ANNEXURE 2

MASTER CIRCULAR FOR STOCK EXCHANGES

ON

TRADING PART - II

1. This Master Circular includes circulars issued upto March 31, 2012.

2. Master Circular is a compilation of all the existing/applicable circulars issued by Market Regulation Department of SEBI to Stock Exchanges and shall be applicable from the date of its issue.
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1.1 Conditions to be met by Broker for providing Internet Based Trading Service

To provide Internet Based Trading Service the broker 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.

However before giving permission to broker to start internet based services, stock exchange shall ensure that the broker meets the minimum condition of the criteria’s’ mentioned in circular. The criteria’s are mentioned as below:

i. **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.

ii. **Operational and System Requirements** :

   a. **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 specified in following paras). The Stock Exchange must also ensure that records maintained in electronic form by the broker are not susceptible to manipulation.

   b. **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.

   c. **Qualified Personnel** - The Stock Exchange must lay down the minimum qualification for personnel to ensure that the broker has

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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.

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

e. **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.

iii. **Client Broker Relationship** –

a. **Know Your Client** - The Stock Exchange must ensure that brokers comply with all requirements of “Know Your Client” and have sufficient, verifiable information about clients, which would facilitate risk evaluation of clients.

b. **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 prepared by the Exchanges for this purpose.

c. **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.
d. **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.

e. **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.

iv. **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.

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

vi. **Cross Trades** - As in the case of existing system, brokers using Internet based systems for routing client orders will not be allowed to cross trades of their clients with each other. All orders must be offered to the market for matching.

In addition to the requirements mentioned above, all existing obligations of the broker as per current regulations will continue without changes.

1.2 Securities Trading through Wireless medium on Wireless Application Protocol (WAP) platform.²

A broker providing stock trading through WAP must be a SEBI registered broker who also has an Internet website which complies with all the requirements laid down by SEBI in its circular no. SMDRP/Policy/Cir-06/2000 dated January 31, 2000. With regard to the requirements mentioned in the aforesaid circular, some additional requirements are to be met by the broker for providing securities transaction through WAP. These requirements are provided in the following criteria’s:

i. Network Security

   a. The break in data encryption at the WAP gateway server raises security issues. Until the shortcoming is addressed by WAP, the WAP server should be hosted by the broker itself and not by a third party.

   b. Suitable firewalls should be installed between trading set-up directly connected to an Exchange trading system and the WAP server.

   c. WTLS (Wireless Transport Layer Security) level security or a higher level of security (as and when available) for wireless communication is mandatory for wireless transactions.

   d. The WTLS encrypts data upto the WAP Gateway server. Transmission from the WAP Gateway server to the Internet server should be secured using Secured Socket Level Security, preferably with 128 bit encryption, for server access through Internet. Alternately, the WAP Gateway server and Internet server may be co-hosted. The server resource should not be shared for any other applications.

e. The following security measures applicable for fixed Internet based systems 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. Reinitialize access on entering fresh passwords
   iv) All transaction logs with proper audit facilities to be maintained in the system.

f. Digitally signed transactions ensure client authentication and support non-repudiation. Digital certification should be mandatory for participants as and when certification agencies are notified by Government / SEBI.

g. In case of failure of the network, alternative means of communication such as telephone, Internet or e-mail should be available.

ii. Price Quotes/ Order/ Trade Confirmations

   a. Stock quotes should be time-stamped.
   b. All orders and trades must be identified by a unique ID. Order confirmation must be provided to the user on submitting the order. Order modification/ cancellation facilities must also be provided. This may be provided using alternate protocols in case the same is not supported by WAP.
   c. Trade confirmation should be provided to the user through e-mail and/or on the mobile phone.

iii. System operations.

   a. Brokers should follow the similar logic/priorities used by the Exchange to treat client orders.
   b. Orders/ trades placed through either fixed Internet or WAP system should be accessible from both systems.
   c. Brokers should maintain all activities/ alerts log with audit trail facility.
   d. Broker Web Server should have internally generated unique numbering for all client order/trades.

iv. Risk Management.

   It is emphasised that risk management should be comprehensive and the risk management systems should take into account the overall positions of clients, irrespective of the medium of trading.
1.3 Securities Trading using Wireless Technology

1. It has been decided that SEBI registered brokers who provide Internet Based Trading as specified by SEBI circular no. SMDRP/POLICY/CIR-06/2000 dated January 31, 2000 shall be eligible to provide securities trading using wireless technology. All relevant requirements applicable to internet based trading shall also be applicable to securities trading using wireless technology.

2. Securities Trading using Wireless technology shall include devices such as mobile phone, laptop with data card, etc, that use Internet Protocol (IP).

