INVESTORS EXCHANGE CONNECTIVITY MANUAL

Version 1.83

Updated: June 6, 2025

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INTRODUCTION

Overview

Investors Exchange's ("IEX" or the "Exchange") primary trading platform, located in an Equinix data center (NY6) in Secaucus, NJ, is accessible to Members, Sponsored Participants, Service Bureaus, Data Recipients (collectively, "Participants"), and Extranet Providers via connectivity at the IEX point-of-presence ("POP" or "IEX POP"), which is located in an Equinix data center (NY5) in Secaucus, NJ. The POP is designed to provide Participants with an equivalent 350-microseconds of latency from the POP to the primary trading platform.

IEX will only accept Equity Port and Market Data connections to the primary trading platform through the IEX POP.

IEX's secondary data center (the "Disaster Recovery data center") is located at the Equinix data center (CH4) in Chicago, IL. Connectivity to the IEX Disaster Recovery data center, while not a mandatory requirement for all Participants, is recommended to minimize service disruption in the event of an issue at the primary trading platform data center. Additionally, pursuant to IEX Rule 2.250, certain Members are required to establish connectivity to the Disaster Recovery data center and participate in functional and performance testing at least once every 12 months. These Members are designated quarterly based upon the prior calendar quarter's volume on IEX.

Secaucus is the "primary" or "hot" site, with Chicago being "secondary" or "cold."[1] Participants will not be able to connect to order entry systems nor receive market data in Chicago until IEX declares the primary trading platform in Secaucus "down."

The IEX Test Facility ("ITF") is located at the Equinix data center (NY5) in Secaucus, NJ. Participants may use the ITF for FIX certification and non-production testing of trading system functionality. Connections to the ITF are available over cross-connect or the Internet.

IEX does not offer co-location services. Participants are responsible for choosing their telecommunications provider, and arranging for connections to the IEX POP, Disaster Recovery data center, and ITF.

IEX CONNECTIVITY DATA CENTER LOCATIONS		
IEX POP ("Primary")	Disaster Recovery ("Secondary")	IEX Test Facility ("ITF")
Equinix (NY5) 800 Secaucus Rd Secaucus, NJ	Equinix (CH4) 350 E Cermak Rd Chicago, IL	Equinix (NY5) 800 Secaucus Rd Secaucus, NJ

Please note that all connectivity options are subject to the possibility of variations in performance, including delays to system access and trade execution resulting from, for example, such events as market volatility and heightened quote and trading volumes.

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[1] IEX will use best efforts to support T+2-hour resumption of trading but no later than the start of trading on the next business day.

IEX supports the following network connectivity choices for access:

- Internet (only for certification or test sessions in the ITF);
- Cross-Connect (i.e., for Participants co-located in the same data center as the POP, ITF, or the Disaster Recovery data centers)
- Extranet Providers (see the IEX Approved Extranet Provider table on the website for a list of approved Extranet Providers);
- Private Line Ethernet (circuit extension from a carrier to the IEX POP, ITF, or the Disaster Recovery data center, can also be found on the website .

Connectivity Matrix

	IEX POP	DISASTER RECOVERY	ITF
Data Center Role	Primary Connectivity	Secondary	Testing Facility
Data Center Provider	Equinix (NY5)	Equinix (CH4)	Equinix (NY5)
Site Location	Secaucus, NJ	Chicago, IL	Secaucus, NJ
Site Status	POP for Primary	Cold/Secondary	Non-Production
Accepts Co-location Cross-connects?	Yes	Yes	Yes
Accepts Circuit Extension from Telco?	Yes	Yes	Yes
Access to Production Sessions/Feeds?	Yes	No	No
Access to Disaster Recovery Sessions/Feeds?	No	Yes	No
Access to Test Sessions/Feeds?	No	No	Yes
Co-location of Network Equipment?	Yes	Yes	Yes
1G Monthly Recurring Connectivity Fees	See IEX Fee Schedule for details		
10G Monthly Recurring Connectivity Fees			
Supported Media Types	SMF	SMF	SMF
IEX Contact	marketops@iextrading.com		
Data Center Contact	Scott Leonard 646.430.6820		

Physical Interfaces

The following standard physical interface specifications are supported. For other interface specifications, contact marketops@iextrading.com.

Interface	Type	Environment Availability
10G	LR (single-mode)	IEX POP, Disaster Recovery, ITF
1G*	LX/LH (single-mode)	ITF (default interface)

* Note that 1Gbps physical interfaces are an order of magnitude slower than 10Gbps. 1Gbps physical interfaces are not recommended for bandwidth and/or latency sensitive participants, and are not offered for access to the primary or secondary trading platform.

