

National Stock Exchange Of India Limited

Department: Member Service	
Download Ref No: NSE/MSD/57802	Date: August 02, 2023
Circular Ref. No: 48/2023	

All Participants,

Sub: Optimisation of Exchange connectivity options - Introduction of category **“F”, “G” and “H”**

NSE’s nationwide POP network is a dedicated backbone network for members to connect to NSE’s trading platform via Leased lines (LL). The Exchange continuously reviews and enhances its connectivity framework to empower members to optimise their resources according to their business requirements.

Based on the feedback received and with a view to provide operational efficiency to the members, the Exchange is pleased to introduce new connectivity Categories **“F”, “G” and “H”** with features as below:

Category	F	G	H
Interactive messages per second	2000	5000	10000
Message charges (in Rs p.a excluding taxes)	50,00,000	1,25,00,000	2,50,00,000
Bandwidth Options	4 / 10 / 20 / 30 Mbps		
Market Data Broadcast (5 depth 1 second frequency or other such non-Tick-By-Tick data as offered by the Exchange from time to time)	Yes	Yes	Yes
Types of Scenarios	F1-Single Leased Line	G1-Single Leased Line	H1-Single Leased Line
	F2-Dual Leased Lines	G2-Dual Leased Lines	H2-Dual Leased Lines

Availability of services: The new categories shall be made available only for WAN mode of connectivity i.e. Leased Line (for both Managed and Self-service modes)

The offering being introduced shall help members to reap the following benefits:

- Consolidation of existing connectivity and network architecture
- Reduction in last mile and other connectivity related charges
- Saving on time and efforts in managing and troubleshooting connectivity related matters

Members are further requested to note the following in this regard:

1. Application for Child /Subnet IPs will continue to be applicable for the new category of links.
2. All existing services like shifting, change in bandwidth etc. for these 3 categories will be available through ENIT as per current applicable process for POP.

3. Members intending to change the category of their existing links to “F”, “G” and “H” can place the request via ENIT from the existing modules.
4. In aforesaid new model, members can avail maximum 1000 messages per second per segment (1 box for each segment) per IP. Further, member can utilize the child IP for distributing these additional messages as per their business requirements on same physical link.
5. **Members may refer illustration A for distribution of messages across Parent and Child IP’s**
6. Members may refer illustration B detailing the benefit for network consolidation.
7. The bandwidth and network resilience will be continued to be managed by members as per their business needs.
8. All other modalities pertaining to various modes of connectivity shall remain the same.

Illustration A: For a G scenario the allowed message rate will be 5000 messages per second, in below table the bifurcation of 5000 messages between mother and child IP is populated. The member can avail maximum of 1000 messages per second per box id. The total messages can be bifurcated between mother and child IP as per member preference.

IP Type	IP address *	Message Rate set in CM	Message Rate set in FO	Message Rate set in CD	Total
Parent	10.260.60.2	1000	1000	1000	3000
Child 1	10.260.60.12	1000	500	500	2000
Grand Total messages per second for G scenario					5000

Illustration B:

As per below table, a member who has availed 12 links (scenarios) across 2 locations, as per current offering of the Exchange needs to manage these 12 links through 12 or 24 routers (i.e. single router for each link or dual router for handling contingencies). However, as per the proposed changes, the member can manage these 12 scenarios through 2 or 3 Link / routers.

Link Location	Scenario			Current Link / router requirements by member	Link / Router requirement as per new proposed arrangement
	B (100 m/s)	E (1000 m/s)	Total scenarios		
Branch 1		4	4	4 or 8 (8 in case of dual router)	1 or 2*
Branch 2	2	6	8	8 or 16 (16 in case of dual router)	1 or 2*
Grand Total	2	10	12	12 or 24	2 or 4*

* To manage redundancies.

The Exchange is cognizant of the importance of redundancy to ensure continuity of services. To this aim, the Exchange provides enough redundancy options to members. Members are requested to refer Exchange circular NSE/MSD/57349 dated June 28, 2023 to create network resiliencies.

Members are requested to note that, the Exchange will issue a separate circular detailing implementation guidelines and effective date for submitting the request in ENIT with regards to the said new categories.

For and on behalf of
National Stock Exchange of India Limited

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Disclaimers:

The Exchange is not a telecom service provider, however, to facilitate its participants to procure connectivity to its trading system, the Exchange takes proactive steps to engage with last mile connectivity providers. **It is solely a participant's responsibility to procure and maintain their network architecture, assets, and connectivity.** participants should note that National Stock Exchange of India Limited ("NSEIL") is only a facilitator of this service. **Neither NSEIL nor its directors, managers, officers, employees or agents, guarantee the functioning of the connectivity, SLAs, uptime etc. ("Service") provided by Network Integrators and last mile telecom service providers.** NSEIL does not warrant the accuracy, adequacy or completeness of this Service and expressly disclaims liability for errors or omissions in the same.

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