

Incident report

19/01/2022 eCAT and its webservices status



DISTRIBUTION	Market
VERSION	1
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Executive summary

On 19th of January, our auction tool eCAT faced performance issues that could be observed as slowness of the system.

The issue had an external origin and was triggered by a large volume of webservice requests. Once the root cause was identified, the problem was solved in a timely manner and our auction tool eCAT and its webservices returned to normal operation.

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List of abbreviations

DA : Day ahead timeframe

ID : Intraday timeframe

WS : Webservice

CPU: Central Processing Unit

OWS: Open Web Services

MP : market participant

OPUI : operator user interface

Db: database

1 Introduction

This report will provide further information on the issue faced on 19/01, including the timeline of events.

2 Operational process and timings

In this chapter the normal process is briefly listed together with the timings, to illustrate the deviation due to the issue and the effect of the operational incident.

2.1 Normal process and timings

Auction	Horizon	Opening time	Closing time
AT<>CH	DA	8:45	9:30
BDL GB<>NL	DA	8:50	9:10
BG<>RS	DA	9:00	9:30
CH<>DE	DA	8:45	9:30
CH<>FR	DA	9:00	9:45
CH<>IT	DA	9:30	10:00
HR<>HU	DA	9:00	9:30
HR<>RS	DA	9:00	9:30
IF1 FR<>GB	DA	9:40	10:00
IF2 FR<>GB	DA	9:40	10:00
NLL BE<>GB	DA	9:00	9:30
CH<>IT 2	ID	9:15	9:30
IF2 FR<>GB 2	ID	9:15	9:45
NLL BE<>GB 3	ID	9:30	9:55

2.2 Backup/fallback process and timings

In the event of a disruption of the general and standard process of auctions, JAO would aim to maintain the auction, when possible, by postponing, or extending the auction, in order to allow a resolution within the time extension.

Such extension are defined for each border in procedures with TSOs. There are several criteria that are considered prior taking such decision:

- Until which time we can postpone each auction, as agreed in procedures with TSO
 - Is there sufficient time to :
 - o Perform the extension in the auction tool
 - o Inform the market participants
 - Is that extra time going to provide enough time to MP to bid
- Etc...

Auction	Horizon	Opening time	Closing time
AT<>CH	DA	8:45	10:15
BDL GB<>NL	DA	8:50	9:30
BG<>RS	DA	9:00	9:30
CH<>DE	DA	8:45	10:15
CH<>FR	DA	9:00	9:55
CH<>IT	DA	9:30	10:15
HR<>HU	DA	9:00	9:30
HR<>RS	DA	9:00	9:30
IF1 FR<>GB	DA	9:40	10:15
IF2 FR<>GB	DA	9:40	10:15
NLL BE<>GB	DA	9:00	9:55
CH<>IT 2	ID	9:15	9:40
IF2 FR<>GB 2	ID	9:15	9:45
NLL BE<>GB 3	ID	9:30	9:55

3 Description of the incident

3.1 Incident

On 19th of January around 08:45, slowness on eCAT was noticed while using both internal and external interface.

This has been immediately escalated internally and investigation started at the same time.

Troubleshooting started with checking all known potential causes. This was followed by isolating/excluding related system elements from operation one-by-one until it was identified that the high load was caused by the webservices server.

By stopping the webservices servers the application returned to normal state.

The root cause could be identified and fixed and potential recurrence was also mitigated.

3.2 Involved parties

- APG
- SWISSGRID
- BRITNED
- ESO
- EMS
- TRANSNETBW
- AMPRION
- RTE
- TERNA
- HOPS

- MAVIR
- IFA
- NEMOLINK

3.3 Impacted borders

- AT<>CH
- BDL GB<>NL
- BG<>RS
- CH<>DE
- CH<>FR
- CH<>IT
- HR<>HU
- HR<>RS
- IF1 FR<>GB
- IF2 FR<>GB
- NLL BE<>GB
- ID CH<>IT 2
- ID IF2 FR<>GB 2
- ID NLL BE<>GB 3

3.4 Timeline

Time	Event
8:45	Slowness on eCAT was noticed.
8:54	JAO IT was contacted by Operations team about slowness of the OPUI.
8:54	External parties confirmed slowness of eCAT.
9:00	<p>Bid Submission gates extended by 15 min for:</p> <ul style="list-style-type: none"> • BDL GB<>NL Bid Submission Gates extended • NLL BE<>GB Bid Submission Gates extended • AT<>CH Bid Submission Gates extended • DE<>CH Bid Submission Gates extended • For BG<>RS, HR<>RS Bid Submission Gates could not be extended • HR<>HU Bid Submission Gates could not be extended • ID CH<>IT Bid Submission Gates extended
9:04	JAO IT's troubleshooting resulted that there were high number of locks on the db.
9:13	<p>Market Message: Extending of the BDL-NL<>GB bid submission time until 09:30</p> <p>BDL-GB-NL-D-DAILY--220120-01</p> <p>BDL- NL-GB-D-DAILY--220120-01</p>
09:14-34	Multiple service restarts, that could not solve the issue

