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AMMAN STOCK EXCHANGE ORDER MANAGEMENT SYSTEM

Online Trading Findings & Recommendations

November 10, 2007

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Online Trading Findings & Recommendations

SUSTAINABLE ACHIEVEMENT OF
BUSINESS EXPANSION AND QUALITY (SABEQ)

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BEARINGPOINT, INC.

USAID/JORDAN
ECONOMIC OPPORTUNITIES OFFICE (EO)

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JSC SUPERVISING INTERNET TRADING

1.4.1.9.9.2 DIAGNOSTIC OF CURRENT IT
INFRASTRUCTURE FOR INTERNET TRADING

DISCLAIMER:

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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1. Introduction

1.1 Background. Since 2005, the Amman Stock Exchange (ASE) has worked together with six pilot broker dealers¹ and major regional software development firms (“Pilot Group”) to introduce Order Management System allowing internet- based, client order entries as well as new broker - dealers terminals (“e-Trade”). During this time, the ASE has developed basic e-Trade technical specifications using the FIX 4.2 protocol² and provided substantial technical advice and guidance to the Pilot Group.

Since about October 2006, the ASE has been engaged in testing the various developer applications and is now nearing completion of its certification process – having certified two - Manasoft and Special Systems - of the six vendor applications under development.³

Most recently, in April 2007, the ASE produced and submitted draft e-Trade Trading Directives (“Directives”) to the Jordan Securities Commission (“JSC”) for the regulatory review. JSC approval of the draft Directives is required before the Pilot Group can commence using their various e-Trade applications. As of the date of this report, the draft Directives remain unapproved by the JSC, with some limited revisions and feedback from the JSC Legal Department.

At the request of the JSC, BearingPoint’s SABEQ Project has provided a limited technical review of the adequacy and safety of the proposed ASE e-Trade pilot program -- including a review of the business, legal and regulatory framework, and its overall information technology architecture and design.

1.2 Scope of review. During the two week time period allotted to this assignment, the SABEQ team⁴ met with more than 30 representatives of the ASE, JSC, Jordan Securities Depository Center (“SDC”), as well as Pilot Group representatives. (A detailed list of representatives met with is attached as Exhibit A.) The SABEQ team has also reviewed documentation provided by the various Pilot Group representatives, as well as other internal and publicly available information obtained from the ASE, JSC and SDC websites.⁵

To compensate for the limited available time, the SABEQ team focused its review on two key areas related to the implementation of the ASE e-Trade project:

¹ Alta’awon, Ebda’a, Al Tanmieh, Tafawok, Almotahedeh, United Financial Investments

² The **Financial Information eXchange (FIX) Protocol** is a messaging standard developed specifically for the real-time electronic exchange of securities transactions. FIX is a public-domain specification owned and maintained by FIX Protocol, Ltd.

³ As of the date of this report, the following developer applications have not been certified by the ASE – ABC Bank (In-House Development), Orion Systems, Mubasher

⁴ The SABEQ team executing this assignment consists of Geoffrey Elkind, Esq., Senior Manager, Corporate Governance and Capital Markets Practice Leader, BearingPoint, Inc., and Viktor Grinberg, Managing Director, Bear Stearns, Inc.

⁵ Jordan Securities Law (JSL), JSL Regulations, ASE Directives (including Trading Directives and Draft Internet Trading Directives, ASE Presentation on Internet Trading, ASE Internal Specification for Internet Trading.

- Identification of e-Trade related business, legal and regulatory gaps, including a review of the ASE draft e-Trade Trading and other related ASE Directives
- An extremely high-level review of the e-Trade technical architecture and design

1.3 Key Findings

- With several minor changes to the e-Trade technical, business and operational design discussed later, the proposed system appears close to being ready for rollout to members of the Pilot Group.
- The ASE draft e-Trade Directives will require amendments to address customer protection, broker-client contract, and risk disclosure gaps, among other things. (The JSC must still approve the final draft of the e-Trade Directives before trading can begin.)
- The introduction of e-Trade will not require any significant modifications to current JSC / ASE surveillance and inspection processes. Real time monitoring and off-line systems should be modified to permit viewing of e-Trade transactions segregated from all other transactions.
- The JSC and ASE will need to ensure that an e-Trade monitoring program and customer complaint mechanism is in place to monitor and address unanticipated issues as the e-Trade system is rolled out.

2. Findings

This section summarizes our key findings relevant to the introduction of e-Trade connectivity. Our findings are divided into three categories:

- Business
- Legal and Regulatory
- Information Technology

2.1 Business

- 2.1.1 There are separate trading sessions - Opening, Continuous, and Block - limiting market activities for the certain group of equities and/or market participants. Broker clients are permitted to participate in only the Opening and Continuous sessions. The Block trading session is open only to brokerage firms to register the transaction details of pre-negotiated block trades agreed upon during the course of the business day.
- 2.1.2 The existing trading system permits only two order types – “Market” and “Limit” - while the current implementation of the e-Trade system will support only the use of “Limit” orders. (These limitations are a product of the trading system engine, which the ASE does not own source code rights to modify.)

- 2.1.3 The implementation of the ASE market order function differs from the traditional international practice and understanding of a market order. International practice follows the rule of executing a market order at the best available prices until the entire quantity of the order is filled – even if this results in a range of price executions.
- 2.1.4 In Jordan, the ASE trading system will execute a market order only to the extent sufficient shares exist at the best bid or ask at the time the order enters the market. To the extent that the quantity of shares in a market order exceeds the quantity available at the best bid or ask at the time the order enters the market, the excess balance will be automatically cancelled -- the balance of the order not executed needs to be re-entered into the trading system as a new order.
- 2.1.5 Notwithstanding the trading system's market order limitation, different member firms have developed manual overlays or alternative approaches to replicate fully international practice in executing market orders. For example, a buy (sell) limit order entered with a price set above (below) the market will indicate that the order should be continuously executed until the limit price is reached. Such an order will then behave like a traditional market order until it reaches this specified price point. Similarly, the local practice of brokers is to manually accept and execute a wider range of orders than the automated system is programmed to handle – e.g., stop, stop limit, good until canceled, etc.
- 2.1.6 Similarly, the new e-Trade order management modules will permit brokers to automate a greater range of order types that are currently managed manually. These implementations may provide a greater variety of the order types.
- 2.1.7 Currently, the exchange provides “end of the day” (EOD) file to the each correspondent member, which includes all transactions performed on the exchange on behalf of the member firm. Upon receiving this file, each member reconciles the daily volume of its own back office system with the context of the EOD file. If any discrepancy is revealed the member firm corrects its own books and records so the final version of the member's data corresponds to the exchange version.
- 2.1.8 Clients receive intra-day and end-of-day confirmations of order executions through a variety of methods – phone, fax, SMS, email and snail mail. Confirmations of unexecuted orders are required also to be communicated to clients pursuant to the current ASE Trading Directives Art.12.b, but this is apparently not done routinely, in practice.
- 2.1.9 Market participants expressed a general expectation the introduction of the e-Trade environment will increase ASE trading volume.
- 2.1.10 All pilot group representatives understand the need for some form of client education, training and support, however, there appears to be no common

agreement on what type of education, training and/ or support is necessary and/or required for the benefit of the clients.

- 2.1.11 Members of the pilot group appear to have various e-Trade roll-out strategies with respect to their client bases. Some plan to offer the connectivity to all clients without regard to prior trading experience, while others plan to offer the service to either their most active or experienced clients; others plan to establish minimum client qualifications for e-Trade access.
- 2.1.12 The ASE Information and Communication Technology Department is in the process of drafting an e-Trade implementation roll-out plan.
- 2.1.13 The proposed e-Trade system will be implemented on a cash-basis for securities purchases. Margin transactions will not be permitted at this time. As such, the system has been designed to electronically monitor - in real time - client cash balances and securities positions at the point of order entry to prevent purchases in excess of available funds and to prevent short sales – inadvertent or intentional.
- 2.1.14 Manual orders entered using GL terminals are going through the same validation procedures, except that these procedures are initiated manually by the representatives of the member firms.

2.2 Legal and Regulatory

- 2.2.1 In or about April 2007, the ASE submitted a draft of proposed, new e-Trade Trading Directives designed to provide regulatory guidelines for the member firms involved in the e-Trade activity. As of the date of this report, the draft Directives remain unapproved by the JSC, with some limited revisions and feedback from the JSC Legal Department.

The current draft of the e-Trade Trading Directives provides for the following:

- A glossary of terms largely duplicative of the already existing ASE Trading Directives
- A description of e-Trade trading activity, trading and regulatory counterparts, their rights and responsibilities in regards to the data, order flow, trading restrictions, commissions, charges, penalties and certifications
- Specific guidelines for the member firms to provide adequate account validations for all type of transactions
- A clarification that only brokers are permitted to participate in the block trading session at the end of the trading day

The SABEQ Project has reviewed the draft ASE Internet Trading Directives, provided article-by-article commentary on this draft, and produced a revised set of draft of Directives, (“Revised Draft Directives”) The Revised Draft Directives incorporate all of the recommendations discussed below, and we have discussed our revisions with the JSC and ASE.⁶ (The revised Draft Directives are attached as Exhibit B.)

- 2.2.2 Two (2) different systems are available to access market and surveillance data -- one to monitor current day activity online, in real time, and a second system to perform off-line, historical queries. Both systems are used in daily market surveillance monitoring by the representatives of the corresponding departments of ASE and JSC. The same manual query tools and reports appear to be used by both institutions to conduct trade practice investigations.
- 2.2.3 Representatives from the JSC and ASE appear to be in agreement that the addition of e-Trade connectivity will not require any special changes to the currently utilized market surveillance processes to detect any of the illegal trade practices described in the ASE Code of Conduct – e.g. front running, insider trading, and manipulation. Further, representatives of both the JSC and ASE agree that automated, off-line reports should be developed to flag possibly suspect transactions. According to the ASE, the automation of such reports is under development.
- 2.2.4 All pilot group representatives also understand, to varying degrees, the need to draft specialized broker-client customer agreements to address legal liability, risk disclosure, and other contractual issues incident to client e-Trade access. At the same time, there appears to be no common agreement on what type of terms and conditions are required or should be incorporated into such a contract.

2.3 Information Technology

- 2.3.1 Six (6) member firms are selected for the pilot implementation of the e-Trade; each firm is able to select its own provider of the trading software.
- 2.3.2 ASE intends to certify each development company chosen by the member firms according to a pre-determined set of parameters and testing procedures. The ASE has not formally published the certification and testing criteria, but all the developers interviewed expressed general knowledge of the criteria based upon their extended course of interactions with the ASE during the development process. As noted earlier, two out of the six development firms have been certified to date.
- 2.3.3 The existing ASE infrastructure provides each pilot group firm participating in e-Trade with two (2) separate, exchange located servers, and protected point-to-point network connectivity.

⁶ We recommend that JSC and ASE staff establish an ad hoc working group to achieve a consensus on the final form of the Draft Revised Directives.

- 2.3.4 All representatives of the pilot group understand the need for technical support of e-Trade users, however, there is no common agreement on what type of support is necessary and/or required.
- 2.3.5 The e-Trade system architecture (single channel sequential FIX connectivity) utilizes a reliable transaction recovery mechanism, in accordance with widely accepted industry protocols.
- 2.3.6 The ASE has an existing onsite (“warm”) backup capability for its trading system application based on clustering technology. In case of a partial hardware or connectivity failure, the ASE should be able to continue the trading session with a minimum level of intervention, utilizing remaining hardware and/or connectivity channels. In case of “disaster recovery” (i.e. losing the primary site), ASE staff should be able to restart the backup server at the remote location with the data restored up to the end of the previous business day.
- 2.3.7 Current trading system provides time synchronization mechanism for the exchange located servers; significant portion of GL terminals located at the member firms are also time synchronized with the central time server.
- 2.3.8 The account of user of the e-Trade application will be automatically validated against the available cash or securities balances for every new order and/or modification. The same account of the GL screen user (client or member firm) will have to be manually validated for the same conditions.
- 2.3.9 Each new partial or full execution initiated from the e-Trade application updates the account (client) cash balance in the Order Management (OM) system installed on the exchange server. Upon updating the account balance, the transaction is replicated to the OM system version installed at the member firm location. Each new partial or full execution initiated from the GL screen will automatically adjust the account balance at the OM system installed at the member firm location. Upon updating the account balance, the transaction is replicated to the OMS version installed at the exchange server.
- 2.3.10 Prior to the commencement of this TOR, the ASE had no plans to conduct volume stress testing of the e-Trade system. During our meetings with ASE operation and IT departments, these volume tests were initiated. The results of the test will be presented upon their completion.

3. Recommendations

Our recommendations are divided into three categories:

- **Immediate Recommendations:** Recommendations which should be implemented before taking the Pilot Group program live
- **Medium Term Recommendations:** Recommendations to be taken before expanding e-Trade functionality to other brokers beyond the initial Pilot Group

- **Future Enhancements**

(At the request of the JSC, we have summarized in our recommendations in a matrix format – see Exhibit C attached to this report. The Project Team also delivered a preliminary report of our findings to representatives of the JSC and ASE. The JSC presentation containing our preliminary findings is attached also as Exhibit D.)

3.1 Immediate Recommendations

3.1.1 Complete drafting of e-Trade Directives; address gaps and issues not discussed in present version, especially provisions designed to address customer protection issues:

- Permit brokers to define order overlays beyond limit orders subject to full disclosure of available order types and development of sufficient risk disclosure and client training on their usage.
- Obtain consensus on model broker-client contract form to support e-Trade activities. (See SIFMA⁷ Model Contract Form Contract for Electronic Trading Services, attached as Exhibit E, which can be used as a guide to develop a local model contract form for use in Jordan.)
- Risk disclosures to clients
- Enhance broker website content requirements designed to support e-Trade activities. (See Exhibit F for suggested Model Guidelines for Broker Website content.)
- Establish broker responsibility for adequate client risk disclosures and client training.

3.1.2 Reorganize existing EOD reconciliation process between brokers and the ASE to generate data at the exchange level pertaining to transactional discrepancies. This can be accomplished in either of two ways – 1. By requiring the brokers to disclose to the exchange all discrepancies they identify each day in a standardized report; or, 2. By sending broker generated EOD files to the exchange for comparison trading system generated data. Regardless of the reconciliation process chosen, the exchange should maintain statistical data of broker reconciliation errors to identify potential operational issues or problems. (This recommendation would be consistent with the growing international trend toward establishing risk based metrics to market oversight of securities industry participants.)

3.1.3 Ensure that all JSC and ASE online surveillance monitoring and off-line database systems can segregate (view) e-Trade and GL transactional data independently from one another.

⁷ Securities Industry and Financial Markets Association (SIFMA)

- 3.1.4 The ASE should make available - upon request to qualified developers - its minimum certification and quality assurance parameters in connection with the development of e-Trade related software systems.
- 3.1.5 The ASE should draft an exchange – member contract to address contractual issues related to the offering of e-Trade connectivity.
- 3.1.6 Ensure that 100% unexecuted orders are reported back to customers by the brokers as required by ASE Trading Directive Article 12b.
- 3.1.7 Conduct live simulated trading sessions involving all brokerage firm representatives, JSC and ASE staff accessing the e-Trade system from home through internet connections. Participants should complete a questionnaire or a written report containing an identification of lessons learned, problems encountered or suggestions for improvements, which should be collated and forwarded to JSC and ASE for joint review. Participants should be required to go through exercises requiring the placement, modification, and cancellation or orders.
- 3.1.8 Perform volume stress test to determine capacity and physical limitations to the total number of transactions that can be processed at any single moment in time. A series of stress tests should be conducted for each Broker OM system individually and together simultaneously utilizing scripts provided by each development firm. The scripts should provide for the entering of transactions at increasing levels of activity with the objective of ascertaining the capacity of each system. A written report should be compiled for each test, containing a description the number of transactions submitted by the scripts and a measure of capacity as reflected in the number of transactions per second processed by each OM system and number of trades per second processed by the ETS. Any problems encountered should be fully identified together with recommendations for needed remediation. The stress test reports should be reviewed jointly by the JSC and ASE.
- 3.1.9 The JSC and ASE will need to ensure that an e-Trade customer complaint mechanism and internet trading monitoring program is in place to monitor and address unanticipated issues as the e-Trade system is rolled out. (See Exhibits G and H attached for suggested examples of complaint and usage monitoring data, which should be collected during and after the pilot trading process.)
- 3.1.10 Brokers should have written contingency plans and resources in place to revert back to manual order entry should the e-Trade system be unavailable to their clients for any reason.
- 3.1.11 Clients must have the right to place manually entered orders should the e-Trade system be unavailable to them for any reason.
- 3.1.12 Require the manual validation of cash and securities for each transaction entered using existing GL screens terminals.

3.2 Medium Term Recommendations

- 3.2.1 Create automated reports to flag potential front-running violations for later investigation by the surveillance and inspection department.
- 3.2.2 A standard paper ticket form should be created to facilitate manual order entry, complete with a requirement that all manually accepted orders be time-stamped with synchronized clocks at the time the order is taken by the brokerage firm.
- 3.2.3 Extend data requirements for real time transactions reported to the exchange
 - Currency (Field 15)
 - Last capacity of the execution – e.g., principal or agency (EX – Field 29)
 - Order ID (Field 37) for EOD reconciliation
 - FIX Rule 80A (Field 47) as to program trading
 - Gather commission information
- 3.2.4 Expand the system to accept various types of orders, not only limit. This may best be accomplished by permitting brokers to create overlay orders on their e-Trade order management systems.
- 3.2.5 Implement restricted list reporting process required by the current ASE trading Directives -- no disclosure process currently exists to forward this information to the ASE. Upon implementation of the restricted list disclosure ASE should develop an automated report flagging trades in the restricted stocks by correspondent brokers.
- 3.2.6 Develop and implement an e-Trade Public Education (“PE”) Program at the JSC and/or ASE levels. Materials generated for the PE Program should be made readily available on the JSC, ASE and all e-Trade participating broker sites.
- 3.2.7 The ASE should upgrade its existing backup mechanism at their remote location. The new disaster recovery environment should be able to pick-up and/or restore transactional data from the moment of its failure.
- 3.2.8 The ASE Operations Department should have the authority to establish trading system time synchronization standards to be implemented for broker e-Trade and GL systems. Additionally, all brokers should be obligated to produce and maintain standardized reports, reflecting proof that all required systems have in fact been synchronized as required by the ASE. ASE surveillance, inspection and operations staff shall be authorized to conduct spot inspections of broker time synchronization data reports and should also be authorized to direct any necessary corrective actions which should be taken if warranted.

3.3 Future Enhancements

- 3.3.1 The JSC, ASE Surveillance, Inspection and Information Technology Departments should consider implementing the concept of a risk-based approach to securities market oversight. This would ultimately lead to a more efficient use of limited resources, the development of dash-boards to identify potentially risky business, trading and other practices.
- 3.3.2 The exchange should develop various automated systems - off-line reports and real time monitoring - to flag potentially violative trading activity. This activity should be undertaken as a joint exercise between the relevant departments of the JSC and ASE.
- 3.3.3 The ASE Trading Directives should be amended at a later date to introduce the concepts of “principal”, “agency”, and “risk-less for broker executions of trades. This would bring the regulatory framework into compliance with actual industry practice.

APPENDIX A

EXHIBIT A - Persons Interviewed / Consulted by SABEQ OMS Review Team: October 20 - November 10, 2007

	Name	Affiliation	Title / Department	Email
1	Abu Abbas, Bassam	Amman Stock Exchange	Director / Listing & Operations Department	babuabbas@ase.com.jo
2	Abu Al-Haija, Shadi	Amman Stock Exchange	Listing & Operations Dept	operations@ase.com.jo
3	Abu Al-Hyja, Tariq	Amman Stock Exchange	Surveillance & Inspection Dept	info@ase.com.jo
4	Abu Assaf, Adel	Amman Stock Exchange	Chief / Information & Communications Division	abuassaf@ase.com.jo
5	Abu Ayyash, Hussein	Jordan Securities Commission	Head / e-Government Unit	abu.ayyash@jsc.gov.jo
6	Abu Elaish, Alaa	Special Systems	Sales Manager	aabueelaish@sscjo.com
7	Al Etawi, Ali	ABC Investments	IT Unit Head	alie@abci.com.jo
8	Al-Amad, Nase Mohammad	United Financial Investments PLC	General Manager	gmufi@accessme.com.jo
9	Alawin, Abdullah	Jordan Securities Commission	Commissioner	a.alawin@jsc.gov.jo
10	Alawneh, Saad	Amman Stock Exchange	Director / Surveillance and Inspection Department	salawneh@ase.com.jo
11	Al-Hajjaj, Ismail	Jordan Securities Commission	Director, Surveillance Dept.	ismail@jsc.gov.jo
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13	Al-Mufti, Muna F.	Jordan Securities Commission	Director / Legal Affairs & Enforcement Dept	muna@jsc.gov.jo
14	Al-Najdawi, Abla	Amman Stock Exchange	Director / Legal Affairs Department	anajdawi@ase.com.jo
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20	Azar, Nader	Amman Stock Exchange	Deputy CEO	nazar@ase.com.jo
21	Gammoh, Zahi Ibrahim	Ibda Financial Investments	General Manager	ibda@jiig.com
22	Hamed, Ammar Alhaj	Amman Stock Exchange	Chief of Development & Projects Division	ammarhaj@ase.com.jo
23	Hassan, Muayyad	Amman Stock Exchange	Surveillance & Inspection Dept	mhassan@ase.com.jo
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26	Khatib, Mohammad	Amman Stock Exchange	Director / Information & Communications Technology	mkhatib@ase.com.jo
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30	Naser, Khalil	Securities Depository Center	Deputy CEO	knaser@sdcc.com.jo
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32	Owais, Suhrab Rakad	Excel Invest	Executive Manager	suhrab_invest@hotmail.com
33	Quwaider, Mohammad Ghazi	ABC Investments	IT Department	mohammadq@abci.com.jo
34	Serhan, Nujoud	USAID	Project Management Assistant	nserhan@usaid.gov
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36	Tbaishat, Mohammad A.,	Jordan Securities Commission	Legal Affairs Dept.	tbaishat@jsc.gov.jo

APPENDIX B

Directives for Internet Trading on Amman Stock Exchange

Issued by virtue of the provisions of Article (67/C) of the Securities Law No. 76 for the year 2002 and article (1/B/24) of the Internal By-Law of Amman Stock Exchange for the year 2004

General Comments:

1. New wording has been suggested to provide greater clarity where required.
2. Consideration should be given to incorporating these provisions as a subsection of the current trading directives. Some of the articles in this document are of general applicability to both internet and regular trading. It would be inconsistent to have these provisions apply only to internet trading and not to regular trading. Articles falling into the "general application" category are specifically noted below.
3. There remain several areas of activity, which will require further attention in connection with these directives:
 - a. Development of an acceptable form of Broker – Client model or set of guidelines.
 - b. Development of a minimum set of required risk disclosures that should be incorporated into Broker-Client contracts and as part of guidelines on broker website disclosure.
 - c. Development of minimum Broker website content / disclosure guidelines
 - d. Development of minimum client qualifications for Internet Trading, including perhaps, a suggested minimum initial account balance and ongoing maintenance requirements.
 - e. Development of ASE internet trading monitoring forms to collect data related to: OM system outages; complaints; internet trading service usage and performance.
 - f. Development of testing parameters for stress tests and simulated trading

Article (1)

These Directives shall be called the " Directives for Internet Trading on Amman Stock Exchange for the year 2007" They shall enter into effect as of the date specified by the board of commissioners of the Securities Commission.

Article (2)

The following words and expressions construed in these directives shall have the meanings assigned to them hereunder, unless otherwise indicated by context.

*The Law	: The Securities Law in force.
*ASE	: Amman Stock Exchange
*The Board of Directors	: The Board of Directors of the ASE.
*CEO	: The Chief Executive Officer of the ASE.
*ETS	: The electronic trading system used at the ASE.
Trading	: Buying or selling securities on the ASE.

Internet Trading	: The service offered by the broker to its client, through which the client can enter buying and selling orders and follow them thereby, by using the internet through a special program.
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The Service	: Internet Trading service.
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The Program	:	The special program which is used for the internet trading purposes.
*Broker	:	A legal person licensed by the JSC to do the work of a financial broker or to do work for its own account.
*Certified Broker	:	A natural person authorized by the JSC to do financial Brokerage work.
*Buying Order	:	An order sent to the ETS to buy a specific security for the benefit of the broker's portfolio or its client.
*Selling Order	:	An order sent to the ETS to sell a specific security for the benefit of the broker's portfolio or its client.
*Block Trade	:	Trading between two Brokers or through one Broker to buy and sell a security in one lot, upon the written authorization of the client, provided that the market value of the single contract does not fall short of the minimum set by the Board of Directors for such security.

COMMENTS:

1. Consider merging internet trading regulations as a “Part II” to the already existing trading directives. This would eliminate the need for largely duplicative Article 2 definitions, and incorporate other new provisions contained in the draft directives that appear to be applicable to all trading, generally.
2. An alternative approach would be to incorporate by reference the definitions from the trading directives, and only define here what new definitions are used in the internet trading section. Definitions marked with an “*” denote definitions already appearing as part of the Trading Directives.
3. I have not yet added definitions as this should be the last exercise undertaken after we have a clearer consensus on the final wording of the draft directives.

Article (3)

Trading in securities on the ASE shall take place by trading contracts between Brokers, for their accounts or their clients' accounts.

COMMENTS:

1. Largely duplicative of existing trading directive Article 3 and purpose of this article vis-à-vis online trading is unclear.
2. Consider replacing both existing and draft Article 3 with the following language:
 - a. Trading of securities on the ASE shall take place between and among ASE member Brokers either on their own behalf (“principal” basis) or on behalf of their clients (“agency” basis).
 - b. Orders for the trading of ASE securities, in any capacity, may be entered by Brokers through the use of Broker GL Terminals or through an ASE certified Broker order management (OM) system.

c. Authorized Broker clients may enter orders electronically using internet Trading Services offered through an ASE certified Broker OM system.

d. All client orders entered and executed through an ASE certified Broker OM system shall be deemed to be an "agency" order of the client's Broker.

Article (4)

For the execution of these directives' provisions, the broker shall be deemed responsible for the orders entered to the ETS thereby, whether these orders were entered by the certified Brokers working for him or by its clients.

COMMENTS:

1. This general statement should be applicable to all orders entered by or through a Broker, regardless of the method of order entry or person entering the order
2. Consider alternative language as follows:

Brokers shall at all times be responsible for orders entered by or through them on the ASE, regardless of the method of order entry or person entering or placing the order.

Article (5)

- A- The broker that wishes to offer the Internet Trading service for its clients, must submit a request to the ASE along with all of the required documents, as per the standard form made for this purpose.
- B- The ASE shall take its decision to approve the request after verifying the IT infrastructure of the broker that enables its clients to carry out Internet Trading operations in a correct, suitable and uninterrupted manner.

COMMENTS:

1. Consider alternative language as follows:
 - a. Brokers wishing to offer Internet Trading Services to their clients must complete a standard ASE application package in a form approved by the JSC. The standard application package shall include: a list of previously certified ASE OM systems; a statement of specifications for ASE connectivity; and a statement of the minimum certification, quality assurance and testing parameters required for the approval of new OM systems.
 - b. The ASE shall be responsible certifying the technical adequacy of the Broker's IT infrastructure and choice of OM system to carry out Internet Trading Service operations in a correct, suitable and uninterrupted manner.
 - c. As a condition precedent for approval to offer Internet Trading Services, Brokers shall be required to have written contingency plans and resources in place to revert back to manual order entry should Internet Trading Services be unavailable to their clients for any reason.

d. The JSC may establish additional requirements, by resolution, for the approval of Brokers to offer Internet Trading Services.

Article (6)

- A- The broker has the authority to offer this service or exclude it from any of its clients according to the criteria set thereby.
- B- The broker supplies this service to its clients through a special agreement that clearly and explicitly provides that the responsibility resulting from the trading only between the broker and the client.
- C- The broker takes all the necessary procedures to verify the identity of the client who requests to open an account for Internet Trading.
- D- The Board of Directors shall fix the minimum that is necessary for opening an account for Internet Trading, it also shall fix the upper limit of trading per session for each client's account.

COMMENTS:

1. Consider alternative language as follows:

a. Brokers authorized to offer Internet Trading Services shall have the right to establish initial and continuing qualifications for client access to the service, in excess of any minimum client qualifications, which may be established by the JSC and/or the ASE. Qualifications for client access shall be incorporated into a formal Broker – Client contract and prominently disclosed on the Broker’s website offering the service.

[COMMENT: Qualifications might include client experience, sophistication, suitability, training and education requirements, trading limits, minimum account balances to open and maintain an internet account, etc.]

b. No Broker shall offer client access to Internet Trading Services without first entering into a signed, written Broker – Client contract in a form to be approved by the JSC.

c. Brokers may not shift legal responsibility for failures in the authentication or security mechanisms of the OM systems they use to provide client Internet Trading Service access.

[COMMENT: This provision relates to failures resulting from unauthorized third party access to the Internet Trading Service (hacking), which lead to unauthorized trading or release of confidential client data. Clients are at all times responsible for the safekeeping and proper use of their usernames and passwords.]

d. All Broker-Client contracts shall contain a provision confirming the client’s commitment to be bound by all applicable provisions of the Securities Law and JSC and/or ASE Regulations, Directives, Resolutions and/or decisions, regardless of the method of order entry or type of service used by the client.

[COMMENT: The above provision should be in Broker-Client contracts and applicable across the board, not just when a client uses an Internet Trading Service. This subsection replaces draft Article 15.]

e. All Broker – Client contracts shall include a separate Risk Disclosure Statement, in a form approved by the JSC Legal Department, which shall clearly and prominently state all risks related to the purchase and sale of securities through an Internet Trading Service. All Broker clients shall be required to sign an acknowledgment they have received and read the Risk Disclosure Statement.

f. All Broker- Client contracts shall include a separate Statement of Charges and Fees to be collected by the Broker for all services provided at the time of contract signing

[COMMENT: The above provision should be in Broker-Client contracts and applicable across the board, not just when a client uses an Internet Trading Service. This subsection replaces draft Article 17.]

g. Brokers shall verify the identity of all clients requesting to open any account, including accounts with access to Internet Trading Services. Brokers shall be retain copies of all documents used to verify the identity of their clients.

h. The JSC shall, by resolution, establish minimum client qualification requirements for initial and continued access to client Internet Trading Services

i. The ASE may periodically establish minimum account balances required for the opening and maintenance of an Internet Trading Service account, as long as such balances are in excess of the minimum account balances required by the JSC.

j. The ASE may periodically establish 'per session' trading limits for each client's account, as long as such limits do not exceed the upper limit established by the JSC

[COMMENT: This section has obviously expanded beyond its original size. After we review this article, we may wish to break it up into separate, individual articles. Subsections 6g-6j are logical candidates for grouping together in a separate article.]

[COMMENT: The JSC, ASE and pilot firm attorneys, should work together to develop an acceptable Broker-Client contract and risk disclosure statement, in a form acceptable to the JSC and to establish what minimum client qualification requirements should be in place before the commencement of pilot trading.]

Article (7)

The broker must verify its clients' cash balances and the balances of their securities.

COMMENTS:

1. This article is of general application to all manually entered orders.

2. Consider alternative language as follows:

a. All Brokers and their certified brokers shall be required to verify the sufficiency of a client's, cleared cash or securities balances at the time each manual order, or order modification, is entered using the ASE GL trading terminal (manual verification process).

- b. The ASE shall automate the manual verification process before the end of calendar year 2008.
- c. All brokers and their certified brokers using a manual order entry process, complete a standard order ticket for each order, or order modification.
- d. All brokers and their certified brokers using a manual order entry proves shall timestamp each standard order ticket at the time each order, or order modification, is received and again at the time the order is entered into either the ASE GL trading terminal or Broker's OM system.
- e. The ASE shall establish time synchronization procedures for Broker timestamp machines and all Broker computer terminals used for the entry of client orders.

Article (8)

The Board of Directors shall fix the types of prices for the Buying and Selling orders, which are, entered into the ETS through the program and the duration of their validity.

COMMENTS:

- 1. Current wording requires clarification
- 2. Consider alternative language as follows:

Subject to JSC approval, the ASE shall establish the types of authorized orders - and the duration of their validity – that clients will be permitted to enter through their Internet Trading Service accounts.

Article (9)

- A- When a client enters a buying order, an electronic verification is made to check availability of the sufficient cash balance in the client's account.
- B- When a client enters a Selling order, an electronic verification is made to check availability of the sufficient balance of securities in the client's account.

COMMENTS:

- 1. Current wording requires clarification
- 2. Language below replaces Article 10
- 3. Consider alternative language as follows:

All certified Broker OM systems shall perform an automated verification of the sufficiency of a client's, free cleared cash or securities balances, as the case may require. The automated verification must be performed before any such order, or modification of an existing order, is accepted for entry into the ETS.

- a. An electronic verification of a buy order or modification of an existing buy order shall verify the availability of sufficient, free cleared cash balances in the client's account

- b. An electronic verification of a sell order or modification of an existing sell order shall verify the availability of sufficient securities in the client's account.

Article (10)

The buying and selling orders shall be sent after being electronically verified in regard to fulfilling all the required conditions.

COMMENTS:

1. As originally drafted, Article 10 appears to be duplicative of Article 9.
2. Delete Article 10 if revised Article 9 language is adopted.

Article (11)

The client has the right to modify or cancel his orders, whether unexecuted or partially executed, through the pre-opening, the continuous trading and the post-opening phases. The client, for justified reasons, has the right to issue an authorization for the broker to enter buying and selling orders, and to request modifying or canceling them on his behalf.

COMMENTS:

1. Replace Article 11 with the following:
 - a. To the extent not otherwise inconsistent with ASE trading directives, Internet Trading Service clients shall at all times have the right to enter new orders, modify or cancel any existing orders, whether unexecuted or partially executed, both during and outside of official ASE trading hours.
 - b. Broker OM systems providing Internet Trading Services shall be fully available to clients for order entry, modification or cancellation, 24 hours a day, seven days a week, except for regularly scheduled maintenance.
 - c. Internet Trading Service clients shall at all times have the right to place manually enter orders, modifications, or cancellations, directly with Brokers for any reason during the Broker's regular business hours should the service be effectively unavailable to them for any reason.

[The term "effectively unavailable" should be interpreted broadly to include personal computer malfunction, internet service provider connectivity or other technical problems, which make use of the service impractical.]

 - d. The ASE shall create and maintain a Broker OM system performance log in a form to be approved by the JSC. The performance log shall, among other things, record the dates, times and duration each Broker OM system is unavailable for client access for any reason, including, but not limited to outages, malfunctions, scheduled and unscheduled maintenance.
 - e. All Brokers offering Internet Trading Services shall provide adequate technical assistance and support services for their clients during regular business hours.

Article (12)

- A- When a buying order or modification to a pre-existing buy order is sent to the ETS. The cost of the securities to be bought, due commission and charges shall be electronically seized from the client's cash account which is available for trading.
- B- When a selling order ~~is sent to the ETS~~ or modification to a pre-existing sell order is sent to the ETS. The amount of securities to be sold shall be electronically seized from the client's account of securities which is available for trading.
- C- When the buying order is totally or partially executed the program shall electronically deduct the cost of bought securities, due commission and charges out of the seized cash account, and increase the client's account of securities by the quantity that had been bought.
- D- When the selling order is totally or partially executed, the program shall electronically deduct the number of sold securities out of the reserved balance of securities, and increase the client's cash account balance by an amount equal to the amount of sale, with the due commission and charges deducted out thereof
- E- In case the order is rejected by the ETS or amended by the client or cancelled according to the status quo, the program shall electronically adjust the client's cash account balance and the client's account of securities.

COMMENTS:

1. See minor changes above in blue.

Article (13)

Entering buying and selling orders on the ETS at the pre-closing phase (block trades phase) shall be restricted to certified Brokers through the assigned trading screens.

COMMENTS:

1. Minor rewording to Article 13 required as follows:

Internet Trading Service clients shall not have access to trade the block trading session through the service. Block trades may be placed only through certified brokers through their assigned ASE GL Terminals.

