

## Press Release

### COMMITTEE ON INTERNET BASED SECURITIES TRADING AND SERVICES - FIRST REPORT

Internet, the new medium that has emerged as a result of convergence between telecommunication and computers, is revolutionising the way business is done and is making inroads into every conceivable area of business activity. The potential of e-commerce is no longer a matter of debate. In fact, every forecast has been proved wrong, with actual figures far exceeding the forecast. The natural extension of e-commerce in the securities market is Internet based trading and securities services and it has made a great impact on the securities trading business. Issuers of securities, intermediaries, service providers and investors are increasingly selling and dealing or providing securities services on the Internet.

SEBI as the Capital Market Regulator in India, has twin objectives i.e. of regulating as well as developing the market. Although, the Internet based trading and securities services are at a nascent stage in India, the pace of growth predicted brings in an urgency to address legal and policy issues that are associated with it.

To examine and clarify regulatory and other issues related to Internet based securities trading and services on a continuous basis, SEBI has constituted a standing committee on Internet Based Securities Trading and Services, chaired by *Shri O.P. Gahrotra, Sr.Executive Director, SEBI*. As the Internet technology continues to evolve, the standing committee will assess new developments and address relevant issues from time to time. The committee comprises of the following members:

- *Prof. Deepak B Phatak, IIT, Mumbai.*
- *Shri A.K.Sharma, DG Investigations - Registrations*
- *Dr D.P.S.Seth, Sr.DDG(CS), Department of Telecommunication*
- *Dr. R. H. Patil, Managing Director, NSE*
- *Shri Anand Rathi, President, BSE*
- *Shri S. Ramadorai, CEO, Tata Consultancy Services,*
- *Shri C N Ram, Vice President (IT), HDFC Bank,*
- *Shri LK Singhvi, Sr. ED, SEBI*
- *Ms. DN Raval, ED,SEBI*

The Committee would also like to acknowledge the commendable efforts made by Shri Deepak Sanchety, Shri Ananta Barua, Division Chief, SEBI and Ms. Prarthna Awasthi, Shri Ankit Sharma, Ms. Maninder Cheema and Shri Ebrahim Machhiwala, officers of SEBI.

The Committee held its first meeting on 18<sup>th</sup> Aug 1999. The Committee took stock of the developments in the use of Internet in securities business at the international level and within the country. In its deliberations the committee noted that a number of issuers and information service providers have developed websites and are providing information to investors in India. Similarly, many brokers have developed websites and have started offering value-added information to their clients. A number of websites provide price quotations from major stock exchanges, on almost real-time basis.

Technology development and related market innovation is growing at a fast pace. This has in turn created an urgent need to address emerging legal and policy issues. If these issues are not timely dealt with, it is bound to adversely affect the growth of the markets. Committee also appreciated that physical infrastructure in terms of Internet service providers, connectivity etc., no matter how extensive or robust, is not sufficient in the long run to sustain the high growth witnessed in the capital market. It is equally important, therefore to create soft infrastructure through harmonisation of laws, rules, regulations, and policies. It is also necessary to clearly lay down the rights of investors and the rights and responsibilities of all market participants and other agencies involved in this exercise.

In India the policies related to telecommunication including connectivity between two closed user groups and closed user group and Internet are governed by the Department of

Telecommunication (DoT), Government of India. Matters related to encryption of messages are also handled by the DoT. The Government has been concerned about the issue of connectivity and a lot of debate has been generated on these issues. Recently DoT has come out with guidelines of connectivity of independent networks.

The Committee noted that Internet is already being used in developed securities markets in the world. Some of the areas where its usage has become common have been described below.

### **Internet Based Trading through Order Routing Systems**

Internet based trading on conventional exchanges, uses the Internet as a medium for communicating client orders to the exchanges, through broker web sites. Brokers' web sites may serve a variety of functions. These may include;

- allowing the clients to directly trade through internet;
- advertise the broker-dealers' services to potential investors;
- offer market information and investment tools similar to those offered by information vendor or SRO web sites;
- offer real-time or delayed quote information, continuously update quotes while the user visits other sites, or allow investors to create a personal stock ticker;
- provide market summaries and commentaries, analyst reports and trading strategies and market data on currencies, mutual funds, options, market indices and news; and
- offer investors access to portfolio management tools and analytic programs;
- information on commissions and fees; and
- account information and research reports.

In an Order Routing System, a broker offering Internet trading facility provides an electronic template for the customer to enter the name of the security, whether it is to be bought or sold, the quantity and whether the order is a market or limit order.