3. In addition, the stock exchange shall ensure that the broker complies with the following -

   a. There shall be secure access, encryption and security of communication for internet based trading and securities trading using wireless technology. DOT policy and regulation shall govern the level of encryption.

   b. Adequate measures should be taken for user identification, authentication and access control using means such as user-id, passwords, smart cards, biometric devices or other reliable means, to prevent misuse of facility by unauthorized persons.

   c. Unique identification number as given in case of internet based trading shall be made applicable for securities trading using wireless technology.

   d. In case of failure of the wireless network, alternative means of communication for placing orders should be available.

   e. Additional provisions specifying possible risks, responsibilities and liabilities associated with securities trading using wireless technology should be incorporated in the Broker-Client agreement as an addendum or by bringing to the notice of clients, who are desirous of availing such facility, and taking their concurrence on the same.

   f. As it may not be possible to give detailed information to the investor on a hand held device e.g. mobile phones, it may be ensured that minimum

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3 Circular No. CIR/MRD/DP/ 25/2010 dated August 27, 2010
information may be given with addresses of the Internet web site/web page where detailed information would be available.

g. Order confirmation should be provided to the user on submitting the order. Order modification / cancellation facilities should also be provided. Trade confirmation should be provided to the user, along with history of trades for the day.

h. Session login details should not be stored on the devices used for internet based trading and securities trading using wireless technology.

i. Network security protocols and interface standards should be as per prevalent industry standards and sound audit trails should be available for all transactions conducted using wireless devices.

j. The broker’s server routing orders to the exchange trading system shall be located in India.

k. Stock exchanges shall arrange for periodic systems audits of broker systems to ensure that requirements specified in the circulars are being met.

l. Stock exchange shall also include securities trading using wireless technology in their ongoing investor awareness and educational programme

1.4 Additional Requirements for Internet Based Trading (IBT) and Securities trading using Wireless Technology (STWT)

1. The stock exchange shall ensure that the broker comply with the following –
   a. The broker shall capture the IP (Internet Protocol) address (from where the orders are originating), for all IBT/ STWT orders.

   b. The brokers system should have built-in high system availability to address any single point failure.

   c. There should be secure end-to-end encryption for all data transmission between the client and the broker through a Secure Standardized Protocol.

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A procedure of mutual authentication between the client and the broker server should be implemented.

d. The broker system should have adequate safety features to ensure it is not susceptible to internal/external attacks.

e. In case of failure of IBT/STWT, the alternate channel of communication shall have adequate capabilities for client identification and authentication.

f. Two-factor authentication for login session may be implemented for all orders emanating using Internet Protocol. Public Key Infrastructure (PKI) based implementation using digital signatures, supported by one of the agencies certified by the government of India, is advisable. Further the two factors in the Two-factor authentication framework should not be same.

g. In case of no activity by the client, the system should provide for automatic trading session logout.

Further to the above, the following practice is advisable –

h. The back-up and restore systems implemented by the broker should be adequate to deliver sustained performance and high availability. The broker system should have on-site as well as remote site back-up capabilities.
SECTION - 2: DIRECT MARKET ACCESS

2.1 Direct Market Access Facility

Direct Market Access (DMA) is a facility which allows brokers to offer clients direct access to the exchange trading system through the broker’s infrastructure without manual intervention by the broker. Some of the advantages offered by DMA are direct control of clients over orders, faster execution of client orders, reduced risk of errors associated with manual order entry, greater transparency, increased liquidity, lower impact costs for large orders, better audit trails and better use of hedging and arbitrage opportunities through the use of decision support tools / algorithms for trading.

While ensuring conformity with the provisions of the Securities Contract (Regulations) Act, 1956 (42 of 1956), Stock Exchanges may facilitate Direct Market Access for investors subject to the following conditions:

2.2 Application for Direct Market Access (DMA) facility

Brokers interested to offer DMA facility shall apply to the respective stock exchanges giving details of the software and systems proposed to be used, which shall be duly certified by a Security Auditor as reliable.

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 offer DMA facility shall ensure the fulfillment of the conditions specified hereinafter.

2.3 Operational specifications

All DMA orders shall be routed to the exchange trading system through the broker’s trading system. The broker’s server routing DMA orders to the exchange trading system shall be located in India.

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The broker should ensure sound audit trail for all DMA orders and trades, and be able to provide identification of actual user-id for all such orders and trades. The audit trail data should available for at least 5 years.

Exchanges should be able to identify and distinguish DMA orders and trades from other orders and trades. Exchanges shall maintain statistical data on DMA trades and provide information on the same to SEBI on a need basis.

The DMA system shall have sufficient security features including password protection for the user ID, automatic expiry of passwords at the end of a reasonable duration, and re-initialisation of access on entering fresh passwords.