CONNECTIVITY CHOICES

Internet

Participants may connect over the Internet to the ITF:

- Access to Equities Port for test and certification purposes.
- IP address of the host presented to IEX must be registered.

Cross-Connect

Participants and Extranet Providers with a presence at the POP location may cross-connect to IEX at Secaucus (Equinix NY2/NY3/NY4/NY5/NY6) for access to the primary trading platform. Participants and Extranet Providers with a presence at the ITF location may cross-connect to IEX at Secaucus (Equinix NY2/NY3/NY4/NY5/NY6) for access to the testing facility. Participants and Extranet Providers with a presence at the Disaster Recovery data center may cross-connect to IEX at Chicago (Equinix CH4) for access to the Disaster Recovery platform.

- Participants and Extranet Providers with their own space in the data center may request an in-house cross-connect directly from the data center providers to connect from the Participant's demarcation point to IEX's demarcation point.
- Participants and Extranet Providers that do not have a presence can lease space in either data center from the data center providers directly (please see the Connectivity Matrix above for contact information).
- Single mode fiber – 10Gbps or 1Gbps (ITF only).
- Each physical port connection (10Gbps or 1Gbps) within the Secaucus (Equinix NY2/NY3/NY4/NY5/NY6) and Chicago (CH4) data centers may be subject to a monthly recurring charge. See the IEX Fee Schedule posted at https://www.iexexchange.io/resources/trading/fee-schedule for more information.
- Participants and Extranet Providers desiring to cross-connect must execute an IEX Connectivity Services Agreement and Forms.

Customer-Facing IP Prefixes Scheme

IP Address	Purpose	Site	XC Type
23.226.144.0/21 23.226.155.128/28 23.226.155.160/28	Order Entry Gateways Summary Prefix FEEDS-A Multicast Market Data Publishers FEEDS-A Unicast Market Data Retransmitters	IEX POP (Equinix NY5)	Primary (A)
23.226.144.0/21 23.226.155.192/28 23.226.155.224/28	Order Entry Gateways Summary Prefix FEEDS-B Multicast Market Data Publishers FEEDS-B Unicast Market Data Retransmitters	IEX POP (Equinix NY5)	Secondary (B)
23.226.156.0/22 23.226.152.0/23 23.226.155.176/28 23.226.155.240/28	DR Order Entry Gateways Prefix DR Order Entry Gateways Prefix DR FEEDS-C Multicast Market Data Publishers DR FEEDS-C Unicast Market Data Retransmitters	Disaster Recovery (Equinix CH4)	Tertiary (C)
23.226.155.0/29 23.226.155.8/29 23.226.155.16/29	ITF Order Entry Gateways Prefix ITF Multicast Market Data Publishers ITF Unicast Market Data Retransmitters	IEX ITF (Equinix NY5)	ITF (I)

Extranet

Participants may provision connectivity to IEX via an extranet.

- Extranets have provisioned redundant, high-speed connections to the POP, ITF, or Disaster Recovery data centers for use by multiple Participants.
- Contact information for available extranet providers can be found within the [IEX Approved Extranet Providers](#) section below.

This method is an attractive alternative when:

- The Participant would otherwise have to provision a long-haul private line;
- Outsourcing of network services and network management is an option; or
- The ease and speed of turn-up are important (when both the Participant and IEX have an existing connection to the extranet).

Direct Connectivity via Private Line Ethernet

Participants and Extranet Providers may connect to IEX via Private Line Ethernet.

- No co-location space is required. Cross-connect from Telco demarcation point to IEX's network via a 1 or 10 Gigabit Ethernet interface.
- Each physical port connection (10Gbps or 1Gbps) within the Secaucus (Equinix NY2/NY3/NY4/NY5/NY6) and Chicago (CH4) data centers may be subject to a monthly recurring charge. See the IEX Fee Schedule posted at www.iexexchange.io for more information.
- Contact your carrier of choice to arrange connectivity to IEX..
- Participants and Extranet Providers desiring direct-connectivity must execute an [IEX Connectivity Services Agreement and Forms](#).

