Requirements Document for Service Bureau Subscribers

1. **Overview of System**
   a. To be provided by Subscriber and approved by NASDAQ. The system overview should include a description of Subscriber's application/s and system, including purpose, uses, functions, features and options.

2. **Block Diagram**
   a. Illustration or block diagram of all systems or equipment used to exchange messages with NASDAQ.
   b. Illustration or block diagram of how Subscriber's devices will communicate with NASDAQ.
   c. Illustration or block diagram of how the Subscriber's customer devices connect to the Service Bureau at NASDAQ access points.
   d. Describe the number of connections to NASDAQ.
   e. Describe bandwidth of any CTCI circuits.

3. **Security**
   a. Describe the access entitlement controls of subscriber devices.
   b. Physical and data security description for telecommunication circuits and facilities[1].
   c. How does Subscriber verify that data transmitted to NASDAQ has been authenticated and authorized?
   d. Physical and data security description for devices and equipment capable of direct or indirect access to each NASDAQ connection point (SDP, FIX engine, or CTCI handler)[2].

4. **Message Flow**
   a. Messaging Protocol to be used to communicate with NASDAQ (specify API, CTCI or FIX). What versions of the specifications are being used?
   b. Types of messages to be transmitted to the NASDAQ System from any device or equipment capable of direct or indirect access to each NASDAQ connection point (SDP, FIX engine, or CTCI handler)[2].
   c. Description of traffic flow control mechanism (i.e., pacing or other governance of message traffic) in any device or equipment capable of direct or indirect access to NASDAQ[2].

5. **Traffic Estimates**
   a. Anticipated message traffic volume estimate (including, but not limited to, average volume of orders, cancels and/or quotes per second and per day) for each device or equipment capable of direct or indirect access to NASDAQ[2].
   b. Anticipated maximum (peak) message traffic volume estimate (including, but not limited to, peak volume of orders, cancels and/or quotes per second and per day) that can be generated by each device or equipment capable of direct or indirect access to each SDP[2].
   c. When are peak message flows anticipated (market open, market close or other times)?
   d. How long are peaks anticipated to last?

6. **Contact Information**
   a. Individual to serve as Subscriber's point of contact for additional information (Provide name, address, telephone, cell phone, email, pager).
   b. Off-hours (Helpdesk) contact information (Provide name, address, telephone, cell phone, email, pager).

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[1] Including, but not limited to, those circuits and facilities connected to any system of Subscriber but which are not located in Subscriber's place of business (for example, terminals at the service bureaus' customer location/s) for the purpose of transmitting orders or other messages directly or indirectly to the NASDAQ System.

[2] Including, but not limited to, all devices and equipment that are connected to any system of Subscriber but which are not located in Subscriber's place of business (for example, terminals located at the location of Subscriber's customers) for the purpose of transmitting orders or other messages directly or indirectly to the NASDAQ System.

c. Emergency technical contact information (Provide name, address, telephone, cell phone, email, pager).

d. Who completed this document information (Provide name, title, address, telephone, cell phone, email, pager)?

7. **Supplemental Information**

a. Any user manuals or other instructional materials for any system (and the system's software), or part thereof, that is connected to the NASDAQ System, directly or indirectly, including, but not limited to, Subscriber's systems that transmit orders, quotes or other messages directly or indirectly to the NASDAQ System.

b. Detailed list of devices and equipment to be provided by Subscriber and approved by NASDAQ. The list of devices and equipment should include at least the following information:

    i. Device model/speed.

    ii. Operating system and level.

    iii. Physical location.

c. Subscriber's system implementation schedule.