Article (14)

The broker must immediately inform the ASE of prohibited acts committed by its clients in violation of the provisions of the Securities Law, regulations, directives and decisions passed by virtue thereof.

COMMENTS:

1. Disclosure of suspected violations should not be limited to clients only.

2. Should apply beyond internet directives.

3. Minor rewording to Article 14 required as follows:

The Broker, through their designated compliance staff, shall immediately inform the ASE and JSC in writing of any and all suspected violations of the Securities Law, Regulation, Directives, Resolutions and/or decisions, regardless of the method of order entry or physical person entering or placing the order.

Article (15)

The client that wishes to obtain the Internet Trading service shall submit a written confirmation of commitment to the Securities Law provisions, regulations, directives and decisions passed by virtue thereof, and being liable for the breaches committed by him.

COMMENTS:

1. Should apply across the board; not just internet directives.
2. A provision to this effect should appear in all Broker-Client contracts, regardless of type of service the Broker is providing or permitting access to.
3. Delete draft Article 15. It has been replaced with redrafted language found in Article 6d.

Article (16)

The broker shall guarantee the availability of live trading information for its clients dealing through the Internet, that includes the following:

- 1- Market watch screen.
- 2- A screen of the best five bid/ask prices for the security.
- 3- Client's cash and securities balances.
- 4- Immediate assessment of the client's portfolio.
- 5- Showing of the status of the orders entered by the client.
- 6- Any additional information required by the ASE.

COMMENTS:

1. Draft wording requires clarification

2. Revised language appears below:

a. Brokers offering Internet Trading Services must provide access to the following live, real-time data and information either as an integral part of their Broker OM system or through their official website:

1. Streaming ASE Market Watch Live Screen

2. Streaming real-time screens reflecting the best five (5) bid / ask prices and the total quantity of shares bid or offered at each bid / ask price;

3. Verification of client's free cleared cash and securities balances (date and time stamped)

4. An automatically updated assessment of client's portfolio

5. Real-time status of all client orders entered through the Internet Trading Service

6. Any additional real-time information, as may be required by the JSC and/or ASE

b. Broker websites offering Internet Trading Services shall comply also with any website information disclosure guidelines as may be issued periodically by the JSC and/or the ASE.

[COMMENT: Broker website information disclosure guidelines should be established and implemented before the commencement of pilot trading. The ASIC Good Disclosure Template can easily be adapted for this purpose.]

Article (17)

The agreement signed by the broker with its client must include Statement of the charges to be collected by the broker for rendering this service.

COMMENTS:

- 1. This type of provision should be in Broker-Client contracts and applicable across the board, not just when a client uses an Internet Trading Service.**
- 2. Delete this draft Article 17. It has been replaced with redrafted language found in Article 6f.**

Article (18)

The broker that wishes to offer the Internet Trading service for its clients shall sign an information distribution agreement with the ASE.

Article (19)

The ASE Board of Directors shall determine upon the recommendation of the CEO a reasonable charge that the ASE shall collect [from its Brokers] for the activation of the Internet Trading Service.

COMMENTS:

- 1. Article 19 should be clarified to identify who will be charged the activation charge. I have assumed the Broker will pay this charge.**
- 2. The JSC should not necessarily interfere with process of determining appropriate fees to be assessed either by the ASE to its Brokers or fees to be charged by brokers to their clients, as long as such fees and charges are “reasonable”. I believe the JSC has sufficient authority to intervene if it found such fees to be “unreasonable”**

Article (20)

The ASE, as it deems appropriate, may carry out one or more of the following actions:

1. Forbidding the offering of Internet Trading Service.
2. Forbidding any broker from offering this service.
3. Restricting the activities of any of the brokers.
4. Reorganizing the Internet Trading service.

COMMENTS:

- 1. Not entirely clear as currently drafted.**
- 2. This section might be better placed as a subsection draft Article 24**
- 3. The ASE should explain the rationale behind this provision, together with examples of the type of circumstances it is meant to apply to.**
- 4. See suggested revisions in language below:**

a. The JSC and ASE, each, in accordance with established procedures, may:

1. Restrict, Suspend or Forbid the offering of Internet Trading Service, generally;
2. Restrict, Suspend or Forbid the offering of Internet Trading Services by any individual Broker or to any specific client
3. Restrict, Suspend or Forbid securities market activities of any Broker, their certified brokers or their clients following a finding of a violation of any applicable provision of the Jordanian Securities, Regulations, Directives, Resolutions and/or Decisions.

b. Subject to JSC approval by resolution, the ASE may reorganize the Internet Trading Service.

Article (21)

The broker shall abide by decisions passed by the ASE, as needed to implement the provisions of these directives.

COMMENTS:

1. Minor revision:

Brokers shall take all necessary steps to implement the provisions of these Directives.

Article (22)

Provisions stated in the Directives for Trading in Securities on ASE for the year 2004 shall apply to Internet Trading, unless an express provision is provided for in these Directives. The Board of Directors shall deal with any event that is not stipulated for in these Directives and shall make the necessary decisions thereon.

COMMENTS:

- 1. Second sentence: This appears to be a delegation of power by the JSC to the ASE to take action on issues or items not covered by these Directives. Depending on the circumstances this might prove to be problematic for a variety of reasons from a legal perspective. My advice would be to delete this sentence unless a clear rationale is provided, together with examples of the type of circumstances it is meant to apply to.**
- 2. If a delegation of power is intended, then a provision to notify the JSC by phone and in writing before taking action, if and when such circumstances arise should be added. The results of any such decision should also be reported in writing to the JSC.**

Article (23)

The CEO shall take all the necessary decisions to implement the provisions of these Directives, unless otherwise stipulated for.

COMMENTS:

1. Revised language appears below:

a. The CEO of the ASE shall be primarily responsible for the implementation of the provisions of these Directives, unless otherwise stipulated for.

b. Notwithstanding subsection a. of this Article, the JSC retains full authority to concurrently act within its authority to take necessary action to support the implementation of these Directives.

Article (24)

The ASE shall impose penalties, such as cancellation of transactions in violation of provisions of applicable legislations, on those who violate these Directives, in accordance with the provisions of the Law, regulations, directives and decisions passed by virtue thereof.

COMMENTS:

1. Depending on the nature of the violations and the parties involved, both the JSC and ASE should have concurrent authority to impose appropriate penalties for violations of these directives. Such penalties should not be limited to cancellation of trades, but would include also include, restrictions, suspensions, bans, monetary penalties, etc. See also draft Article 20.
2. Our understanding of current practice in Jordan is to avoid the imposition of double penalties – at the ASE and JSC levels – for violations arising from the same facts and circumstances. There is nothing wrong with this practice, as long as it is clear that the JSC retains the power to impose such additional penalties if the specific circumstances warrant it.
3. See revised language below:

The JSC and ASE shall have concurrent authority to impose appropriate penalties for any violation of these Directives, in accordance with effective Jordanian legislation.

Article 25

The ASE shall establish an Internet Trading Service monitoring and complaint program (the “Program”) in accordance with specifications to be approved by the JSC. The Program shall establish a database to collect and categorize complaint and other data relating to the usage and performance of Broker Internet Trading Services.

COMMENTS:

1. The JSC and ASE should work together to develop the metrics and data that should be collected as part of a internet trading service monitoring and complaint program.
2. The most likely categories of complaints, which may be encountered in the Jordanian market are:
 - Difficulty in accessing accounts
 - Failure in processing orders
 - Delays in processing orders
 - Errors in processing orders
 - Problems with processing cancellation or modifications of orders

- Errors / omissions in account records or documents
 - Failures in updating account records or documents
 - Delays in updating account records or documents
 - Inaccurate or delayed quotes / pricing information
2. The complaints database should report the following internet trading related data:
- Total # of internet trading complaints at each Broker – Weekly / Monthly
 - Total # of internet trading complaints for all Brokers – Weekly / Monthly
 - Total # of internet trading complaints by category at each Broker – Weekly / Monthly
 - Total # of internet trading complaints by category for all Brokers – Weekly / Monthly
 - Total # of internet trading complaints per 100 trades at each Broker – Weekly / Monthly
 - Total # of internet trading complaints per 100 trades for all Brokers – Weekly / Monthly
3. The following monitoring and usage statistics should be collected by the JSC / ASE
- Total # of Brokers offering online services - Monthly
 - Total # of internet and non-internet trading accounts at each Broker – Weekly / Monthly
 - Total # of internet and non-internet trading accounts for all Brokers combined – Weekly / Monthly
 - Total # of internet and non-internet trades executed at each Broker – Daily / Weekly / Monthly
 - Total # of internet and non-internet trades for all Brokers combined – Daily / Weekly / Monthly
 - Total # of OM or other system outages interrupting internet trading services – Weekly / Monthly
 - By Broker
 - For all Brokers

- **Supplemental information on each system outage should include:**
 - **Name of Broker and OM system involved**
 - **Date and time of outage**
 - **Duration of outage**
 - **Description of the outage**
 - **Cause(s) of the outage**

Directives for Internet Trading on Amman Stock Exchange

Issued by virtue of the provisions of Article (67/C) of the Securities Law No. 76 for the year 2002 and article (1/B/24) of the Internal By-Law of Amman Stock Exchange for the year 2004

Article (1)

These Directives shall be called the " Directives for Internet Trading on Amman Stock Exchange for the year 2007" They shall enter into effect as of the date specified by the board of commissioners of the Securities Commission.

Article (2)

The following words and expressions construed in these directives shall have the meanings assigned to them hereunder, unless otherwise indicated by context.

*The Law	: The Securities Law in force.
*ASE	: Amman Stock Exchange
*The Board of Directors	: The Board of Directors of the ASE.
*CEO	: The Chief Executive Officer of the ASE.
*ETS	: The electronic trading system used at the ASE.
Trading	: Buying or selling securities on the ASE.
Internet Trading	: The service offered by the broker to its client, through which the client can enter buying and selling orders and follow them thereby, by using the internet through a special program.
The Service	: Internet Trading service.
The Program	: The special program which is used for the internet trading purposes.
*Broker	: A legal person licensed by the JSC to do the work of a financial broker or to do work for its own account.
*Certified Broker	: A natural person authorized by the JSC to do financial Brokerage work.
*Buying Order	: An order sent to the ETS to buy a specific security for the benefit of the broker's portfolio or its client.
*Selling Order	: An order sent to the ETS to sell a specific security for the benefit of the broker's portfolio or its client.
*Block Trade	: Trading between two Brokers or through one Broker to buy and sell a security in one lot, upon the written authorization of the client, provided that the market value of the single contract does not fall short of the minimum set by the Board of Directors for such security.

[Definitions marked with an “*” have been defined previously in the Trading Directives.]

Article (3)

- a. Trading of securities on the ASE shall take place between and among ASE member Brokers either on their own behalf (“principal” basis) or on behalf of their clients (“agency” basis).

- b. Orders for the trading of ASE securities, in any capacity, may be entered by Brokers through the use of Broker GL Terminals or through an ASE certified Broker order management (OM) system.
- c. Authorized Broker clients may enter orders electronically using internet Trading Services offered through an ASE certified Broker OM system.
- d. All client orders entered and executed through an ASE certified Broker OM system shall be deemed to be an “agency” order of the client’s Broker.

Article (4)

Brokers shall at all times be responsible for orders entered by or through them on the ASE, regardless of the method of order entry or person entering or placing the order.

Article (5)

- a. Brokers wishing to offer Internet Trading Services to their clients must complete a standard ASE application package in a form approved by the JSC. The standard application package shall include: a list of previously certified ASE OM systems; a statement of specifications for ASE connectivity; and a statement of the minimum certification, quality assurance and testing parameters required for the approval of new OM systems.
- b. The ASE shall be responsible certifying the technical adequacy of the Broker’s IT infrastructure and choice of OM system to carry out Internet Trading Service operations in a correct, suitable and uninterrupted manner.
- c. As a condition precedent for approval to offer Internet Trading Services, Brokers shall be required to have written contingency plans and resources in place to revert back to manual order entry should Internet Trading Services be unavailable to their clients for any reason.
- d. The JSC may establish additional requirements, by resolution, for the approval of Brokers to offer Internet Trading Services.

