

	HEADERS	DETAILS
1. Intimation of Incident (T-day, within 1 Hour of the Incident)	1. Letter / Report Subject - Name of the Member -- Member Code -	Reporting of technical glitch Zerodha Broking Limited NSE: 13906; BSE: 6498, MCX: 56550
	2. Designated Officer (Reporting Officer details)	Name: Venu Madhav
	3. Date & Time of Incident	14th June 2023, 12:40PM to 12:48PM
	4. Exchanges on which Technical Glitch was encountered (NSE, BSE, MCX, NCDEX, MSEI)	All
	5. Intimation to clients about the Technical Glitch. (Please attach screenshots of communications to clients)	Bulletin, Support Banner and Twitter
	6. Network Connectivity Issues / Hardware Issues / Software Issues / Human Error / Other (Please Specify (if more than one, please separate with commas))	Issue with data feeds due to an issue with internet service providers (ISPs) The data feeds were down on our trading platform due to the Airtel P2P line that transmits data being down. The issue was between 12:40 PM to 12:48 PM. The said issue did not impact the order placement, order modifications, and order cancellations. A bulletin and support banner was put up on our website informing clients about the issue. The mechanism that auto-switches data feed source to Internet on failure of P2P line didn't kick in. We manually switched our data feed source to Internet.
	7. Additional Details about the Technical Glitch, if Any.	The issue was resolved at 12:48 PM
2. Preliminary Incident Report (T+1 day)	1. Date & Time of Incident & Incident duration (in Minutes)	14th June 2023, 12:40PM to 12:48PM; 8 minutes The data feeds were down on our trading platform due to the Airtel P2P line flapping. The issue was intermittent. The issue was between 12:40 PM to 12:48 PM.
	2. Incident Description	The said issue did not impact the order placement, order modifications, and order cancellations A bulletin and support banner was put up on our website informing clients about the issue. We also informed our users on Twitter about the same.
	3. Immediate action taken (provide brief details)	We manually switched our data feed source to Internet stream to resolve the issue.
	4. Business Impact i) Number of Clients Impacted ii) Any other impact	i. A small section of our clients were impacted by the incident. The number of unique users impacted by this incident were 46.9k. There were very few complaints (414 calls and 77 tickets across all segments). ii. Further, there was no other impact.
	5. Were alternate trading channels available for clients (list all the alternate channels) i) Was there a spike in traffic on the alternate channels available to clients? If yes, provide details.	There was no impact on order placement, order modifications and order cancellations. Hence this questions is Not applicable.
	6. Was the issue caused or encountered by a third-party vendor or service provider? i) Name of the third-party vendor or service provider and a brief description of the issue. ii) Do you have a back-up vendor for the said services	i. Yes, the issue occurred due to a line flapping issue on the P2P lines of Airtel - one of our internet service provider ii. We have connectivity via Internet as the backup. Autoswitchover to internet happens when the P2P line is completely down. However, autoswitchover didn't happen since the P2P line was flapping and wasn't completely down. Hence, we had to manually switch our data feed source to Internet.
	7. Was the issue encountered on the Exchange-provided environment? If Yes, kindly provide details of intimation and communication sent to the Exchnage.	No
	8. Did you move operations to the Disaster Recover (DR) site? If, Yes, what was the Recovery Time?	No
1. Date & Time of Incident & Recovery & Incident duration (in Minutes)	14th June 2023, Time of Incident - 12:40PM; Recovery - 12:48PM; Duration - 8 minutes	

		<p>The data feeds were down on our trading platform due to the Airtel P2P line flapping. The P2P line carries data from our exchange connected DC to our public user facing network.</p> <p>The issue was intermittent.</p> <p>The issue was between 12:40 PM to 12:48 PM.</p> <p>The said issue did not impact the order placement, order modifications, and order cancellations</p> <p>We have automated switchover systems that detect P2P failure and instantly switch data transmission over the internet to the public network. However, this did not trigger since the Airtel P2P line was "flapping" and wasn't completely down. Since the secondary measure failed, we had to resort to the tertiary measure (human), manually switching the data feed transmission to go over the internet.</p>
<p>2. Incident Description & chronology of events (Please provide brief details)</p>		
<p>3. Business Impact: Please provide details on the points below: i) Number of clients impacted ii) Number of client orders impacted iii) Any P&L impact iv) Any other impact on Business</p>		<p>i. A small section of our clients were impacted by the incident. The number of unique users impacted by this incident were 46.9k.</p> <p>ii. No impact on order placement, order modification and order cancellations</p> <p>iii. No impact on P&L.</p> <p>iv. No other impacts.</p>
<p>4. Details of Client Complaints Received (Please provide details of claims of impacted clients) i) Number of Complaints Received ii) Number of Complaints Settled iii) Number of pending complaints iv) Total amount claimed by complainants</p>		<p>i. 2 Exchange complaints ii - 0 (both complaints have been closed) iii - 0 (both complaints have been closed) iv - The amount claimed by the complainants is about Rs 1.2 lakhs.</p>
<p>5. Root Cause Summary (PI attach the detailed Report separately)</p>		<p>Line Flapped as Airtel P2P Link was affected due to Fiber Cut at Mumbai. This was confirmed by Airtel through an email sent to us on June 15, a copy of which is attached as Annexure A</p>
<p>6. If the issue was caused or encountered by a third-party vendor or service provider, Please provide the below details: i) What services are being provided by the third-party vendor or service provider? ii) Time taken (in Minutes) by third-party vendor or service provider to resolve the issue.</p>		<p>i. Leased lines provided by Airtel ii. We resolved the issue at our end by switching over the feed to internet in 8 minutes. Airtel confirmed the next day regarding the line being restored after 18 minutes from the start of the issue.</p>
<p>7. Has a similar issue been encountered prior to the submission of this RCA Report?</p>		<p>A similar issue of line flapping hasn't been encountered prior to the submission of this RCA, since Dec 2021 when we started reporting the glitches.</p>
<p>8. Details of long-term preventive action (please provide all action points for long-term preventive action with the date from which they will be implemented) (please use additional sheets if necessary)</p>		<p>i. We already have alerts setup for this use case but have switched to faster frequency alerts to be informed about such line flaps for more immediate manual intervention.</p> <p>Note - In case of line flapping, automatic switchover to backup is not possible as the line is not completely down. These cases require manual intervention for switching to backup method.</p>
<p>9. Provide a detailed Architecture Diagram of the System.</p>		<p>Attached.</p>

3. RCA of Technical Glitch Incident (T + 14 days)