EUROPEAN CENTRAL BANK

EUROSYSTEM

# Operational matters

target services | T2



T2-CG
21 October 2026

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# System performance – *Main incidents since last T2 CG of 11 June 2026*

## Incident 16 June 2026 – CCII event blocked

**Impact of the incident:**

- Delayed business day change at 19:44 (CSOD/RSOD) and sending of GLFs
- Delayed business day change for TIPS (18:48 instead of 18:01) until closure of CCII event
- Due to the unavailability of the TIPS EoD balance participants could not consider the liquidity for the Minimum Reserve calculation on 16 June 2026

**Duration:** 16/06/2026 18:00 – 18:47

17/06/2026 18:00 – 18:29 (BD change at 19:14) / 23/06/2026 18:00 – 18:16 (BD change at 19:00)
25/06/2026 18:00 – 18:16 (BD change at 19:10) / 26/06/2026 18:00 – 18:08 (BD change at 19:06)
01/07/2026 18:00 – 18:04 (BD change at 19:02)

**Root cause:**

- A deadlock was introduced in R2026.JUN with a PBI, which envisaged a locking mechanism to prevent that further BDM events are notified to T2 prior to the previous one being fully processed
- One internal message had remained unprocessed and backed-out in an internal queue (a BDM internally generated message to notify the T2 modules of the upcoming events)

**Resolution:**

- Reinjection of the backed-out message

**Measures to prevent reoccurrence of an incident:**

- To further fine-tune the locking mechanism a minor change was implemented on 10 July 2026
- Until the implementation of the minor change the internal queues were closely monitored to minimize the impact


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# System performance – *Main incidents since last T2 CG of 11 June 2026*

## Incident 22 June 2026 – Long duration of events REMW and CEMW

**Impact of the incident:**

- Delayed start of settlement window for interbank and customer payments in EUR and DKK
- Delayed start of RTGS RTS II for EUR and DKK

**Duration:** 22/06/2026 02:30 – 07:52

**Resolution:**

- A Last Level Intervention was performed twice – first at 04:57 and then at 07:52 to unblock the event processing

**Root cause:**

- Conflict between the processing of event CEMW and REMW and communication to BDM – the delivery of T2 CR-0157 (Insolvency during maintenance window) introduced changes to this process
- A bug led to internal cross-service parked messages on CLM side not being processed and required the implementation of a workaround (**see interim measure**)
- As part of this one required Last Level Intervention was missing, which prevented the proper processing of the CEMW and REMW events
- The blocking of RSIC DKK at 07:00 was caused by the first manual intervention that was performed to unblock the maintenance window

**Measures to prevent reoccurrence of an incident:**

- Rescheduling of event CEMW to 02:29 on Friday 20 June 2026 (**interim measure**)
- A minor change was implemented on 10 July 2026 to prevent the erroneously inclusion of the RTGS communication in the message sent by CLM to BDM


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# System performance – *Main incidents since last T2 CG of 11 June 2026*

## Incidents 29 June & 6 July 2026 – T2 stuck in maintenance window

**Impact of the incidents:**

- Delayed start of settlement window for interbank and customer payments for EUR
- Delayed start of RTGS RTS II for EUR and DKK

**Duration:** 29/06/2026 02:30 – 05:46
06/07/2026 02:30 – 03:12

**Resolution:**

- Job restart and manual closure of the event at 05:46 (29 June 2026)
- Job restart and manual closure of the event at 03:12 (6 July 2026)

**Root cause:**

- Conflict between the processing of event CEMW and REMW and communication to BDM – the delivery of T2 CR-0157 (Insolvency during maintenance window) introduced changes to this process
- A bug related to message processing materialized and required the implementation of a workaround (**see first two interim measures**)
- The second inconsistent behavior also stemming from the changes of the CR to this process caused that the MW closure event could not be closed
- The missing call out for event CEMW was based on a configuration inconsistency in the stage naming leading to the fact that the specific alarm was not triggered (configuration is now corrected)

**Measures to prevent reoccurrence of an incident:**

- Rescheduling of event CEMW to 02:29 (**interim measure**)
- Last Level Intervention on the database to ensure proper processing of the event (**interim measure**)
- Active monitoring by operational and technical staff members on 6 July 2026 (**interim measure**)
- A minor change was implemented on 10 July 2026 to prevent the erroneously inclusion of the RTGS communication in the message sent by CLM to BDM


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# System performance – *Main incidents since last T2 CG of 11 June 2026*

## Incident 13 July 2026 – Slowdown of the processing of A2A messages

**Impact of the incident:**

- Delayed processing of A2A messages for CLM and RTGS
- Out of a total of 6,003 messages received during this time the majority was processed by ESMIG and forwarded to CLM and RTGS in under five minutes – 183 messages were sent to a backout queue and only processed at 11:24 (delay of up to 1 hour and 40 minutes)

**Duration:** 13/07/2026 09:40 – 11:24

**Resolution:**

- Starting from 10:10, the response time improved and the processes recovered based on an automatic recovery functionality of the database
- By 11:05 the slowdown was resolved and message processing was proceeding as usual
- Messages which were sent to backout queues during the incident, were reinjected for processing at 11:24

**Root cause:**

- CLM, RTGS and ESMIG A2A processing was impacted by a general system slowdown, leading to delayed database response times
- One part of the root causa was a minor change involving the transfer of high volumes of DWH data across different tables in the database
- Additionally, a bug in third-party hardware caused the mentioned delays during the specified timeframe

**Measures to prevent reoccurrence of an incident:**

- A preliminary fix was applied from vendor side on 1 September 2026 to improve the database performance and prevent further slowdowns
- The process of massive data movements was adapted, making it compatible with daily activity and improving database performance
- As a precautionary measure such activities will be scheduled during alternate timeframes, to avoid potential extensive usage of database resources during business hours.


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# Questions



**Thank you for your attention!**

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# System performance – *Other incidents since last T2 CG of 11 June 2026*

## Annex – Overview of other incidents with limited impact

| DATE | DESCRIPTION | IMPACT | Duration |
|---|---|---|---|
| 11/06/2026 | DWH load issue | Delayed availability of T2 DWH data of BD 10 June. | ~ 12 h |
| 17/06/2026 | Incorrect RTGS directories / CLM repositories sent | Late provision of RTGS directories and CLM repositories for Business Day 16 June. | ~ 1 day |
| 13/07/2026 | Incorrect RTGS directories / CLM repositories sent | No RTGS directory, nor CLM repository for Business Day 14 July, albeit no change in the actual business content of the files had occurred as compared to Business Day 13 July. | 1 h 52 min |
| 04/09/2026 | DWH load issue | Delayed availability of T2 DWH data of BD 3 September. | ~ 18 h |
| 08/09/2026 | RTGS directories/ CLM repositories not sent | RTGS directories and CLM repositories. | 1 h 7 min |
| 09/10/2026 | DWH load issue | Delayed availability of T2 DWH data of BD 8 October. | ~ 15 h |


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