In case where the clients access the DMA server of the broker through a third party service provider, the password maintenance and authentication can be done either by the broker of by third party network service provider, so long as the exchange/broker ensures secured access and communication and a sound audit trail for all DMA orders/trades. The authorized user and client details should be part of the order details received and authenticated at the DMA server of the broker.6

Brokers should follow the similar logic/priorities used by the Exchange to treat DMA client orders. Brokers should maintain all activities/alerts log with audit trail facility. The DMA Server should have internally generated unique numbering for all such client order/trades.

A systems audit of the DMA systems and software shall be periodically carried out by the broker as may be specified by the exchange and certificate in this regard shall be submitted to the exchange.

The exchanges and brokers should provide for adequate systems and procedures to handle the DMA trades.

2.4 Client Authorization and Broker – Client agreement

Exchanges shall specify from time to time the categories of investors to whom the DMA facility can be extended. Initially, the permission is restricted to institutional clients.

Brokers shall specifically authorize clients for providing DMA facility after fulfilling Know Your Client requirements and carrying out due diligence

regarding clients’ credit worthiness, risk taking ability, track record of compliance and financial soundness. Brokers shall ensure that only those clients who are deemed fit and proper for this facility are allowed access to the DMA facility. Brokers shall maintain proper records of such due diligence. Individual users at the client end shall also be authorized by the broker based on minimum criteria. The records of user details, user-id and such authorization shall be maintained by the broker. Details of all user-ids activated for DMA shall be provided by the broker to the exchange.

The broker shall enter into a specific agreement with the clients for whom they permit DMA facility. This agreement will include the following safeguards:

(a) The client shall use the DMA facility only to execute his own trades and shall not use it for transactions on behalf of any other person / entity.
(b) Electronic/Automated Risk management at the broker’s level before release of order to the Exchange system. The client shall agree to be bound by the various limits that the broker shall impose for usage of the DMA facility.
(c) Right to withdraw DMA facility if the limits set up are breached or for any other such concerns
(d) Withdrawal of DMA facility on account of any misuse or on instructions from SEBI/Exchange.

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

2.5 DMA Facility through Investment Manager

Institutional investors may use DMA facility through investment managers after due authorization and upon furnishing to the broker/ exchange suitable agreements/ undertakings between the institution and investment manager stating, inter alia, that the institutional investor shall be responsible for all actions undertaken by its authorized investment manager. Such investment managers may execute necessary documents on behalf of the institutional investor.

The Broker-Client Agreement shall provide complete details of such investment manager, including, inter alia, details of their registration/ regulation in their relevant jurisdiction, specify the role and responsibilities of the investment manager, and contain adequate safeguards to ensure that DMA facility is utilized to execute trades of only those institutions for which the investment manager is authorized.

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7 Circular No. MRD/ DoP/SE/Cir-03/2009 dated February 20, 2009
The exchange/broker shall ensure that proper audit trails are available to establish identity of the ultimate client.

2.6 Risk Management

The broker shall ensure that trading limits/exposure limits/position limits are set for all DMA clients based on risk assessment, credit quality and available margins of the client. The broker system shall have appropriate authority levels to ensure that the limits can be set up only by persons authorized by the risk/compliance manager.

The broker shall ensure that all DMA orders are routed through electronic/automated risk management systems of the broker to carry out appropriate validations of all risk parameters including Quantity Limits, Price Range Checks, Order Value, and Credit Checks before the orders are released to the Exchange.

All DMA orders shall be subjected to the following limits:

(a) Order quantity/order value limit in terms of price and quantity specified for the client.
(b) All the position limits which are specified in the derivatives segment as applicable.
(c) Net position that can be outstanding so as to fully cover the risk emanating from the trades with the available margins of the specific client.
(d) Appropriate limits for securities which are subject to FII limits as specified by RBI.

The broker may provide for additional risk management parameters as they may consider appropriate.

2.7 Broker to be liable for DMA trades

The broker shall be fully responsible and liable for all orders emanating through their DMA systems. It shall be the responsibility of the broker to ensure that only clients who fulfill the eligibility criteria are permitted to use the DMA facility.
2.8 Cross Trades
Brokers using DMA facility for routing client orders shall not be allowed to cross trades of their clients with each other. All orders must be offered to the market for matching.

2.9 Other legal provisions
In addition to the requirements mentioned above, all existing obligations of the broker as per current regulations and circulars will continue without change. Exchanges may also like to specify additional safeguards / conditions as they may deem fit for allowing DMA facilities to their brokers.
SECTION - 3: ELECTRONIC CONTRACT NOTE

3.1 Use of Digital Signature on Contract Notes

Pursuant to the discussions in the SMAC and provisions of the IT Act, it is clarified that the brokers are allowed to issue contract notes authenticated by means of digital signatures provided that the broker has obtained digital signature certificate from Certifying Authority under the IT Act, 2000. Mode of confirmation by the client may be as specified in the agreement between the broker and the client.

3.2 Issuance of Contract Notes in electronic form

The contract notes can be issued by the brokers in electronic form authenticated by means of digital signatures.