Once the broker's system receives this information, it is checked electronically against the customer's account and is routed out by the broker to the appropriate exchange for execution. After the order is executed, the customer receives a message confirming the order. The customer's portfolio and ledger account may also be updated on-line to reflect the transaction.

### **Use of Internet as Alternative Trading Systems (Provision for price discovery and matching outside conventional exchanges)**

In foreign jurisdictions, Alternative trading systems have been developing outside conventional securities markets, which provide investors with additional proprietary electronic trading facilities for securities that are traded principally on securities exchanges, or other organised markets. They have price discovery functions, matching systems and crossing systems. The systems that are currently in use in outside jurisdictions are closed systems and are not accessible to the general public through the Internet.

The securities markets regulators abroad have maintained flexible and open policies designed to encourage innovation in the secondary securities markets. As a result, a number of market participants, usually broker-dealers, have developed computerized "alternative trading systems", by which the system centralise, display, match, cross or otherwise execute trading interest.

### **Use of Internet for making Initial Public Offerings**

Issuers of securities are using the Internet to communicate directly with their shareholders, potential investors and analysts by disseminating corporate information. In foreign jurisdictions, they are also using the Internet to communicate to the public for the following:

- public offerings;
- private offerings; and
- disclosure and communication.

Issuers are using the Internet to market themselves to potential investors. The Internet is also being used for fulfilling necessary disclosure requirements, for disseminating the prospectus in electronic form and even for receiving share applications in public issues electronically. In India, SEBI has taken initiative in permitting use of the network of stock exchanges for collection of

investor applications in public offerings by the issuer companies.

## **Investment Advisory Services**

Brokers as well as other service providers such as investment firms, research outfits etc. are using the Internet for marketing and advertising purposes, for presenting information on portfolio analysis and market information, and for communicating with and receiving orders from potential investors. The services offered by the service providers to the investors are generally the following:

- advertising;
- providing investment information and investment advice;
- underwriting;
- communicating with the investors;
- customer orders; and
- record keeping.

## **Working Groups set up by the Committee**

Considering the present state of capital markets in India and keeping in view the ongoing developments in Internet based securities business, it was felt that SEBI as a regulator could strive to identify areas where use of Internet in the capital market is possible within the existing legal framework. One such area identified by the Committee, which is also the central theme of this report is the area of Internet trading on existing electronic exchanges. In this area, though early introduction of Cyber Laws would be highly desirable but their existence is not a necessary pre-condition. To look into the existing regulatory scenario and to bring out some ground rules for use of the medium of Internet, the Committee therefor constituted the following two working groups to look into the areas of :

- i. *security protocols and standardisation of interfaces for Internet based securities trading, chaired by Prof. Deepak B. Phatak, IIT, Powai, Mumbai*
- ii. *surveillance and monitoring related issues arising due to Internet based securities trading, chaired by Shri L K Singhvi, Sr. ED, SEBI*

The Committee also requested Ms D N Raval, Executive Director, SEBI to examine the legality of introduction of Internet trading and the issue of Alternative Trading Systems.

This report of the standing committee examines the regulatory and security requirements regarding Internet Based Trading on Conventional Exchanges. Separate report(s) will cover the other areas related to Internet applications in the securities markets.

The report of the first working group on security protocols and standardisation of interfaces has since been submitted and incorporated in this report as [Annexure I](#). Legal examination report received from Ms Raval is placed at [Annexure II](#). The committee would like to place on record its sincere thanks to Dr. D.B.Phatak, Ms.D.N. Raval and their team members.

The global financial market is undergoing a transformation due to rapid technological developments. It thus becomes imperative that for developing an effective regulatory framework developments in other parts of the world should be studied and analysed. With nearly two million on-line investors, Internet trading in the United States is growing by leaps and bounds. Internet trading is being facilitated by large brokerage houses, thus changing the total concept of securities trading.

A team comprising of members from stock exchanges and SEBI visited the United States to study these developments and had interactions with brokerage houses, Internet service providers and other agencies involved in facilitating Internet trading. The team also discussed the developments in the emerging regulatory and supervisory framework in United States with the Securities and Exchange Commission officials. They were also apprised of the various initiatives taken by SEC in this regard. These inputs have been utilised while drafting this report.

## **Regulatory Approach**

The Committee has worked on the premise that the order screening and subsequent execution which is being done manually today is simply sought to be replaced by electronic screening and

execution through the brokers terminal in the proposed system of Internet trading, the basic principles of regulation would remain the same, irrespective of the medium of communication or delivery. The Committee seeks to encourage the legitimate use of Internet in a uniform regulatory environment for trading on the Internet in the already existing conventional automated screen based trading models.

