



Exhibit A – CTA NETWORK A & CTA NETWORK B Market Data Internal and External Redistribution

Thank you for your interest in **CTA NETWORK A & CTA NETWORK B** market data. This questionnaire is intended to simplify user application requirements while furnishing customers and data providers (aka “vendors”) with the information needed to sanction the release of market data. Please follow the instructions below and answer all questions accurately and thoroughly to ensure timely processing of your market data request(s).

Customers should complete a separate questionnaire for each market data source (or consult your NYSE account manager for further instruction). One questionnaire may include several sites provided each site operates on the same network, utilizes a single market data vendor source and is clearly identified. If more than one location/environment exists with different levels or controls, a separate questionnaire must be completed for that location.

All customers and vendors who wish to receive market data via an uncontrolled data feed are required to complete and submit this Exhibit A. In addition, NYSE requires:

1. A signed copy of the NYSE Vendor Agreement (if currently not on file)
2. When applicable, screen prints demonstrating the use and/or display of **CTA NETWORK A & CTA NETWORK B** data
3. When applicable, Exhibit B for Nonprofessional Subscribers (if offering data to nonpros or on a per-quote basis)
4. When applicable, Exhibit C for “Click-on” Agreements (if offering data to nonpros or on a per-quote basis)
5. When applicable, additional Exhibit C’s or contracts corresponding to your use of the data (i.e. Delayed Data feeds, Third Party Payors, etc.)
6. A data feed request submitted by your vendor to NYSE on your behalf

Please be sure all names and dates are consistent across all documents/contracts. All documents/contracts can be found on our website, www.ctaplan.com. All required documents should be executed and returned to your account manager or:

New York Stock Exchange LLC
Attn: Market Data Services
11 Wall Street, 15th Floor
New York, NY 10005
Fax (212) 656-5922

**Exhibit A to the Vendor Agreement for receipt and use of
CONSOLIDATED NETWORK A DATA AND NYSE MARKET DATA MARKET DATA dated**

between New York Stock Exchange LLC and

(name of organization)

1. How do you intend to use the market data?

- ☐ **INTERNALLY** (to employees)
(if checked, please complete sections I, II, III, V, VI, and VII)
- ☐ **EXTERNALLY** (to non-employees)
(if checked, please complete sections I, II, IV, V, VI, and VII)
- ☐ **BOTH** (Internal and External)
(if checked, please complete ALL sections)

2. Company Information:

Website Address: _____	Main Phone Number: _____
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3. Data feed installation:

Installation Address	Billing Address (if different than install address)
_____ Street Address (P.O. Box number not accepted)	_____ Street Address (P.O. Box number not accepted)
_____ Street Address	_____ Street Address
_____ City, State, Province, Postal Code	_____ City, State, Province, Postal Code, Country
_____ Country	_____ Billing Contact Name

4. Method of Access & Source of Data

Method of Access	Vendor Information
<input type="checkbox"/> Direct from NYSE (SFTI)	Vendor Name: _____
<input type="checkbox"/> Indirect through a Vendor (Third Party)	Vendor Service: _____
	Vendor Account Number(s): _____

Dated: _____

SECTION I - Contact Information

Customer/Subscriber must provide contact information for at least one **MAIN**, one **BILLING**, one **COMPLIANCE**, one **TECHNICAL** and one **REPORTING** contact for the purposes of addressing any appropriate notification. If any type of market data is to be received through direct access to any data provider's facilities, technical and emergency contact(s) should be designated.

Main: <input type="checkbox"/> Billing: <input type="checkbox"/> Compliance: <input type="checkbox"/> Reporting: <input type="checkbox"/> Technical: <input type="checkbox"/> Other (specify): _____	First Name _____ Last Name _____ Title _____ Phone _____ Facsimile _____ E-mail _____ Address where contact is located <input type="checkbox"/> Installation <input type="checkbox"/> Billing <input type="checkbox"/> Other (please specify) Street Address _____ City _____ State _____ Province _____ Country _____ Postal Code _____
Main: <input type="checkbox"/> Billing: <input type="checkbox"/> Compliance: <input type="checkbox"/> Reporting: <input type="checkbox"/> Technical: <input type="checkbox"/> Other (specify): _____	First Name _____ Last Name _____ Title _____ Phone _____ Facsimile _____ E-mail _____ Address where contact is located <input type="checkbox"/> Installation <input type="checkbox"/> Billing <input type="checkbox"/> Other (please specify) Street Address _____ City _____ State _____ Province _____ Country _____ Postal Code _____
Main: <input type="checkbox"/> Billing: <input type="checkbox"/> Compliance: <input type="checkbox"/> Reporting: <input type="checkbox"/> Technical: <input type="checkbox"/> Other (specify): _____	First Name _____ Last Name _____ Title _____ Phone _____ Facsimile _____ E-mail _____ Address where contact is located <input type="checkbox"/> Installation <input type="checkbox"/> Billing <input type="checkbox"/> Other (please specify) Street Address _____ City _____ State _____ Province _____ Country _____ Postal Code _____
Main: <input type="checkbox"/> Billing: <input type="checkbox"/> Compliance: <input type="checkbox"/> Reporting: <input type="checkbox"/> Technical: <input type="checkbox"/> Other (specify): _____	First Name _____ Last Name _____ Title _____ Phone _____ Facsimile _____ E-mail _____ Address where contact is located <input type="checkbox"/> Installation <input type="checkbox"/> Billing <input type="checkbox"/> Other (please specify) Street Address _____ City _____ State _____ Province _____ Country _____ Postal Code _____

Subscriber Approval

Please provide a contact for subscriber approval only if you've selected on page 5 that you intend to provide data to **Professional Subscribers at a fixed monthly rate**. Vendors are required to request approval on a firm by firm basis.

First Name _____	Last Name _____	Title _____
Phone _____	Facsimile _____	E-mail _____
Address where contact is located <input type="checkbox"/> Installation <input type="checkbox"/> Billing <input type="checkbox"/> Other (please specify)		
Street Address _____	City _____	State _____
Province _____	Country _____	Postal Code _____

Where appropriate, customers are to identify and confirm their Non-Display Use of real-time CTA Market Data. Non-Display Use is broken down to three (3) categories:

- Fees are applicable when a data recipient's Non-Display Use of CTA Market Data is on its own behalf.

- Fees are applicable when a data recipient's Non-Display Use of CTA Market Data is on behalf of its clients.

- Fees are applicable when a data recipient's Non-Display Use of CTA Market Data is, in whole or in part, for the purpose of internally matching buy and sell orders within an organization. Matching buy and sell orders includes matching customer orders on a data recipient's own behalf and/or on behalf of its clients. This category includes, but is not restricted to, use in trading platform(s), such as exchanges, alternative trading systems (ATSs), broker crossing networks, broker crossing systems not filed as ATSs, dark pools, multilateral trading facilities, and systematic internalization systems

Examples of Non-Display Use under the 3 categories are, without limitation

- Any trading in any asset class
- Automated order or quote generation and/or order pegging
- Price referencing for algorithmic trading
- Price referencing for smart order routing
- Operations control programs
- Investment analysis
- Order verification
- Surveillance programs
- Compliance and Risk management
- Portfolio Valuation

Please insert a X in the appropriate boxes:

Type of Data	Category 1	Category 2	Category 3*	No Non-Display**
CTA NETWORK A Last Sale				
CTA NETWORK A Bid-Asked				
CTA NETWORK B Last Sale				
CTA NETWORK B Bid-Asked				

*** If you selected Category 3, Please list your platforms below**

Number of Platforms:	
Platform Name:	
Platform Name:	
Platform Name:	
Platform Name:	

****If you selected No Non-Display, please explain**

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SECTION III - Internal Redistribution of Market Data

* This section to be completed only if you intend to make real-time CTA market data available INTERNALLY (to employees).

1. Customer/Subscriber Certification

☐ **CHECK** here to acknowledge that the data will be made available only to officers and employees of the Customer/Subscriber and the Customer's/Subscriber's subsidiaries listed in this document. Except as permitted in the applicable subscriber agreements governing use of market data, there will be no redistribution of the data (including electronic) to clients, other organizations, or any person outside of the Customer's/Subscriber's organization. *If your use of the data does not qualify you to check this box, please fill out section III of this questionnaire.*

Type of Data	Real-time Data	Delayed Data
CTA NETWORK A Last Sale		
CTA NETWORK A Bid-Asked		
CTA NETWORK B Last Sale		
CTA NETWORK B Bid-Asked		
NYSE American Index Data (ETFs, IIVs etc)		
Other (specify)		

2. Data feed Installation and Redistribution

- a. Will the data be redistributed to a location other than where it is received / installed? ☐ Yes ☐ No
- b. Will the data be used exclusively for a contingency or disaster recovery site? ☐ Yes ☐ No
- c. Please enter the location(s) where the data feed(s) will be installed and any additional locations (i.e. subsidiary company or branch office, disaster/backup site, development site, etc.) to where the data will be redistributed. **Be sure to include the total number of devices initially entitled with data at each location.**

Installation Address:	Relationship (HQ, Data Ctr, Backup)	# of NYSE (Tape A) Devices	# of NYSE American (Tape B) Devices

Additional Location(s):	Relationship (HQ, Data Ctr, Backup)	# of NYSE (Tape A) Devices	# of NYSE American (Tape B) Devices

SECTION IV - External Redistribution of Market Data

* This section to be completed only if you intend to redistribute CTA market data EXTERNALLY (to non-employees).

1. Types of Data (check all that apply)

Type of Data	Data Receiving	Redistribute as Data feed Service	Redistribute as Display Service
CTA NETWORK A Last Sale			
CTA NETWORK A Bid-Asked			
CTA NETWORK B Last Sale			
CTA NETWORK B Bid-Asked			
Delayed CTA NETWORK A Last Sale			
Delayed CTA NETWORK A Bid-Asked			
Delayed CTA NETWORK B Last Sale			
Delayed CTA NETWORK B Bid-Asked			
Other (specify)			

2. Data feed Redistribution

A. Will you redistribute data via an uncontrolled data feed? ☐ Yes ☐ No

B. Will you create a "bundled" feed consisting of several data elements? ☐ Yes ☐ No

If yes, please explain and/or list the data elements (i.e. Last Sale, Bid-Asked, Indices, Delayed, etc.) you plan to include in each "bundled" feed.

3. Delayed Data (check all that apply)

☐ Check here **if you will** delay a real-time datafeed to create a delayed service. In a delayed service, Last Sale and Bid-Asked prices must be delayed at least 15 minutes.

☐ Check here **if you will** provide index data as part of a delayed service.
☐ NYSE American Index Data

☐ Check here to indicate your understanding and agreement to comply with NYSE's delayed data policies. **Phrases such as "Prices delayed 15 minutes" must be conspicuously displayed on all screens displaying delayed data.**

☐ Check here to acknowledge you have submitted a **screen print of the delay notice** as it will appear in your service.

4. Services being Offered

A. Provide a detailed description of the service(s) you plan to offer to your subscribers.

5. Types of Subscribers, Pricing and Sign-up Methods

Every external (non-employee) firm or nonprofessional subscriber must sign or electronically agree to the appropriate NYSE agreement before gaining access to real-time data. Nonprofessional subscribers may sign up and agree via an electronic click-on agreement. The required agreements are stated below.

Professional Subscribers - Vendors are required to obtain NYSE approval (via www.ctaplan.com) before entitling external professional subscribers with CTA data.

NOTE: *An agreement may be signed in the name of the "Parent" company. Agreement are signed on a "firm by firm" basis, so it is not necessary for each individual at the firm to sign.*

Nonprofessional Subscribers - Vendors are required to **qualify** an end-user as a nonprofessional user prior to their gaining access to CTA data.

Please indicate how you will sign up subscribers for service (check all that apply)

Type(s) of User	Method of Sign-up and Pricing Model
Internal use by Employees	<input type="checkbox"/> Fixed monthly fee per user <input type="checkbox"/> Usage-based fee
Professional Subscribers	<p>Fixed Monthly fee per user</p> <input type="checkbox"/> **Hard copy of Professional Subscriber Agreement required
	<p>** If selected, please complete Subscriber Approval contact section (Pg 2)</p> <p>Usage-based fee</p> <input type="checkbox"/> Hard copy of Exhibit B for Usage-based/Nonpro Subscribers (section 1 only) <input type="checkbox"/> *Electronic version of Exhibit B (Usage-based/Nonprofessional Agreement)
	<p>* Also requires a copy of the Exhibit C for "Click-on" Agreements</p>
Nonprofessional Subscribers	<p>Fixed Monthly fee per user</p> <input type="checkbox"/> *Electronic version of Exhibit B (Usage-based/Nonprofessional Agreement)
	<p>Usage-based fee without Capping</p> <input type="checkbox"/> *Electronic version of Exhibit B (Usage-based/Nonprofessional Agreement)
	<p>Usage-based fee with Capping (see note below)</p> <input type="checkbox"/> *Electronic version of Exhibit B (Usage-based/Nonprofessional Agreement)
	<p>* Also requires a copy of the Exhibit C for "Click-on" Agreements</p>

NOTE: Vendors wishing to vend data via the usage-based (per quote) rate must complete question 6. Capping refers to each pre-qualified nonprofessional subscriber whose monthly usage cost exceeds the fixed monthly charge. Vendors may pay the fixed monthly nonprofessional monthly charge in respect of that subscriber.

6. Usage-Based/Per-Quote Subscribers and Quote Meter Information

Vendors who want to redistribute real-time quotes on a per quote basis may do so provided their system is able to correctly identify and count real-time quote packets for the various data providers (e.g., NYSE, NYSE American, NASDAQ, OPRA, etc.). A "quote packet" is defined as any data element, or all data elements, for a *single* issue (for example, open, high, low, last, volume, net change, bid, offer, size are data elements. "IBM" is a single issue.). Data elements for an ETF, such as DIA, also qualify as a quote packet. The quote meter (log file) should identify and store fee liable quotes (i.e. less than 15 minutes old) only during NYSE market hours, currently 9:30am – 4:15pm (excluding weekends and holidays).

Usage-Based/Quote Meter Audit Requirements & Attestation

An audit/review of the quote meter must be performed within 90 days after the start of service and annually thereafter. Please refer to the NYSE's Quote Meter Audit Guidelines (www.ctaplan.com) for information and requirements regarding quote meter audits.

NOTE: *If using a quote meter, it must be clearly represented in your network/system diagram.*

☐ Check here to indicate your understanding of an agreement to comply with NYSE's Quote Meter Audit requirements.

SECTION V - Technical Control & Data Display

*** This section is required and must be completed and approved by NYSE prior to receiving real-time market data**

1. Technical and Administrative Control

NYSE has a device-based rate structures and requires data recipients to account for all devices that have been technically enabled to display its data. To ensure the number of users with access to CTA data (via displays and/or data feeds) being reported each month is accurate, NYSE requires firms to have an entitlement system in place.

- A. Does your firm have the technical ability to control each entitlement to redistribute CTA market data?