3.3 Electronic issuance of contract notes – Additional conditions

All the members of stock exchanges who are desirous of issuing Electronic Contract Notes (ECNs) to their clients shall comply with the following conditions:-

I. Issuing ECNs when specifically consented

The digitally signed ECNs may be sent only to those clients who have opted to receive the contract notes in an electronic form, either in the Member – Client agreement / Tripartite agreement or by a separate letter. The mode of confirmation shall be as per the agreement entered into with the clients.

II. Where to send ECNs

The usual mode of delivery of ECNs to the clients shall be through e-mail. For this purpose, the client shall provide an appropriate e-mail account to the member which shall be made available at all times for such receipts of ECNs.

III. Requirement of digital signature

All ECNs sent through the e-mail shall be digitally signed, encrypted, non-tamperable and shall comply with the provisions of the IT Act, 2000. In case the
ECN is sent through e-mail as an attachment, the attached file shall also be secured with the digital signature, encrypted and non-tamperable.

IV. Requirements for acknowledgement, proof of delivery, log report etc.

a. Acknowledgement

The acknowledgement of the e-mail shall be retained by the member in a soft and non-tamperable form.

b. Proof of delivery

a. The proof of delivery i.e., log report generated by the system at the time of sending the contract notes shall be maintained by the member for the specified period under the extant regulations of SEBI/stock exchanges and shall be made available during inspection, audit, etc.

   i. The member shall clearly communicate to the client in the agreement executed with the client for this purpose that non-receipt of bounced mail notification by the member shall amount to delivery of the contract note at the e-mail ID of the client.

   ii. The member shall take all possible steps (including settings of mail servers, etc) to ensure receipt of notification of bounced mails by the member at all times within the stipulated time period under the extant regulations of SEBI/stock exchanges.

   b. The log report shall also provide the details of the contract notes that are not delivered to the client/e-mails rejected or bounced back.

   ii. Also, the member shall take all possible steps (including settings of mail servers, etc) to ensure receipt of notification of bounced mails by the member at all times within the stipulated time period under the extant regulations of SEBI/stock exchanges.

V. When to issue or send in Physical mode

a. Issue in Physical mode

In the case of those clients who do not opt to receive the contract notes in the electronic form, the member shall continue to send contract notes in the physical mode to such clients.
b. **Send in Physical mode**

Wherever the ECNs have not been delivered to the client or has been rejected (bouncing of mails) by the e-mail ID of the client, the member shall send a physical contract note to the client within the stipulated time under the extant regulations of SEBI/stock exchanges and maintain the proof of delivery of such physical contract notes.

VI. **General requirements**

c. **ECNs through website**

In addition to the e-mail communication of the ECNs in the manner stated above, in order to further strengthen the electronic communication channel, the member shall simultaneously publish the ECN on his designated web-site in a secured way and enable relevant access to the clients.

d. **Access to the website**

In order to enable clients to access the ECNs posted in the designated website in a secured way, the member shall allot a unique user name and password for the purpose, with an option to the client to access the same and save the contract note electronically or take a print out of the same.

e. **Preservation/Archive of electronic documents**

The member shall retain/archive such electronic documents as per the extant rules/regulations/circulars/guidelines issued by SEBI/Stock Exchanges from time to time.

3.4 **Format for Issuance of Electronic Contract Notes**

The format of the electronic contract notes, prescribed by the exchanges were not in conformity with the format of the physical contract note particularly with respect to the pre-printed terms and conditions. Hence members issuing electronic contract notes were also issuing physical contract notes which amounted to duplication and unnecessary reconciliation between the physical and electronic contract notes.

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In order to streamline the issuance of electronic contract notes as a legal document like the physical contract note, the exchanges are advised to implement the following:

1. The exchanges would prescribe a standard format for the electronic contract note (based on the model format prescribed in Annexure (for Equity) and (for Debt) in its bye-laws, rules and regulations.
2. The exchange bye-laws, rules and regulations for issuance of electronic contract note shall be amended to include all the standard pre-printed terms and conditions in the physical contract note. The electronic contract note would mention the relevant bye-laws / rules / regulations of the exchange subject to which the said contract note is being issued.
3. The exchange shall also modify / amend other relevant bye-laws, rules and regulations with respect to signing of the electronic contract note with a digital signature so as to make the modified format of the electronic contract note a valid legal document like the physical contract note.
4. The mechanism of record keeping of electronic contract notes in a soft non-tamperable form shall be prescribed by the exchange in compliance with the provisions of the IT Act, 2000.

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SECTION - 4: INTRODUCTION OF NEW TRADING SEGMENT

4.1 New Trading Segment\textsuperscript{13}

Introduction of any new trading segment on the exchanges would require stock exchanges to seek the prior approval of SEBI.

