



Form ATS Page 2	<b>UNITED STATES SECURITIES AND EXCHANGE COMMISSION</b> <b>WASHINGTON, D.C. 20549</b> <b>INITIAL OPERATION REPORT, AMENDMENT TO INITIAL OPERATION REPORT AND</b> <b>CESSATION OF OPERATIONS REPORT FOR ALTERNATIVE TRADING SYSTEMS</b>	OFFICIAL USE	OFFICIAL USE ONLY
Alternative trading system name: <u>SIGMA X</u>		CRD Number: <u>3466</u>	
Filing date: <u>5/21/14</u>		SEC File Number: <u>8-00526</u>	
<p>2. If this is an initial operation report, the date the alternative trading system expects to commence operation: _____</p> <p>3. Attach as Exhibit A , a description of classes of subscribers (for example, broker -dealer, institution, or retail). Also describe any differences in access to the services offered by the alternative trading system to different groups or classes of subscribers.</p> <p>4. Attach as Exhibit B:</p> <p>a. A list of the types of securities the alternative trading system trades (for example, debt, equity , listed, Nasdaq NM), or if this is an initial operation report, the types of securities it expects to trade. Note whether any types of securities are not registered under Section 12(a) of the Exchange Act of 1934 ("Exchange Act").</p> <p>b. A list of the securities the alternative trading system trades, or if this is an initial operation report, the securities it expects to trade. Note whether any securities are not registered under Section 12(a) of the Exchange Act.</p> <p>5. Attach as Exhibit C, the name, address, and telephone number of counsel for the alternative trading system.</p> <p>6. Attach as Exhibit D, a copy of the constitution, articles of incorporation or association, with all amendments, and of the existing bylaws or corresponding rules or instruments, whatever the name, of the alternative trading system. If this information is publicly available on a continuous basis on an Internet site controlled by the alternative trading system, the alternative trading system may indicate the location of the Internet web site where such information may be found in lieu of filing such information with the Commission.</p> <p>7. Attach as Exhibit E , the name of any entity , other than the alternative trading system, that will be involved in operation of the alternative trading system, including the execution, trading, clearing, and settling of transactions on behalf of the alternative trading system. Provide a description of the role and responsibilities of each entity</p> <p>8. Attach as Exhibit F, the following information:</p> <p>a. The manner of operation of the alternative trading system;</p> <p>b. Procedures governing entry of orders into the alternative trading system;</p> <p>c. The means of access to the alternative trading system;</p> <p>d. The procedures governing execution, reporting, clearance, and settlement of transactions effected through the alternative trading system;</p> <p>e. Procedures for ensuring subscriber compliance with system guidelines; and</p> <p>f. A copy of the alternative trading system's subscriber manual and any other materials provided to subscribers.</p> <p>9. Attach as Exhibit G, a brief description of the alternative trading system's procedures for reviewing system capacity, security, and contingency planning procedures.</p> <p>10. If any other entity other than the alternative trading system, will hold or safeguard subscriber funds or securities on a regular basis, attach as Exhibit H the name of such entity and a brief description of the controls that will be implemented to ensure the safety of such funds and securities.</p> <p>11. Attach as Exhibit I, a list providing the full legal name of those direct owners reported on Schedule A of Form BD.</p>			

## **Exhibit A**

**Attach as Exhibit A, a description of classes of subscribers (for example, broker-dealers, institution, or retail). Also describe any differences in access to the services offered by the alternative trading system to different groups or classes of subscribers.**

### **Background**

Goldman Sachs Execution & Clearing, L.P. (“GSEC”) is a broker-dealer registered with the U.S. Securities and Exchange Commission pursuant to Section 15(a) of the Securities Exchange Act of 1934, as amended (“Exchange Act”), and the sponsor of SIGMA X. GSEC provides its clients with the ability to route orders to U.S. and non-U.S. stock and options exchanges, all major electronic communications networks, and other alternative trading systems and certain other broker-dealers (“Market Centers”). GSEC’s clients may choose either to direct their orders to a particular Market Center, or to use the GSEC smart routing or algorithmic technology to route orders to one or more destinations determined by the smart order router or algorithm based on the client’s particular trading execution objectives. Neither the directed order feature nor the GSEC smart order routing or algorithmic technology is part of SIGMA X, and this Form ATS Amendment to the Initial Operation Report pertains only to SIGMA X and not to any other operations of GSEC more generally.