ORDERING A CROSS CONNECT TO IEX

Agreement and Order Form

Participants must execute and deliver an IEX Connectivity Services Agreement and Forms via email to marketops@iextrading.com or postal mail to:

> Investors' Exchange LLC
> Attn: Market Operations
> 3 World Trade Center, 58th Floor
> New York, NY 10007

LOA

Upon approval of cross connect request, IEX Network Operations will provide a Letter of Authorization ("LOA") with the "Z-side" cage, cabinet, panel, and port pair assignment. The Participant or Extranet Provider requesting the cross connect is known as the "A-Side, "B-Side, etc

Data Center Provider Request

The requesting Participant or Extranet Provider submits a cross connect request with the appropriate data center provider:

- Equinix: NY2, NY3, NY4, NY5, NY6 and CH4

The data center provider will need the LOA and the "A-Side" details to complete the connection. The "A-Side" customer is responsible for any data center setup fees and monthly recurring costs associated with the cross connect. As the "A-Side" customer, the Participant or Extranet Provider is also responsible for initiating troubleshooting requests with the data center provider in the event of a down cross connect.

BANDWIDTH

Market Data Feeds

IEX offers three types of market data feeds:

- TOPS (Top of Book Quote and Last Sale Feed)
- DEEP (Depth of Book and Last Sale Feed)
- DEEP+ (Order-by-Order Depth of Book and Last Sale Feed)

IEX understands that firms will have varying levels of sensitivity with respect to latency and as such encourages Participants to use the statistics provided below to make a well-informed decision regarding the bandwidth they will require based on their organization's latency sensitivity.

The table below shows the bandwidth statistics for historical highs for the IEX market data feeds. The table shows the bandwidth and messages per second (MPS) peaks for 1 millisecond, 10 milliseconds, and 1-second intervals.

	TOPS		DEEP		DEEP+	
Interval Seconds	**MPS**	**Mb/s**	**MPS**	**Mb/s**	**MPS**	**Mb/s**
0.001	4,080,000	1,760	3,930,000	1,160	4,230,000	1,640
0.010	2,640,000	1,610	2,980,000	810	3,310,000	1,290
1.000	497,920	870	936,490	370	427,370	295

Statistics are approximations using data from February 2025.

It should be noted that IEX data will have microbursts within the one-second interval above, and that these microbursts will exceed the peak rates at the one-second interval. This is demonstrated within the 1 and 10 millisecond interval statistics. The extent to which the network connection to the Participant will cope with the microbursts exceeding the available bandwidth without packet loss will depend heavily on the buffers in the end-to-end path.

During spikes in quote updates, Participants using less than sufficient bandwidth will experience queuing of their market data. Participants using the same bandwidth to both receive quotes and transmit orders may expect their orders to be slightly delayed if they have less than sufficient bandwidth. Some Participants will find these delays unacceptable and should provision their bandwidth to reduce these delays.

As the volume on the Exchange increases, the market data feed bandwidth required to accommodate peaks will also grow.Participants can obtain the latest published market data bandwidth within this Connectivity Manual.

EQUITY PORTS

FIX Order Entry

IEX supports FIX 4.2 for order entry; refer to the [IEX FIX Specification](#) for implementation details. With a FIX connection between Participants' systems and IEX, Participants can easily send orders to IEX automatically from their trade blotter, providing instant access to trading opportunities and liquidity.

Drop Copy Information

IEX supports FIX 4.2 for drop copy information; refer to the [IEX FIX Specification](#) for implementation details. With a FIX connection between your system and IEX, you can easily receive drop copy information from IEX in real-time. They may be configured to send order flow based on various combinations of information relating to specific Member firms, clearing MPIDs, and/or sessions. With proper authorization (e.g. clearing relationship), a single FIX drop copy session can be used to obtain information about multiple Members.

ITF TCP/IP Connectivity Addresses

SITE	XC Type	Service	Server	Port
IEX Testing Facility (Equinix NY5)	ITF (I)	Certification Gateway	23.226.155.4	8443
		FIX Order Entry / FIX Certification	23.226.155.4	8443
		Drop Copy Information	23.226.155.4	8442
		FIX Simulation	23.226.155.4	8444

MARKET DATA

Top of Book Quote and Last Sale Feed (TOPS)

Participants may use TOPS to receive real-time top of book quotations direct from IEX. The quotations received via TOPS provide an aggregated size and do not indicate the size or number of individual orders at the best bid or ask. Non-displayed orders and non-displayed portions of reserve orders are not represented in TOPS. TOPS also provides last trade price and size information. Routed executions are not reported.

Refer to the IEX TOPS Specification on the IEX web site for complete details.

Multicast Addresses

Refer to the IEX TOPS Specification for multicast addresses.