Data feeds ☐ Yes ☐ No ☐ N/A
[For Datafeed redistribution ONLY]

Display Service ☐ Yes ☐ No ☐ N/A

Name of Entitlement System: _____ Product Name / Version: _____

- B. Is this a Proprietary System? ☐ Yes ☐ No ☐ N/A

If yes, please explain the system's functionality and its ability to produce reports. ***Please include as much detail as possible and attach a sample report for review (attach a separate sheet if necessary). Your entitlement report should contain the following fields: | Unique User ID | Product Name | Activation Date | De-Activation Date | Level of Access/Max Count |.***

- C. Please explain, if any, the dataflow between your permissioning and reporting databases:

NOTE: All firms receiving a data feed are subject to an audit of their entitlement reporting methods. Unless the entitlement system is able to provide accurate historical/audit information, NYSE reserves the right to bill for all devices on your network. For audit purposes, all entitlement systems should have the ability to generate (in .csv or .txt format) and store entitlement reports for a period of no less than three years and feature the following:

1. Separate and unique ID/Passwords for each user which are not shared
2. Prevent simultaneous access to the data by the same user ID/Password
3. Generate monthly entitlement reports for each product to identify those users who are entitled and those who are not entitled to receive a specific data providers' market data
4. Provide an audit trail identifying each entitlement transaction (additions, deletions, etc.) on a product level

- D. Does your system have the ability to perform all of the above? ☐ Yes ☐ No

If no, please explain:

- E. How are device entitlements controlled?

Terminal ID basis ☐ Yes ☐ No

User ID / Password Basis ☐ Yes ☐ No

Other (explain) ☐ Yes ☐ No If yes, explain: _____

- F. Location(s) where entitlement control will take place (if different than install address)?

2. Market Data Display Service (Software Development, API's, OMS's, etc.)

- A. Will you offer an API (Application Programming Interface) or DDE (Dynamic Data Exchange) as part of your display service?
☐ Yes ☐ No

If yes, please explain:

- B. Will your display service be compatible with third party software (i.e. Order Management System, etc.)?

☐ Yes ☐ No

If yes, please explain:

- C. Will the data from a display service be redistributed to additional servers, which in turn, can redistribute or “fan” data to various users, servers and/or devices? ☐ Yes ☐ No

If yes, please explain:

3. Distribution of CTA Data

- A. Will CTA data be distributed over a local area network (LAN) or a wide area network (WAN)? ☐ Yes ☐ No

- B. Please indicate the total number of devices presently on the network (include all devices whether or not they will be receiving real-time data). _____

4. Network/System Diagram

Attach an overview Diagram of your network system. The diagram should identify all internal sub-networks attached to the system and provide a high level overview of each network utilizing market data (be as specific and detailed as possible). ***Each site location should be included, indicating where data is received (including end users) and where entitlement control takes place.***

☐ Check here to acknowledge you have submitted a Network Diagram

SECTION VI – Service Facilitators and Customer Affiliates

1. Service Facilitators

- A. Provide the name(s) and address of each service facilitator that you wish to identify. Describe the functions performed on your behalf by each service facilitator in the processing or dissemination of market data. (A service facilitator is a person or organization that assists customer(s) in processing or disseminating market data, such as cable casters, facility proprietors, equipment maintainers, switch service suppliers, sales/marketing agents, etc.; whose performance you guarantee.) - If more space is needed, please attach a separate sheet. ***If this does not apply to your firm, please check 'NONE'.***

NOTE: Service Facilitators may not be exempt from NYSE monthly access fees.

Facilitators (include full name & address)	Function
<input type="checkbox"/> None	

- B. Will any service facilitator(s) have access to this data? ☐ Yes ☐ No ☐ N/A

If yes, please explain:

2. Customer Affiliates

- A. Provide the name(s) and address of each customer affiliate, which is to be covered by this agreement. You will be responsible for reporting and payment for any affiliates covered by this Exhibit A. If more space is needed, please attach a separate sheet. ***If this does not apply to your firm, please indicate 'NONE'.***

Affiliates (include full name & address)	Function
<input type="checkbox"/> None	

- B. Will any customer affiliate(s) have access to this data? ☐ Yes ☐ No ☐ N/A

If yes, please explain:

SECTION VII - Reporting

1. Reporting Obligations

The NYSE requires customers/vendors to submit a total inventory of each product and professional subscribers utilizing CTA market data. This report should be submitted by the second to last business day of each month and is required to ensure accurate invoicing by NYSE either directly to you or your client. (Please refer to NYSE's *Reporting Fact Sheet* for more information and instructions on products codes and reporting)

Please check the box(es) corresponding to reporting requirements applicable to your use of the data:

- ☐ **INTERNAL Users (Employees)**
Any organization providing CTA data to their employees are required to report the number of users on a monthly basis. In addition, NYSE requires them to maintain records indicating the company name, installation address, number of accesses, inventory changes, type of service and the date that service began/terminated.
- ☐ **PROFESSIONAL Subscribers (Non-employees)**
Vendors providing CTA data to non-employee professional subscribers will be required to obtain NYSE approval, maintain records indicating the company name, installation address, number of accesses, inventory changes, type of service and the date that service began/terminated.
** NYSE will use this information to invoice subscribers directly*
- ☐ **NONPROFESSIONAL Subscribers**
Vendors providing CTA data to nonprofessional subscribers will be required to maintain records of the name, address, employer and job function of their nonprofessional subscribers and only report the total number of nonprofessional subscribers who accessed Real-time data at least once during that month.
** NYSE will use this information to invoice your firm directly*
- ☐ **USAGE-BASED (per quote) Reporting**
Vendors providing usage-based services will be required to report the total number of quotes requested that month.
** NYSE will use this information to invoice your firm directly*
- ☐ **DATA FEEDS**
Vendors providing data feeds will be required to obtain approval from NYSE prior to providing data to subscribers. Vendors will be required to maintain records indicating the company name, installation address, data product and date that service began or was terminated.

2. Reporting Method

Please select the method of reporting you will use:

- ☐ **NYSE Reporting Website**
Report directly on the NYSE website (www.nyxdata.com/reporting).
** This option is highly recommended for vendors who do not have a large professional subscriber base.*
- ☐ **File-based Reporting**
Report to NYSE via file based reporting - VRXML file (www.vrxml.org - select Vendor Services, VRXML specs)
** This option is highly recommended for vendors who have a large professional subscriber base.*
- ☐ **Third Party Reporting Facilitator**

Explain:

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Customer acknowledges that NYSE may be subject to internal policies, laws and regulations that govern and restrict the collection, storage, processing, disclosure or use of any information that identifies or can be used to identify, contact or precisely locate the person or legal entity to whom such information pertains or from which identification or contact information of an individual person or legal entity can be derived ("Personal Information"), including, but not limited to, any Personal Information relating to the Customer, Customer's Affiliates and each of their respective customers, suppliers and personnel. NYSE's Privacy Policy is located here:

<https://www.intercontinentalexchange.com/privacy-policy>. Where the Customer is incorporated in any member state of the European Economic Area, Customer acknowledges and agrees that certain additional terms and conditions set out in NYSE's Privacy Policy and other documents in connection with the collection, storage, processing, disclosure, access, review and/or use of such Personal Information are applicable to the Vendor Agreement and Exhibit A. Specifically with respect to Customers who provide EU Personal Information to NYSE, the Additional Terms located here: https://www.theice.com/publicdocs/Additional_Terms_EU_Subscribers.pdf shall be incorporated into and form part of this Exhibit A and, in the event of conflict with any other terms of the Vendor Agreement or Exhibit A, shall prevail over such terms.

I certify that the information provided in this questionnaire is accurate and the data will only be used in the manner outlined in this exhibit. I also understand that I may be asked to provide further information related to the entitlement system and/or its audit function and that failure to comply with NYSE requirements may result in the cancellation/termination of NYSE market data services and NYSE reserves the right to bill retroactively for any improprieties/discrepancies which are deemed non-compliant.

Signature: _____

Title: _____

Print Name: _____

Date Completed: _____