Further objective of the committee is to do the initial groundwork by laying down standards which would help create an appropriate environment in which transition and adoption of international standards in the regulation and communication technology becomes easy at a future date.

### **Scope of the Report**

As per the report at Annexure II, under the existing legal framework, Internet can be used as an order routing system through registered stock brokers on behalf of clients for execution of trades on recognised stock exchanges.

At present, very few banks are offering Internet based services. Depositories have not yet started offering services on Internet. Because of this, interfacing securities trading with banking and depository services may take longer.

Keeping this in view, as a first, the Committee has limited the scope of its present recommendations to cover only those issues, which are directly related to Internet trading through order routing systems.

### **Recommendations of the Committee**

#### **Application for Permission by Brokers**

SEBI registered Stock Brokers interested in providing Internet based trading services will be required to apply to the respective stock exchange for a formal permission. The stock exchange should grant approval or reject the application as the case may be, and communicate its decision to the member within 30 calendar days of the date of completed application submitted to the exchange.

The stock exchange, before giving permission to brokers to start Internet based services shall ensure the fulfilment of the following minimum conditions:

#### **Networth Requirement**

The broker must have a minimum net worth of Rs.50 lacs if the broker is providing the Internet based facility on his own. However, if some brokers collectively approach a service provider for providing the internet trading facility, net worth criteria as stipulated by the stock exchange will apply. The net worth will be computed as per the SEBI circular no FITTC/DC/CIR-1/98 dated June 16, 1998.

#### **Operational and System Requirements**

***Operational Integrity:*** The Stock Exchange must ensure that the system used by the broker has provision for security, reliability and confidentiality of data through use of encryption technology. (Basic minimum security standards are enclosed in Annexure-I). The Stock Exchange must also ensure that records maintained in electronic form by the broker are not susceptible to manipulation.

***System Capacity:*** The Stock Exchange must ensure that the brokers maintain adequate backup systems and data storage capacity. The Stock Exchange must also ensure that the brokers have adequate system capacity for handling data transfer, and arranged for alternative means of communications in case of Internet link failure.

***Qualified Personnel:*** The Stock Exchange must lay down the minimum qualification for personnel to ensure that the broker has suitably qualified and adequate personnel to handle communication including trading instructions as well as other back office work which is likely to increase because of higher volumes.

**Written Procedures:** Stock Exchange must develop uniform written procedures to handle contingency situations and for review of incoming and outgoing electronic correspondence.

**Signature Verification/ Authentication:** It is desirable that participants use authentication technologies. For this purpose it should be mandatory for participants to use certification agencies as and when notified by Government / SEBI. They should also clearly specify when manual signatures would be required.

### **Client Broker Relationship**

**Know Your Client:** The Stock Exchange must ensure that brokers have sufficient, verifiable information about clients, which would facilitate risk evaluation of clients.

**Broker-Client Agreement:** Brokers must enter into an agreement with clients spelling out all obligations and rights. This agreement should also include inter alia, the minimum service standards to be maintained by the broker for such services specified by SEBI/Exchanges for the internet based trading from time to time.

Exchanges will prepare a model agreement for this purpose. The broker agreement with clients should not have any clause that is less stringent/contrary to the conditions stipulated in the model agreement.

**Investor Information:** The broker web site providing the internet based trading facility should contain information meant for investor protection such as rules and regulations affecting client broker relationship, arbitration rules, investor protection rules etc. The broker web site providing the Internet based trading facility should also provide and display prominently, hyper link to the web site/page on the web site of the relevant stock exchange(s) displaying rules/regulations/circulars. Ticker/quote/order book displayed on the web-site of the broker should display the time stamp as well as the source of such information against the given information.

**Order/Trade Confirmation:** Order/Trade confirmation should also be sent to the investor through email at client's discretion at the time period specified by the client in addition to the other mode of display of such confirmations on real time basis on the broker web site. The investor should be allowed to specify the time interval on the web site itself within which he would like to receive this information through email. Facility for reconfirmation of orders which are larger than that specified by the member's risk management system should be provided on the internet based system.

**Handling Complaints by Investors:** Exchanges should monitor complaints from investors regarding service provided by brokers to ensure a minimum level of service. Exchange should have separate cell specifically to handle Internet trading related complaints. It is desirable that exchanges should also have facility for on-line registration of complaints on their web-site.

