Change Request form

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ABN AMRO Bank

De Nederlandsche Bank</td><td>Date raised: 9 October 2019</td></tr>
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Reason for change and expected benefits/business motivation:

The payment details currently shown in the TIPS GUI: 'Query Payment transaction – Display screen' are rather limited. As a result, especially in case the payment transaction has been rejected for time-out related reasons, it is very difficult to determine where exactly the delay took place and to determine the possible follow-up actions.

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Description of requested change:

Next to the details currently shown in the TIPS GUI: 'Query Payment transaction – Display screen':

- Payment Transaction reference
- Originator BIC
- Beneficiary BIC
- Transaction status
- Reason code
- Settlement timestamp (including the date)
- Payment transaction amount
- Settlement business day

we propose to add and show the following details:

- Originator IBAN
- Originator name
- Beneficiary IBAN
- Beneficiary name
- Payment transaction end-to-end id
- Payment transaction remittance information
- Payment transaction local instrument code
- Payment transaction acceptance date and timestamp (as provided by the originator bank)

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- Payment transaction date and timestamp received by TIPS
- Payment transaction date and timestamp sent by TIPS to beneficiary bank
- Payment confirmation date and timestamp received by TIPS (from beneficiary bank)
- Payment confirmation date and timestamp sent by TIPS to originator bank

Next to that, we propose to change the format of every date and timestamp from 'YYYY-MM-DD hh:mm:ss' to 'YYYY-MM-DD hh:mm:ss.sss' in order to show the milliseconds as these are very important in the processing of Instant Payments.

If possible, we also propose to add an option to retrieve the original pacs.008 and pacs.002 messages received by TIPS.

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Submitted annexes / related documents:

TIPS GUI: Query Payment transaction – Display screen, as described in TIPS UHB version 2.1.1:

Context of Usage This screen displays detailed information on the status of the relevant payment transaction, showing whether the transaction was settled successfully. This function is available in U2A mode only. In case the user is not entitled to view the data on the searched transaction an error code is returned.

See below screenshot, coming from the test environment

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Proposed wording for the Change request:

It is worth noting that the current assessment is based on the assumption that the changes stemming from CR-0026 are already in place and can be used as a baseline to implement the CR-0027. By using such approach, exploiting the synergies between the two CRs, the TIPS GUI shall be enhanced by adding an Advanced Payment Transaction Query Display functionality, i.e. a dedicated screen shown after an Advanced Payment Transaction Query is submitted (according to the new search criteria defined with the TIPS CR-0026). The new screen will show additional details related to the selected payment transaction. This will be described below in terms of impact as "Full Implementation" (i.e. option 2).

Conversely, taking into account the deployment of a solution which is fully independent from the CR-0026 (i.e. option 1), the following changes will be envisaged.

Option 1: Interim Implementation (this solution does not depend from CR-0026 implementation)

1) **UHB v2.1.1 – §4.1.4.2 Query Payment transaction – Display screen**

   New screenshot, which includes the following new fields:
   - "Payment transaction acceptance date and timestamp (as provided by the originator bank)"
   - "Payment transaction date and timestamp received by TIPS"
   - "Payment transaction date and timestamp sent by TIPS to beneficiary bank"
   - "Payment confirmation date and timestamp received by TIPS (from beneficiary bank)"
   - "Payment confirmation date and timestamp sent by TIPS to originator bank"

2) **UHB v2.1.1 – §4.1.4.2 Query Payment transaction – Display screen**

Field description

Query Payment transaction: Result	
[…]	[…]
Settlement business date	Shows the RTGS business date at which the transaction was settled. Displayed format is : YYYY-MM-DD The field is not filled in case the transaction is not settled.
Payment transaction amount	Shows the amount of the transaction
Acceptance timestamp	Shows the Acceptance timestamp of the instant payment. Displayed format is: YYYY-MM-DD hh:mm:ss
Payment transaction reception timestamp	Shows the timestamp when the payment transaction is received by TIPS from the originator participant. This timestamp contains the time of last update for payment accepted by TIPS (TIPS network is "stateless" and there is no evidence of the time a message is received)

