

# BROCHURE

## Facilitating API for BHOMS to TREC Holders of DSE



Dhaka Stock Exchange Limited



**Broker Hosted Order Management System**

**Connectivity with Matching Engine of Dhaka Stock Exchange Limited.**

**Brochure**

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## 1 Preamble

An Order Management System (OMS) is a software that facilitates and manages the execution of trade orders. Usually, Dhaka Stock Exchange Limited (DSE) provides centralized Exchange Hosted OMS for TREC Holder Company, hereinafter referred to as TREC to facilitate trades in the exchange. TRECs and their clients are using trader terminals and mobile App respectively to connect with this centralized exchange-hosted OMS.

Broker Hosted Order Management System (BHOMS) is the application installed and maintained in TREC site and connect directly to DSE X-Stream INET Matching Engine (DSE-ME) through Application Programming Interface (API).

Multi Broker Hosted Order Management System (MBHOMS) means more than one TREC will be using a shared order management system. IT company, who will provide support to MBHOMS, as a service provider of the group of TREC shall also be a part of the agreement.

DSE provides facilities to connect BHOMS with its ME to facilitate equity, bond, etc. trading for TREC Holders. Mainly, Financial Information eXchange (FIX) and ITCH protocol is used for this connectivity. The FIX API is the user interface to the DSE-ME Platform and ITCH protocol is used for market data information. Also, TREC can avail FIX Drop Copy which provides copies of trade confirmation messages.

FIX API is a universal standard, non-proprietary, free and open protocol which is owned by FIX Protocol Ltd. The FIX API is the customer user interface (buy-side) to the DSE X-Stream INET Matching Engine Platform. Additionally, X-Stream INET uses the ITCH protocol for Market Data. These APIs play an important role in the effectiveness of an organization's digital strategy. Besides, APIs are key to technological innovations in the digital edge.

This brochure is inclusive of brief information on "How to get API connectivity for BHOMS from DSE" with the fee structure to get API connectivity for BHOMS.

## 2 Business advantages of BHOMS

- **Automation:** TREC can automate their trading work flow to make quicker and more productive decision;
- **Application:** APIs can access the application components, the delivery of services and information become more flexible;
- **More scope:** with an API an application layer can be created which can be used to distribute information and services to clients which can be personalized to create custom user experiences;
- **Efficiency:** when access is provided to an API, the content generated can be published automatically and is available for every channel;
- **Integration:** APIs allow content to be embedded from any site or application more easily. This guarantees pieces of information delivery and an integrated user experience;
- **Personalization:** through APIs TREC can customize the content and services that they use the most;

- **Adaptation:** needs change over time and APIs help to anticipate changes. When working with this technology, data migration is supported better, and the information is reviewed more closely. In short, APIs make the service provision more flexible.

### 3 Process of getting BHOMS Connectivity

This brochure is available on the DSE official Website. TREC will collect this brochure and follow the processes mentioned here. Then TREC will select the OMS solution provider and follow the processes of implementing BHOMS.

Here are the steps to get the BHOMS API from DSE:

- TREC applies for BHOMS API connectivity to DSE.
- DSE confirms and signs a Non-Disclosure Agreement (NDA) with TREC and OMS solution provider.
- DSE ICT provides technical specifications of API and network connection guidelines.
- TREC prepare the BHOMS, pays fee and connects for UAT.
- For MBHOMS all the TREC who will be using a common infrastructure for the order management system shall sign the agreement with DSE.
- IT company as a service provider of a group of TRECs will also be a part of the agreement.
- For Multi-BHOMS – the parties will be: 1. DSE, 2. OMS vendor or IT company, and 3. all the participants of TRECs. DSE may decide the signing authority of the TREC or it may be mutually settled by the TRECs as well as DSE. From the group of TRECs one shall be designated as a “single contact person (both business & IT)”.
- In case of MBHOMS the local technical support company other than OMS solution provider, if any, will be a part of NDA.
- After completing the UAT, TREC will go for FIX Certification. TREC will pay the FIX certification charges accordingly.
- After completing FIX certification, TREC will sign a contract for Production connectivity and pay the required charges.
- TREC will go for Go-Live of the BHOMS through MOCK testing.
- Continue the production system. Annual recurring charges will be applicable.

The flowchart of the overall (main) process is attached as Annexure #A.

The fees and charges structure is attached as Annexure #B.