### **Risk Management**

Exchanges must ensure that brokers have a system-based control on the trading limits of clients, and exposures taken by clients. Brokers must set pre-defined limits on the exposure and turnover of each client.

The broker systems should be capable of assessing the risk of the client as soon as the order comes in. The client should be informed of acceptance/rejection of the order within a reasonable period. In case system based control rejects an order because of client having exceeded limits etc., the broker system may have a review and release facility to allow the order to pass through.

Reports on margin requirements, payment and delivery obligations, etc. should be informed to the client through the system.

### **Contract Notes**

Contract notes must be issued to clients as per existing regulations, within 24 hours of the trade execution.

### **Cross Trades**

As a matter of abundant precaution, the committee seeks to reiterate that as in the case of existing system, brokers using Internet based systems for routing client orders will also not be allowed to cross trades of their clients with each other. All orders must be offered to the market for matching.

*It is emphasised that in addition to the requirements mentioned above, all existing obligations of the broker as per current regulation will continue without changes. Exchanges may also like to specify more stringent standards as they may deem fit for allowing Internet based trading facilities to their brokers.*

## **Enforcement**

A separate working group has been set to look into the surveillance and enforcement related issues arising due to Internet based securities trading. However, general anti-fraud provisions (SEBI Fraudulent and Unfair Trade Practices Regulations, 1995) would apply to all transactions involving securities or financial services, regardless of the medium.

## ***Conclusion and Future Agenda***

Under the existing legal and regulatory framework, SEBI registered brokers can offer trading on Internet through order routing systems. However, with the rapid development of the technology, we have to evolve further steps in this direction. It is therefore proposed that as the next step link between the depositories and banks shall be established after the necessary regulations have been passed. This would reduce the clearing and settlement time and would also minimise the risk of all the participants involved in the transactions.

We have to look forward towards achieving an ideal scenario where all the services related to securities markets including marketing of initial public offers on internet, providing investment advisory services to the clients, broking, clearing and settlement etc., are provided on the Internet by an intermediary. In a nutshell it can be said that we are moving towards a one stop service centre.

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## **Annexure I**

### **Network Security Protocols and Interface Standards**

At present the Indian laws are silent on the security of Internet information. However, the draft E-Commerce Act focuses on this issue and prescribes the requirements like electronic certification, digital signatures etc. which will play an important role on the authenticity of such information gathered from the Internet. These requirements will also have to be met by Internet traders using ORS on the stock exchanges.

### ***Network Security***

It is suggested that the following security measures should be made mandatory

- i. User id
- ii. First Level password (Private code)
- iii. Automatic expiry of passwords at the end of a reasonable duration. Reinitialise access on entering fresh passwords
- iv. All transaction logs with proper audit facilities to be maintained in the system.
- v. Secured Socket Level Security for server access through Internet
- vi. Suitable Firewalls between trading set-up directly connected to an Exchange trading system and the Internet trading set-up.

Advanced Security products used for E-Commerce may be made optional. Some of these are

- a. Microprocessor based SMART cards
- b. Dynamic Password (Secure ID Tokens)
- c. 64 bit/128 bit encryption \*\*
- d. Second Level password (personal information e.g. village name, birth date etc.)

**\*\*DOT policy and regulations will govern the level of encryption.**

### ***Standards for Web Interfaces and Protocols***

For Order Routing Systems to become operational in the existing scenario, interfacing of trading systems with Banking Systems and Depositories is not immediately required and may be considered after the E-Commerce Laws are in place. Similarly the Group believes that Wireless Internet Interface has the potential of a very large penetration and the Group will work towards interface standardisation in that area as well.

Between a Trading Web Server and Trading Client Terminals, Interfaces Standards as per recommendations of IETF (Internet Engineering Task Force) and W3C (World Wide Web Consortium) may be adopted. E.g.: HTTP Ver 4 or above HTML Ver 4/XML.

### ***Systems Operations***

- a. Brokers should follow the similar logic/priorities used by the Exchange to treat client orders
- b. Brokers should maintain all activities/ alerts log with audit trail facility
- c. Broker Web Server should have internally generated unique numbering for all client order/trades
- d. Brokers should seek permission from the Exchange before commencement of Internet trading facility after providing complete details of the features of implemented systems.
- e. Brokers should make periodic reporting to the Exchange as specified by the Exchange.

The committee strongly recommends that 128 bit encryption should be allowed to be freely used by the Department of Telecommunications, Government of India to ensure safety, security and integrity as well as for maintaining investor trust in the internet based trading system.