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IMPLEMENTING THE PMG DECISION TO USE PRODUCTION BICS IN USER TESTING

1. Introduction

The Project Managers Group (PMG) in its meeting on 06-07 May 2014 decided that all T2S Parties shall be defined with the production BIC during the Multilateral Interoperability, Community and Business Day testing stages as well as in migration (dress) rehearsals. During Bilateral Interoperability testing stage as well as bilateral testing of migration tools, each CSD and Central Bank is free to decide on the BIC type they use as party identifier.

The objective of this document is to (1) present the arguments that led to such a PMG decision as well as (2) explain the usage of BICs in the context of T2S in order to allow each impacted institution to assess on a high level the impact of this decision on their preparation for T2S User Testing. The CSDs and Central Banks are therefore free to distribute this document to their communities, if deemed necessary.

2. Arguments the PMG took into account when deciding to use production BICs in T2S User Testing

The analysis conducted by the UTSG and the feedback received from the different markets clearly indicated that the usage of BIC as party identifier for multilateral testing in T2S needs to be harmonised. Leaving it open to the actors to decide on their own was considered inferior as it would create a high overhead and would require configurations that are very far away from the production configuration that should be tested. Therefore the PMG had to decide between either using only production BICs or always using test BICs.

In its decision for production BICs the PMG followed mainly the following arguments:

- With production BICs all test data configurations will be consistent with the configurations in production. At a later stage it is easier to retest problems encountered in production on a test environment using the exact same configuration and data.
- As migration testing should be as close as possible to the actual migration, the UTSG was in favour of using production BICs in such rehearsals. Using production BICs for all multilateral testing harmonises the approach and allows an easier transfer of data between the test environments and the continuation of testing activities after a migration rehearsal.

- The usage of test BICs was considered as a heritage from the FIN world, where addressing and routing of messages was sometimes mixed. With the use of ISO20022 and a clear segregation of address and routing information (see second part of this note), test BICs are no longer needed to identify test traffic.
- SWIFT provides a directory of valid production BICs on a regular basis, thus all actors automatically work with values out of the same repository.

3. Usage of BICs in T2S context

In the markets today, BICs are used to:

- Identify a party/counterparty (e.g. in settlement instructions, liquidity transfers) in the business payload of any message or file
- Route messages to the right recipient (i.e. sender/receiver of the message) and to differentiate between test and production traffic (i.e. test BICs vs. production BICs) when using the SWIFT FIN network

Although the BICs are used for different purposes, some systems using the BIC as identifier for a party may also assume that the same BIC is used for the routing of messages (e.g. when the message shall be forwarded to a beneficiary party), while some other systems may still require the specification of both BICs. For instance in TARGET2, for the time being each bank is identified as a party in the central system and, thus, shall be identified also in the message payload with its test BIC and this BIC is also used as the address to send/receive payment messages to/from this bank

Also in the T2S context these two aspects mentioned above have to be addressed. The following subchapters provide a more detailed explanation on how this will work in the T2S environment.

3.1 Identification of Parties/Counterparties

The T2S platform will use BICs to identify a party/counterparty on the platform and in the communication exchanged with the platform. Therefore the BIC, usually in the form of a pair of BICs (i.e. BIC of the bank and the BIC of the related CSD/Central Bank), is contained in the payload of many messages that have to be exchanged with T2S.

3.2 Routing of Messages

In the T2S context the routing of messages to the right recipient is handled via Technical Addresses (with the format of Distinguished Names), which structure is particular to each of the two VAN providers. However, due to the nature of T2S being a central hub, all participants will communicate only bilaterally with T2S, i.e. their Technical Address to send messages to T2S is a constant value. The only variation that the message sender needs to take into account as part of addressing the messages in the communication with T2S is whether the production or one of the four test environments should be addressed. However, as each (test) environment of a user can be connected to only one (test) environment

on the T2S side, the parameter ensuring a correct routing to the right T2S environment is, again, a constant value for each of a user's environment and will be the same regardless of the message content or whether a message is sent on behalf of another actor. In the T2S context, the information to differentiate the T2S environment involved in the data exchange is represented by the "service" parameter.



Figure 1: Illustration of the routing in the T2S context

In addition, both network providers use the same parameter to identify also the technical channel for exchanging the data, i.e. the type of the data (message or file) and the mode (Real-Time or Store-and-Forward). For further details, please refer to chapter 1.3.2.4 in the UDFS on Instructing scenarios. In the below example the four different combinations are therefore listed for each (test) environment.