Article (6)

- a. Brokers authorized to offer Internet Trading Services shall have the right to establish initial and continuing qualifications for client access to the service, in excess of any minimum client qualifications, which may be established by the JSC and/or the ASE. Qualifications for client access shall be incorporated into a formal Broker – Client contract and prominently disclosed on the Broker’s website offering the service.
- b. No Broker shall offer client access to Internet Trading Services without first entering into a signed, written Broker – Client contract in a form to be approved by the JSC.
- c. Brokers may not shift legal responsibility for failures in the authentication or security mechanisms of the OM systems they use to provide client Internet Trading Service access.
- d. All Broker - Client contracts shall contain a provision confirming the client’s commitment to be bound by all applicable provisions of the Securities Law and JSC and/or ASE Regulations, Directives, Resolutions and/or decisions, regardless of the method of order entry or type of service used by the client.

- e. All Broker – Client contracts shall include a separate Risk Disclosure Statement, in a form approved by the JSC Legal Department, which shall clearly and prominently state all risks related to the purchase and sale of securities through an Internet Trading Service. All Broker clients shall be required to sign an acknowledgment they have received and read the Risk Disclosure Statement.
- f. All Broker - Client contracts shall include a separate Statement of Charges and Fees to be collected by the Broker for all services provided at the time of contract signing
- g. Brokers shall verify the identity of all clients requesting to open any account, including accounts with access to Internet Trading Services. Brokers shall retain copies of all documents used to verify the identity of their clients.
- h. The JSC shall, by resolution, establish minimum client qualification requirements for initial and continued access to client Internet Trading Services
- i. The ASE may periodically establish minimum account balances required for the opening and maintenance of an Internet Trading Service account, as long as such balances are in excess of the minimum account balances required by the JSC.
- j. The ASE may periodically establish ‘per session’ trading limits for each client’s account, as long as such limits do not exceed the upper limit established by the JSC

Article (7)

- a. All Brokers and their certified brokers shall be required to verify the sufficiency of a client’s, cleared cash or securities balances at the time each manual order, or order modification, is entered using the ASE GL trading terminal (manual verification process).
- b. The ASE shall automate the manual verification process before the end of calendar year 2008.
- c. All brokers and their certified brokers using a manual order entry process, complete a standard order ticket for each order, or order modification.
- d. All brokers and their certified brokers using a manual order entry process shall timestamp each standard order ticket at the time each order, or order modification, is received and again at the time the order is entered into either the ASE GL trading terminal or Broker’s OM system.
- e. The ASE shall establish time synchronization procedures for Broker timestamp machines and all Broker computer terminals used for the entry of client orders.

Article (8)

Subject to JSC approval, the ASE shall establish the types of authorized orders - and the duration of their validity – that clients will be permitted to enter through their Internet Trading Service accounts.

Article (9)

All certified Broker OM systems shall perform an automated verification of the sufficiency of a client’s, free cleared cash or securities balances, as the case may require. The automated verification must be performed before any such order, or modification of an existing order, is accepted for entry into the ETS.

- a. An electronic verification of a buy order or modification of an existing buy order shall verify the availability of sufficient, free cleared cash balances in the client's account
- b. An electronic verification of a sell order or modification of an existing sell order shall verify the availability of sufficient securities in the client's account.

Article (10)

[DELETED]

Article (11)

- a. To the extent not otherwise inconsistent with ASE trading directives, Internet Trading Service clients shall at all times have the right to enter new orders, modify or cancel any existing orders, whether unexecuted or partially executed, both during and outside of official ASE trading hours.
- b. Broker OM systems providing Internet Trading Services shall be fully available to clients for order entry, modification or cancellation, 24 hours a day, seven days a week, except for regularly scheduled maintenance.
- c. Internet Trading Service clients shall at all times have the right to place manually enter orders, modifications, or cancellations, directly with Brokers for any reason during the Broker's regular business hours should the service be effectively unavailable to them for any reason.
- d. The ASE shall create and maintain a Broker OM system performance log in a form to be approved by the JSC. The performance log shall, among other things, record the dates, times and duration each Broker OM system is unavailable for client access for any reason, including, but not limited to outages, malfunctions, scheduled and unscheduled maintenance.
- e. All Brokers offering Internet Trading Services shall provide adequate technical assistance and support services for their clients during regular business hours.

Article (12)

- a. When a buying order or modification to a pre-existing buy order is sent to the ETS. The cost of the securities to be bought, due commission and charges shall be electronically seized from the client's cash account which is available for trading.
- b. When a selling order or modification to a pre-existing sell order is sent to the ETS. The amount of securities to be sold shall be electronically seized from the client's account of securities which is available for trading.
- c. When the buying order is totally or partially executed the program shall electronically deduct the cost of bought securities, due commission and charges out of the seized cash account, and increase the client's account of securities by the quantity that had been bought.
- d. When the selling order is totally or partially executed, the program shall electronically deduct the number of sold securities out of the reserved balance of securities, and increase

the client's cash account balance by an amount equal to the amount of sale, with the due commission and charges deducted out thereof

- e. In case the order is rejected by the ETS or amended by the client or cancelled according to the status quo, the program shall electronically adjust the client's cash account balance and the client's account of securities.

Article (13)

Internet Trading Service clients shall not have access to trade the block trading session through the service. Block trades may be placed only through certified brokers through their assigned ASE GL Terminals.

Article (14)

The Broker, through their designated compliance staff, shall immediately inform the ASE and JSC in writing of any and all suspected violations of the Securities Law, Regulation, Directives, Resolutions and/or decisions, regardless of the method of order entry or physical person entering or placing the order.

Article (15)

[DELETED]

Article (16)

- a. Brokers offering Internet Trading Services must provide access to the following live, real-time data and information either as an integral part of their Broker OM system or through their official website:
 - 1. Streaming ASE Market Watch Live Screen
 - 2. Streaming real-time screens reflecting the best five (5) bid / ask prices and the total quantity of shares bid or offered at each bid / ask price;
 - 3. Verification of client's free cleared cash and securities balances (date and time stamped)
 - 4. An automatically updated assessment of client's portfolio
 - 5. Real-time status of all client orders entered through the Internet Trading Service
 - 6. Any additional real-time information, as may be required by the JSC and/or ASE
- b. Broker websites offering Internet Trading Services shall comply also with any website information disclosure guidelines as may be issued periodically by the JSC and/or the ASE.

Article (17)

[DELETED]

Article (18)

The broker that wishes to offer the Internet Trading service for its clients shall sign an information distribution agreement with the ASE.

Article (19)

The ASE Board of Directors shall determine upon the recommendation of the CEO a reasonable charge that the ASE shall collect from its Brokers for the activation of the Internet Trading Service.

Article (20)

- a. The JSC and ASE, each, in accordance with established procedures, may:
 1. Restrict, Suspend or Forbid the offering of Internet Trading Service, generally;
 2. Restrict, Suspend or Forbid the offering of Internet Trading Services by any individual Broker or to any specific client
 3. Restrict, Suspend or Forbid securities market activities of any Broker, their certified brokers or their clients following a finding of a violation of any applicable provision of the Jordanian Securities, Regulations, Directives, Resolutions and/or Decisions.
- b. Subject to JSC approval by resolution, the ASE may reorganize the Internet Trading Service.

Article (21)

Brokers shall take all necessary steps to implement the provisions of these Directives.

Article (22)

Provisions stated in the Directives for Trading in Securities on ASE for the year 2004 shall apply to Internet Trading, unless an express provision is provided for in these Directives.

Article (23)

- a. The CEO of the ASE shall be primarily responsible for the implementation of the provisions of these Directives, unless otherwise stipulated for.
- b. Notwithstanding subsection a. of this Article, the JSC retains full authority to concurrently act within its authority to take necessary action to support the implementation of these Directives.

Article (24)

The JSC and ASE shall have concurrent authority to impose appropriate penalties for any violation of these Directives, in accordance with effective Jordanian legislation.

Article 25

The ASE shall establish an Internet Trading Service monitoring and complaint program (the “Program”) in accordance with specifications to be approved by the JSC. The Program shall establish a database to collect and categorize complaint and other data relating to the usage and performance of Broker Internet Trading Services.

APPENDIX C

EXHIBIT C - RECOMMENDATIONS MATRIX

Reference	Priority	Lead	Recommendation	Comments	Complexity	Implementation
3.1.1	Immediate	Legal	Complete drafting of e-Trade Directives; address gaps and issues not discussed in present version, especially provisions designed to address customer protection issues	Define: *Risk & Other Disclosures; *Firm/Client Contracts; *Broker Web Site Content; *Order Overlays; *Monitoring & Reporting	High	JSC, ASE, SABEQ
3.1.2	Immediate	IT	Reorganize existing EOD reconciliation process between brokers and the ASE to generate data at the exchange level pertaining to transactional discrepancies.	*Maintain Discrepancy Log	Low	ASE
3.1.3	Immediate	IT	Ensure that all JSC and ASE online surveillance monitoring and off-line database systems can segregate (view) e-Trade and GL transactional data independently from one another.	*Available to ASE & JSC	Low	ASE, JSC
3.1.4	Immediate	IT	The ASE should make available - upon request to qualified developers - its minimum certification and quality assurance parameters in connection with the development of e-Trade related software systems.	*Clear certification reqmts	Low	ASE
3.1.5	Immediate	Legal	The ASE should draft an exchange – member contract to address contractual issues related to the offering of e-Trade connectivity.	*ASE - Member Issue	Medium	ASE
3.1.6	Immediate	S & I	Ensure that 100% unexecuted orders are reported back to customers by the brokers as required by ASE Trading Directive Article 12b.	*S & I Issue	Low	ASE, JSC
3.1.7	Immediate	IT	Conduct live simulated trading sessions involving all brokerage firm representatives and exchange operations staff accessing the e-Trade system from home through internet connections.	*Address in Directives; *Test All Simultaneously	Low	ASE
3.1.8	Immediate	IT	Perform volume stress test to determine capacity and physical limitations to the total number of transactions that can be processed at any single moment in time.	*Address in Directives; *Test Independently; *Test All Simultaneously	Medium	ASE
3.1.9	Immediate	Legal	The JSC and ASE will need to ensure that an e-Trade monitoring program and customer complaint mechanism is in place to monitor and address unanticipated issues as the e-Trade system is rolled out.	*Address in Directives	High	JSC, ASE, SABEQ

Reference	Priority	Lead	Recommendation	Comments	Complexity	Implementation
3.1.10	Immediate	IT	Brokers should have written contingency plans and resources in place to revert back to manual order entry should the e-Trade system be unavailable to their clients for any reason.	*Address in Directives; *Certification Requirement	Low	ASE
3.1.11	Immediate	Legal	Clients must have the right to place manually entered orders should the e-Trade system be unavailable to them for any reason.	*Address in Directives;	Low	JSC, ASE
3.1.12	Immediate	IT	Ensure that all transactions initiated using existing GL screens are going through the same (manual) validation process as the transactions initiated using new e-Trade application.	*Address in Directives; *Automate (medium term);	Low	JSC, ASE
3.2.1	Medium	S&I, IT	Create automated reports to flag potential front-running violations for later investigation by the surveillance and inspection department.		Low	ASE, JSC
3.2.2	Medium	S&I, Legal, IT	A standard paper ticket form should be created to facilitate manual order entry, complete with a requirement that all manually accepted orders be time-stamped with synchronized clocks at the time the order is taken by the brokerage firm.	*Improve audit trail	Low	ASE, JSC
3.2.3	Medium	IT	Extend data requirements for real time transactions reported to the exchange		Low	ASE
3.2.4	Medium	IT	Expand the system to accept various types of orders, not only limit. This may best be accomplished by permitting brokers to create overlay orders on their e-Trade order management systems.	*Requires thorough testing & disclosure	Medium	ASE
3.2.5	Medium	Legal	Implement restricted list reporting process required by the current ASE trading Directives -- no disclosure process currently exists to forward this information to the ASE. Upon implementation of the restricted list disclosure ASE should develop an automated report flagging trades in the restricted stocks by correspondent brokers.		Low	ASE, JSC
3.2.6	Medium	Business	Develop and implement an e-Trade Public Education ("PE") Program at the JSC and/or ASE levels. Materials generated for the PE Program should be made readily available on the JSC, ASE and all e-Trade participating broker sites.		Low	ASE, JSC, SABEQ

