1. Letter/ Report Subject -	Reporting of technical glitch to the exchange
Name of the Member Member Code -	Zerodha Broking Limited NSE: 6498; BSE: 6498; MCX: 56550
2. Designated Officer (Reporting Officer details)	
Name: Venu Madhav	
3. Date & Time of Incident & Incident duration	15-12-2022, 03:47 PM, 26 minutes (order placement)
4. Incident Description & chronology of events (please use additional sheets)	Annexure 1
5. Business Impact	Annexure 2
6. Immediate action taken (please give full details)(please use additional sheets if necessary)	Annexure 3
7. Date & Time of Recovery	15-12-2022, 04:13 PM (order placement) 15-12-2022, 09:36 PM (intermittent positions)
8. Root Cause Summary (Pl attach the detailed Report separately)	Annexure 4
9. Back up measures available	Annexure 5
10. Details of long-term action (please give full details)(please use additional sheets if necessary)	Annexure 6

Annexure 1:

- 1. Order placement on our trading platform was impacted for a set of clients from 03:47 PM to 04:13 PM owing to what seems to be an issue with an OMS process failing on one of the servers at Refinitiv's end (exchange empanelled RMS and OMS vendor).
- 2. The order placement issue was resolved by 04:13 PM. While some users faced intermittent issues with display of positions which was resolved at 09:36 PM, they were able to modify orders and view their order statuses including order confirmation details after 04:13 PM
- 3. The said issue <u>did not</u> affect all users, but only a set of users operating out of a particular Silo (Setup). The count of affected clients is provided below in Annexure 2.
- 4. The placement of new orders was **not affected** between 04:13 PM till 09:36 PM.
- 5. The issue was fixed by the Refinitiv team.
- 6. RCA from our OMS vendor Refinitiv is attached.

Annexure 2:

There was an issue with the Order placement and viewing positions temporarily on Kite for some of our users.

- 1. A small section of our clients (less than 0.05% of our active user base for the day) were impacted by the incident. Order placement issue between 03:47 PM till 04:13 PM impacted roughly 360 clients whereas the intermittent issue with viewing positions between 04:13 PM till 09:36 PM impacted about 1200 clients.
- 2. There were very few complaints (300 calls and 130 tickets across all segments).
- 3. Call and trade desk was open for the impacted users.
- 4. Customers were informed about the issue via a banner on the support portal, and a bulletin on our website.

Annexure 3

- 1. We immediately notified the Refinitiv team by raising a ticket.
- 2. A <u>bulletin</u> was put up on our website informing clients about the issue.

Bulletin

Feed



Holiday calendar

Disclosures

15 Dec 2022, 03:47 PM

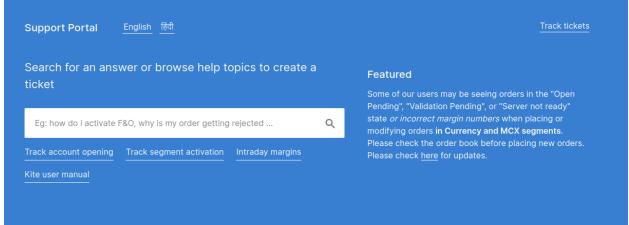
Issue with orders on Kite [Resolved]

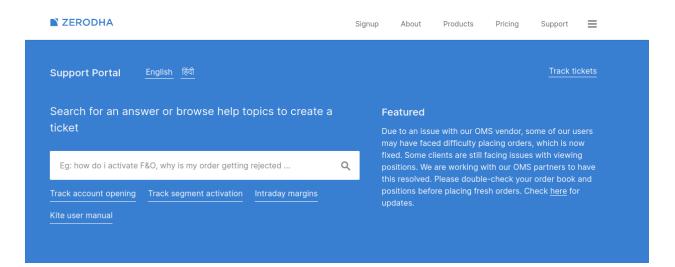
[Update 9:40 PM]: MCX intermittent position view issue is completely resolved.

[Update 04:15 PM]: Order placement issue is resolved.

Due to an issue with our OMS vendor, some of our users may have faced difficulty in placing orders and viewing or exiting positions. We are working with our OMS partners to have this resolved. Please double-check your order book and positions before placing fresh orders. We apologize for the inconvenience.

3. A banner was also put up on our Support portal.





4. We added a message on IVR for the clients calling us on our support line to inform them about the issue.

Annexure 4:

- 1. On 15th December 2022, one of the internal processes in the Refinitiv NEST OMS process was disrupted due to which there was an issue with orders on NSE, BSE and MCX.
- 2. The incident was triggered as the data in the process exceeded the limit it was built to handle. As the messages were not getting processed quickly, the data got buffered and the pending data exceeded the limit resulting in the incident.
- 3. The order placement was restored at 04:13 PM once the process was restarted.

Annexure 5:

- 1. We have spread our customers across multiple physically independent data centres, OMS installations, and many leased lines with backup lines. Hence only a fraction of users will be impacted in such scenarios.
- 2. We do have the option to manually reboot the servers as well as services in case of issues.
- 3. Call and trade desk is available for the impacted users.

Annexure 6:

1. Refinitiv is reviewing the upgradation of the said process to version 19.3.0.0 to mitigate the risk of recurrence.