Readers should be aware that only the original Turkish text has legal force and that this English translation is strictly for reference. Borsa Istanbul cannot undertake any responsibility for its accuracy nor be held liable for any loss or damages arising from or related to its use.

Document	Type	Announcement
	No	2019/
	Issue	About the Timing of Connections to Be Established by Members/Data Vendors to BISTECH System
	Date of Approval	/ /2019
	Prepared by	IT Departments
	Distribution	Members, Software Providers, Data Vendors

To Whom It May Concern,

After the trading sessions are completed in BISTECH System, end-of-day processes are started. These processes may occasionally last until the next trading day, and thus the startup of the system may be later than the usual. During the transition to the next business day on Members/Data Vendors side, various problems can be encountered when the coordination with Borsa İstanbul cannot be achieved. For this reason, it has been deemed appropriate to provide some information about the timing of API (FIX, OUCH, ITCH, TIP) connections of Members/Data Vendors to BISTECH System and recommended checks.

At the beginning of the business day prior to the establishment of Members/Data Vendors API connections, the controls and the actions recommended by Borsa İstanbul are detailed in the attached technical information note. The target audience of this information is the institutions that have not established any control /approval structures for the day transitions yet or are willing to improve them or the new software providers to be certified by Borsa İstanbul. The issues mentioned here are recommendations made to support the management of the risks of the Members/Data Vendors and it is their responsibility to take the necessary additional measures and developments in order to eliminate the risks even if those mentioned are applied.

For your information and necessary actions.

Regards,

Murat ÇETİNKAYA CEO Member of the Board

Attachment: The Timing of API (FIX, OUCH, ITCH, TIP) Connections of Members/Data Vendors to BISTECH System and Recommended Checks (2 Pages)

Readers should be aware that only the original Turkish text has legal force and that this English translation is strictly for reference. Borsa İstanbul cannot undertake any responsibility for its accuracy nor be held liable for any loss or damages arising from or related to its use.

THE TIMING OF API (FIX, OUCH, ITCH, TIP) CONNECTIONS OF MEMBERS/DATA VENDORS TO BISTECH SYSTEM AND RECOMMENDED CHECKS

In case the end-of-day processes of the BISTECH System (System) are not completed within the relevant business day, the closing, maintenance and re-opening steps of the system may run in the following business day. In this case, it is recommended to evaluate the remarks given below under the headings in order to make the day transitions on the Members/Data Vendors side and to reconnect to the system properly. The information for The FIX Order Entry, FIX Drop Copy (DC) and FIX Reference Data (RD) channels using the FIX protocol, the OUCH protocol, TIP channels using the SoupBinTCP protocol and ITCH MoldUDP Data Dissemination API are arranged under separate headings below.

• FIX API;

The start and end times of FIX Session connections at the Member side should be configured to take into account any delays in end-of-day procedures. Furthermore, in order to avoid any issues due to the extraordinary delay of the end-of-day procedures; the responses received by FIX Session with ResendRequest (Tag35 = 2) (Tag43 = Y) should not be processed in the Members' order management systems if processed previously.

• OUCH API;

When a member sends a new login request message for the next business day "Requested Session" field should be left blank and the new session number value should be populated from the response message to this login request. Then, in subsequent new connection requests to be made within the same business day, the "Requested Session" field in the login request message should be set to this value.

If the response to the first login request sent by the member has the same session number of the previous business day, it is recommended that the application submits a logout request and sending login requests repeatedly at certain time intervals until the responses sent to login requests have a different session number from the previous business day's.

Receiving "EndOfSession" message indicating that the SoupBinTCP session has ended on the member side indicates that the current business day is over. If this message is received, it will be appropriate for the member to terminate the business day.

• TIP Data Dissemination API;

While establishing SoupBinTCP connection to the BISTECH Data Dissemination System, requested date information, which is written into "Requested Session" subfield in "Login Request" package, enables connection to the data of specified day.

In case the end-of-day transactions continue on next day due to an unexpected problem, TIP data dissemination continues with previous trading day data although system date is changed to next day. Connection requests which are done with new day date are rejected by the Data Dissemination System as previous day's data dissemination is still active. In this way, client applications that are waiting for new day data will be prevented from receiving historical data as new day's data. Besides, regardless of whether the date information is sent in "Requested Session" field or not, "Login Accepted" packet sent by the Data Dissemination Server to the client as a result of a successful login request contains active session

Readers should be aware that only the original Turkish text has legal force and that this English translation is strictly for reference. Borsa İstanbul cannot undertake any responsibility for its accuracy nor be held liable for any loss or damages arising from or related to its use.

information. By using this information, active date information on the server can also be accessed.

Furthermore, "BasicDataBusinessDate" message ("BDBu"), which is the first TIP message sent from system when "Requested Sequence Number" field in "Login Request" package is entered as "1", provides date information for the active session. By using this information, it is possible to reach information about the date applied for messages taken from the system followed by this message.

Additionally, "Date" field in some TIP messages indicates the date of data in the message. When processing the fields in these messages, it is necessary to check if "Date" field belongs to the requested day.

ITCH Data Dissemination API;

At the end of each business day, a "System Event Message (MsgType = S)" with "EventCode=C" is sent over ITCH Data Dissemination API as the final message. Upon receiving this message Member should close the business day at its own facility as well, in addition to that, after the day transition, the "Session" information in the MoldUDP packets received from the first API connection of the new business day should also be verified to be different than the previous business day's.