FORM FBOT—EXHIBIT D-1

Request: Attach a description of (or where appropriate, documentation addressing) the following, separately labeling each description:

(1) The order matching/trade execution system, including a complete description of all permitted ways in which members or other participants (or their customers) may connect to the trade matching/execution system and the related requirements (for example, authorization agreements).

(2) The architecture of the systems, including hardware and distribution network, as well as any pre- and post-trade risk-management controls that are made available to system users.

(3) The security features of the systems.

(4) The length of time such systems have been operating.

(5) Any significant system failures or interruptions.

(6) The nature of any technical review of the order matching/trade execution system performed by the foreign board of trade, the home country regulator, or a third party.

(7) Trading hours.

(8) Types and duration of orders accepted.

(9) Information that must be included on orders.

(10) Trade confirmation and error trade procedures.

(11) Anonymity of participants.

(12) Trading system connectivity with clearing system.

(13) Response time.

(14) Ability to determine depth of market.

(15) Market continuity provisions.

(16) Reporting and recordkeeping requirements.

Response:

On June 4, 2012, BVMF notified the Division of Market Oversight ("Division") of certain changes to the BVMF trading system ("Notice Letter"), formerly the Global Trading System

("GTS").[1] Starting September 2011, BVMF began phasing in a new trading engine, the Puma Trading System ("Puma System"), for trading in spot foreign currency. Subsequently, it introduced the Puma System for derivatives trading, replacing the GTS system described in the 2008 No-Action Request.

Order Matching/Trade Execution System

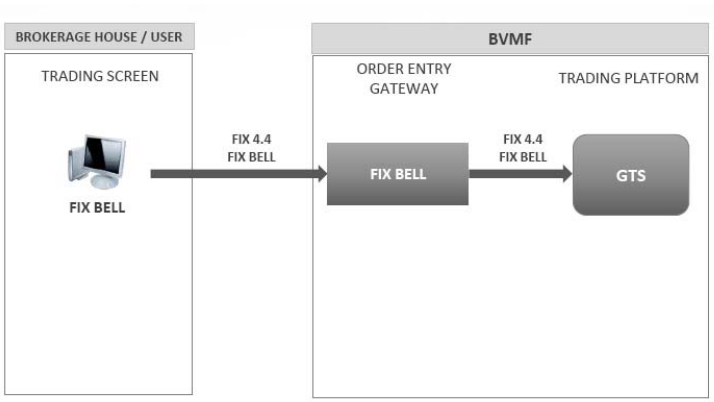
Although the architecture of BVMF's trading system has changed, the introduction of the Puma Trading System did not involve any changes to BVMF's order matching algorithms. Orders are matched by price/time priority. BVMF defines specifically how the matching is accomplished. Under these principles, lower offers take precedence over higher offers and higher bids take precedence over lower bids. In the case of multiple bids or offers at the same price, earlier bids and offers take precedence over later bids and offers respectively. Thus, under price/time priority of marker orders, a bid (offer) is filled at the best price by the earliest entered offer (bid) at that price. If additional contract units are needed to fill the bid (offer) then the next oldest offer (bid) at that price is matched until all of the liquidity at that price has been exhausted. Then matches would commence at the next best price until the order is filled. The time assigned to an order is the time that it arrives at the Trading Engine.

Modest changes to the auction process associated with the Puma System implementation are described in the Notice Letter.

Architecture of the System

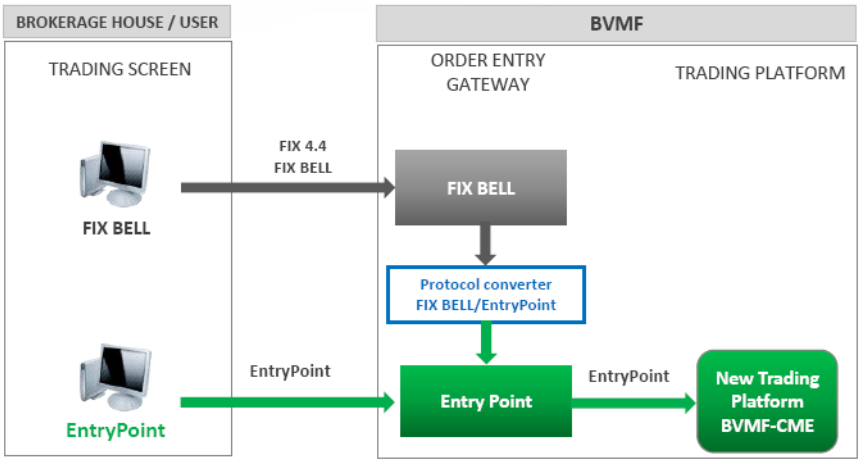
As described in the Notice Letter, as a result of the migration to the Puma System, the BELL user interface and order entry gateway described in BVMF's 2008 No-Action Request have been replaced with a new gateway called "EntryPoint." EntryPoint operates on a FIX Version 4.4 connection. Figures 1 and 2 below illustrate this change. Customers routing orders through the Globex, as described in the 2008 No-Action Request, were not affected by this change.

