Change Request form

General Information (Origin of Request)
☐ User Requirements Document (URD)
☐ User Detailed Functional Specification (UDFS)
☐ User Handbook (UHB)
☒ Other User Functional or Technical Documentation (SYS)

Request raised by: ECB	Institute:	Date raised: 22/08/2023
Request title: Quicker communication in case of incident during non-standard support hours		**Request ref. no:** TIPS-0071-SYS
Request type:		
1. Legal/business importance parameter: Medium	**2. Market implementation efforts parameter – Stakeholder impact:** Low	
3. Operational impact: Medium	**4. Financial impact parameter:** Low	
5. Functional/ Technical impact: Low	**6. Interoperability impact:** Low	
Requestor Category: Central Bank	**Status:** DA started	

Reason for change and expected benefits/business motivation:

The main contact point for TIPS participants is the National Service Desk[1] (NSD).

In *normal situations*, all NSDs remain reachable and provide support (e.g. respond to queries, monitor payments activities, service requests, act on behalf, communication, manage the relevant static data) to their community during standard support hours, which run from 07:00 to 18:15[2] CET during TARGET business days.

In *abnormal situations*, during standard support hours, the NSDs remain reachable and take all necessary actions under their responsibility in order to resume normal operations of TIPS (e.g., handle local contingency arrangements).

For connectivity problems only, the TIPS Service Desk can be contacted directly by TIPS participants. The Network Service Providers (NSPs) monitor the TIPS connectivity at Network level as per contract specifications.

TIPS Monitoring is guaranteed by internal 4CB tools to verify the overall service and the good functioning of the single components. TIPS availability at system level is monitored via internal End-to-End (E2E) checks. These checks are primarily designed to detect application-level issues, but they do not verify the full end-to-end functionality of the A2A chain. Furthermore, the internal checks cannot cover all the possible scenarios such as TIPS infrastructure completely unavailable, NSP interfaces issues and certainly TIPS internal monitoring failure. As a result, an external monitor, namely NSP checker with SIA, was recently deployed, through the change request TIPS CR-0035-SYS "NSP End-to-end (E2E) check"[3] where the unavailability scenarios not covered by the internal checks have been introduced. The NSP E2E check allows monitoring of TIPS at application level and other checks (i.e. network checks).

The NSP E2E checker thus comes as a complement of the internal monitoring to cover additional incident scenarios. The TIPS platform is therefore constantly checked internally and externally.

The NSP E2E check is however not reducing the detection time but rather complements monitoring tools. Consequently, the communication time after the detection time of TIPS incidents impacting TIPS settlement engine is as follows:
• within 10 minutes during the standard support hours (from 07:00 to 18:15[4] CET)
• up to 70 minutes outside of non-standard support hours

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[1] The TIPS DCA holder receives the contact details from their respective Central Bank at the time of their connection to the system.

[2] Additional 15 minutes on the last day of the Reserve Maintenance period

[3] The NSPs will use their infrastructure and components to implement an additional E2E check which is required to verify the availability of TIPS at application level along with the current check, which covers only networking issues. Furthermore, the TIPS Operator will develop a new tool (Email Notifications Tool) that can be used to subscribe the Central Banks and their participants to receive email notification in case of incident and that will be implemented in two incremental steps.

[4] Additional 15 minutes on the last day of the Reserve Maintenance period.

There is therefore still a different response time between standard and non-standard support hours. A quicker communication in case of incident during non-standard support hours is seen as very beneficial for the TIPS users.
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Description of requested change

To solve this gap between standard and non-standard support hours, this change request aims at introducing a reduced communication time regardless of the support hours. This can be done with the introduction of an automatic alert eliminating the manual actions required on the side of the NSP and of the TIPS Service provider (4CB). The analysis will also consider how to reduce "false negatives" alerts as much as possible and avoid sending a communication if there is no real problem.
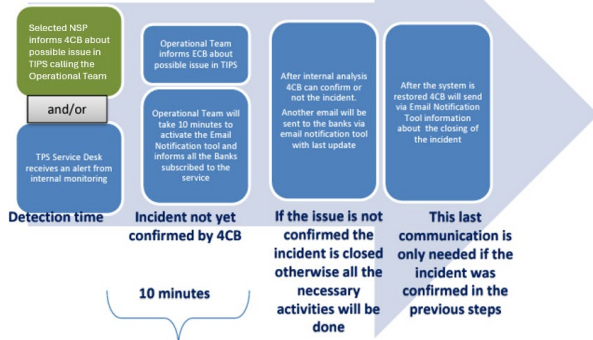
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Submitted annexes / related documents:

TIPS Service Desk – Incident Communication flow

| During *standard* support hours	During *non-standard* support hours

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Proposed wording for the Change request:

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High level description of Impact:

Preliminary assessment:

Due to the instant nature of TIPS platform, it was requested by Central Banks to be informed about an issue within 10 minutes after detection. To accomplish this requirement, this change request aims a reduction in communication time regardless of the support hours. This can be done with the introduction of an automatic alert eliminating the manual actions required on the side of the NSP and of the TIPS Service provider (4CB). The new communication flow will be as described in the schema below:

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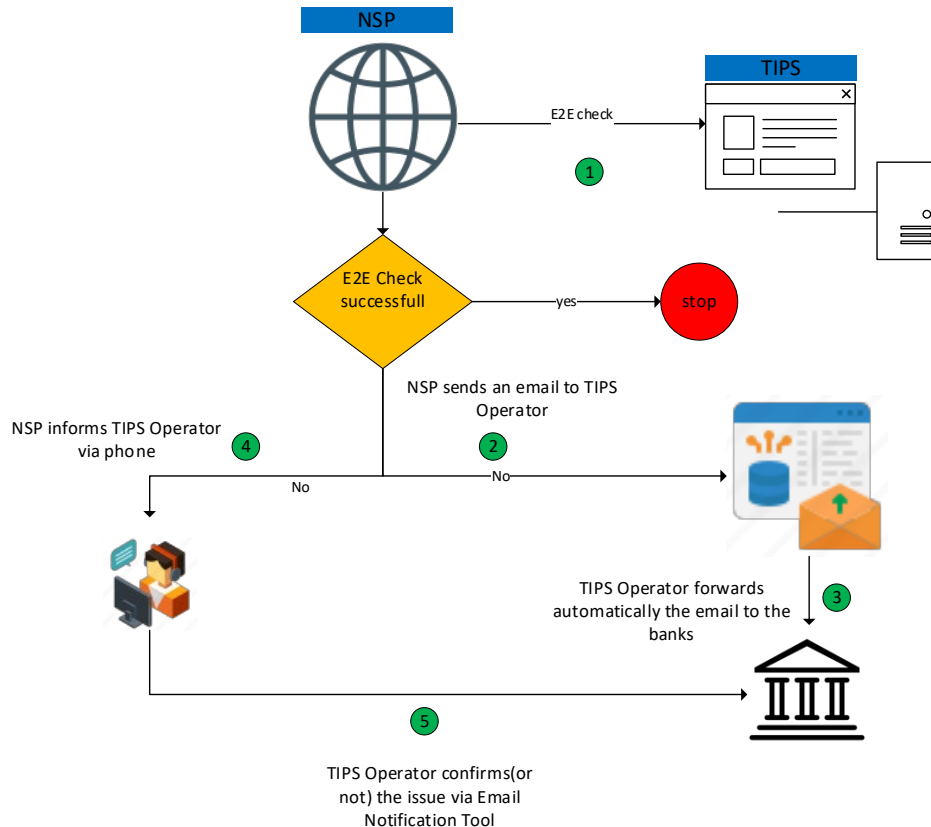
1. NSP sends and monitors an agreed instant message that will be answered by the application (Point 1).
2. If a TIPS issue is suspected, the NSPs promptly sends an email to an agreed e-mail address **within 10 minutes**. TIPS Operator then forward this email to the relevant commercial banks and Central Banks, notifying them of a potential issue that is yet to be confirmed.
3. Moreover, the NSP informs via phone the TIPS Operator which immediately runs its own internal check to verify the status of the application (point 4).
4. TIPS Operator shares the information about the status of the TIPS application (confirming or not the issue) using the Email Notifications Tool to all subscribed participants (point 5).

In order to separate the communication flow and to avoid any misuse, the TIPS Operator and the NSP will establish an agreement about the email address used to exchange email. This is particularly important to prevent unauthorized forwarding of email to TIPS operator email server and flooding the banks with undesired emails.

Being the communication process fully automated without a thorough cross check, false positives are possible, but the purpose of this flow is to share as soon as possible the information about a possible service disruption not yet confirmed at the moment the email is sent.

Needless to say, that NSP will also call TIPS Operator to trigger all the necessary checks to confirm or not the issue as per the current implementation of CR TIPS-0035.

At this point TIPS Operator will use the current Email Notification Tool to provide intermediary status update till the resolution of the issue.

The NSP E2E check does not reduce the detection time but rather complements the existing monitoring tools. Consequently, the communication time after the detection time of TIPS incidents impacting A2A flow and/or TIPS settlement engine is as follows:

- **within 10 minutes** during the standard and non-standard support hours.

The time to confirm the issue depends on the following:

- It was possible for the TIPS Operator to detect the issue using internal monitoring tools. In this case the investigation can start immediately.

- TIPS Operator monitoring tools could not detect the issue and a call from NSP was needed (within 30 minutes from detection time). Once the TIPS Operator is informed about the issue the incident management process is triggered respecting what is reported in the TIPS SLA in terms of communication flow.

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Impacted modules:
- Out-of-band communication via e-mail channel
- E-mail server hosted by BdI.

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Findings:
- The same contact list used for TIPS-0035-SYS relating communication (i.e. E2E check) will be used for such an automatic dispatch of communications.
- Dedicated e-mail addresses shall be used both at NSP and TIPS Operator side to trigger these communications and avoid potential misuse (such as mistakes or Denial of Service attacks)
- As a matter of fact, the solution for quicker communication can only be provided by the selected NSP which already provides the E2E check solution.

Open issues/ questions to be clarified by the originator:
- None

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Impacts on other projects and products:

No impact is foreseen on other TARGET services:
- **T2**: no impact
- **ECMS**: no impact
- **T2S**: no impact

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Outcome/Decisions: