



Case Study

Breaking Connectivity Barriers: How Zerodha Transformed Its Network for Seamless Trading and Growth

Powered by IZO™ Multi Cloud Connect, the solution enables seamless cloud connectivity, ensuring unmatched flexibility and reliability



As a leading online stock trading platform, Zerodha depends on seamless and reliable network connectivity to power real-time transactions, manage customer data, and ensure business continuity. Its Kite platform must process trades swiftly and accurately, with minimal downtime, to meet customer expectations. Any disruption could lead to delayed or failed trades, resulting in financial losses for users and eroding trust in the platform. Such interruptions could also damage Zerodha's reputation, driving customer churn, revenue loss, and negative public perception.

To ensure high performance and uptime, Zerodha needed a solution capable of supporting its complex hybrid network infrastructure, connecting both on-premises data centres and AWS cloud. With multiple vendors involved, troubleshooting and response times were slow with a traditional point-to-point (P2P) network, impacting overall efficiency.

Tata Communications' IZO™ Multi Cloud Connect solution successfully transformed Zerodha's network infrastructure, making it more flexible, and scalable. Read this case study to discover how Tata Communications addressed these challenges and empowered Zerodha's continued growth.

Battling Scalability, Reliability, and Network Complexity

Zerodha previously used traditional P2P connections to connect its on-premises data centres in Mumbai and Chennai to the AWS cloud, where its client-facing applications were hosted, and to stock exchanges for real-time trading data and order execution. To support its growing infrastructure, Zerodha needed a connection between its data centers and AWS instances in Mumbai and Hyderabad. This connectivity was crucial for managing increased trading volumes, processing real-time data, and ensuring business continuity, all of which are vital to maintaining smooth operations and providing a seamless experience for its customers. However, the P2P connections lacked the flexibility required to meet the company's expanding business demands. Each dedicated line required separate management and configuration, making it difficult to scale and adjust the network efficiently. Additionally, the P2P connections were not optimised to handle traffic efficiently which hindered the ability to quickly adapt to changing business needs.

Furthermore, limited visibility into network performance restricted the team's ability to monitor and resolve issues proactively. Troubleshooting was challenging due to the absence of a clear escalation path, leading to delays in addressing issues, especially outside trading hours.

Additionally, the involvement of multiple ISPs and vendors for different connectivity added complexity, further slowing response times due to poor coordination and lack of responsiveness. These challenges resulted in significant operational inefficiencies, ultimately driving Zerodha to seek a more reliable, flexible, and scalable network solution.



Redefining Connectivity: IZO™ Multi Cloud Connect for Unmatched Performance, Flexibility, and Reliability

Zerodha turned to Tata Communications for a more flexible solution, opting for its IZO™ Multi Cloud Connect. By leveraging IZO™ Multi Cloud Connect, Zerodha was able to seamlessly connect its data centres and cloud environment across multiple locations. The MPLS backbone allowed the company to prioritise and transmit critical trading data with low latency and high reliability, ensuring minimal downtime - essential for Zerodha, which depends on seamless cloud connectivity for its operations.

Additionally, the solution offered the flexibility to scale the network as needed, streamlining operations and eliminating the complexities of managing multiple vendors. In terms of performance, Tata Communications' solution excelled with minimal downtime and consistent network reliability. It became Zerodha's primary connectivity provider for exchanges and cloud services.

Tata Communications also offered Zerodha real-time visibility into network performance through its intuitive TCx portal. This modular platform supported Zerodha's end-to-end network journey—from design and delivery to ongoing lifecycle management. It enabled Zerodha to monitor bandwidth usage and uptime, allowing them

to proactively resolve issues before they escalated. The platform's self-service and co-management features also gave Zerodha the flexibility to independently manage traffic policies and track assets. With real-time dashboards offering unified insights into network and security elements, Zerodha could optimise performance and stay informed.

With Tata Communications' solution, Zerodha was able to create a more reliable, flexible, and scalable network infrastructure, enabling it to better support its expanding business needs.

Tata Communications truly stands out for us in terms of flexibility and reliability. Their cloud connectivity solution has been transformative, enabling seamless connections between our data centres and cloud environment. It has simplified our network structure and eliminated the complexities of managing multiple vendors—an invaluable improvement. What really sets them apart is their consistent performance. Their network has become essential to our trading operations, ensuring uninterrupted service even during peak periods. Additionally, the real-time visibility into network performance has been a game changer, allowing us to proactively address issues before they escalate. Overall, Tata Communications has played a crucial role in supporting our growing business needs and ensuring a smooth experience for our users.

Pramod Muddebihal,
Technical Liaison Manager,
Zerodha

Seamless trading experience and streamlined network management

Since adopting Tata Communications' IZO™ Multi Cloud Connect solution, Zerodha has experienced a transformation in its network infrastructure, driving significant business benefits. The comprehensive and flexible nature of the solution has enabled the company to streamline its operations, improve efficiency, and enhance the performance of its trading systems.

Tata Communications' superior customer support became a key differentiator, offering Zerodha quicker issue resolution through direct engagement and a more streamlined support process. This significantly improved response times and reduced the delays Zerodha had previously experienced while coordinating between multiple vendors.

Improvements have been seen across various areas of business:



Faster issue resolution: With a clear escalation matrix and real-time access to network monitoring, Zerodha can resolve issues faster, ensuring minimal disruption to trading operations.



Future-ready infrastructure: As Zerodha expands into new markets and adopts a multi-cloud strategy, the flexibility and scalability of Tata Communications' solution will continue to support its evolving needs. Whether connecting new data centres or expanding cloud connectivity, Tata Communications' solution offers the agility Zerodha needs to stay ahead of the curve.



Simplified network management: Zerodha now uses a single provider for all connectivity needs, eliminating the complexity of managing multiple vendors.

With improved reliability, flexibility, and dedicated support, Zerodha is now better positioned to serve its customers in the fast-paced world of online trading. This partnership enables us to focus on what matters most—delivering an exceptional trading experience—while Tata Communications expertly manages the complexities of our network infrastructure.

Pramod Muddebihal,
Technical Liaison Manager,
Zerodha

Build your future through a digital customer experience

If you are an enterprise looking to transform the way your customers experience your product, talk to your Tata Communications representative about your company's digital transformation.

- How you can reach your high value customers in the most convenient way?

Transform Now

About Tata Communications

A part of the Tata Group, Tata Communications (NSE: TATACOMM; BSE: 500483) is a leading global commtech (communications technology) player powering today's fast-growing digital economy in more than 190 countries and territories. Leading with trust, it enables digital transformation of enterprises globally with collaboration and connected solutions, core and next gen connectivity, cloud hosting and security solutions and media services. 300 of the Fortune 500 companies are its customers and the company connects businesses to 80% of the world's cloud giants. For more information, please visit www.tatacommunications.com

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