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	Displayed format is: YYYY-MM-DD hh:mm:ss:µsµsµsµsµs
Payment transaction forwarding timestamp	Shows the timestamp when the payment transaction is forwarded to the beneficiary participant. This timestamp contains the time of last update for payment forwarded by TIPS (TIPS network is "stateless" and there is no evidence of the time a message is sent out) Displayed format is: YYYY-MM-DD hh:mm:ss:µsµsµsµsµs
Confirmation reception timestamp	Shows, if available, the timestamp when the confirmation for a payment transaction is received by TIPS from the beneficiary participant. This timestamp contains the time of last update for payment confirmed by TIPS (TIPS network is "stateless" and there is no evidence of the time a message is received) Displayed format is: YYYY-MM-DD hh:mm:ss:µsµsµsµsµs
Confirmation to the originator timestamp	Shows, if available, the timestamp when the confirmation for a payment transaction is forwarded by TIPS to the counterpart. This timestamp contains the time of last update for payment notified by TIPS (TIPS network is "stateless" and there is no evidence of the time a message is sent out) Displayed format is: YYYY-MM-DD hh:mm:ss:µsµsµsµsµs

Option 2: Full Implementation

1) UHB v2.1.1 – New 'Display' button in the Advanced Payment Transaction Query screen

Advanced Payment transaction status query – Search/List screen

Buttons

Search	This function enables the user to retrieve the information on the selected payment transactions. References for error messages: [▶]: ▎R010
Display	This function enables the user to display the information on the selected payment transaction.
Reset	This function enables the user to set the search criteria fields to their default values.

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1. UHB v2.1.1 – New Advanced Payment Transaction Display screen

4.1.5.2 Advanced Payment transaction query – Display screen

Context of Usage	This screen displays detailed information on the relevant payment transaction. This function is available in U2A mode only. In case the user is not entitled to view the data on the searched transaction, an error code is returned.
Screen Access	▌ Payment transaction – Advanced *Search/List* Screen >> Click on the *Display* button
Privileges	To use this screen, the following Privileges are needed: ▌TIP_Query ▌TIP_QueryReachable
Screenshot	Screenshot to be added

Field description

Advanced Payment transaction status query: Result	
Originator BIC	Shows the BIC code of the Originator Bank of the given transaction
Beneficiary BIC	Shows the BIC code of the Beneficiary Bank of the given transaction
Payment Transaction reference	Shows the reference of the payment transaction
Transaction status	Shows the status of the payment transaction from the possible values: ▌ Settled ▌ Failed ▌ Rejected ▌ Rejected by the Beneficiary ▌ Expired
Reason code	Shows the error code of the payment transaction from the possible values: ▌ AB05 ▌ AB06 ▌ AB08 ▌ AG09 ▌ AM02 ▌ AM05 ▌ AM23 ▌ MS01 ▌ TBL1 ▌ TBL2

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	▌ CNOR ▌ DNOR The field is empty in case the payment transaction is settled.
Settlement timestamp	Shows the time at which the payment transaction was settled. Displayed format is: YYYY-MM-DD hh:mm:ss:µsµsµsµsµs The field is empty in case the payment transaction is not settled.
Settlement business date	Shows the RTGS business date at which the transaction is settled. Displayed format is : YYYY-MM-DD The field is empty in case the payment transaction is not settled.
Payment transaction amount	Shows the amount of the payment transaction
Payment transaction currency	Shows the currency of the payment transaction
Payment Transaction type	Shows the payment transaction type from the possible values: ▌ Instant Payment ▌ Recall Answer
Acceptance timestamp	Shows the Acceptance timestamp of the instant payment. Displayed format is: YYYY-MM-DD hh:mm:ss
Payment transaction reception timestamp	Shows the timestamp when the payment transaction is received by TIPS from the originator participant. This timestamp contains the time of last update for payment accepted by TIPS (TIPS network is "stateless" and there is no evidence of the time a message is received) Displayed format is: YYYY-MM-DD hh:mm:ss:µsµsµsµsµs
Payment transaction forwarding timestamp	Shows the timestamp when the payment transaction is forwarded to the beneficiary participant. This timestamp contains the time of last update for payment forwarded by TIPS (TIPS network is "stateless" and there is no evidence of the time a message is sent out) Displayed format is: YYYY-MM-DD hh:mm:ss:µsµsµsµsµs
Confirmation reception timestamp	Shows, if available, the timestamp when the confirmation for a payment transaction is received by TIPS from the beneficiary participant. This timestamp contains the time of last update for payment confirmed by TIPS (TIPS network is "stateless" and there is no evidence of the time a message is received) Displayed format is: YYYY-MM-DD hh:mm:ss:µsµsµsµsµs
Confirmation to the originator timestamp	Shows, if available, the timestamp when the confirmation for a payment transaction is forwarded by TIPS to the counterpart.