While applying to SEBI for the approval for the introduction of new segment, the exchange shall provide the information on the parameters for the new segment and also the rationale for introduction of the new segment.

SECTION - 5: STRAIGHT THROUGH PROCESSING

5.1 Mechanism

Straight through Processing (STP) is generally understood to be a mechanism that automates the end to end processing of transactions of financial instruments. It involves use of a system to process or control all elements of the work flow of a financial transaction, what are commonly known as the Front, Middle, Back office and General Ledger. In other words, STP allows electronic capturing and processing of transactions in one pass from the point of order origination to final settlement. STP thus streamlines the process of trade execution and settlement and avoids manual entry and re-entry of the details of the same trade by different market intermediaries and participants. Usage of STP enables orders to be processed, confirmed, settled in a shorter time period and in a more cost effective manner with fewer errors. Apart from compressing the clearing and settlement time, STP also provides a flexible, cost effective infrastructure, which enables e-business expansion through online processing and access to enterprise data.

It has been mandated that all the institutional trades executed on the stock exchanges would be processed through the STP System.

5.2 The system flow of the STP framework

While several STP Service Providers provide STP service to the market participants to resolve the issue of inter-operability between the STP Service Providers it was decided in consultation with the stock exchanges and the STP Service Providers that a STP Centralised Hub would be setup.

The system flow for the STP framework shall be as follows: -

a) STP user intending to send an instruction would send the message to his STP service provider after digitally signing the same.

b) The STP service provider would verify the signature of the STP user and forward it to the i) recipient STP user, if the recipient STP user is availing services of the same STP service provider; or the ii) STP centralized hub if the recipient STP user is not with the same STP service provider. In such a case the STP service provider would be required to prepare a message as per the STP centralized hub prescribed message format,

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14 Ref. No. DNPD/Cir-22/04 dated April 01, 2004
15 Ref. No. DNPD/Cir-23/04 dated April 27, 2004
enclose the user’s message, digitally sign the message and then send it to the STP centralized hub

c) On receipt of the message by the STP centralized hub, the STP centralized hub would:

   i) verify the signature of the sending STP service provider only.
   ii) send an acknowledgment to the sending STP service provider.

d) The STP centralized hub would forward the message to the recipient STP service provider after digitally signing on the message.

e) The recipient STP service provider on receipt of the message from the STP centralized hub shall verify the signature of the STP centralized hub, verify if the recipient STP user is associated with it and send an appropriate acknowledgment with digital signature to the STP centralized hub. The STP centralized hub would in turn forward the acknowledgment (received from the recipient STP service provider) duly signed to the sending STP service provider.

f) The recipient STP service provider shall forward the message to the recipient STP user. The recipient STP user would receive the message and verify the signature of the recipient STP service provider and sending STP user.

3) To enable inter-operation, the STP centralized hub would provide a utility / client software to the STP service provider. The STP service provider’s point of interface with the STP centralized hub would be through this utility / client software. The PKI (Public key infrastructure) system for the interface shall be implemented at a later stage.
4) The block diagram of the entire STP System is enclosed in Annexure I.

Annexure I

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5.3 SEBI (STP centralised hub and STP service providers) Guidelines, 2004

1) SEBI in order to regulate the STP service has issued the SEBI (STP centralised hub and STP service providers) Guidelines, 2004 (herein referred to as “STP Guidelines”) which also prescribe the model agreement between the STP centralised hub and the STP service providers.

2) The STP guidelines prescribe the eligibility criteria and conditions of approval for the STP centralised hub and the STP service providers, obligations and responsibilities of the STP centralised hub and the STP service providers and code of conduct for the STP service providers. The STP centralised hub and the STP service providers shall abide by these Guidelines.

3) To prescribe contractual obligations between the STP centralised hub and the STP service providers and to facilitate standardisation of service, a model agreement between the STP centralised hub and the STP service providers has also been prescribed by SEBI and is prescribed as Schedule II of the STP Guidelines. The agreement between the STP centralised hub and the STP service provider shall include the provisions included in the model agreement.

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16 Ref.No. DNPD/Cir-24/04 dated May 26, 2004 (STP Guidelines)
5.4 Work flow for institutional investors\textsuperscript{17}

