# Incident Reporting Form - RCA

1. Letter/ Report Subject -	Reporting of technical glitch to the exchange (NSE)
Name of the Member Member Code -	Zerodha Broking Limited NSE: 13906
2. Designated Officer (Reporting Officer details)	
Name: Venu Madhav	
3. Date & Time of Incident & Incident duration	01-09-2022, 13:51 PM, 50 minutes
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	01-09-2022, 14:41 PM
8. Root Cause Summary (PI attach the detailed Report separately)	The cause of the glitch was because of the unavailability of disk space required by a certain process in the exchange adapter component managed by Refinitiv (exchange empanelled OMS vendor).  The termination log says: "Program terminated with signal 25, File Size limit exceeded".
9. Back up measures available	We have spread our customers across multiple physically independent data centres, OMS installations, and many

	leased lines. Hence only a fraction of users will be impacted in such scenarios. We do have the option of clearing the hard disk space which is used for logging by the adapter which causes the issue to resolve.
10. Details of long-term action (please give full details) (please use additional sheets if necessary)	Annexure 4

### Annexure 1:

- 1. Order placement on our trading platform was impacted intermittently from 1.51 PM to 2.03 PM for about 5800 users (out of over a million who login every day) owing to what initially seemed to be intermittent connectivity issues due to the adapter disconnection. However, the RCA from Refinitiv (exchange empanelled OMS vendor) confirms that the issue was due to unavailability of disk space required by a certain process in the exchange adapter component managed by Refinitiv.
- Order cancellation on our trading platform was impacted for those orders that were placed during the initial order placement issue (i.e. 1.51 PM to 2.03 PM) from 2.03 PM to 2.41 PM due to the adapter reconciliation process.
- 3. We have attached the RCA obtained from Refinitiv (OMS vendor) which confirms one of the adapters was impacted.
- 4. The issue was fixed by the Refinitiv team.

#### Annexure 2:

There was an intermittent issue with the Orders placement, order modification and order cancellation temporarily on Kite for some of our users.

- The issue was Intermittent.
- b. The impact was only on the Equity derivative orders placed during this period.
- c. A small section of our clients (5800+ clients) were impacted by the incident.
- d. For those users who were impacted due to the adapter disconnection, 'Call and trade' desk was open.

- e. There were very few complaints and customers were informed to wait for the orders to lapse or for the adapter reconciliation process to complete between 2.03 PM to 2.41 PM.
- 1. Number of Clients who were affected due to the Technical Glitch?
  - Around 5800 clients were intermittently impacted by this Technical Glitch.
- 2. The number of client complaints received with claims of losses due to the glitch on Sept 1st 2022?
  - There have been limited customer complaints for this issue (about 300+ tickets about 600+ calls and 7 exchange complaints). However, most of the clients have been convinced and there have been only 2 refunds processed for claims of losses for this issue till date.
- 3. Were any alternate channels available to the clients? If yes, Was there any spike in traffic on the alternate channel during the Technical Glitch Incident?
  - The issue was intermittent for different ISPs. Hence, the customers were informed to use an alternative ISP. When the users tried connecting via different ISP they were able to connect. The users were able to reach our website post multiple retries even with the same ISP as well. Call and trade' desk were also open for impacted clients.
- 4. Was the impact regional? If yes, what regions were affected due to the Technical Glitch Incident?
  - No, the incident wasn't specific to a particular region.

#### **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.



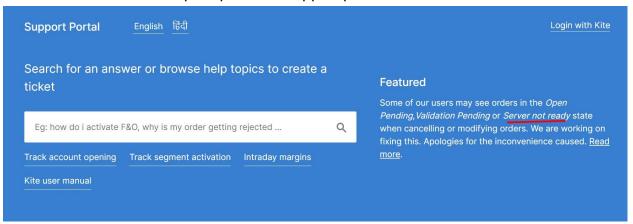
01 Sep 2022, 01:51 PM

## Issue with orders on Kite [Resolved]

Update [02:41 PM]: The issue is resolved.

Some of our users may be seeing orders in the "Open Pending", "Validation Pending", or "Server not ready" state when placing or modifying orders. We are working on fixing this. Apologies for any inconvenience caused.

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 informing them about the issue.

#### Annexure 4:

- 1. The Refinitiv dev team has suggested upgrading to a better hardware configuration. We are in the process of upgrading the hardware.
- Refinitiv has set up email alerts to avoid such a situation in the future. Refinitiv ops team receives these email alerts depending on the hard disk space usage of each adapter component.