Depth of Book and Last Sale Feed (DEEP)

Participants may use DEEP to receive real-time depth of book quotations direct from IEX. The depth of book quotations received via DEEP provide an aggregated size at a price and side, and do not indicate the number or size of individual orders at any price level. Non-displayed orders and non-displayed portions of reserve orders are not represented in DEEP. DEEP also provides last trade price and size information Routed executions are not reported.

Refer to the IEX DEEP Specification on the IEX web site for complete details.

Multicast Addresses

Refer to the IEX DEEP Specification for multicast addresses.

Order-by-Order Depth of Book and Last Sale Feed (DEEP+)

Participants may use DEEP+ to receive real-time, order-by-order depth of book quotations direct from IEX. The depth of book quotations received via DEEP+ provide an order-by-order view of resting displayed orders. Non-displayed orders and non-displayed portions of reserve orders are not represented in DEEP+. DEEP+ also provides last trade price and size information. Routed executions are not reported.

Refer to the IEX DEEP+ Specification on the IEX web site for complete details.

Multicast Addresses

Refer to the IEX DEEP+ Specification for multicast addresses.

TELECOMMUNICATION & EXTRANET PROVIDERS

There are a number of telecommunication and extranet providers available within the Secaucus (Equinix NY5) and/or Chicago (Equinix CH4) data centers that IEX works with. For more information, please contact IEX Market Operations.

Telecommunication Carriers

Telecommunication carriers provide a dedicated circuit between Participants in different data centers to a demarcation point in the POP, ITF, or Disaster Recovery data centers. The circuit is extended from the demarcation point to an IEX network device.

It is recommended that Participants use redundant connectivity via multiple telecom providers to the POP, ITF, and Disaster Recovery data centers.

Contact the IEX Market Operations group for information about circuit ordering details.

Extranet Providers

IEX partners with several extranet providers to aggregate Participant connectivity and provide low cost, value-added B2B services such as multicast market data feeds. Extranet providers are required to sign an Extranet Addendum to the IEX Connectivity Services Agreement and Forms after meeting the requirements outlined in the IEX Extranet Provider Manual. The list of partners can be found on the IEX website and is not indicative of IEX preference or recommendation.

SUPPORT

Please email questions or comments regarding this manual to marketops@iextrading.com. IEX Market Operations is a one-call shop that supports Participants, Extranet Providers, and telecommunications providers during initial setup and continuing support of connectivity to IEX.

Support Hours

- Phone: 646.343.2310
- Email: marketops@iextrading.com
- Core phone support hours are 8:00 AM – 5:00 PM ET Monday – Friday
- Outside of core support hours, to report a network issue that must be addressed prior to market open – leave a voicemail with the firm name, contact number, and nature of the issue along with an email to marketops@iextrading.com.
- For non-critical issues or for information, please email IEX Market Operations and your request will be responded to by the next business day.

REVISION HISTORY

Version	Date	Change
1.00	August 20, 2015	• Initial Document
1.10	January 29, 2016	• Drop Copy Information added to Equity Ports section • Multicast addresses for TOPS references the TOPS Specification • LAST information added to the Market Data section
1.20	February 18, 2016	• Reflected a single POP • Added Equinix contact to lease data center space • Updated links
1.30	June 27, 2016	• Removed references to a separate last sale feed and added last sale information to TOPS
1.40	April 12, 2017	• Introduced DEEP • Updated description of the Disaster Recovery platform • Incorporated information about the ITF
1.50	May 25, 2017	• Provided connectivity information to the ITF for FIX Order Entry / FIX Certification, Drop Copy, and FIX Simulation services
1.60	April 11, 2018	• Replaced CenturyLink with Cyxtera
1.70	October 1, 2018	• Removed the condition that IEX supports disaster recovery on a T+1 basis, as the Exchange now supports intraday recovery
1.80	October 22, 2018	• Updated IEX address from 4WTC to 3WTC
1.81	May 7, 2020	• Updated ITF TCP/IP Connectivity Addresses and Port numbers • Updated the Exchange disaster recovery times in the Overview section • Updated the Cross-Connect section to add customer-facing IP prefixes
1.82	August 10, 2023	• Updated IEX Approved Extranet Provider contact information • Updated Connectivity Matrix / Overview • Updated website links
1.83	June 6, 2025	• Updated Overview section following IEX Data Center Migration • Updated Market Data Feeds Bandwidth statistics • Added new DEEP+ section in Market Data • Updated Telecommunication and Extranet Providers section