Parameter for traffic	SIA/Colt	SWIFT
segregation	(Technical-Service-Id)	(Service Name)
Values for production traffic	"SIA-COLT.MSGRT.PROD"	"t2s.ia",
	"SIA-COLT.MSGSNF.PROD"	"t2s.iast",
	"SIA-COLT.FILERT.PROD"	"t2s.fa",
	"SIA-COLT.FILESNF.PROD"	"t2s.fast"
Values for traffic to the	"SIA-COLT.MSGRT.EAC"	"t2s.ia!pe",
Interoperability test	"SIA-COLT.MSGSNF.EAC"	"t2s.iast!pe",
environment	"SIA-COLT.FILERT.EAC"	"t2s.fa!pe",
	"SIA-COLT.FILESNF.EAC"	"t2s.fast!pe"

Parameter for traffic	SIA/Colt	SWIFT
segregation	(Technical-Service-Id)	(Service Name)
Values for traffic to the	"SIA-COLT.MSGRT.MIG1"	"t2s.ia!px",
Migration test environment	"SIA-COLT.MSGSNF.MIG1"	"t2s.iast!px",
	"SIA-COLT.FILERT.MIG1"	"t2s.fa!px",
	"SIA-COLT.FILESNF.MIG1"	"t2s.fast!px"
Values for traffic to the	"SIA-COLT.MSGRT.MIG2"	"t2s.ia!py",
Community test environment	"SIA-COLT.MSGSNF.MIG2"	"t2s.iast!py",
	"SIA-COLT.FILERT.MIG2"	"t2s.fa!py",
	"SIA-COLT.FILESNF.MIG2"	"t2s.fast!py"
Values for traffic to the Pre-	"SIA-COLT.MSGRT.UTEST"	"t2s.ia!pu",
Production test environment	"SIA-COLT.MSGSNF.UTEST"	"t2s.iast!pu",
	"SIA-COLT.FILERT.UTEST"	"t2s.fa!pu",
	"SIA-COLT.FILESNF.UTEST"	"t2s.fast!pu"

Table 2: Technical details for the addressing as implemented by the two T2S VAN providers

The above examples show clearly that in order for an institution to differentiate the traffic between test and production as well as between different test environments it has to include a constant value to the message envelope, which is a constant for each environment and independent of the party or counterparty information given in the message content itself.

4. Coexistence

The project managers have decided in favour of production BICs as party identifiers in T2S test environments for any kind of multilateral test. Still, the T2S Actors may have to perform tests also with other external test systems, where the parties are identified with other types of code. Following the example of TARGET2 in section 2, the parties in TARGET2 customer test environment are currently defined with test BICs. Although these different identifiers in test environments have no impact on communication between T2S and TARGET2, which is based on account numbers, the institution linked to both systems shall be able to send messages to and process received messages from both test environments. Whether the messages can be processed directly or whether a previous mapping from the BICs used in the systems to an internal identifier is necessary, depends on the technical setup of each system and the environment it is running in. The above mentioned communication between T2S and TARGET2 works although both platforms use different means to identify parties due to the fact that both platforms derive the relevant information from information contained in the message – account numbers. For the communication of other systems with T2S other means of mapping the received messages to the internal data might be needed, but this depends very much on the way those systems are storing data and which messages need to be processed or generated. For ICPs either on the Securities- or Cash-Side, especially if still using FIN messages after T2S-migration, the consequences of using productions BICs in T2S solely depends on their relevant CSDs and Central Banks and their individual mapping of messages.



Figure 3: Illustration of the communication between test systems using different identification schemes

5. Impact on Actors

As outlined in the previous chapters, the decision to identify parties in T2S using production BICs does not mandate any specific solution for internal systems, as long as each actor can ensure a proper population of the necessary information in the messages sent to T2S (and vice versa).

In a T2S context the BIC of a party is not part of the parameters to identify a T2S (test) environment and therefore is also not relevant to differentiate between test and production traffic. The parameters for the differentiation of the traffic are fairly static configuration parameter and changes to this parameter should only be necessary in rare cases (i.e. if the linking between the local and a T2S test environment needs to be changed). In general the necessary values to be specified in the message envelope are the same for all messages generated in a single environment and therefore usually configured centrally and independent from the BICs used in a message.