### 4 General terms and conditions

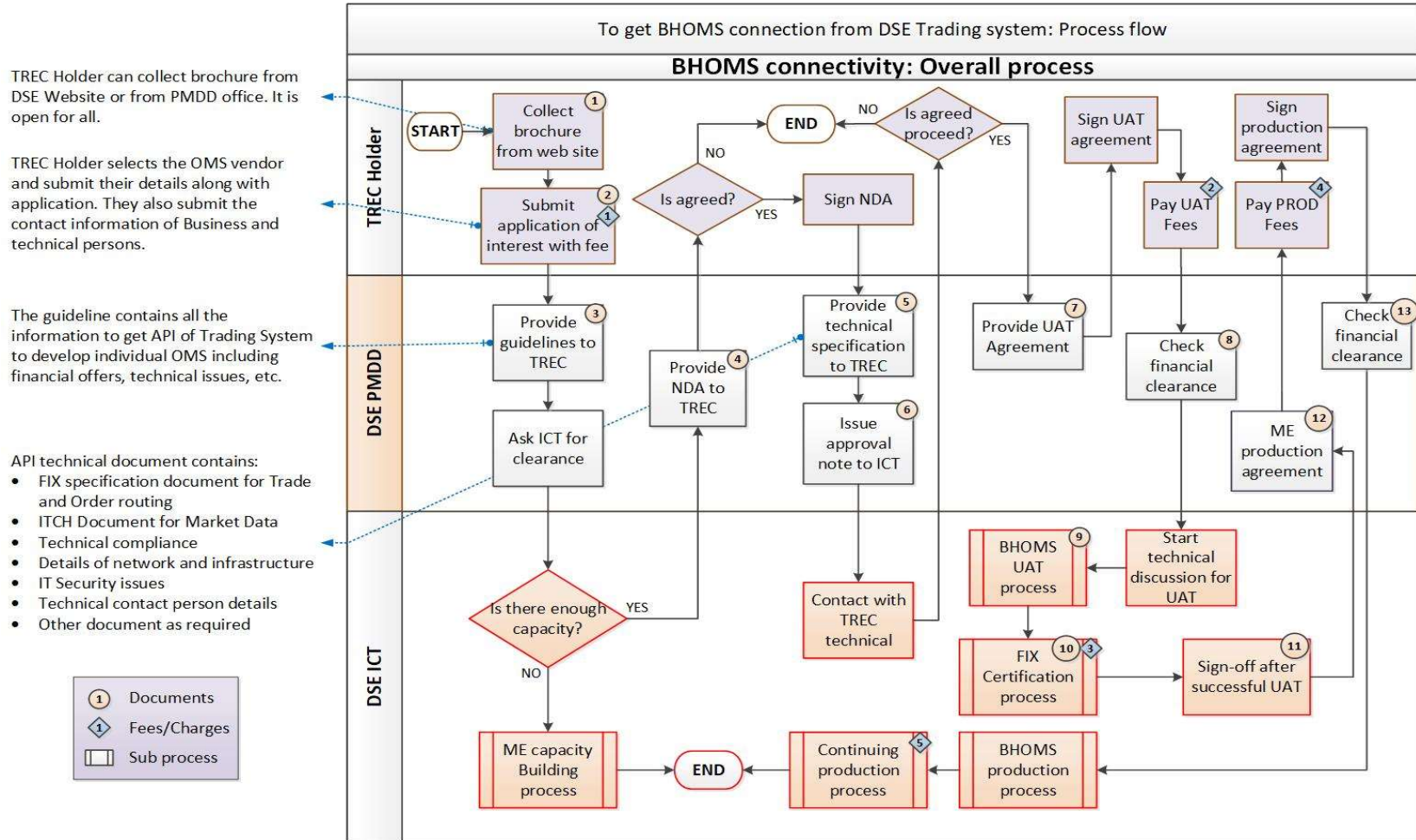
- NDA and necessary agreements will be signed among DSE, TREC, and OMS solution providers (if any), these Agreements shall be reviewed by DSE from time to time. In case of MBHOMS the local technical support company, if any, will be a part of all agreement.
- All parties must comply with the terms and conditions of the NDA provided by DSE.
- DSE will provide a draft of the Service Agreement that will be finalized as per the mutual understanding of parties.
- DSE will provide an SLA as a part of the agreement, which cannot be violated.

- TREC shall follow all the rules, regulations, directives, etc. of DSE and the regulators while selecting, developing, future change/modification of the BHOMS features and functionalities.
- TREC should accommodate all the markets and products (equity, SME, ATB, BOND, ETF, REIT, short selling, securities lending & borrowing, G-Sec, Derivatives etc.) in BHOMS as per directives from DSE or regulators.
- BHOMS shall not be allowed for High-Frequency Trading (HFT) features, it will be considered as a violation of agreement. HFT is a method of trading that uses powerful computer programs to transact a large number of orders in fractions of a second.
- All types of testing will be strictly prohibited in the production system. Test will be done in the UAT first and then implemented to the production system with the consent and approval from DSE.
- Any changes in the running version of production system shall not be allowed without the consent of DSE.
- TREC shall not make any derived data from the real-time data to resale or any other commercial use other than its own share broking/dealing purpose without written approvals of DSE authority.
- TREC can't use 2 OMS (i.e. DSE-hosted OMS and BHOMS) simultaneously; they can use two OMS for allowed transition period only. TREC can get back to the DSE-hosted OMS after migration to the BHOMS subject to approval and availability of the system and contract.
- TREC shall obtain the hardware and network requirement for the BHOMS from the OMS solution provider.
- TREC shall prepare the plan for migration from DSE hosted OMS (DSE-FlexTP) to BHOMS with the assistance and guidance of DSE-ICT.
- DSE authority reserves the full rights to change/alter/modify/upgrade/add any decision and terms & conditions from time to time.
- If any non-compliance found in the BHOMS, DSE or regulator may take necessary action against TREC.
- If any problem arises in DSE ME through any activities by BHOMS, DSE authority reserves the right to take necessary action against TREC.
- For root cause analysis TREC would have to be ready to support for providing any information as and when required by DSE.
- DSE Technical Team shall have the right to visit in person to TREC Holder's site at any time as and when required.
- TREC shall comply minimum requirement for connectivity with DSE as a suggested by DSE time to time.

## 5 Conclusion

Through the implementation of BHOMS a TREC holder company or the group of TREC holder companies can promote their business through incorporating different features and processes to add value to services to the clients. It is an opportunity for TREC companies to provide competitive services to the customers using its customized OMS rather than using a DSE hosted central OMS having common features and facilities.

## 6 Annexure #A: Overall process flow chart



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