-Users**.

GUI: CRDM

Necessary Screen: Report Configuration - New/Edit<sup>21</sup>

Path: Common – Messages and Reports – Report Configuration – New

**Hint:** For CLM and RTGS Reports, the fields Party BIC and Parent BIC can be selected (but they are not prefilled). For all T2S and TIPS Reports these two fields are not selectable but prefilled.

REPORT CONFIGURATION NEW

Fill in the Parent /Party BIC

Owner Parent BIC: Choose BIC

Cash Account Number: Choose...

Configuration Name: [Text Field]

Service: Choose... [Dropdown]

Frequency: Choose... [Dropdown]

System Entity Wide Reporting Flag:

Owner Party BIC: Choose BIC

Configuration Description: [Text Field]

Report Name: Choose... [Dropdown]

Delta Mode:

Submit, Reset, Cancel

Since the "Configuration Name" must be unique, please include your Party BIC11 (e.g. "TESTDEFFXXX Statement of Acc CLM").

Please choose the service at first. e.g. T2 CLM COMPONENT

Not relevant for T2

If reports should be sent for only one account (only relevant for CLM or RTGS), choose Service at first and then enter and select a Cash Account Number (Party/Parent BIC fields are deactivated then)

Predefined Report Name to be chosen e.g. CLM Statement of Accounts

Not relevant for T2

[Screen continues on the next page.]

<sup>18</sup> Further examples can be found in CRDM UDFS v. 2.2 chapter 1.2.3.3

<sup>19</sup> It is not necessary to enter a specific cash account.

<sup>20</sup> It is not necessary to enter a specific cash account.

<sup>21</sup> CRDM UHB v2.0 chapter 2.3.4.7

Party Links

Parent BIC of the report receiver

Party BIC of the report receiver

Opting Parent BIC: Choose BIC

Opting Party BIC: Choose BIC

Scheduled Time: HH : MM [calendar icon]

Push Mode:

Event Type: Choose...

Currency: [dropdown]

Valid From: yyyy-mm [calendar icon]

Valid To: yyyy-mm [calendar icon]

Not relevant for T2

If ticked, the report will be sent to you automatically. Not relevant for U2A only user, since they have to actively download it from the GUI.

For Statement of Accounts choose CCOS for CLM or RCOS for RTGS. For RTGS Directory do not choose any event or time.

Opting ...	Opting ...	Push ...	Sched...	Event ...	Currency	Valid F...	Valid To
No Rows To Show							

Total rows: 0



### IMPORTANT:

A report can be configured on party level or on account level. That means:

- If a report e.g. a statement of accounts for the service CLM or RTGS is configured on party level (without defining a cash account), the system will generate **one** statement of account **per** account (of that service).
  - Only in that case a payment bank can receive a statement of account for its RTGS Sub-Accounts.
- If a report for the service CLM or RTGS is configured on account level, it is only possible to select MCAs (for CLM) or RTGS DCAs (for RTGS). It is not possible to select any other account type like e.g. an RTGS Sub-Account.

## 3. Standing Order Configuration for Liquidity Transfers

A standing order for liquidity transfers can be created via CRDM GUI (U2A). This functionality offers the possibility to create a daily liquidity transfer. In T2 it is not possible to create a predefined liquidity transfer order. This is only relevant for T2S.

GUI: CRDM

Necessary Screen: Standing/Predefined Liquidity Transfer Order - New/Edit<sup>22</sup>

Path: Common – Cash – Standing/Predefined Liquidity Transfer Order – New

Further details on the possible events can be found in the following tables:

- CLM UDFS v2.2 (chapter 4.5, table 21)
  - o With Debit Account in CLM only the Events CESO and CCII are possible
    - CESO – “Execution of standing orders in CLM” (planned time of the event is 19:30)
    - CCII – „Cut-off for CLM RTS“ (planned time of the event is 18:00)
- RTGS UDFS v2.2 (chapter 4.5, table 22)
  - o With Debit Account in RTGS only the Event RESO, RRII, RSIC, RLSO are possible
    - RESO – “Execution of standing orders in RTGS” (planned time of the event is 19:30)
    - RRII – “Start of RTGS RTS II” (for this event there is no planned time as it starts directly after RTS I)
    - RSIC – „Start of settlement window for interbank and customer payments“ (planned time of the event is 2:30)
    - RLSO – „Execution of standing orders after last settlement attempt in RTGS” (planned time of the event is after 18:00)

A standing Order to a sub-account or a Technical Account needs to have an AS procedure. Otherwise, it is not processed. In this case, no event is necessary.