1. SEBI in consultation with the STP centralized hub, STP service providers and the STP users has prescribed the transaction work flow for the STP system. All institutional investors shall follow the following transaction work flow on a mandatory basis from July 1, 2004:
   a. A contract note in electronic form in the prescribed format (IFN 515 messaging format) shall be issued by the broker & sent to the custodian and/or the institutional investor.
   b. In case the contract note is processed directly by the institutional investor, the institutional investor shall send the trade confirmation of acceptance or rejection of the contract note to the broker by using the IFN 598 messaging format. The custodian shall also send the confirmation of acceptance or rejection of such contract note to the broker using the messaging standard IFN 548.
   c. In case the contract note is processed by the custodian on behalf of the institutional investor, the custodian shall send the confirmation of acceptance or rejection of the contract note to the broker by using the IFN 548 messaging format.
   d. The institutional investor shall send settlement instructions to its custodian in IFN 540 to IFN 543 messaging formats to the custodian for the following trade types:
      i. IFN 540: settlement instruction for a clearing house buy trade
      ii. IFN 541: settlement instruction for a delivery-v/s-payment (DVP) buy trade
      iii. IFN 542: settlement instruction for a clearing house sell trade
      iv. IFN 543: settlement instruction for a delivery-v/s-payment (DVP) sell trade
   e. The custodian shall confirm/reject the execution of the settlement instructions to the institutional investor in IFN 544 to IFN 547 messaging formats in the following manner:
      i. IFN 544: confirmation/rejection of an instruction received in messaging format IFN 540
      ii. IFN 545: confirmation/rejection of an instruction received in messaging format IFN 541
      iii. IFN 546: confirmation/rejection of an instruction received in messaging format IFN 542
      iv. IFN 547: confirmation/rejection of an instruction received in messaging format IFN 543

\textsuperscript{17} Ref.No. DNPD/Cir-25/04 dated June 10, 2004
f. It is clarified that if a message (for the activities mentioned above) is sent using the STP centralised hub framework from one user to another user, then the confirmation / rejection for such a message shall also be sent using the STP centralised hub framework.

2. SEBI vide circular no. DNPD/Cir-9/04 dated February 3, 2004 had prescribed the format of the contract note in electronic form. After deliberation with the STP service providers and the market participants the following changes have been incorporated to the existing messaging format (IFN 515):
   a. The mandatory requirement of mentioning the relevant bye-laws / rules / regulations of the exchange subject to which the said contract note is being issued on each contract note stands modified in the following manner:
      i. The requirement is not mandatory but optional
      ii. The broker shall ensure that the relevant bye-laws / rules / regulations of the exchange subject to which the contract note is being issued, is mentioned in the broker-client agreement and the tripartite agreement between the broker-sub-broker-client agreement (if applicable).
      iii. The existing field for the above provision shall not be deleted and may be used as a free text field for one constituent to communicate remarks (if any) to another constituent.
   b. The clause of ‘payment of consolidated stamp duty’ for each contract note shall be mentioned in the broker-client agreement and the tripartite agreement between the broker-sub-broker-client agreement (if applicable). The said clause may be stated in the free text field (as mentioned in point 2 (a) (iii) above) of each contract note.
   c. In the field "market type" (field 70E) a category of ‘TT’ i.e. trade for trade and ‘OT’ i.e. Others shall be added to represent the supplementary categories of market types.
   d. The order time was prescribed as a mandatory field in the contract note. The order time shall now be included in the optional fields.
   e. There are certain securities which are not de-materalised and hence do not have an ISIN code. For such securities (where ISIN number is not available) the STP users would be required to input the security code given by the exchange in the ISIN number field. In case the number length of the exchange scrip code is shorter than the prescribed field length of 12 characters, the code shall be prefixed with zeros.
f. In order to maintain a complete audit trail, it is clarified that in case an electronic contract note is rejected, the custodian (in messaging format IFN 548) or the fund manager (in messaging format IFN 598) shall be required to send a rejection message to the broker. Only on receipt of the rejection message, the broker shall cancel the rejected contract note and issue a fresh contract note bearing a new number.

g. In order to bring in standardisation in the input of the identification codes in the prescribed messaging standards, it is clarified that the following codes shall be used by the various entities:

i. **Brokers**: SEBI registration number (until MAPIN ID is available for every broker)

ii. **Mutual Funds and schemes of Mutual Funds**: SEBI registration number for Mutual Funds and Unique client code issued by the exchanges for schemes (until MAPIN ID is available for each scheme of a mutual fund)

iii. **FIIs and sub-accounts**: SEBI registration number for FII and Unique client code issued by the exchanges for sub-account (until MAPIN ID is available for each FII and their sub-accounts)

iv. **Custodians**: SEBI registration number (until MAPIN ID is available for every custodian)

v. **STP service providers and STP centralised hub**: MAPIN ID

vi. **Depositories and exchanges / clearing house / clearing corporation**: MAPIN ID.

vii. **Other Institutional Investors like financial institutions, banks etc.**: Unique client code issued by the exchanges (until MAPIN ID is available for each Institutional Investor)

h. All market participants shall issue the electronic contract note for institutional trades in the modified format enclosed in **Annexure I**.

3. The prescribed messaging formats for IFN 540, IFN 541, IFN 542, IFN 543, IFN 544, IFN 545, IFN 546, IFN 547, IFN 548 and IFN 598 are enclosed in **Annexure II**. After consultation with the market participants and confirming their preparedness, it has been decided to make these messaging formats (in addition to IFN 515) mandatory for all institutional trades.