9:29	<p>Market Message: Extending of the daily CH<>AT, CH<>DE , NLL BE<>GB bid submission time until 09:45.</p> <ul style="list-style-type: none"> · AT-CH-D-DAILYPRODU-220120-01 · CH-AT-D-DAILYPRODU-220120-01 · CH-DE-D-DAILYPRODU-220120-01 · DE-CH-D-DAILYPRODU-220120-01
9:31	<p>Market Message: Extending of the CH<>IT Intraday 12-24 bid submission time at 09:40.</p> <ul style="list-style-type: none"> · CH-IT-I-HOURLY1224-220119-01 · IT-CH-I-HOURLY1224-220119-01
9:39	<p>Market Message: Extending of the NLL, CH<>AT and CH<>DE bid submission time at 09:55.</p> <ul style="list-style-type: none"> · NLL-BE-GB-D-DAILY--220120-01 · NLL-GB-BE-D-DAILY--220120-01 · AT-CH-D-DAILYPRODU-220120-01 · CH-AT-D-DAILYPRODU-220120-01 · CH-DE-D-DAILYPRODU-220120-01 · DE-CH-D-DAILYPRODU-220120-01
09:41	<p>Market Message: Extending of the CH<>FR bid submission time at 09:55.</p> <ul style="list-style-type: none"> · CH-FR-D-DAILYPRODU-220120-01 · FR-CH-D-DAILYPRODU-220120-01
9:51	<p>Market Message: Extending of the CH<>IT bid submission time at 10:15.</p> <ul style="list-style-type: none"> · CH-IT-D-DAILYPRODU-220120-01 · IT-CH-D-DAILYPRODU-220120-01
9:54	<p>Market Message: Extending of the CH<>DE bid submission time. Closure at 10:05.</p> <ul style="list-style-type: none"> · CH-DE-D-DAILYPRODU-220120-01 · DE-CH-D-DAILYPRODU-220120-01
9:55	<p>Market Message: Extending of the CH<>AT bid submission time. Closure at 10:10.</p> <ul style="list-style-type: none"> · AT-CH-D-DAILYPRODU-220120-01 · CH-AT-D-DAILYPRODU-220120-01
10:02	<p>Market Message: Extending of the IF1, IF2 bid submission time. Closure at 10:15.</p> <ul style="list-style-type: none"> · IF1-FR-GB-D-DAILYPRODU-220120-01 · IF1-FR-GB-D-DAILYPRODU-220120-01 · IF2-FR-GB-D-DAILYPRODU-220120-01 · IF2-FR-GB-D-DAILYPRODU-220120-01
10:03	<p>Market Message: Extending of the AT<>CH bid submission time. Closure at 10:15.</p> <ul style="list-style-type: none"> · AT-CH-D-DAILYPRODU-220120-01 · CH-AT-D-DAILYPRODU-220120-01
10:08	<p>Market Message: Cancellation and second round of the NLL-BE<>GB Daily Auction for Market Period 20/01/2022</p> <ul style="list-style-type: none"> · NLL-BE-GB-D-DAILY--220120-02 · NLL-GB-BE-D-DAILY--220120-02
10:10	<p>Market Message: Extending of the FR>CH bid submission time. Closure at 10:20.</p> <ul style="list-style-type: none"> · FR-CH-D-DAILYPRODU-220120-01
10:34	<p>Market Message: Daily auction round 2 of NLL-BE<>GB for Market period 20.01.2022. Closure at 10:44.</p>

	<ul style="list-style-type: none"> • NLL-BE-GB-D-DAILY--220120-02 • NLL-GB-BE-D-DAILY--220120-02
Around 10:50	eCAT WS shutdown, which solved the issue (slowness, locks, and high CPU usage)
10:57	Market Message: unavailability of eCAT webservices
12:00	eCAT WS started and system back to normal.
14:10	Missing auction data migrated to the OWS.
17:42	Market message : eCAT and its webservice status

4 Handling of the incident – evaluation

4.1 Detecting the issue

The issue was noticed internally by Operations team in the morning around 08:45. It seems that market participants just minutes after noticed the slowness of eCAT as JAO was contacted for abnormal slowness on the trader interface at 8.54.

4.2 Immediate steps taken to return to normal business operation

As soon as slowness was noticed by both Operations team and market participants, it was raised to the IT department and to our service providers.

Meanwhile, auctions were postponed in order to allow auctions to still be performed and market message were send to MP

4.3 Probability that it will happen again

Low probability. The root cause was identified and solved. Also recurrence were mitigated by dedicated controls in place

4.4 Closing remarks

All auctions were run and results were calculated and shared to the market.

- 14 out of 22 daily auction were postponed in order to extend bid submission and were in line with the procedures in force.
- 2 out of 22 daily auctions : a second round was performed (NLL)
- 6 out of 22 daily auctions closed without JAO having the possibility to postpone it.