<sup>22</sup> CRDM UHB v2.0 chapter 2.3.2.10

### Examples:

Business Case	Involved accounts	Event to be entered	Amount
Daily transfer of a fixed amount from CLM to RTGS at the <b>start of the business day</b>	<ul style="list-style-type: none"> <li>• Debit of the CLM MCA</li> <li>• Credit on the RTGS DCA</li> </ul>	CESO	Individual amount to be defined
Daily transfer of the whole balance of the RTGS DCA to CLM at the <b>end of the business day</b>	<ul style="list-style-type: none"> <li>• Debit of the RTGS DCAs</li> <li>• Credit on the CLM MCA</li> </ul>	RLSO	Maximum amount: 9,999,999,999,999,999.99 <ul style="list-style-type: none"> <li>• While typing the numbers of the amount the thousand separator will not be shown</li> <li>• In case the balance is lower than the maximum amount entered in the standing order, a partial settlement will take place without any further settlement attempt. Consequently, the whole amount of the RTGS DCA will be transferred.</li> </ul>

## 4. Standing Order Configuration for Limits

A standing order for limit can be created via CRDM GUI (U2A). This functionality offers the possibility to create a daily bilateral/multilateral limit. A multilateral limit can only be created if at least one bilateral limit is defined.

GUI: CRDM

Necessary Screen: Limits - New/Edit<sup>23</sup>

Path: Common – Cash – Limits – New

<sup>23</sup> CRDM UHB v2.0 chapter 2.3.2.5

## 5. Standing Order Configuration for Reservation

A standing order for reservation can be created via CRDM GUI (U2A). This functionality offers the possibility to create a reservation for different purposes:

- Reservation in CLM for the settlement of Central Bank Operations
- Reservation in RTGS for payments with the priority “high” and “urgent” as well as AS transfers
- Reservation in RTGS for payments with the priority “urgent” and AS transfers

For functional details please see our training material published on <https://www.bundesbank.de/content/842930/>

### 5.1 Standing Order for Reservation for Central Bank Operations

GUI: CRDM

Necessary Screen: Standing Order for Reservation - New/Edit<sup>24</sup>

Path: Common – Cash – Standing Order for Reservation – New

<sup>24</sup> CRDM UHB v2.0 chapter 2.4.1.13

## 5.2 Standing Order for Reservation for payments and AS transfers (RTGS)

GUI: CRDM

Necessary Screen: Standing Order for Reservation - New/Edit<sup>25</sup>

Path: Common – Cash – Standing Order for Reservation – New

The screenshot shows the 'STANDING ORDER RESERVATION NEW' form. It has a breadcrumb trail: T2 > Cash > Standing Order Reservation > + New. The form fields are: Cash Account Number (Choose...), Amount (text input), Valid From (yyyy-mm-dd), Valid To (yyyy-mm-dd), and Priority (dropdown menu). A callout box 'Enter your RTGS DCA' points to the Priority field. Another callout box 'Choose "High" or "Urgent"' points to the Priority dropdown. On the right, there are three buttons: Submit (plus icon), Reset (refresh icon), and Cancel (close icon).

Two options are available:

- Choose „**High**“ for the reservation for payments with the priority „high“ and „urgent“ as well as AS transfers  
or
- Choose „**Urgent**“ for the reservation for payments with the priority „urgent“ and AS transfers

## 6. Floor/Ceiling Configuration

### 6.1 Floor/Ceiling Notification

CLM/RTGS sends a notification in U2A or A2A mode with the information that a floor or ceiling amount was breached on the MCA/RTGS DCA by a payment/AS transfer. The following setup has to be done in advance.

GUI: CRDM

Necessary Screen: Cash Account - New/Edit<sup>26</sup>

Path: Common – Cash – Cash Accounts – Search – click on “Edit”-button

All the other fields are pre-filled by the Central Bank based on the information provided with the registration form.

<sup>25</sup> CRDM UHB v2.0 chapter 2.4.1.13

<sup>26</sup> CRDM UHB v2.0 chapter 2.3.2.3

Common Cash Cash Accounts Search Edit

### CASH ACCOUNT UPDATE

Cash Account Number: MDEEUR... Account Type: Main Cash Account

Opening Date: 2022-02-04 Closing Date: 9999-12-3

Parent BIC: MARKDEFFXXX BIC: ...

Short Name: ... Party Type: PMBK

Floor notification Amount:

Enter an amount > 0,00 €

Currency: Euro

Linked Account Type: ...

**For floor configuration**

Ceiling notification Amount:

Enter an amount > 0,00 €

Linked Account Reference: ...

**For ceiling configuration**

Account Threshold Configuration

<p>Target Amount after Breaching Floor: <input type="text"/></p> <p>Associated LT Account: Choose...</p> <p>Floor Notification: <input type="checkbox"/> Tick for "floor notification"</p> <p>Ruled-based LT for Queued High Priority Payments: <input type="checkbox"/></p>	<p>Target Amount after Breaching Ceiling: <input type="text"/></p> <p>Ceiling Notification: <input type="checkbox"/> Tick for "ceiling notification"</p> <p>Ruled-based LT for Queued Urgent Priority Payments: <input type="checkbox"/></p>
--	--

Target A...	Target A...	Associat...	Floor Not...	Ceiling N...	Rule-bas...	Rule-bas...
0	0	RDEEUR...	No	No	No	No

Total rows: 1

**IMPORTANT:**

For the correct configuration of the notification, it is necessary to define both – the notification amount and the notification check box.

## 6.2 Rule-based liquidity transfer order due to floor/ceiling breach

CLM/RTGS initiates a rule-based liquidity transfer in case a floor/ceiling amount has been breached by a payment/AS transfer. The following setup has to be done in advance.

### Step 1: Definition of the Floor/Ceiling (Target) Amounts

GUI: CRDM

Necessary Screen: Cash Account - New/Edit<sup>27</sup>

Path: Common – Cash – Cash Accounts – Search – click on “Edit”-button

**CASH ACCOUNT UPDATE**

Cash Account Number: MDEEUR... Account Type: Main Cash Account

Opening Date: 2022-02-04 Closing Date: 9999-12-3

Parent BIC: MARKDEFF0XX BIC: ...

Short Name: ... Party Type: PMBK

---

**Account Threshold Configuration**

Floor notification Amount: Enter an amount > 0,00 €

Currency: Euro

Linked Account Type: ...

Target Amount after Breaching Floor: ...

Associated LT Account: Choose...

Floor Notification:

Ruled-based LT for Queued High Priority Payments:

**For floor configuration**

**Ceiling Configuration**

Ceiling notification Amount: Enter an amount > 0,00 €

Linked Account Reference: ...

Target Amount after Breaching Ceiling: ...

Ceiling Notification:

Ruled-based LT for Queued Urgent Priority Payments:

**For ceiling configuration**

Target A...	Target A...	Associat...	Floor Not...	Ceiling N...	Rule-bas...	Rule-bas...
0	0	RDEEUR...	No	No	No	No

Total rows: 1

<sup>27</sup> CRDM UHB v2.0 chapter 2.3.2.3



All the other fields are pre-filled by the Central Bank based on the information provided with the registration form.

 **IMPORTANT:**

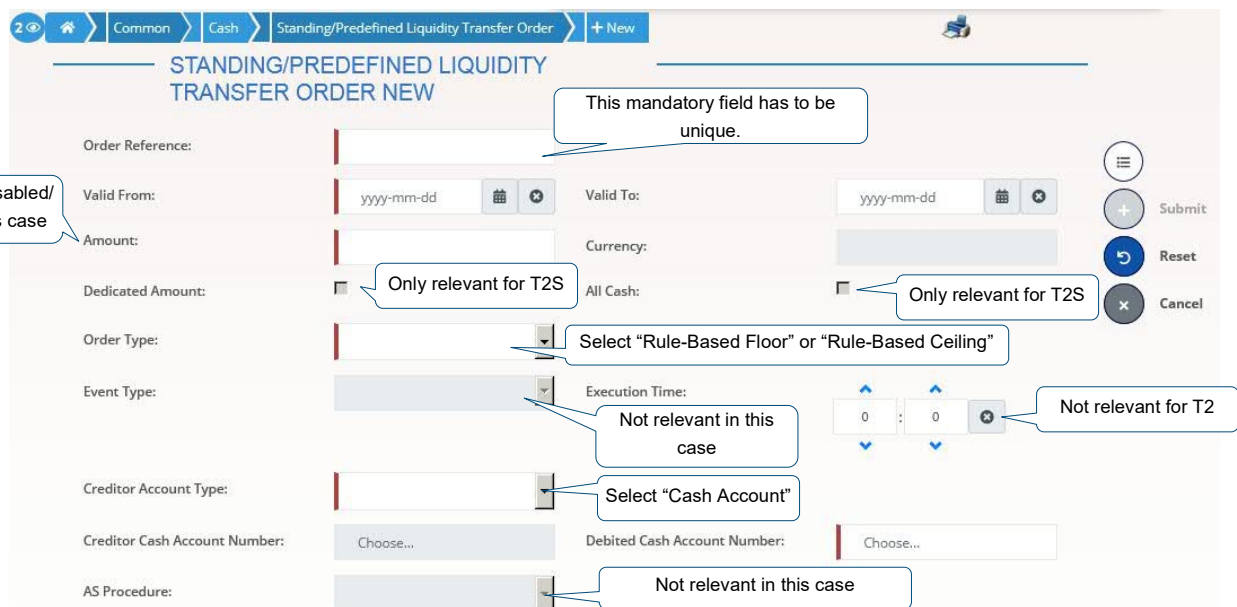
For the correct configuration of the rule-based liquidity transfer it is necessary to define both amounts – meaning the notification amount and the target amount after breaching.

## Step 2: Set up of the rule-based liquidity transfer order

GUI: CRDM

Necessary Screen: Standing/Predefined Liquidity Transfer Order - New/Edit<sup>28</sup>

Path: Common – Cash – Standing/Predefined Liquidity Transfer Order – New



Order Reference: [ ] This mandatory field has to be unique.

Valid From: [ yyyy-mm-dd ] Valid To: [ yyyy-mm-dd ]

Amount: [ ] Amount is disabled/empty in this case

Dedicated Amount:  Only relevant for T2S All Cash:  Only relevant for T2S

Order Type: [ ] Select "Rule-Based Floor" or "Rule-Based Ceiling"

Event Type: [ ] Not relevant in this case

Execution Time: [ 0 : 0 ] Not relevant for T2

Creditor Account Type: [ ] Select "Cash Account"

Creditor Cash Account Number: [ Choose... ] Debited Cash Account Number: [ Choose... ]

AS Procedure: [ ] Not relevant in this case

 **IMPORTANT:**

In case of a **floor breach**, the account to be credited will be the one where the floor was defined.

If the account to be debited belongs to a different party, the standing order has to be set up by the account holder of the account to be debited.

In case of **ceiling breach**, the account to be debited will be the one where the ceiling was defined.

Rule-based liquidity transfer orders have to be defined separately for floor and ceiling.