4. It is reiterated that the STP system shall be initially mandatory for all institutional trades in the equity segment.

5. The standard terms of contract as are required to be mentioned in the Contract Notes as per the Bye-laws and Regulations of exchanges, which are not contained in electronic contract notes, shall be incorporated in the Client Broker Agreement or where applicable, the Tripartite Agreement.
between the stock broker, sub-broker and the client. The stamp duty in respect of the electronic contract notes shall be paid by the broker.

5.5 **Clarification**

Descriptors as stated above shall mean the following:

a. IFN 540: settlement instruction for a buy trade free of payment  
b. IFN 541: settlement instruction for a buy trade against payment  
c. IFN 542: settlement instruction for a sell trade free of payment  
d. IFN 543: settlement instruction for a sell trade against payment  
e. IFN 544: confirmation of a settlement instruction for a buy trade free of payment (response to IFN 540)  
f. IFN 545: confirmation of a settlement instruction for a buy trade against payment (response to IFN 541)  
g. IFN 546: confirmation of a settlement instruction for a sell trade free of payment (response to IFN 542)  
h. IFN 547: confirmation of a settlement instruction for a sell trade against payment (response to IFN 543).

It is also clarified that in the IFN 515 message, if trade is intended to be settled by the custodian with the Clearing Corporation (by accepting the settlement obligation), then it shall be termed as “FREE” and if the trade is intended to be settled by the broker with the Clearing Corporation then it shall be termed as “APMT” (meaning against payment) in the tag 22h of the IFN 515 message.

5.6 **Modifications in the prescribed messaging formats**

In order to integrate the STT in the STP system, it would be necessary to provide for necessary fields in the appropriate messaging standards. After deliberation with the STP centralised hub and the STP service providers, it has been decided to make the following modifications in the prescribed messaging formats:

a) Message Types that shall be modified are IFN515, IFN540, IFN541, IFN542 and IFN543  
b) A Qualifier shall be used to identify Securities Transaction Tax Amount: "COUN", Country, National Federal Tax.  
c) The change in the ISO Structure for the impacted message types shall be as follows:

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18 Ref. No. DNPD/14785/04 dated July 08, 2004  
19 Ref. No. DNPD/Cir-28/04 dated September 28, 2004
<table>
<thead>
<tr>
<th>M</th>
<th>16R</th>
<th>AMT</th>
<th>Start of block</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Format: (Qualifier) // (Currency Code) (Amount)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>For: Securities Transaction tax Amount</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Qualifier: &quot;COUN&quot; (4 Upper case Characters)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Narrative: &quot;INR&quot; (3 Upper Letters)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Amount: Up to 10 digits (only Integer value allowed)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>followed by a comma (used as decimal sign). Comma is mandatory. Amount can be</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>zero or greater than zero.</td>
</tr>
</tbody>
</table>

**Table 1:**

<table>
<thead>
<tr>
<th>M</th>
<th>19A</th>
<th>Amount</th>
<th>4!c//3!a11d</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>To identify the Securities Transaction Tax Amount</td>
<td></td>
</tr>
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<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Note:**

- Securities Transaction Tax Block shall be placed before the Settlement Amount Block in the stated Message Types. (IFN515, IFN540, IFN541, IFN542 and IFN543)

- Securities Transaction Tax block will be **mandatory amount block** in IFN515 and **optional amount block** in IFN540, IFN541, IFN542 and IFN543.

- If the Contract Note (issued by means of IFN 515) is rejected on the basis of Securities Transaction Tax amount then the reason for the rejection shall be specified in the "Tag70D Narrative" field and "Tag 24B Reason" specified should be "NARR".
SECTION – 6 : TRADING TERMINALS

6.1 Usage of software by Broker/ Sub-broker

It is informed that all the Stock Exchanges have to obtain an undertaking in the form of an affidavit from the members of the exchange to the effect that the members as well as their sub-brokers are using only the authorized software.

6.2 Standing Committee

A standing Committee shall be set up by each Stock Exchange to investigate the problem of computerised trading system, such as hanging/ slowdown/ breakdown. The Standing Committee shall introduce an outside computer expert. The Committee will submit a report to the Governing Board/ Council of Stock Exchange. The Board/Council will deliberate on the report and suitable action/remedial measure will be taken.

The standing committee is required to be set up with the objective to investigate problems of computerised trading system, such as, hanging/ slowdown/ breakdown. With the view to ensure implementation/ compliance, the exchanges are advised as under:-

i. All instances of hanging /slowdown / breakdown and any other problem in the computerized trading system, even if the disruption is less than five minutes, should be reported to the Committee for its consideration.

ii. The Committee, upon examination of the issue/s shall submit a report to the Governing Board / Council of the Stock Exchange.

iii. The Governing Board / Council of the Stock Exchange shall deliberate on the aforesaid report and take suitable action / remedial measure.

iv. Further, in case of stoppage beyond five minutes the exchange should also explain and report to SEBI about the incident as well as the remedial measures taken. The Stock Exchange shall also issue a press release in this regard for greater transparency and in the interest of investors.

