



DISASTER RECOVERY (DR) MIGRATION FAQs

1. Where is Nasdaq moving its DR?

Based on client feedback, Nasdaq is moving its Disaster Recovery (DR) site for the US equities and options markets from Ashburn, Virginia to Chicago, IL. The DR will be located within the Equinix CH4 facility at 350 E. Cermak on the 8th floor.

2. Why is Nasdaq moving its DR?

In addition to offering additional geographic diversity, this new DR location enables clients to easily connect to a broad group of other equities, options, and fixed income exchange DR engines as well as other asset classes in this Chicago facility.

3. What services will be offered through Nasdaq's DR site?

All available Nasdaq proprietary data feeds along with order entry capabilities will be offered via DR handoffs. Customers will be able to choose from the following options depending on their business needs:

- **Nasdaq Markets**– Provides access to all markets for both market data and order entry via 1Gbps Ultra or 10Gbps handoffs.
- **eSpeed DR and/or NFX* Only** - Provides limited access to the eSpeed DR and/or NFX markets for both order entry and market data. eSpeed DR/NFX Only is available via 1Gbps Ultra access only.

**NFX is primary in the Chicago data center. All other Nasdaq markets are primary out of Carteret.*

4. Is the Nasdaq DR site a "hot" site?

Yes. Market data will be actively flowing out of Chicago handoffs even if the markets' matching engine is running primary out of Carteret. Orders will also be routed to the active matching engine in either site (Carteret or Chicago) from local Chicago gateways.

5. What are the costs for the DR site?

The table below shows the cost breakdown per location and connection type:

Bandwidth	Service	Handoff Fee	
		Install	Monthly
1Gbps	Nasdaq Markets*	\$1,500	\$2,500
10Gbps	Nasdaq Markets*	\$1,500	\$7,500
1Gbps	eSpeed DR Only	\$500	\$500
1Gbps	NFX Only**	Waived	Waived
10Gbps	NFX Only**	Waived	Waived

*Nasdaq Markets handoff fees will be waived until the order entry access is shut down in Ashburn on November 9, 2015.

**NFX Only fees are being waived through 2015. Notifications will be sent to customer prior to fee liability start date.

6. Can I receive both primary and DR services over the same handoff?

Yes, because Chicago is a “hot” site, customer will be able to both receive market data feeds and send orders regardless where the matching engine is active.

7. Will I be able to receive both A and B feeds of any Nasdaq market over the same handoff?

No, customer that want to receive both A and B feeds must have separate handoffs. This is the policy for all of our markets.

8. How can I connect to Nasdaq’s DR?

Firms can order the DR handoff through the [Nasdaq CoLo and Connectivity Console](#) – our customer portal. Clients who place orders through the client portal will receive a Letter of Authorization (LOA) from NASDAQ OMX. The LOA will allow clients to subsequently request a cross connect from Equinix. Contact [CoLo Admin](#) if you don’t have access to our client portal.

Customers who do not have a presence in CH4 can either connect through an [extranet](#) or ISV, an Equinix approved telco provider, or connect to NASDAQ through other [methods](#). Clients who wish to have new dedicated telco circuits installed can contact any of these connectivity [providers](#) (note this is not an exhaustive list).

9. Who is responsible for the cross-connects to the Nasdaq DR?

Customers must order the cross-connect orders through their applicable vendor and/or Equinix directly. Nasdaq is not responsible for the ordering or maintenance of any cross-connects between customer cabinets or telco demarcation points and Nasdaq.

10.]When will I receive information regarding order entry ports?

Firms will be required to “opt-in” to activate DR order entry ports. Nasdaq will provide additional information regarding network and IP/port information as it becomes available.

11. Will the order entry ports in Nasdaq’s DR facility be able to connect to Carteret?

Yes, because Chicago is a “hot” site, orders placed to local Chicago gateways will be routed to the active matching engine just as Ashburn is configured today.

12. What is the latency between the Nasdaq DR and Carteret?

The one-way circuit latency between Carteret and the Chicago DR is 7.25 milliseconds.

13. Is there redundancy between the Nasdaq DR and Carteret?

Yes, Nasdaq has installed redundant circuits between Carteret and Chicago. It's important to note that the latency profile will be greater while in a failover scenario, as the primary and backup paths are fully redundant.

14. Will I be alerted if the primary circuit is failed over to the backup path?

Yes, you will receive a notification that there was a failure scenario on the path between Chicago and Carteret, and that you are traversing the backup circuit. You will be notified again once the primary circuit has been restored, usually during the maintenance hours between 8:30 PM - 11:00 PM. Customer inquiries during a failover event should be directed to TradingServices@nasdaq.com.

15. What are the contract terms?

Similar to the terms of a handoff within Carteret, there is a monthly contract term. The monthly fee is prorated for the turn-up of service, but not for the cancellation of service. For example, if a customer requests a 10Gbps POP handoff in Secaucus and it is turned up by Nasdaq on the 10th of the month, the customer will be billed from the 10th through the rest of the month. If the customer cancels this service on the 20th of a subsequent month, they will be billed for the entire month.

16. Who do I contact for more information?

Please contact [Richard Mitterando](#) at +1 212 401-8788.

MORE INFORMATION

WWW.NASDAQTRADER.COM/DR



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