



VEQ Link EXECUTION PROTOCOLS

Virtu Equities Link (“Link”) is an electronic offering which enables clients to tap into liquidity provided by Virtu’s Client Market Making (“VCMM”) service. VEQ Link is a single dealer platform offered by Virtu Americas LLC (“VAL”) and is not an alternative trading system as defined in applicable SEC Rules. Accordingly, client orders do not rest in VEQ Link.

The Basics

- Virtu Americas LLC (“VAL”) is the contra party to all trades
- Executing Broker MPIDs used: NITE, TRIM¹
- MIC code: KNLI
- Last Mkt: 30 = 75
- Clearing number: 295
- All VEQ Link orders are executed in a principal or riskless principal capacity
- Trades are reported to the Nasdaq TRF. Trades can also be reported to the NYSE TRF per client request.

Order Types Supported

- Time in Force: Immediate or Cancel Orders (IOC)
- Order Instructions: Limit, Market
- We support round, odd and mixed lot order sizes.
- Minimum Execution Quantity supported.

Hours of Operation

- Primary Trading Session – 9:30 a.m. -4:00 p.m. EST
 - Trading begins at 9:30 a.m.
 - IOCs received before 9:30 will be canceled back to the client.
 - Clients can connect to VEQ Link starting from 7:00 a.m. EST
 - Pre-Market session²: 7:00 a.m. – 9:29:30 a.m. EST
 - After Hours Sessions³: 4:00:30 p.m. – 8:00 p.m. EST

Liquidity Source

Virtu’s Client Market Making service provides liquidity to VEQ Link clients, which include the smart order routers of other broker-dealers. Virtu’s Client Market Making service also provides liquidity to:

1. Retail broker-dealer clients as part of VAL’s wholesale market-making business.
2. ATSS and Exchanges.

² Additional certification is required for support of pre/post trading.

³ Additional certification is required for support of pre/post trading.



In addition to providing liquidity to client order flow, VCMM manages VAL's internal inventory and uses a portfolio optimization method to hedge risk. This enables VEQ Link to offer liquidity in more than 7,600 securities.

- Orders are accepted in all US Exchange Listed Equity securities, except in the common stock of Virtu Financial, Inc. (Ticker symbol: VIRT).
- 58% of executed volumes in VEQ Link were in small, mid-cap and micro-cap securities in 2017.

Connectivity

- Clients have the opportunity to cross connect to Point of Presence "POPs" referred to as Fixbridges in third party datacenters.
- VEQ Link supports FIX v. 4.2

Pricing

- Executions occur at the NBBO with the opportunity for price improvement.
- VEQ Link uses Securities Information Processor (SIP) data to determine the NBBO.

The VEQ Link offering is highly customizable. Client experiences can vary based on a variety of factors, including client requirements.

FREQUENTLY ASKED QUESTIONS

1. How are my orders handled?

VCMM systems use internal positions and real-time market data to make trading decisions. These systems do not retain information on prior incoming orders for purposes of making trading decisions, with one exception. The one exception relates to identification of potential gaming activity. Post-trade analysis of historical order information may be done offline. We maintain a static profile for each client which enables us to provide targeted liquidity to end clients. This profile is periodically updated, typically on a monthly basis. We use the results of the offline analysis to adjust internalization rates based on each client's static profile.

2. Who can see my incoming order information?

Our policies provide that only personnel whose job function requires access to real-time order and execution information are permissioned to see this information. This currently consists of the business supervisors, trade operations support, risk management, compliance and other similar personnel with a bona fide business need to know such information. Please see our Global Disclosure document for information on permissible use of post-trade data (<https://www.virtu.com/legal/global-disclosures-regulatoryreporting>).

3. Does VEQ Link send out IOIs?

We do provide a liquidity filter (aka IOI) indicating VAL's potential trading interest to customers who integrate this data into their router via FIX message as a source of market data. Unlike institutional IOIs which advertise customer orders, no client order information is ever shared



because VAL is always on the other side of the trade. As a result, this liquidity filter is an indication of VAL's principal trading interest and is used by client routers to make their order routing more efficient.

As an example, to potentially improve the likelihood of receiving an execution, some routers will only send VEQ Link an IOC if a liquidity filter is present. Please note, our trading interest may change following transmission of an IOI; these IOIs are not quotes and VAL does not guarantee an execution.

4. Does VAL send out IOIs for customer orders it cannot fill?

No. VAL does not send IOIs externally to fill orders received by VEQ Link.

5. Does VAL route IOCs externally?

If VEQ Link does not fill a client IOC completely, VAL may send a principal order to its non-FINRA member affiliate, Virtu Financial BD LLC ("VFBD") to provide an opportunity to access additional liquidity for the client order. Clients who want to access this additional liquidity source can opt in by notifying their Virtu Representative in writing.

6. Is there any way for a VEQ Link client to interact with other VAL liquidity?

VEQ Link clients can also request anonymous access to additional liquidity via our Enhanced Liquidity Engine ("Engine"). Through this functionality, various VAL trading desks can post interest into the Engine. Client orders that opt into this liquidity will be handled in a manner consistent with these execution protocols. If a client opts into this additional liquidity and receives executions from the Enhanced Liquidity Engine, it can be denoted in tag 9280. Post-trade T+1 data for opt in clients may be analyzed offline by trading desks. Client identities are masked in the post-trade data that is available to trading desks. These desks may create a static profile for each anonymized client to provide targeted liquidity and to adjust internalization rates based upon the static profile.

7. I am an electronic client of another broker-dealer. How do I tap into VEQ Link's liquidity?

VEQ Link is integrated as a source of liquidity into the routers of most agency algorithmic platforms. Clients who would like to connect to Link may request access from their electronic algo provider.

8. I am a Virtu Electronic Trading client. How do I access VEQ Link's liquidity?

Electronic Trading clients may request access to VEQ Link by contacting their Virtu Representative. Clients can request either a direct route or that VEQ Link be integrated as an algo routing destination in either a disclosed or non-disclosed manner. The algo team performs venue analysis across all of the venues they route to including Link – to inform their routing decisions. Soft dollar clients should be aware that VEQ Link executions are principal executions that may not be eligible for research credits under Section 28(e).



9. Do we advertise VEQ Link volume intra-day or end-of-day volume on Bloomberg, Autex or other third party providers? If so, can orders be opted out?

Yes, VAL advertises its execution volume aggregated by symbol contemporaneously with the volume being reported to the tape. However, client trades are not designated as VEQ Link and are indistinguishable from executions advertised by other VAL desks. Clients can opt out of having executions that result from VEQ Link orders advertised.

Please feel free to reach out to us with any questions.

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