### **SIGMA X**

Prior to being granted access to SIGMA X, potential clients are reviewed and approved according to GSEC’s standards and requirements for establishing electronic order routing relationships. Once approved as a GSEC client, the client must sign an Electronic Access Agreement (“EAA”) in order to access SIGMA X and other GSEC services. GSEC clients permitted to access SIGMA X include institutional customers and broker-dealers (including equity and options market makers and specialists, and introducing brokers). GSEC affiliates also are permitted to access SIGMA X, although they are not required to execute an EAA. For purposes of this Form ATS, the term “user” will be used to refer to the parties described above (both GSEC affiliates and unaffiliated clients) that are permitted to access SIGMA X.

GSEC permits users to access SIGMA X via two methods: (i) directly, or (ii) indirectly through GSEC’s smart order router (which may receive orders from algorithms), or the smart order router of an affiliate, such as Goldman, Sachs & Co. (“GS&Co.”), or an unaffiliated client.

There are three methods by which users may send orders directly to SIGMA X. First, users may submit orders to SIGMA X using the Financial Information eXchange (“FIX”) protocol, a technical specification developed by the financial services industry for the electronic communication of trade-related messages. Once orders are received by GSEC in the FIX format, they are converted to a format compatible with SIGMA X. Second, users may directly send orders to SIGMA X using REDIPlus<sup>®</sup> (the front-end software owned by a broker-dealer that is under common control with GSEC). Finally, GS&Co. may directly or indirectly (via the smart order router) send orders to SIGMA X using an alternative protocol, which similar to REDIPlus, sends orders in a format compatible with SIGMA X.

Users that submit orders directly to SIGMA X using FIX may choose one of two methods of connectivity: standard data transmission lines, which is the default method for access, or high capacity data transmission lines, which is the method preferred by users that require the ability to process a greater number of messages per second. Orders sent directly to SIGMA X by GS&Co. or REDIPlus may only be sent via standard data transmission lines.

## Exhibit B

- a. **A list of the types of securities the alternative trading system trades (for example, debt, equity, listed, Nasdaq NM), or if this is an initial operation report, the types of securities it expects to trade. Note whether any types of securities are not registered under Section 12(a) of the Exchange Act of 1934 (“Exchange Act”).**

All NMS stocks (as defined in Rule 600(b)(47) of Regulation NMS) are eligible for trading on SIGMA X.

- b. **A list of the securities the alternative trading system trades, or if this is an initial operation report, the securities it expects to trade. Note whether any securities are not registered under Section 12(a) of the Exchange Act.**

All NMS stocks are eligible for trading on SIGMA X. A list of such NMS stocks was attached as an appendix to Exhibit B of SIGMA X’s Amendment to Initial Operation Report filed on June 15, 2006. To the extent that this list of NMS stocks changed since that time, or changes subsequent to the date hereof, please note that SIGMA X expects to trade all NMS stocks.

**Exhibit C**

**Attach as Exhibit C, the name, address, and telephone number of counsel for the alternative trading system.**

The Legal Department of GS&Co. is the counsel for SIGMA X.

A contact person in the Legal Department is:





## **Exhibit D**

**Attach as Exhibit D, a copy of the constitution, articles of incorporation or association, with all amendments, and of the existing by-laws or corresponding rules or instruments, whatever the name, of the alternative trading system. If this information is publicly available on a continuous basis on the Internet site controlled by the alternative trading system, the alternative trading system may indicate the location of the Internet web site where such information may be found in lieu of filing such information with the Commission.**

Please refer to Exhibit D of SIGMA X's Amendment to Initial Operation Report, which Amendment was filed on July 15, 2005.

## Exhibit E

**Attach as Exhibit E, the name of any entity, other than the alternative trading system, that will be involved in the operation of the alternative trading system, including the execution, trading, clearing, and settling of transactions on behalf of the alternative trading system. Provide a description of the role and responsibilities of each entity.**

SIGMA X is owned and operated solely by GSEC, which is responsible for all aspects of SIGMA X, including its core technology (*i.e.*, the order book, matching engine and the development of coding logic), clearing, and settlement of transactions. Note that because GSEC is an affiliate of GS&Co., a global, full service broker-dealer, some ancillary support functions are performed by GS&Co. These functions include, for example, compliance, legal, operations, infrastructure support, Order Audit Trail System (“OATS”), and technology changes impacting both firms (*e.g.*, symbology changes, FIX connectivity). Such employees are subject to firmwide policies governing use of confidential information, including information relating to SIGMA X.

## **Exhibit F**

**Attach as Exhibit F, the following information:**

**a. The manner of operation of the alternative trading system:**

**Hours of Operation**

SIGMA X is authorized to operate from 6:30 a.m. to 5:00 p.m. Eastern Time.