Reference	Priority	Lead	Recommendation	Comments	Complexity	Implementation
3.2.7	Medium	IT	The ASE should upgrade its existing backup mechanism at their remote location. The new disaster recovery environment should be able to pick-up and/or restore transactional data from the moment of its failure.	*100% data loss possible	Medium	ASE
3.2.8	Medium	IT, Legal, S&I	The ASE Operations Department should have the authority to establish exchange trading system time synchronization standards to be implemented for broker e-Trade and GL systems. Additionally, all brokers should be obligated to produce and maintain standardized reports, reflecting proof that all required systems have in fact been synchronized as required by the ASE. ASE surveillance, inspection and operations staff shall be authorized to conduct spot inspections of broker time synchronization data reports and should also be authorized to direct any necessary corrective actions which should be taken if warranted.	*Improve audit trail; *Time synch process missing	Medium	ASE, JSC
3.3.1	Future	S&I, Legal, IT	The JSC, ASE Surveillance, Inspection and Information Technology Departments should consider implementing the concept of a risk-based approach to securities market oversight. This would ultimately lead to a more efficient use of limited resources, the development of dash-boards to identify potentially risky business, trading and other practices.	*Requires development of quantitative measures, automated reporting processes	High	JSC, ASE, SABEQ
3.3.2	Future	S&I, Legal, IT	The exchange should develop various automated systems - off-line reports and real time monitoring - to flag potentially violative trading activity. This activity should be undertaken as a joint exercise between the relevant departments of the JSC and ASE.		Low	ASE, JSC
3.3.3	Future	Legal	The ASE Trading Directives should be amended at a later date to introduce the concepts of "principal", "agency", and "risk-less for broker executions of trades. This would bring the regulatory framework into compliance with actual industry practice.	*Pertains to block trading	Low	ASE, JSC

APPENDIX D



ASE Order Management System

Review of New OMS
With Online Trading Capabilities

November 1, 2007

Geoffrey Elkind
Viktor Grinberg

Introduction

- Since 2005, the Amman Stock Exchange (“ASE”) has worked together with six pilot broker dealers and major regional software development firms (Pilot Group) to introduce a new Order Management System (“OMS”).
- The new OMS will allow internet - based, client order entries as well as new broker - dealer terminal functionality (“e-Trade”).

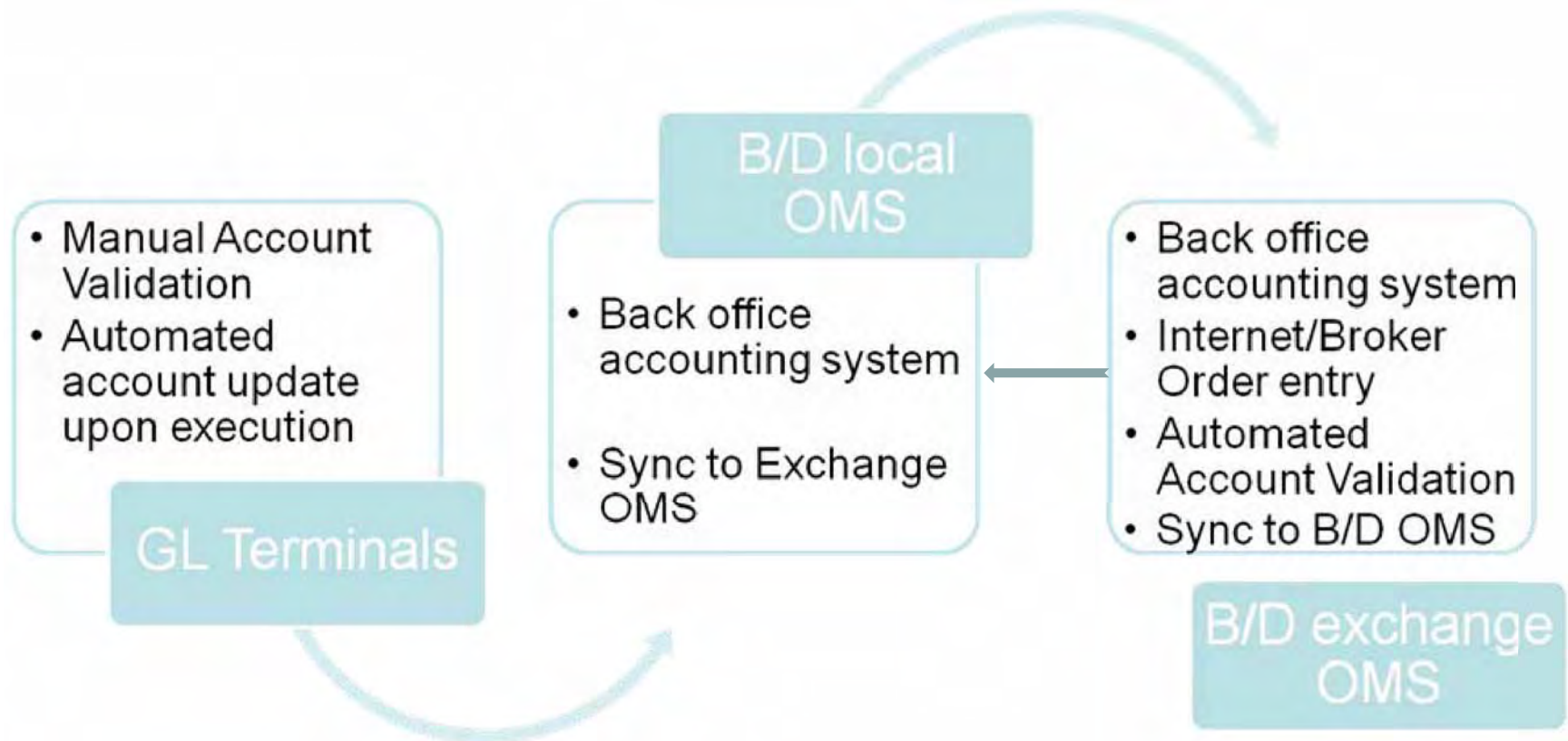
Progress to Date

- The OMS and e-Trade System is developed and is currently being tested
- Six pilot member and development firms are participating with two already certified
- New Internet Trading Directives are drafted with further review required

Scope of Review

- Identification of e-Trade related business, legal and regulatory gaps, including a review of the ASE draft e-Trade Trading and other related ASE Directives
- An extremely high-level review of the e-Trade technical architecture and design

System Essentials



Key Findings

- With several minor changes to the e-Trade technical, business and operational design discussed later, the proposed system appears close to being ready for rollout to the members of the Pilot Group.
- The ASE draft e-Trade Directives will require amendments to address customer protection, broker-client contract, and risk disclosure gaps, among other things. (The JSC must still approve the final draft of the e-Trade Directives before trading can begin.)

Key Findings (continuation)

- The introduction of e-Trade will not require any significant modifications to current JSC / ASE surveillance and inspection processes. Real time monitoring and off-line systems should be modified to permit viewing of e-Trade transactions segregated from all other transactions.
- The JSC and ASE will need to ensure that an e-Trade monitoring program and customer complaint mechanism is in place to monitor and address unanticipated issues as the e-Trade system is rolled out.

Findings

- This section summarizes the general findings relevant to the introduction of e-Trade connectivity and can be found in the Draft Final Recommendations document. Our findings are divided into three categories:
- Business (14)
- Legal and Regulatory (4)
- Information Technology (10)

Recommendations

- Our recommendations are divided into three categories:
- **Immediate:** Recommendations which should be implemented before taking the Pilot Group program live
- **Medium Term:** Recommendations to be taken before expanding e-Trade functionality to other brokers beyond the initial Pilot Group
- **Future Enhancements**

Immediate Steps

- Complete drafting of e-Trade Directives; address gaps and issues not discussed in present version (e.g., Client Risk Disclosures, Enhanced Website Content, Model Broker-Client Contract Form)
- Reorganize existing EOD reconciliation process between brokers and the ASE to generate data at the exchange level pertaining to transactional discrepancies
- Ensure that all JSC and ASE surveillance monitoring (Market Watch) and off-line database systems can segregate (view) e-Trade and GL transactional data independently from one another

Immediate Steps

- The ASE should make available - upon request to qualified developers - its minimum certification and quality assurance parameters in connection with the development of e-Trade related software systems
- The ASE should draft an exchange – member contract to address contractual issues related to the offering of e-Trade connectivity
- Ensure that 100% unexecuted orders are reported back to customers by the brokers as required by ASE Trading Directive Article 12b

Immediate Steps

- Conduct live simulated trading sessions involving all brokerage firm representatives and exchange operations staff accessing the e-Trade system from home through internet connections
- Perform volume stress test to determine capacity and physical limitations to the total number of transactions that can be processed at any single moment in time
- The JSC and ASE will need to ensure that an e-Trade monitoring program and customer complaint mechanism is in place to monitor and address unanticipated issues as the e-Trade system is rolled out



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Sustainable Achievement of Business
Expansion and Quality Program
(SABEQ)

Immediate Steps

- Brokers should have written contingency plans and resources in place to revert back to manual order entry should the e-Trade system be unavailable to their clients for any reason
- Clients must have the right to place manually entered orders should the e-Trade system be unavailable to them for any reason
- Ensure that all transactions initiated using existing GL screens are going through the same (manual) validation process as the transactions initiated using new e-Trade application



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Expansion and Quality Program
(SABEQ)

Intermediate Steps and Future Enhancements

- There are twelve (12) additional suggestions that are ranging from intermediate (9) to the enhancements (3)
- These suggestions are presented in the Draft Final Recommendations document and are available for the review

APPENDIX E



EXHIBIT E
SIFMA MODEL FORM CONTRACT FOR
ELECTRONIC TRADING SERVICES

Standard Forms / Documentation / Guidelines

SIFMA Drafts Model Agreement for Firms Providing Customers with Access to Electronic Trading Services

In order to reduce the time and expense associated with negotiating electronic access agreements, SIFMA has drafted a model Electronic Access and Trading Agreement ("[Agreement](#)") for broker-dealers providing customers with access to electronic trading services. Broker-dealer members of SIFMA increasingly utilize this type of an agreement to govern the provision of, and their customers' access to, electronic trading services. The Agreement is intended to set out model contract language that fairly and accurately accounts for, and balances the risks associated with, electronic access, from the perspectives of the broker-dealers as well as their customers.

SIFMA intends that the Agreement will be used in conjunction with existing client agreements (including securities customer or derivatives master agreements) that govern the underlying transactions that occur through the use of electronic trading services. As such, the Agreement is not intended to govern the substantive terms and conditions applicable to any resulting transactions that are entered into through the use of such electronic trading services. The Agreement covers common issues that arise in the provision of electronic trading services by broker-dealers to customers, such as a requirement that electronic trading services be accessed only through specified access methods by the customer or certain authorized users.

The Agreement has been developed through a careful consideration of the types of businesses conducted electronically by broker-dealers and their affiliates with their customers, and on an analysis of the common risks and issues presented by these businesses. SIFMA has sought the assistance of and input from many of its member firms in the preparation of this model form agreement. In addition, SIFMA believes that market participants generally will find the Agreement beneficial and that it will significantly enhance the ability of market participants to operate and utilize electronic trading systems. Of course, certain broker-dealers or their customers may need to modify the proposed form of Agreement in some instances, in order to accommodate their particular business activities. This could be accomplished through the use of annexes, separately negotiated addenda or schedules that add to or modify the Agreement. However, SIFMA anticipates that broker-dealers and their customers will generally be able to utilize the Agreement in substantially the form proposed.

If you have any questions regarding this letter, please contact Melissa MacGregor, Assistant Vice President & Associate General Counsel, SIFMA, at 202-216-2000.

