**Incident Report**

eCAT Trader UI Performance Issue

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Description automatically generated with medium confidence

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| **DISTRIBUTION** | TSOs/Market |
| **VERSION** | 1 |
| **DATED** | June 14, 2024 |

Executive summary

Due to unexpected technical issues, several daily auctions for delivery day 9th April were rescheduled and certain Market Participants and TSOs were impacted.

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List of abbreviations

AR: Allocation Result

AT: Austria

ATC: Available Transfer Capacity

BG: Bulgaria

BE: Belgium

CH: Switzerland

DA: Daily Auction

DE: Germany

EBRC: JAO’s hosting provider

eCAT: Trader UI: JAO’s auction tool Trader User Interface

EL1: Eleclink

EMS: Electric grid of Serbia

ESO: Electricity System Operator

GB: Great Britain

GE: Auction Tool vendor

HR: Croatia

HOPS: Croatian Transmission System Operator

JAO: Joint Allocation Office

MP(s): Market Participant(s)

NLL: Nemo-Link

RD: Right Documents

RS: Serbia

TSO: Transmission System Operators

Introduction

On April 8th, 2024, JAO encountered operational difficulties due to a system error coinciding with our internet bandwidth reaching capacity limits. This significantly affected the functionality of the auction tool, preventing Market Participants from engaging in scheduled daily auctions for April 9th, 2024. Subsequently, several auctions were postponed or cancelled, and additional rounds were conducted to mitigate the impact. This report details the events, immediate actions taken, and strategic measures implemented to enhance system stability and reliability, aiming to prevent future occurrences.

Operational process and timings

To comprehend the impact of the triggering issue and its subsequent chain of events leading to the operational incident outlined in this chapter, we'll briefly describe the normal process alongside its timings.

Normal process and timings

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of the auction | Open time | Closure time | AR submission time | RD submission time |
| DE-CH | D-1 08:46 | D-1 09:30 | D-1 09:35 | D-1 09:40 |
| AT-CH | D-1 08:47 | D-1 09:30 | D-1 09:35 | D-1 09:40 |
| BG-RS | D-1 09:00 | D-1 09:30 | D-1 09:35 | D-1 09:50 |
| NLL-BE-GB | D-1 09:00 | D-1 09:30 | D-1 09:34 | D-1 09:36 |
| EL1–GB-FR | D-1 09:28 | D-1 09:50 | D-1 09:55 | D-1 09:58 |
| HR-RS | D-1 09:00 | D-1 09:30 | D-1 09:35 | D-1 09:50 |

Backup/fallback process and timings

|  |  |
| --- | --- |
| Name of the auction | Extended deadline for AR submission |
| DE-CH | D-1 10:15 |
| AT-CH | D-1 10:15 |
| BG-RS | D-1 10:15 |
| NLL-BE-GB | D-1 10:40 |
| EL1–GB-FR | D-1 11:30 |
| HR-RS | D-1 09:50 |

Description of the incident

Incident

JAO faced major disruptions due to network bandwidth issue, severely affecting the eCat Trader UI functionality. The first report of slowness in the eCAT Trader UI came at 09:03 hrs, prompting operational adjustments. To ensure fair participation despite the technical challenges, replacement auction rounds were organized and conducted.

Additionally, induced problems with phone service disrupted the communication with TSOs and participants. To address this, market messages were sent out, communication transitioned to email, and proactive callbacks were made to offer additional information.

Involved TSO

APG

Eleclink

EMS

ESO

HOPS

National Grid

Nemo-Link

Swissgrid

TransnetBW

Impacted borders

AT<>CH

BG<>RS

DE<>CH

Eleclink (EL1-GB<>FR)

HR<>RS

Nemo-Link (NLL-BG<>BE)