## 7. Rule-based liquidity transfer order due to queued payments/ AS transfers

RTGS initiates a rule-based liquidity transfer in case

- a “high”, “urgent” payment or an AS transfer gets queued (**Option 1**) or
- an “urgent” payment or an AS transfer gets queued (**Option 2**).

The liquidity will then be pulled from the MCA that was defined as Associated LT Account (via the registration form).

GUI: CRDM

Necessary Screen: Cash Account - New/Edit<sup>29</sup>

Path: Common – Cash – Cash Accounts – Search – click on “Edit”-button

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<sup>29</sup> CRDM UHB v2.0 chapter 2.3.2.3

Common Cash Cash Accounts + New

### CASH ACCOUNT NEW

Cash Account Number:  Account Type: RTGS Dedicated Cash Account

Opening Date:  Closing Date:

Parent BIC:  Party BIC:

Floor notification Amount:  Ceiling notification Amount:

Currency:  Linked Account Type:  Linked Account Reference:

**Account Threshold Configuration**

Target Amount after Breaching Floor:  Target Amount after Breaching Ceiling:

Associated LT Account:

Floor Notification:  Ceiling Notification:

Rule-Based LT for Queued High Priority Payments:  **Tick for Option 1** Rule-Based LT for Queued Urgent Priority Payments/AS Transfer Orders:  **Tick for Option 2**

**Table 1: Account Threshold Configuration**

Target Amount After	Target Amount After	Associated LT Acco...	Floor Notification	Ceiling Notification	Automated LT for Q...	Automated LT for Q...
No Rows To Show						

Total rows: 0

**Reserve Management Account Configuration**

Minimum Reserve Calculation:  Default MCA:

Interest Calculation:  Interest Rate Type:

Automated Generation of Interest Payment (System Generated):

**Table 2: Reserve Management Account Configuration**

Minimum Reserve Calculation	Default MCA	Interest Calculation	Interest Rate Type	Automated Generation of Inter
No Rows To Show				

Total rows: 0

**Additional Account Configuration**

Co-managed:

Co-manager Parent BIC:  Co-manager Party BIC:

Default RTGS Account:  Credit-Based Only:

Non-published:  Maximum Amount to be Debited per Day:

**Table 3: Additional Account Configuration**

Co-managed	Co-manager Parent...	Co-manager Party ...	Default RTGS Acco...	Credit-Based Only	Non-published	Maximum Amount L...
No Rows To Show						

Total rows: 0

The majority of the fields is already pre-filled based on the information provided in the registration form.



**IMPORTANT:**

For this rule-based liquidity transfer no separate liquidity transfer order has to be created in CRDM. The account to be debited is the Default Main Cash Account defined as “Associated LT Account”.

## 8. Account Monitoring Group

With an Account Monitoring Group several accounts can be grouped for liquidity monitoring purposes in the CLM GUI. The accounts may be owned by different parties. The following account types can be added to an Account Monitoring Group: MCA, RTGS DCA, T2S DCA and TIPS Account.

Only the group leader can create the Account Monitoring Group and will have the overview of the liquidity of the included accounts. The respective Account Holders can add their accounts to an existing Account Monitoring Group.

### Step 1: Creation of the Account Monitoring Group

This step needs to be done by the Account Monitoring Group Leader.

GUI: CRDM

Necessary Screen: Account Monitoring Group - New/Edit<sup>30</sup>

Path: T2 – Cash – Account Monitoring Group – New

<sup>30</sup> CRDM UHB v2.0 chapter 2.4.1.3

The screenshot shows the 'ACCOUNT MONITORING GROUP NEW' form. At the top, there is a breadcrumb trail: '2 < T2 > Cash > Account Monitoring Group > + New'. The form title is 'ACCOUNT MONITORING GROUP NEW'. Below the title, there are input fields for 'Group Name', 'Leader Parent BIC' (with a dropdown showing 'MARKDEFFXXX'), and 'Leader BIC'. A callout points to the 'Group Name' field with the text 'The name has to be unique.' Another callout points to the 'Leader BIC' field with the text 'This field contains the BIC of the Payment Bank creating the Group.' Below these fields is a section titled 'Accounts'. It contains a 'Cash Account number' dropdown (showing 'Choose...') with a callout 'Enter the account number of the account to be added to the group.', and 'Valid From' and 'Valid To' date pickers. Below the form fields is a table with columns 'Cash Account Number', 'Valid From', and 'Valid To'. The table is currently empty, showing 'No Rows To Show'. A callout points to the '+' button in the table header with the text 'Click to add the account to the group.' To the right of the form, there are three buttons: 'Submit', 'Reset', and 'Cancel'.