Figure 1: GTS Architecture



[1] For the Staff's convenience, the Notice Letter is included as Attachment D-1-1.

Figure 2: Puma System Architecture



Security Features

BVMF's Derivatives trading system security is guaranteed by:

(i) FIX session authentication (username and password); and

(ii) Audit trail, covering all transactions performed on each FIX session.

The BVMF Information Security Office is responsible for the derivatives trading system's password management, while the Future Markets Trading team is responsible for users and FIX sessions management.

All trading-related messages exchanged between market participants and BVMF derivatives trading systems are made through logically segregated connections.

Length of Time the System Has Been Operating

BVMF launched its original electronic trading platform, also known as GTS, in 2000. The original GTS platform was based on the ATOS/Euronext trading platform. In late 2007, BVMF introduced its internally-developed GTS platform, which the Puma System replaced in fall of 2011.

Significant System Failures or Interruptions

Since implementing the Puma System in September 2011, BVMF has experienced four system interruptions, [none of which were significant.] Communications notifying market participants of the system interruptions are included as Attachments D-1-2 through D-1-5.

Technical Review of the System

Even though the trading platform architecture is presented to regulators (such as the CVM and the Central Bank of Brazil) and internal auditing upon request, no technical review is done by such parties.

The internal BVMF Quality Assurance and User Acceptance teams perform testing activities for each new release of the trading platform. This test consists of:

- Functional testing: current and new functionality functions as expected
- Non-functional testing: performance and high availability characteristics are according to requirements

Trading Hours

Attachment D-1-6 provides BVMF's derivatives markets trading hours for Indices, Interest Rates, Commodities, FX and spot US Dollar, OTC, and Option Exercise/Blockade.

Types and Duration of Orders Accepted

Orders processed by the trading engine generally are for two price types: (i) Limit Orders and (ii) Market Orders. BVMF's GTS trading system recognized the following order types: Market; Limit; Stop; Stop Limit; Market if Touched; Market with leftover as Limit. Orders can be left in effect for the trading session (all day); Good Till Cancelled; Immediate or Cancel; Fill or Kill. Market-on-Open ("MOO") orders are also permitted to be entered during the Pre-Open period and are executed at the calculated opening price.

With the implementation of the Puma System, BVMF's trading system now processes the following additional types of orders:

- Good-till-Date orders ("GTD")
- Good-till-Cancelled orders ("GTC")
- Fill-and-Kill orders; and
- MOA/MOC (Market on Auction and Market on Close) orders
- Market Orders with Protection
- Stop Orders with Protection

GTD, GTC, MOA, MOC orders and orders with protection can be processed by the Puma System but are currently inactive thus unavailable for users.

The Notice Letter also describes certain changes associated with the implementation of the Puma System to the trading system's trading phases.

Information that Must Be Included on Orders

The BVMF trading system captures a complete audit trail of all orders entered into the trading system and all trades that are executed. In this regard, the following information is required to be included on orders submitted to the trading system: (1) commodity; (2) contract month; (3) purchase or sale; (4) customer account (except for orders entered by the trading desk of the brokerage house); (5) quantity; (6) limit price (except for market orders, market on open orders and other similar order types); and (7) strike process, put or call (for options). The trading system automatically records the time of, and retains a record of, each entry into the system (order entry, modification and cancellation). Thus, the trading system captures and retains a complete and accurate audit trail of all activity on the trading system. All relevant data are retained for a period of ten years in an electronic storage medium.