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	This timestamp contains the time of last update for payment notified by TIPS (TIPS network is "stateless" and there is no evidence of the time a message is sent out) Displayed format is: YYYY-MM-DD hh:mm:ss:µsµsµsµsµs
Payment transaction end-to-end reference	Shows the end-to-end reference of the payment transaction.
Payment transaction remittance information	Shows the remittance information of the payment transaction.
Payment transaction local instrument code	Shows the local instrument code of the payment transaction.
Originator IBAN	Shows the IBAN of the originator of the payment transaction.
Originator name	Shows the name of the originator of the payment transaction.
Beneficiary IBAN	Shows the IBAN of the beneficiary of the payment transaction.
Beneficiary name	Shows the name of the beneficiary of the payment transaction.

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High level description of Impact:

It is worth noting that the current assessment is based on the assumption that the changes stemming from CR-0026 are already in place and can be used as a baseline to implement the CR-0027, as they are both part of the same business scenario (i.e. advanced query/response on payment transactions). By using such approach, exploiting the synergies between the two CRs, the TIPS GUI shall be enhanced by adding an Advanced Payment Transaction Query Display functionality, i.e. a dedicated screen shown after an Advanced Payment Transaction Query is submitted (according to the new search criteria defined with the TIPS CR-0026).

Additionally, due to the time constraint for making CR-0026 available, a proposal for an interim solution of CR-0027 is enclosed as first option. Such solution would enhance the current screen ("Query Payment Transaction"), adding information taken from the TIPS Operational database. The new information must also be added to the corresponding A2A messages used between GUI and TIPS backend (transparently for A2A users).

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Impacts on other projects and products:

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Outcome/Decisions:

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L3 analysis - General Information	
Impact on TIPS	
Business Interface	
x	A2A Interface (option1)
x	U2A Interface
Settlement Engine	
	Payment Transaction
	Liquidity Transfer
	Recall
Queries and Reports	
x	Queries
	Reports
Other functions	
	Local Reference Data Management
	Statistics
	Complex Queries and Reports
	Mobile Proxy Look-up
Common Components	
	ESMIG
	CRDM
	Archiving
	Billing
	DMT
Operational Tools	
	SLA Reporting
	TMS
	Technical Monitoring
	Change Management
	Capacity Management
Infrastructure request	

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	Application components impacted	
	Application components not impacted	
Operational activities		
	Business activities impacted	
	Technical activities impacted	
New functionalities		

Impact on documentation		
Document	**Chapter**	**Change**
(Interim implementation) UHB	§4.1.4.2 Query Payment transaction – Display screen	Update of the existing Query Payment transaction – Display screen
(Full implementation) UHB	§4.1.5 – New section	New Advanced Payment Transaction Status Query Display functionality
Training documentation		
Other documents		

Overview of the impact of the request on TIPS (L2 view)

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Summary of functional, operational, development, infrastructure and security impacts

Summary of functional impact:

UHB

Option 1:

Update of the existing Query Payment transaction – Display screen which will show the following additional fields:

- Acceptance timestamp
- Payment transaction reception timestamp
- Payment transaction forwarding timestamp
- Confirmation reception timestamp
- Confirmation to the originator timestamp

Option 2:

New Advanced Payment Transaction Status Query - Display functionality which shows the following fields:

a) Originator BIC
b) Beneficiary BIC
c) Payment transaction reference
d) Transaction status
e) Reason code
f) Settlement timestamp
g) Settlement business date
h) Payment transaction amount
i) Payment transaction currency
j) Payment transaction type
k) Acceptance timestamp
l) Payment transaction reception timestamp
m) Payment transaction forwarding timestamp
n) Confirmation reception timestamp
o) Confirmation to the originator timestamp
p) Payment transaction end-to-end reference
q) Payment transaction remittance information
r) Payment transaction local instrument code
s) Originator IBAN
t) Originator name
u) Beneficiary IBAN
v) Beneficiary name

Summary of operational impact:

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The implementation of CR-0027-URD, together with the CR-0026-URD would require a re-assessment of the operational procedures currently in place for supporting the customers. This is the case, for instance, with respect to the forthcoming operational procedures to be set-up for requests to access to TIPS data under the terms of GDPR.

Summary of application development impact:

1) *Interim* implementation - **This solution does not depend from CR-0026 implementation**.

Such a solution consists in delivering an enrichment of the current query screen ("Payment transaction query"), which would include the following subset of additional data, requested by CR-0027:

-        "Payment transaction acceptance date and timestamp (as provided by the originator bank)"

-        "Payment transaction date and timestamp received by TIPS"

-        "Payment transaction date and timestamp sent by TIPS to beneficiary bank"

-        "Payment confirmation date and timestamp received by TIPS (from beneficiary bank)"

-        "Payment confirmation date and timestamp sent by TIPS to originator bank".

Those pieces of information would be taken by the TIPS Operational database whereas the rules of the retention period of this database apply.

This change is permanent as it would remain in TIPS after CR-0026 and CR-0027 have been implemented (those CRs would make use of different GUI sections and would get information from different databases).

2) Full implementation - **This solution can only be implemented after CR-0026 implementation**.

The CR can only include the following fields in the new GUI screen "Advanced Payment transaction status query" (some of the fields are already included in the CR-0026 scope).

Settlement fields (which can be included):

    a) Originator BIC (CR0026)
    b) Beneficiary BIC (CR0026)
    c) Payment transaction reference (CR0026)
    d) Transaction status (CR0026)
    e) Reason code Settlement timestamp (CR0026)
    f) Settlement business date (CR0026)
    g) Payment transaction amount (CR0026)
    h) Payment transaction currency
    i) Payment transaction type
    j) Acceptance timestamp (CR0026)
    k) Payment transaction reception timestamp
    l) Payment transaction forwarding timestamp
    m) Confirmation reception timestamp
    n) Confirmation to the originator timestamp.

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The following fields cannot be included into the screen (Non-Settlement fields):

    a) Payment transaction end-to-end reference

    b) Payment transaction remittance information

    c) Payment transaction local instrument code

    d) Originator IBAN

    e) Originator name

    f) Beneficiary IBAN

    g) Beneficiary name

    h) Original pacs.008 and pacs.002.

Under this condition, CR-0027 implementation can be considered as part of the CR-0026 enhancement of the GUI ("Advanced Payment transaction status query"), and its cost can be considered negligible, provided that CR-0026 is implemented.

To provide the above "Non-settlement fields" on the GUI screens means that TIPS would extract, interpret and store in a structured form such fields, both in the operational and the informational database, and this would have the following severe drawbacks:

    i. The processing of the business payload, including identification, extraction and storing of single fields listed above would have impacts on TIPS workload and resource consumption in terms of disk space and processor time. Additionally this overhead would reduce the maximum possible TIPS throughput for settlement, because the new processing must necessarily done when the message enters into TIPS.
Even though this change should only affect the "informational" service of TIPS, to produce such information would require a deep review of the TIPS architecture affecting the settlement service, as well.

    ii. As an additional drawback, the change would create a dependency between the settlement service ensured by TIPS and other business information not relevant for the settlement, introducing a violation of the "segregation of concern" principle[1].

Summary of infrastructure impact:

Assuming the implementation of CR-0026, then no additional infrastructures would be necessary.

Summary of security impact:

See Change Request analysis.

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[1] As an example of the consequences of this type of loss of quality: if the business information not needed by TIPS change, now TIPS would not be impacted. In the hypothesis of creating the dependency, TIPS would have an impact even in case of a change of the structure of some "non-settlement" fields or in case some of such fields are added or dropped.