**Eligible Contra-Side Trading Interest –**

***Connectivity:***

As noted in Exhibit A, SIGMA X can be accessed directly using high capacity or standard data transmission lines or indirectly via an affiliated or unaffiliated smart order router. GSEC recommends that users accessing SIGMA X directly and requiring the ability to process a greater number of messages per second utilize high capacity data transmission lines. SIGMA X provides standard data transmission line users with the ability to entirely prohibit interactions with high capacity data transmission line users, a feature known as “opt out”. The feature allows standard line users to have the ability to only interact with the flow from other standard line users.

***Orders in SIGMA X:***

Generally, orders submitted to SIGMA X are eligible for immediate execution against eligible contra-side trading interest in price/time priority. However, this execution priority may change in instances where users choose to impose certain conditions on their orders to limit interaction with other orders in SIGMA X. These conditions include the ability of users (i) accessing SIGMA X via standard data transmission lines to “opt-out” of interacting with flow from high capacity data transmission lines as described above; (ii) to designate a limit price; (iii) to designate a minimum eXecutable quantity (“MXQ”), either as an order specific parameter or a hard-coded default; (iv) to “opt out” of receiving executions during a locked market; and (v) to impose trading blocks to prevent their orders from interacting with their own orders or the orders of their affiliates identifiable within SIGMA X (available for both GSEC affiliates and non-affiliated users). In addition to the ability of users to implement trading blocks, SIGMA X also implements certain blocks to help avoid self-trading by users. In accordance with such instructions, the matching logic would by-pass any orders that contained one of the above conditions. Limit orders may be cancelled and replaced prior to execution. Unexecuted orders expire at the end of the day.

***Visibility:***

Orders submitted to SIGMA X are not displayed to any parties other than employees of GSEC or employees of GS&Co. that are involved in the compliance or operation of the ATS. As mentioned in Exhibit E above, the core of SIGMA X is supported by GSEC employees. Only certain of these GSEC employees are permitted to view the SIGMA X order book and matching engine in real time. As also mentioned, GS&Co. performs certain ancillary support functions for SIGMA X. These functions include, for example, compliance, legal, operations, infrastructure support, OATS, and technology changes impacting both firms (e.g., symbology changes, FIX connectivity). These GS&Co. employees may see subsets of client order information incidentally when performing their responsibilities. But these GS&Co. employees cannot see the entire SIGMA X order book. Such employees are subject to firmwide policies governing use of confidential information, including information relating to SIGMA X.



**b. Procedures governing entry of orders into the alternative trading system:**

The submission of orders to SIGMA X by various users of the ATS is described above in Exhibit A.

SIGMA X accepts Limit and Peg (bid/mid/ask) orders with a time in force of, Immediate or Cancel, and Day.

SIGMA X supports messages from GSEC's smart order router using a low latency messaging protocol that attempts to identify liquidity in SIGMA X before sending the order to the broader market. The low latency messaging protocol uses streamlined connectivity between the smart order router and SIGMA X, so that if an order cannot receive a match in SIGMA X (either fully or partially) the smart order router can immediately route the order (or portion of the order) to the broader market. If there is no chance for a match, the ATS sends a message indicating that there is no available contra-side interest back to the smart order router. If, as a result of the messaging protocol, it is determined that there is a chance for a match, the message (which contains symbol, side, price, size, and any user imposed constraints) is automatically and on a non-discretionary basis converted to a SIGMA X order. A match may subsequently occur, provided that, there is not a user imposed constraint on the order in SIGMA X that precludes the match from occurring (user imposed constraints are evaluated after the message is converted to an order). It is important to note that the smart order router does not retain information with respect to these inquiries and, instead, must check SIGMA X for liquidity in connection with each order it handles.

**c. The means of access to the alternative trading system:**

Please see Exhibit A and Item b above.

**d. The procedures governing execution, reporting, clearance, and settlement of transactions effected through the alternative trading system:**

Subject to any conditions applied on orders (*e.g.*, the ability to "opt out" by standard data transmission line users or the designation of any constraints applied by users to their orders and or the designation of a MXQ), orders entered for crossing in SIGMA X are executed based on price/time priority with respect to eligible contra-side trading interest. All executions occur at or within the National Best Bid and Offer ("NBBO") disseminated by the Securities Information Processor ("SIP").