Copyright © 2007 SIFMA. All rights reserved. -- http://www.sifma.org/services/stdforms/electronic_trading.html

FORM CONTRACT APPEARS ON NEXT PAGE

ELECTRONIC ACCESS AND TRADING AGREEMENT

We: [BD Name]
[BD Address]

You:

Attn:

Attn:

Effective Date: _____

1. Scope of Agreement. We agree to provide you, in accordance with this Agreement, (the "Agreement"), with access to any electronic trading services (each, together with any related software, a "Trading Service") that we may make available to you, either directly or through a third party service provider, which will consist of one or more of the following electronic services: (a) trading services with respect to transactions (each, a "Transaction") in securities, commodities, currencies, derivatives, futures, options and other financial instruments, which will be executed with or through us or one of our affiliates; (b) services that permit you to view (for informational purposes only) the status of Transactions; (c) services for the display or transmission of indications of interest or conditional offers to purchase securities or enter into other Transactions; and (d) any additional services made available through the Trading Services. In addition, we will provide you with any software and equipment, and related maintenance, described in a schedule attached to this Agreement. Any additional terms of a particular Trading Service will be set forth in a separate supplement to this Agreement or on the Trading Service.

2. Term and Termination. (a) This Agreement is effective as of the date listed above and will continue in effect until terminated by either party at any time, with or without cause, upon written notice to the other party. This Agreement will remain in effect with respect to all Transactions executed through a Trading Service regardless of any termination or other action with respect to the Trading Service.

(b) Regardless of any other provision of the Agreement, we have the right to suspend or terminate (at any time, with or without cause or prior notice) all or any part of any Trading Service, or your access to any Trading Service, to change the nature, composition or availability of any Trading Service, or to change the limits on the trading you may conduct through any Trading Service.

3. Fees and Costs. You are responsible for all fees, costs and expenses associated with your access to and use of the Trading Services and the execution and settlement of Transactions (including, commissions, telecommunications, modems and other connectivity costs, and costs of any third party software, equipment and any related maintenance services.)

4. Use of the Services. (a) We grant you, for the term of this Agreement, a personal, limited, non-exclusive, revocable, non-transferable and non-sublicenseable license to use the Trading Services pursuant to the terms of this Agreement. We may provide certain portions of the Trading Services under license from third parties, and you will comply with any additional restrictions on your usage that we may communicate to you from time to time, or that are otherwise the subject of an agreement between you and such licensors.

(b) We are providing the Trading Services to you only for your internal use, except as provided in Section 5(d), and only for the purposes, and subject to the terms, of this Agreement. You may not sell, lease, or provide, directly or indirectly, the Trading Services or

any portion of the Trading Services to any third party except as permitted by this Agreement. You acknowledge that all proprietary rights in the Trading Services are owned by us or by any applicable third party service providers selected by us providing us with all or part of the Trading Services, or providing you with access to the Trading Services, or their respective licensors, and are protected under copyright, trademark and other intellectual property laws and other applicable law. You receive no copyright, intellectual property rights or other rights in or to the Trading Services, except those specifically set forth in this Agreement. You will protect and not violate those proprietary rights in the Trading Services and honor and comply with our reasonable requests to protect our and our third party service providers' contractual, statutory and common law rights in the Trading Services. If you become aware of any violation of our or our third party service providers' proprietary rights in the Trading Services, you will notify us in writing.

(c) You are responsible for ensuring the Trading Services' security in connection with your use of the Trading Services.

(d) You are bound by, and will comply with, the various legends, disclaimers, terms and conditions and restrictions displayed on or linked to the Trading Services.

(e) You may access each Trading Service only through one or more passwords or other access methods that we specify (collectively, "Access Methods"). You are solely responsible for ensuring that your Access Methods are known to and used by only those users that you authorize ("Authorized Users"). At our request, you will provide us a list of your Authorized Users, their countries of domicile and updates of the list. You acknowledge that, in our discretion, we may deny access to a Trading Service to any user of your Access Methods.

(f) You will be (i) solely responsible for all acts or omissions of any person using a Trading Service through your Access Methods and (ii) without limitation of the foregoing or any other provision of this Agreement, bound by the terms of all Transactions executed and orders placed through a Trading Service using your Access Methods. All transmissions generated by use of your Access Methods will be deemed to be authorized by you and made by an Authorized User whether or not we acknowledge receipt of such transmission.

(g) If your Access Methods have been lost, stolen or compromised, you will promptly notify us and any representative designated by the Trading Service to receive notice. Upon receipt of this notice, your Access Methods will be cancelled but you are responsible for any actions taken through the use of such Access Methods before they are cancelled. In our sole discretion, we may terminate, revoke, suspend, modify, or change any or all of your Access Methods at any time with or without prior notice.

(h) You will be solely responsible for any losses, damages or costs that you may incur as a result of errors made by, or the

failure of, the software or equipment that you use to access the Trading Services.

(i) The software used in connection with the Trading Services may include encryption methods that are subject to the export and/or import control laws of the United States and other countries. You will cooperate with us in complying with any such laws.

5. Transactions. (a) Each Transaction you execute through a Trading Service is also subject to any other agreement between you and us that applies to the relevant Transaction (“Client Agreements”). If there is a conflict between the terms of this Agreement and the terms of the Client Agreement, the terms of this Agreement will control regarding the Trading Services, (except that any governing law and dispute resolution provisions of the Client Agreement will prevail over Section 11(j) of this Agreement).

(b) We have no obligation to accept, or to execute or cancel, all or any part of a Transaction that you seek to execute or cancel through a Trading Service. Without limitation of the foregoing, we have no responsibility for transmissions that are inaccurate or not received by us, and may execute any Transaction on the terms actually received by us.

(c) You may receive a written or electronic acknowledgement of the status of each Transaction executed through a Trading Service in addition to any written or electronic confirmation of the execution of the Transaction (“Confirmation”) that we deliver to you. If there is a conflict between the terms of any Confirmation and (i) the terms of this Agreement, or (ii) the acknowledgement, the terms of the Confirmation will control. Execution terms as reflected in such an acknowledgement or Confirmation or in execution reports sent to you are subject to adjustment for errors including but not limited to errors on the part of the markets to which your orders were routed.

(d) You will use the Trading Services and enter into Transactions only for your own benefit and account(s) and will not use the Trading Services on behalf of third parties (other than your customers, if you are a broker-dealer, investment manager or investment adviser) without our written permission.

(e) We may engage in trading in the markets reflected on the Trading Services for our proprietary accounts and on behalf of accounts under our management, which could affect the value or terms of Transactions and we may enter into transactions at prices different from the prices reflected in the Trading Service.

6. Representations and Warranties. (a) You represent and warrant to us that your use of the Trading Services will comply with all applicable laws, rules and regulations and with the policies and practices of securities and futures exchanges and clearing houses, alternative trading facilities, and self-regulatory organizations, and the policies and procedures applicable to the Trading Services and this Agreement and any other agreement between you and us, as may be amended from time to time, including rules regarding short sales under U.S. securities laws (e.g., Securities and Exchange Commission Rule 10a-1). Further, you will provide us with all terms and conditions relevant to your orders, designate any of your short sales as such and locate your borrow of shares prior to placing any short sale orders with us, all in accordance with applicable law. Without limitation of the foregoing, you represent and warrant that, if you use the Trading Services to effect transactions (i) in securities

that you or your affiliates issued or, (ii) if you are a broker-dealer, investment manager or investment adviser and are acting on behalf of a customer, in securities which the customer or the customer’s affiliate issued, such transactions will comply with applicable laws and regulations regarding transactions in securities by issuers and affiliates. Prior to entering an order, you will advise us of any legal restrictions on the transfer of any securities you sell (including Rule 144 or 145(d) under the Securities Act of 1933) and you will provide any necessary documents to us (including prospectuses or opinions) to satisfy legal transfer requirements. You are responsible for any delays, expenses and losses associated with compliance or failure to comply with any restrictions on the transfer of securities. You further represent and warrant that, unless you advise us otherwise, no Transaction executed by you through a Trading Service will be on behalf of a plan subject to the Employee Retirement Income Security Act of 1974 or any similar statute. If you are a broker-dealer, investment manager or investment adviser and you use the Trading Services and execute Transactions for your customers’ benefit and account, we acknowledge that you are acting as agent for such customers, and not as principal, in connection with Transactions that you execute through the Trading Services, that this Agreement governs only access to and use of the Trading Services, and any Transactions executed by you on your own behalf or on behalf of others will be governed by such applicable agreements as may exist with respect thereto. You represent and warrant that you have full authority to sign this Agreement, and to use the Trading Services and execute Transactions, on behalf of such customers.

(b) We represent and warrant to you that we have all rights, authority and licenses to provide the Trading Services to you, as set forth herein and you represent and warrant to us that you have all consents, rights, authority, and have taken all actions necessary, to use the Trading Services and enter any transactions relating thereto, as set forth herein.

(c) Except as set forth in paragraph 6(b), we make no warranty, express or implied, to you concerning the Trading Services or with respect to any data or information that we may provide in connection with the Trading Services. You expressly acknowledge and agree that we have made no recommendation with respect to the Trading Services or any Transaction and that we and any third party service providers selected by you or us provide the Trading Services on an “as is” basis, at your sole risk. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose, including any warranty for the use or the results of the use of the Trading Services with respect to their correctness, quality, accuracy, completeness, reliability, performance, timeliness, continued availability or otherwise. We and such third party service providers are not responsible for maintaining the Trading Services or for supplying any corrections, updates or releases concerning the Trading Services. We are not soliciting any action based upon use of the Trading Services.

7. Limitation of Liability; Indemnity. (a) We, our managing directors, partners, officers, directors, affiliates, employees and agents (each a “Related Party”) have no liability, contingent or otherwise, to you or to third parties, for the correctness, quality, accuracy, security, completeness, reliability, performance, timeliness, pricing or continued availability of the Trading Services or for delays or omissions of the Trading Services, or for the failure of any connection or communication service to provide or maintain your

access to a Trading Service, or for any interruption in or disruption of your access or any erroneous communications between us and you. We are not liable for any special, indirect, incidental or consequential damages which you may incur or experience because you entered into this Agreement or relied on the Trading Services, even if we know of the possibility of those damages. We are not responsible for informing you of any difficulties we or other third parties experience concerning use of the Trading Services for our accounts or other accounts or to take any action in connection with those difficulties. We also have no duty or obligation to verify, correct, complete or update any information displayed in the Trading Services. You are solely responsible for any losses, damages or costs resulting from your reliance on any data or information that we may provide in connection with your use of the Trading Services. You will make your own independent decision to access or use any Trading Service or to execute any Transaction and you acknowledge and agree that the Trading Services do not and will not serve as the primary basis for any of your investment decisions concerning your accounts or your managed or fiduciary accounts. You are solely responsible for any investment or trading decisions you make with respect to products identified on the Trading Services and we are not responsible for determining whether any Transaction you may enter into is suitable, appropriate or advisable. We (and any of our affiliates) are not and will not be, by virtue of providing the Trading Services, an advisor or fiduciary for you or your managed or fiduciary accounts.

(b) You will indemnify, protect, and hold harmless us and our Related Parties from and against any and all losses, liabilities, judgments, suits, actions, proceedings, claims, damages, costs (including attorney's fees) (collectively, "Losses") resulting from or arising out of the use of the Trading Services by you or your Related Parties, including any breaches of the security of the Trading Services (including any access or entry into any of our other systems not covered by this Agreement), and, if you are a broker-dealer, investment manager or investment adviser acting on behalf of your customers, including any claims that a trade was not suitable for or not authorized by a customer, caused directly or indirectly by you or your Related Parties except to the extent such Losses are due to our gross negligence or willful misconduct or, if you are a broker-dealer, investment manager or investment adviser acting on behalf of your customers, to the extent such Losses arise solely from Transactions executed by us through the Trading Services on behalf of such customers.

(c) In Paragraph 7(a) the terms "we", "our" and "us" include any third party service providers selected by you or us in connection with the Trading Services, and in Paragraph 7(b) those terms include third party service providers selected by us.

(d) Orders that you enter through the Trading Services may be routed to third party systems, markets or exchanges (each, a "Third Party System"). We are not responsible for any losses, damages or costs that may result from errors made by any Third Party System in reading, processing or executing such orders, or if any Third Party System otherwise fails to properly execute such orders.

(e) Without prejudice to any rights under this Agreement, in case of any breach of our warranty in Paragraph 6(b), our liability is limited to the repair or replacement of any part of the Trading Services that causes the breach.

(f) You agree that, with the exception of the provisions of Paragraph 7(e), our liability and the collective liability of our Related Parties and the third party service providers selected by you or us, if any, arising out of any kind of legal claim (whether in contract, tort, or otherwise) or in any way connected to your use of the Trading Services will not exceed the amount of the profit we received on the specific transaction giving rise to such legal claim unless caused directly by our gross negligence or willful misconduct.