## Step 2: Adding accounts to an existing group

This step needs to be done by the Account Holder of the account to be added.

1. At first search the respective Account Monitoring Group with its *Group Name*.

GUI: CRDM

Necessary Screen: Account Monitoring Group – Search/List<sup>31</sup>

Path: T2 – Cash – Account Monitoring Group – Search

<sup>31</sup> CRDM UHB v2.0 chapter 2.4.1.1

2 T2 Cash Account Monitoring Group Search

### ACCOUNT MONITORING GROUP LIST

Status:  Group Name:

Leader Parent BIC:  Leader Party BIC:

Search Reset  + New

Status	Group Name	Leader Parent BIC	Leader Party BIC
Active	AM TEST	NCBXITRR001	PMBKITRR207
Active	AMG 2	NCBXITRR001	PMBKITRR301
Active	AccMonGrTestCSLDCRDM1	ZYAEITR04CB	ZYAEITR04D2
Active	Account monitoringgroup NCBXITF	NCBXITRR001	PMBKITRR207
Active	Group Test INC	NCBXITRR001	PMBKITRR207
Active	Group under N8IT	NCBXITRR001	PMBKITRR207
Active	NAMETestCSLDCRDM1	ZYAEITR05CB	ZYAEITR05D1
Active	TEST T2S DCA	NCBXITRR001	PBBKITRR102
Active	Test Group	NCBXITRR001	PMBKITRR207
Active	Test Group 2	NCBXITRR001	PMBKITRR207
Active	Test Group 3	NCBXITRR001	PMBKITRR207

- 
- Edit
- Delete
- Restore
- Details
- Revisions

- Select the respective group to which the account shall be added and “click” on the “Edit”-Button.

2 T2 Cash Account Monitoring Group Search

### ACCOUNT MONITORING GROUP LIST

Status:  Group Name:

Leader Parent BIC:  Leader Party BIC:

Search Reset  + New

Status	Group Name	Leader Parent BIC	Leader Party BIC
Active	AM TEST	NCBXITRR001	PMBKITRR207
Active	AMG 2	NCBXITRR001	PMBKITRR301
Active	AccMonGrTestCSLDCRDM1	ZYAEITR04CB	ZYAEITR04D2
Active	Account monitoringgroup NCBXITF	NCBXITRR001	PMBKITRR207
Active	Group Test INC	NCBXITRR001	PMBKITRR207
Active	Group under N8IT	NCBXITRR001	PMBKITRR207
Active	NAMETestCSLDCRDM1	ZYAEITR05CB	ZYAEITR05D1
Active	TEST T2S DCA	NCBXITRR001	PBBKITRR102
Active	Test Group	NCBXITRR001	PMBKITRR207
Active	Test Group 2	NCBXITRR001	PMBKITRR207
Active	Test Group 3	NCBXITRR001	PMBKITRR207

- 
- Edit
- Delete
- Restore
- Details
- Revisions

- CRDM will redirect you to the Screen shown in Step 1 “Creation of the Account Monitoring Group”. Please enter the *Cash Account number* of the account to be added and the *Valid from* and “click” the “+”-symbol.

2 12 Cash Account Monitoring Group + New

### ACCOUNT MONITORING GROUP NEW

Group Name:

Leader Parent BIC:  Leader Party BIC:

Cash Account number:

Valid From:  Valid To:

Cash Account Number	Valid From	Valid To
No Rows To Show		

Total rows: 0

Submit  
Reset  
Cancel

+