# **Incident Reporting Form - RCA**

| 1. Letter/ Report Subject -  | Reporting of technical glitch to the exchange    |
|--|--|
| Name of the Member<br>Member Code -  | Zerodha Broking Limited<br>NSE: 13906, BSE: 6948 |
| 2. Designated Officer (Reporting Officer details)  |  |
| Name: Venu Madhav  |  |
| 3. Date & Time of Incident & Incident duration   | 22-11-2022, 09:23 AM, 47 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   | 22-11-2022, 10:10 AM                             |
| 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 display and order modification on our trading platform were impacted intermittently for a set of clients from 09:23 AM to 10:10 AM owing to what seems to be

- an issue with the RAM on one of the servers at Refinitiv's end (exchange empanelled RMS and OMS vendor).
- 2. While the issue of order display issue was on the orders page, the users could still see the executed orders normally on the Kite positions page.
- 3. The said issue **did not** affect all users, but only a set of users operating out of a particular Silo.
- 4. The placement of new orders was **not affected.**
- 5. The issue was fixed by the Refinitiv team.

### Annexure 2:

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

- 1. The issue was Intermittent.
- 2. A small section of our clients were impacted by the incident. Order display issue impacted about 94200+ clients whereas the Order modification issue impacted about 9900+ clients.
- 3. There were very few complaints (1000+ calls and 600+ tickets).
- 4. Call and trade desk was open for the impacted users.
- 5. Customers were informed about the issue via a banner on the support portal, a bulletin on our website and a tweet on Twitter.

### 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.



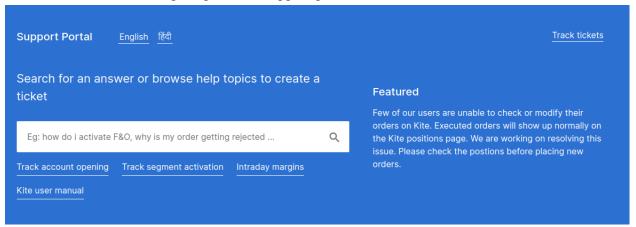
22 Nov 2022, 09:23 AM

### Intermittent issue for order status on Kite [Resolved]

Update [10:10 AM]: The issue is resolved. We are sorry for the inconvenience caused.

Few of our users are unable to check or modify their orders on Kite. Executed orders will show up normally on the Kite positions page. We are working on resolving this issue. Please check the positions before placing new orders.

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



- 4. We also posted a tweet on our official Twitter handle about the issue.
- 5. We added a message on IVR for the clients calling us on our support line informing them about the issue.
- 6. A banner was put up on the Kite, our trading platform to inform our customers about the issue.

### Annexure 4:

- 1. There was an issue related to the RAM A3 slot due to which the server was not booting properly and the Refinitiv's team had to reboot the server manually. On manual reboot the server came up.
- 2. The alternate server had no hardware issues observed and system uptime is 93 days. No reboot was also observed on the server.

### 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's monitoring processes and systems are being reviewed to ensure better monitoring is in place to detect such issues early.
- 2. We are also working on a system to autoswitch servers when an issue occurs.