(g) None of the above will limit your rights and remedies under the state or federal securities laws.

8. Data and Information. (a) You will supply us with all information we may reasonably request in writing concerning you and your use of the Trading Services. You and your Authorized Users will also provide and obtain any consents that we may reasonably request in connection with the provision of information to us by you or on your behalf. We may report information obtained under this paragraph 8(a) to regulatory authorities or to third party service providers, as we determine in our sole discretion to be necessary. You consent and agree to comply with any of our privacy policies and procedures that we provide.

(b) With respect to any market data or other information that we or any third party service provider provide to you in connection with your use of the Trading Services, (i) we and any such provider are not responsible or liable if any such data or information is inaccurate or incomplete in any respect; (ii) we and any such provider are not responsible or liable for any actions that you take or do not take based on such data or information; (iii) you will use such data or information solely for the purposes set forth in this Agreement and any Client Agreement; (iv) such data or information is proprietary to us and any such provider and you will not retransmit or disclose such data or information to third parties except as required by applicable law or regulation; and (v) you will use such data or information solely in compliance with applicable laws, rules and regulations.

(c) E-mail, chat and instant messaging features may be provided to you as a convenience to enhance your communications with us. You will use these features in compliance with applicable law, rules and regulations, and you will not use them to transmit inappropriate information, including information that may be deemed obscene, libelous, harassing, fraudulent or slanderous. We are not responsible for any Transactions you may attempt to enter, or orders or instructions you may attempt to make by means of these services. The Trading Services and all information on the Trading Services are proprietary and confidential to us or to any applicable third party service providers selected by us. Except as required by applicable law, you and your employees will hold the Trading Services and such information in strict confidence and not disclose them to third parties or use them for any purpose not contemplated by this Agreement.

9. No Promotion. Without the prior written consent of the other party, neither party will (i) use the name of the other party, or the name of any of the other party's Related Parties, or any trade name, trademark, trade device, service mark, symbol or any abbreviation, contraction or simulation of the other party or its affiliates in advertising, publicity, or otherwise; or (ii) represent (directly or indirectly) that any product or any service provided by the party has been approved or endorsed by the other.

10. Electronic Documents. You consent to the delivery of confirmations, any other required or optional communication or agreement under any applicable law or regulation and any agreements or changes in the terms and conditions on the Trading Services, by e-mail, Web site or other electronic means, subject to compliance with any applicable laws, rules or regulations. Any such documents that are delivered to you electronically are deemed to be “in writing.” If your signature or acknowledgment is required or requested with respect to any such document and any Authorized User “clicks” in the appropriate space, or takes such other action as may be indicated on the Trading Services, you will be deemed to have signed or acknowledged the document to the same extent and with the same effect as if you had signed the document manually. You acknowledge your understanding that you have the right to withdraw your consent to the electronic delivery and signature of documents at any time by providing prior written notice. However, if you revoke your consent, your access to the Trading Services may be restricted or terminated.

11. General. (a) You acknowledge that you entered into this Agreement without inducement by any representation or warranty not set forth in this Agreement. This Agreement contains the entire agreement of the parties with respect to its subject matter and supersedes all existing and all other oral, written or other communications between the parties concerning this subject matter. This Agreement may be modified only by a subsequent writing signed by both parties.

(b) Neither party may assign the Agreement without the other party’s prior written consent. However, we may assign this Agreement to any entity (i) controlling, controlled by, or under common control with us, or (ii) which succeeds to all or substantially all of our assets and business.

(c) If any provision of this Agreement (or any portion thereof) is invalid, illegal or unenforceable, the validity, legality or enforceability of the remainder of this Agreement will not be affected or impaired.

(d) Where any form of the word “including” appears in this Agreement, it will be interpreted as if followed by the phrase “without limitation”.

(e) Except as provided in Paragraph 10, all notices will be in writing and hand delivered or forwarded by registered or certified mail to the parties at the addresses listed on the first page. A copy also will be sent to the attention of our General Counsel or to any other address which we designate in writing after the date of this Agreement.

(f) The headings in this Agreement are intended for convenience of reference and will not affect interpretation.

(g) The individuals executing this Agreement each represent and warrant that they are duly authorized by all necessary action to execute this Agreement on behalf of their principals.

(h) Each party acknowledges that a breach of any provision of Paragraph 4, 8 or 9 of this Agreement will cause the other irreparable injury and damage. Therefore, injunctive relief may be sought in addition to any other rights and remedies which may be available to the party at law or in equity.

(i) You agree to cooperate with any reasonable request we may make in order to respond to any inquiries made by any third

party service providers, exchanges, or other regulatory, self-regulatory or governmental authorities in connection with the Trading Services.

(j) This Agreement is deemed entered into in New York, New York and will be governed and construed in all respects by the laws of the State of New York, without giving effect to principles of conflict of law. Any litigation or other dispute resolution between the parties relating to this Agreement will take place only in New York County, New York. The parties consent to personal jurisdiction of and venue in the state and federal courts within that county.

(k) Each party’s continuing obligations under this Agreement including those relating to “Limitation of Liability; Indemnity” and “Data and Information” will survive the termination of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as of this ____ day of _____, 200_.

[NAME OF CLIENT]

[BD Name]

By: _____
Name and Title: _____

By: _____
Name and Title: _____

APPENDIX F

EXHIBIT F

MODEL GUIDELINES FOR BROKER WEBSITE CONTENT

Category	Information Disclosure
Broker Identify Disclosure	<p>The Broker's website should make full and prominent disclosure of the following information:</p> <ul style="list-style-type: none"> • The full legal name of the Broker as licensed with the Jordan Securities Commission • Complete street address and mailing address of the Broker's principal place of business • Broker's email address • Broker's main telephone number
Broker License Registration	<ul style="list-style-type: none"> • The website should make full and prominent disclosure of the type of licenses (and license numbers) held by the Broker with the Jordan Securities Commission (and other Jordanian Regulatory Bodies). • The Broker must ensure that all information on the website complies also with other effective requirements of Jordanian Securities and other Laws (including the Law on Electronic Commerce).
Privacy Policy	<ul style="list-style-type: none"> • The website should have a privacy policy. • The website should have full and prominent disclosure of the Broker's privacy policy.
Complaint Procedure	<ul style="list-style-type: none"> • The website should disclose a complaints handling procedure. • This procedure should also disclose what the Broker's internal complaints handling mechanism is. • The website should also disclose the name of the Broker's principal compliance officer, as well as the phone number and email of the Broker's compliance department. • The website should also disclose information (phone numbers and email addresses) for the submission of complaints to the Jordan Securities Commission and the Amman Stock Exchange.
Advertising	<ul style="list-style-type: none"> • Advertising on the Broker's website must be clearly identifiable as such.
Disclaimers	<ul style="list-style-type: none"> • Any disclaimer that limits the Broker's and/or service providers liability should be clearly and prominently disclosed. The website should not try to contract out of its responsibility for losses arising from the misuse or failure of authentication mechanisms.
Product information	<ul style="list-style-type: none"> • The website should provide accurate and easily accessible information describing the internet trading service and other information or market data products offered. • This information should be in a conspicuous, accurate and accessible manner, notably the same information provided by traditional methods of business should be provided online. • Clear disclosure on the website should be made of the services that are offered for free and the services that are charged for. • The price of the services that are charged for should be disclosed. • The website should disclose all relevant details associated with the use of the products including: - terms; - conditions; - fees (including statutory charges such as stamp duty); - commissions; and - contracts.
Transaction information	<p>The website should disclose in a clear and prominent manner :</p> <ul style="list-style-type: none"> • The terms and conditions relating to corrections and cancellations • Information on the possible delayed execution of orders. • An explanation of terms that are used when placing orders, such as "at market" and "limit". • Information on the procedures adopted for entering orders using the Internet Trading Service, including the phases of the market (eg. pre-opening, closing) and for orders received when the market is closed; and • Any restrictions on the placement (eg. only limit orders) of orders when the market is closed.

Category	Information Disclosure
Order handling	<p>The website should:</p> <ul style="list-style-type: none"> • Disclose the order handling process • The receipt, placement and execution of orders (including the process when orders are received outside of ASE trading hours); • Allow the retail investor to review the transaction before the transaction is entered; • Allow the retail investor to correct errors before the order is placed; • Allow the retail investor to modify their orders once they are entered into the system (to the extent that they have not traded); • Allow the retail investor to see their current order status; • Send a confirmation email on receipt of order and execution (and partial execution, and on completion of an order, which shows time of receipt/placement/execution of the order; • Allow the retail investor to retain a complete and accurate record of the transaction.
Payment process	<p>The website should:</p> <ul style="list-style-type: none"> • State whether checks for cleared funds are conducted before placing an order; • Explain the limits on retail investors being able to buy/sell one stock of securities on the same day (day trade) • Explain how payment for the transaction is to be effected (e.g. requirement for cleared funds)
Capacity	<p>The website should state:</p> <ul style="list-style-type: none"> • The capacity of the website to process transactions; • How much free capacity the website has; and • What plans the website has in place to ensure that excess capacity remains in its trading system. • The website should disclose a history of systems delays/outages and their causes.
Contingencies	<p>The website should explain:</p> <ul style="list-style-type: none"> • The risks to the retail investor of system delays or outages; and • What contingencies are in place in the case where the retail investor can not access the system, including phone numbers for the manual placement of orders
Technical Support	<ul style="list-style-type: none"> • The website should provide a phone number and email for client technical support
Security	<ul style="list-style-type: none"> • The website should explain in simple and clear terms what security features are employed to protect information provided by the retail investor, including the use of encryption and account and trading passwords. • The retail investor should also be alerted to the possible consequences of the unauthorized use of their passwords.
Education	<ul style="list-style-type: none"> • The website should include material displayed about the risks of investing in the securities market and how to manage those risks, including the risk of speculative trading. • The website should also explain the prohibition on manipulative trading and short selling, and broadly detail what orders the Internet Trading Service will not accept.
No omissions or misrepresentations	<ul style="list-style-type: none"> • The website must not make any representations, omissions, or engage in any practice that is likely to be deceptive, misleading, fraudulent or unfair.

APPENDIX G

EXHIBIT G

COMPLAINT DATA COLLECTION

1. The ASE and/or JSC should establish a complaints database and categorize internet trading related issues by category of complaint. The most likely categories of complaints, which may be encountered in the Jordanian market are:

- **Difficulty in accessing accounts**
- **Failure in processing orders**
- **Delays in processing orders**
- **Errors in processing orders**
- **Problems with processing cancellation or modifications of orders**
- **Errors / omissions in account records or documents**
- **Failures in updating account records or documents**
- **Delays in updating account records or documents**
- **Inaccurate or delayed quotes / pricing information**

2. The complaints database should report the following internet trading related data:

- **Total # of internet trading complaints at each Broker – Weekly / Monthly**
- **Total # of internet trading complaints for all Brokers – Weekly / Monthly**
- **Total # of internet trading complaints by category at each Broker – Weekly / Monthly**
- **Total # of internet trading complaints by category for all Brokers – Weekly / Monthly**
- **Total # of internet trading complaints per 100 trades at each Broker – Weekly / Monthly**
- **Total # of internet trading complaints per 100 trades for all Brokers – Weekly / Monthly**

APPENDIX H

EXHIBIT H

MONITORING USAGE STATISTICS

The ASE and/or JSC should report the following usage statistics in connection with the introduction of internet trading services:

- **Total # of Brokers offering online services - Monthly**
- **Total # of internet and non-internet trading accounts at each Broker – Weekly / Monthly**
- **Total # of internet and non-internet trading accounts for all Brokers combined – Weekly / Monthly**
- **Total # of internet and non-internet trades executed at each Broker – Daily / Weekly / Monthly**
- **Total # of internet and non-internet trades for all Brokers combined – Daily / Weekly / Monthly**
- **Total # of OM or other system outages interrupting internet trading services – Weekly / Monthly**
 - **By Broker**
 - **For all Brokers**
- **Supplemental information on each system outage should include:**
 - **Name of Broker and OM system involved**
 - **Date and time of outage**
 - **Duration of outage**
 - **Description of the outage**
 - **Cause of the outage**

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