Computer-To-Computer Interface (CTCI)
Frequently Asked Questions
(Updated 11/29/05)

1. Will NASDAQ ever send "out-of-band" data (i.e., any frequency beyond the band being used for data, voice, or video traffic) via CTCI?
No. All data sent is "in-band."

2. How do I open my station for input? Can messages be sent before the stations are opened?
Subscriber stations may be opened manually or programmatically:
(1) Manually: When the Switch is initially activated each morning, the NASDAQ Operations Staff will send a command to open the station; or
(2) Programmatically: The station can be opened programmatically when the Supervisory GOOD MORNING message is received.

3. Please note that receipt of the GOOD MORNING message will not affect a station that has already been opened for input/output by the Operations Staff, and vice versa.
Standard procedure has always been that the Operations Staff will open all subscriber stations by command immediately following Switch activation. The reject message, "NOT ACCEPTING INPUTS," indicates to the subscriber that the station is not open for input and that a "GOOD MORNING" message should be generated.

4. Can NASDAQ generate and send duplicate copies of execution reports for orders received from a particular firm?
Yes. Multiple routes can be planned as long as those routes belong to the same MMID.

5. Does NASDAQ support Drop Copies?
Yes, the NASDAQ Switch supports Drop Copies. Up to 4 drops are configurable— up to 2 for input messages and up to 2 for output messages. Please note, however, that the transmission (output) of the original message must be successful in order for a copy of that output to be generated to the copied station.

6. Does a connection need to be active before a Drop Copy can be sent?
Yes. The connection being "dropped from" must be up and active. If no acknowledgement has been received from the first circuit, the Drop Copy will not be sent. This is different from a Group Control Library (GCL) configuration where one copy is not dependant on the other or on the original message being sent.

7. What should I do if the logon response I receive from NASDAQ represents different channels and states than I transmitted?
The states of the channels contained within the logon response (LGR) are in no way related to the states of the channels as relayed from the client through the logon query (LGQ). The LGQ indicates to the server which client channels are in the receiver-ready (RR) state at the time the LGQ is issued; the LGR indicates to the client which server channels are in the RR state at the time the LGR is issued. If the LGR returned to the client indicates that some channel is in the receiver-not-ready (RNR) state, then the client must wait for a flow control (FLO) command.

8. Should a line be considered a bad connection if I receive a FLO that shuts down my ability to send data?
A line should only be considered a "bad connection" if the line cannot be established. An established connection passing control messages on channel 0 is not considered a bad connection, and reconnecting through the same, or another, NASDAQ IP stack will not fix the connection. The solution is to use enough connections that implement a sufficient number of LCNs in order to provide enough paths for message traffic. Round-robin functionality should be used to keep all channels balanced and busy.

9. If I receive FLO from NASDAQ instructing me to stop sending messages while I am transmitting application messages, will NASDAQ drop any of the messages I just transmitted while I'm busy processing the incoming FLO?
No, NASDAQ will not drop any of the messages you transmitted while processing an incoming FLO command. The client messages received after the FLO command is issued are as safe as any message received while the channel was in a RR state. However, there's a limit to the size of the overflow (disk) file used expressly for this case, so it is imperative that the client place priority on handling channel state changes issued by the server.

At the instant the server sets a particular channel to RNR, the pipe may very well contain n more client messages in flight on that channel (these messages having been transmitted by the client long before, or while, the FLO command was constructed, issued, and acted upon by the client).

10. Does NASDAQ ever send FLO commands as a first message?
No. FLO commands are unnecessary when a connection is established or re-established since the logon query/logon query response (LGQ/LGR) exchange (which is always the first exchange sent when a connection is established) includes the flow states of all channels.