The Puma System offers several enhanced order functionalities, as follows:

- A request for modification of a limit order to include a quantity attribute is no longer rejected when it is not possible to fill the attribute conditions. If it is not possible to fill the attribute, the amended order is eliminated from the order book.
- For Intentional Cross Trades, which are accepted for liquid instruments if the price is between the best bid and best ask, values are no longer included. If there is no spread between the bid and ask, customers may now send an Intentional Cross Trade at a price equal to the best bid or best ask.
- Modification of apparent quantity, if accepted, is enforced only after the full execution of the apparent quantity defined prior to the modification request.

With respect to trading phases, the Puma System permits the Pre Open Phase to be extended by one minute and an additional extension with a randomly defined length (up to one minute). The Puma System also permits traders/customers to cancel orders during the Pause Phase. Traders who send orders to the trading system now bear responsibility for their cancellation in the event they remain unfilled at the end of the trading session.

Trade Confirmation and Error Procedures

Trade confirmations of orders successfully entered into the trading system are automatically generated and sent to authorized traders as are confirmations with respect to all matched trades. Like the GTS system, the Puma System has limits to prevent operational errors. Those limits, which BVMF requires market participants to assign, are applied to quantity and price information on every order, per instrument, per instrument class (group of instruments) or per market (future or options for example). Price limitations also include a restriction on variation (percent or basis points) in relation to last traded price, close price (previous day) or settlement price.

In addition, the Puma System has added a Self-Trade Prevention functionality at the customer level, the use of which is voluntary. This functionality prevents the matching of a buy and sell order for the same customer regardless of whether the orders are entered through different brokers.

Anonymity of Participants

Market data can be disseminated by the Puma System in three different formats: Market by Order ("MBO"), Top of the Book, and Market by Price ("MBP"). The DN Holder responsible for each order is disclosed in MBO and Top of the Book formats, thus making this information visible to subscribers of market data in such formats. End customers participating on the Trading System are anonymous to each other, although a complete audit trail is made so that the exchange, the BSM, and the regulatory authorities have complete transparency as to trading activity. The information that is captured includes the identity of the beneficial owner of all positions.

Trading System Connectivity with Clearing System

BVMF includes within its corporate organization four integrated clearinghouses and a settlement bank. The clearing systems were developed internally by BVMF and are fully integrated with the Puma System. The Puma System and the Risk Management Systems run in Windows platform, .Net and database Sql*server, while the Collateral Management Systems and other systems use the platform IBM mainframe, Natural and Adabas. Systems integration is carried out in real time and, in some cases, in near time. The information exchange between the mainframe and the Windows platform is carried out on a near time basis using specific data synchronization tools (typically minute by minute). Systems integration occurs primarily during trade registration and trade allocation processes. Trade registration is processed using the Windows platform, while trade allocation is processed in the mainframe platform. Information exchange between both platforms is performed using MQ queue. There are hot contingency sites for both environments - CTI and CT2 - where all information is synchronized in real time.

Additional details regarding the clearing system are provided in Supplement S-1 (Clearing Organization Supplement to FBOT Application for Registration).

Response Time

The Puma System has greater processing capacity and lower latency than the GTS system. The Puma System's latency (measured in terms of average round trip time or "RTT") is 1.1 ms. Figure 3, below, compares the Puma System's performance metrics to the GTS system. As of January 31, 2011, participants' communications links for derivatives trading must be provisioned with bandwidths of at least 12 Mbps.[2]

Figure 3: Puma System Performance Metrics

[2] *See* BVMF Technology Infrastructure Access Manual at page 31.

	GTS SYSTEM	THE NEW TRADING PLATFORM
PERFORMANCE		
LATENCY – AVERAGE RTT *	15 ms	1.1 ms
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PROCESSING CAPACITY		
PEAK OF MESSAGES /DAY	7 millions	200 millions

(*) RTT: *Round Trip Time*
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Ability to Determine Depth of Market

Market data in MBO format provides full order book depth. Market data in MBP format is limited to 5 price level depth.

Market Continuity Provisions

BVMF has adopted a Business Continuity Management ("BCM") program in order to minimize the financial, operational, legal, and regulatory impacts resulting from the unavailability of human, material, and technological resources, which are essential for the sound functioning of its operations.

BVMF has five data centers: two primary sites and three contingency sites. Primary sites are Praça Antonio Prado and XV de Novembro; Contingency sites are Tivit, Diveo, and Florêncio de Abreu. The Florêncio de Abreu building is the only one located close to the primary site (700 meters). Nevertheless, communication and power grid infrastructures are completely independent and follow distinct paths. In order to mitigate the risk related to the current geographical distance between sites, BVMF is building a new datacenter, located 20 km away from its primary sites.