SIGMA X adjusts the price of short sale orders subject to Rule 201 under Regulation SHO that are not permissibly priced for execution (*i.e.*, not priced above the SIP NBBO) to the lowest permissible price in compliance with Rule 201 (including in sub-penny increments for orders that may be priced in sub-pennies pursuant to Rule 612 under Regulation NMS). Such orders are executed at the adjusted price if there is an available contra-side order or held for execution at the new adjusted price or better. As quoted prices change, SIGMA X re-prices the short sale orders to the lowest permissible price for execution under Rule 201 down to the order's original limit order price. An order that is re-priced does not have its original priority changed. Instead, the priority of an order is established based on its original, permissible price.

SIGMA X will suspend crossing functionality in specific symbols under the following conditions: a symbol is subject to a regulatory trading halt or trading pause; a symbol is currently quoted in a "Limit Up/Limit Down" straddle state; or when SIGMA X market data is believed to be delayed or incorrect.

Users of SIGMA X receive electronic notification of executions promptly after execution. GSEC reports all orders and trades as required under the rules relating to OATS and the Trade Reporting Facility. In addition, GSEC gathers any information required by applicable self-regulatory organizations order tracking or reporting rules with respect to orders in listed securities executed through SIGMA X. Trades that are executed on SIGMA X are cleared and settled versus GSEC.

**e. Procedures for ensuring subscriber compliance with system guidelines:**

As noted in Exhibit A, except for its affiliated entities, GSEC requires all clients to execute an EAA to access electronic services at GSEC. Pursuant to the terms of the agreements and/or account documentation entered into with GSEC, users have contractual obligations to abide by all applicable rules and regulations. In addition, blocks, filters, and activity reports are used to monitor orders sent to SIGMA X and to monitor user compliance with their agreements and system policies and procedures, including applicable rules and regulations.

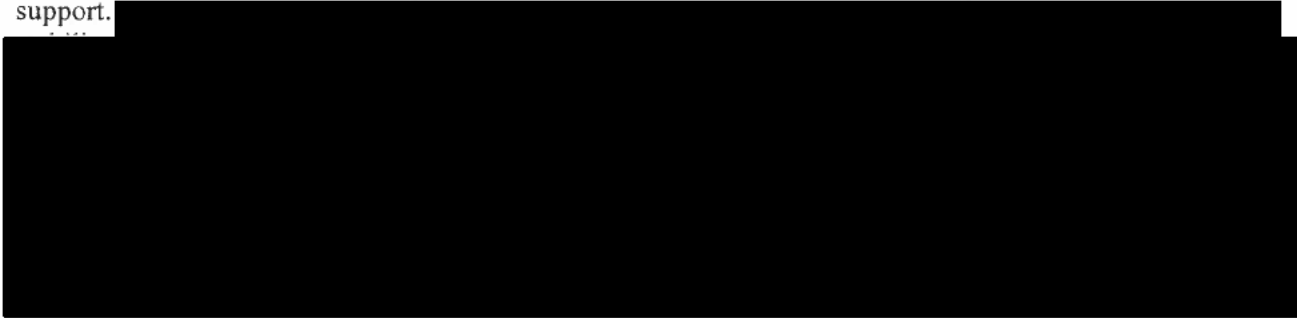
**f. A copy of the alternative trading system's subscriber manual and any other materials provided to subscribers:**

Currently, there are no user manuals relating to SIGMA X. For a copy of the SIGMA X user agreement, please refer to Exhibit F of SIGMA X's Amendment to Initial Operation Report, which Amendment was filed on July 15, 2005. Materials provided to users regarding SIGMA X: "The Liquidity Access brochure; "US Equities Volume Breakdown" flyer; and "Frequently Asked Questions", were provided with the Amendment to the Initial Operation Report filed on January 30, 2014.

**Exhibit G**

**Attach as Exhibit G, a brief description of the alternative trading system's procedures for reviewing system capacity, security, and contingency planning procedures.**

As discussed in Exhibit A, SIGMA X is one component of GSEC's broader business structure, and as such is a user of various systems and networks owned and operated by GSEC. Similarly, and as noted in Exhibit E, GS&Co. provides certain ancillary support systems for SIGMA X including among others, infrastructure support.



**Exhibit H**

**If any other entity, other than the alternative trading system, will hold or safeguard subscriber funds or securities on a regular basis, attach as Exhibit H the name of such entity and a brief description of the controls that will be implemented to ensure the safety of such funds and securities.**

Not applicable.

**Exhibit I**

**Attach as Exhibit I, a list providing the full legal name of those direct owners reported on Schedule A of Form BD.**

The Goldman Sachs Group, Inc.  
The Goldman, Sachs & Co. L.L.C.