Timeline

|  |  |
| --- | --- |
| **Time** | **Event** |
| 09:03 | Slowness of the eCAT Trader UI was reported to the Operations team from a trader side. |
| 09:05 | Operations Team systematically initiated troubleshooting by checking CPU usage and user event log. The team subsequently reported the issue to in-house IT Team, who then conducted preliminary technical checks to provide further support. |
| 09:10 | Trader UI slowness issue is reported from more traders at this point. |
| 09:12 | JAO IT team launched an investigation using the primary ticketing method and involved our service provider, GE, in the process. IT Team also logged into the eCAT Trader UI to detect abnormal behaviour and immediately contacted EBRC to check the servers and other associated technical elements. |
| 09:24 | Operations Team faced an unexpected phone line disruption while attending Market Participants calls, which resulted in interruption of some of the incoming calls. This was promptly reported to the IT Team as well. |
| 09:26 | Bid submission gate closure is postponed for CH<>DE and NLL-GB<>BE daily auctions by 5 minutes to facilitate Market Participants in placing their bids. |
| 09:30 | IT Team began problem solving by restarting the primary server to reconnect Market Participants to the platform. |
| 09:34 | CH<>DE Daily auction’s bid submission gate closure postponed by additional 5 minutes. |
| 09:36 | Second round created for AT<>CH, BG<>RS, HR<>RS Daily Auctions. |
| 09:38 | CH<>DE Daily auction’s bid submission gate closure postponed by additional 5 minutes. |
| 09:48 | Eleclink (EL1-GB<>FR) Daily auction bid submission gate closure postponed by 10 minutes. |
| 09:52 | Secondary server restart executed to reconnect Market Participants. |
| 10:02 | IT Team reaches out to EBRC and GE (JAO’s service providers) to investigate connectivity issues. EBRC identified abnormal bandwidth usage as a notable observation. |
| 10:08 | Operations Team manually triggers generation and distribution of the Right Documents for CH<>DE border to TSOs and MPs. |
| 10:18 | Second version of the Right Documents was generated manually for BG<>RS, HR<>RS and sent to TSOs and MPs. |
| 10:16 | A third round of the daily auction for the CH>AT direction was conducted, as the second round of auction for the same direction was run without ATC values. |
| 10:26 | All Market Participants were notified via email and JAO website message publication to review and use the latest version of the Right Documents. |
| 10:39 | Second version of Right Documents for CH<>AT was manually generated and sent to TSOs and MPs. |
| 11:29 | After conducting relevant checks, IT Team confirms that the bandwidth has returned to normal levels. |
| 12:00 | As a troubleshooting measure, JAO’s service provider restarts the platform and conducts a test that confirmed that the phone lines were working properly again. |

Communication

The Operations Team promptly notified Market Participants about delays and cancellations of the daily auctions by posting market messages on the website and sending emails to all registered Participants. Due to the phone lines disruption, these methods were used as the main mode of communication.

Handling of the incident – evaluation

Detecting the issue

As soon as Market Participants reported slowness in the eCAT Trader UI, the Operations Team initiated troubleshooting. They promptly engaged the IT team, who collaborated with JAO’s service providers to pinpoint and resolve the underlying technical issues swiftly, ensuring a prompt resolution.

Immediate steps taken to return to normal business operation

The IT Team promptly initiated an investigation in collaboration with service providers GE and EBRC to identify the root cause of the issue. Emergency server restarts were executed to restore normal system functionality, coupled with a 50% increase in internet bandwidth.

Proactively, Operations Team rescheduled some daily auctions and introduced additional auction rounds to maintain fair participation for all involved MPs

Claims

JAO received several phone calls, emails and service desk tickets from the Market Participants asking for more information about the incident. Complaints and information requests did not conclude in any legal action against JAO.

Lessons learnt and recommended follow-up actions

To address challenges and better prepare for potential incidents, JAO in coordination with its supplier is working towards a more reliable bandwidth alerting system. This advancement will enable us to swiftly detect and respond to any instances of peak usage.

Furthermore, in addition to increasing the existing bandwidth by 50%, JAO has implemented an additional 25% on-demand buffer. This buffer will automatically trigger an increase to ensure the system does not reach any bandwidth cap. We are exploring as well other technical solutions to manage the network bandwidth more efficiently.

Probability that it will happen again.

The incident's recurrence likelihood is reduced with the increased server bandwidth and by setting up enhanced monitoring alerts. Additionally, JAO is working with its suppliers to enhance system performance.

Closing remarks

JAO acknowledges the inconvenience caused by the technical issue and is committed to improving services for stakeholders. To better support stakeholders and improve control and visibility over the technical aspects related to the eCAT Trader UI, JAO has increased Internet bandwidth for swift and stable connections. Additionally, JAO implemented additional enhanced bandwidth monitoring alerts to reinforce our commitment to platform reliability. Despite challenges, JAO remains focused on excellence, customer satisfaction, and continuous improvement through ongoing learning.

Annexes

*List of Market Messages:*

  
POSTPONED: Nemolink and CH<>DE daily auctions postponed – Published at 09:30

  
Today issues with Auction Tool – Update – Published at 09:38

  
Second Round for Auction AT<>CH, BG<>RS, HR<>RS – Published at 09:42

  
Details on Second Round for Borders AT-CH, BG-RS and HR-RS – Published at 09:44

  
POSTPONED: Eleclink daily auction extended by 10 minutes – Published at 09:48

  
Today Issues with Auction Tool - Update 2 – Published at 09:52

  
Details on Second Round for Border/direction CH>AT – Published at 10:02

  
Third Round for Daily Auction for border CH-AT (direction CH to AT) – Published at 10:16

  
Please refer to latest Version of the Programming Authorization document (Rights document) – Published at 10:26

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