The technology architecture designed to meet BVMF processing is distributed among the primary data centers and the contingency data centers, eliminating single points of failure.

Reporting and Recordkeeping Requirements

As noted above, the trading system captures a complete audit trail of all orders entered into the trading system and all trades that are executed. As described above, market data can be disseminated by the Puma System in three different formats: MBO, Top of the Book, and MBP. The DN Holder responsible for each order disclosed in MBO and Top of the Book formats, thus making this information visible to subscribers of market data in such formats.
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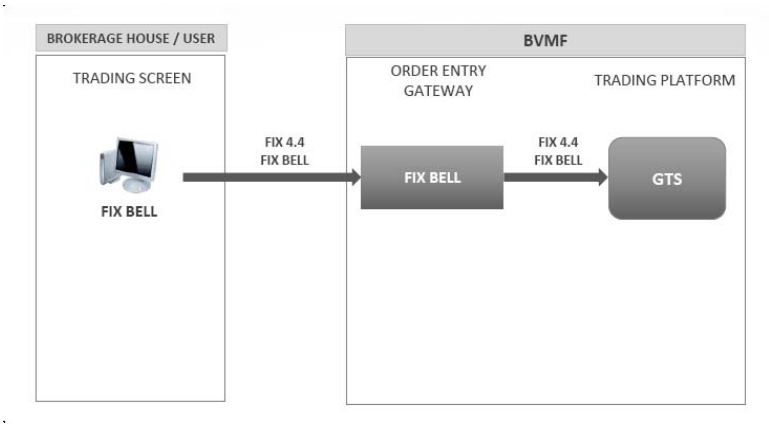

[4] "EntryPoint Message Specifications" is attached as Attachment D-1-7 and "EntryPoint Messaging Guidelines" is attached as Attachment D-1-8.

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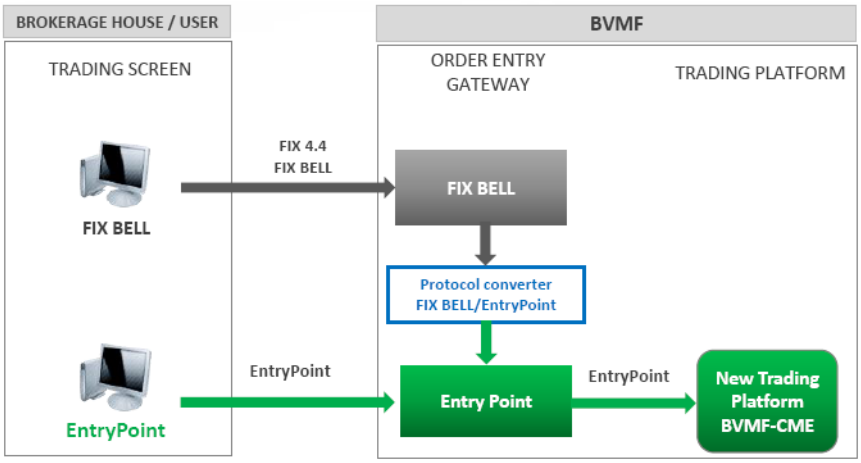

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Significant System Failures or Interruptions

At the time of the No-action letter, BVMF experienced no reliability or availability issues with the trading system. Although rare, the trading session has experienced four interruptions in the past two years due to trading system related issues. On November 22, 2011, the system experienced a momentary disconnection. On December 13, 2011 and March 12, 2012, the opening was delayed by approximately 30 minutes due to a network problem and a market data transmission problem, respectively. In addition, on February 1, 2012, the system experienced a 36 minute outage due to market data transmission issue. These interruptions or outages have been very rare and the system remains highly reliable. Communications notifying market participants of the system interruptions are included as Attachments D-1-2 through D-1-5.

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- It is now possible to modify the characteristics of a Stop Order before it is triggered, but it is no longer possible to modify the order after it has been triggered.
- If a Stop Order is triggered and its price is outside the intraday limit, then the price is now adjusted to the limit value (rather than rejecting the order).
- For Intentional Cross Trades, which are accepted for liquid instruments if the price is between the best bid and best ask, values are no longer included. If there is no spread between the bid and ask, customers may now send an Intentional Cross Trade at a price equal to the best bid or best ask.
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