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6.3 **Expansion of trading terminals of the Exchange**

The stock exchanges are allowed to set-up terminals at any place in the country, subject to the following conditions:

i. The Exchange would ensure that there is adequate monitoring and surveillance mechanism for such outstation terminals in order to oversee the trades;

ii. All such trades would be subject to usual margin, capital adequacy and inter-day trading limits fixed for the brokers by the Exchange;

iii. The Exchange would ensure that investors eventually do not pay the brokerage on such trades exceeding the maximum brokerage permitted as per the rules of the Exchanges; and

iv. The Exchange would introduce the system of guaranteeing trades or set up a Clearing Corporation.

6.4 **Broad Guidelines for opening Trading Terminals abroad**

The guidelines relating to eligibility norms, RBI permission, Permission from Foreign Regulatory Authority, Operation Of terminals, Contract note, Settlement Procedure, Surveillance and Monitoring, Jurisdiction etc. for opening trading terminals abroad are provided in the Annexure.

6.5 **Annexure - Guidelines For Opening Of Trading Terminals Abroad**

With the rapid expansion of the Indian capital market it was felt that a facility should be provided whereby an eligible overseas investor can place an order on a real-time basis, rather than telephonically.

The Stock Exchanges/ Members shall follow the following guidelines for opening and maintaining the trading terminals abroad:

a. **Eligibility Criteria**

Such trading terminals shall be opened only by the Stock Brokers of the stock exchanges registered with SEBI and opening of terminals through sub-brokers shall not be permitted. These terminals shall be opened by the members only after obtaining permission from the respective stock exchanges.

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b. RBI Permission

Such terminals abroad would be opened subject to the guidelines laid down by the RBI from time to time.

c. Permission by the Foreign Regulatory Authorities

The installation of such trading terminals shall be subject to the prior permission of the concerned regulatory authorities of the respective foreign countries, wherever required.

d. Operation of the terminals

Any investor abroad who is permitted to invest in India i.e. NRIs/OCBs/FIs/PIOs shall be able to place orders on the trading terminal of the Exchange available at the office of the Indian broker maintained abroad. The order fed on the live terminal shall be executed on the computer of the Exchange in India. The service to the clients shall be provided by the broker’s overseas office and its local office. These terminals shall include any of other options that the respective exchange may provide for connecting its trading terminal abroad to its trading system in India.

e. Contract Note

The contract note in favour of the client abroad shall be issued in India, however the same could be printed in the broker’s office abroad and shall be subject to the jurisdiction of the respective stock exchanges.

f. Capital Adequacy, Margins System & Brokerage

All such trades would be subject to usual margins, capital adequacy and intra-day trading limits and such other requirements fixed for the brokers by the Exchange.

The respective stock exchange shall ensure that investors do not pay the brokerage on such trades exceeding the maximum brokerage permitted as per the rules, regulations and bye-laws of the exchange.

No Negotiated Deals shall be permitted through these terminals and only screen based order matching system shall be available on these terminals.

g. Settlement Procedure
All trades shall be settled in India in dematerialized form only. Clients with status of FIIs shall settle the trade through their registered custodian/ designated bank. Clients with the status of NRIs/PIOs/OCBs shall settle the trade through a designated bank. Such a designated bank shall be responsible for repatriation of funds.

**h. Monitoring & Surveillance**

The respective stock exchange shall ensure that there is adequate monitoring and surveillance mechanism for such overseas terminals in order to oversee trades.

**i. Grievance Redressal Mechanism**

The investors’ grievance for such cases shall be resolved by the respective Indian Stock Exchange through the existing arbitration mechanism.

The concerned Stock Exchange shall ensure that their members have the adequate arrangements for resolving the investors grievances and timely settlement of arbitration cases arising out of trades which are executed on these terminals.

**j. Jurisdiction**

The agreement between the trading member and constituent should, inter alia, state that, all trades, transactions and contracts are subject to the Rules, Bye Laws and Regulations of the Exchange and shall be deemed to be and shall take effect as wholly made, entered into and to be performed in the city of _________ , India and the parties to such trade shall be deemed to have submitted to the jurisdiction of the Courts in _________ , India for the purpose of giving effect to the provisions of the Rules, Bye Laws and Regulations of the Exchange.
SECTION - 7: SMART ORDER ROUTING

7.1 Introduction of Smart Order Routing

1. SEBI has received proposal from the stock exchanges and market participants for introducing Smart Order Routing which allows the brokers trading engines to systematically choose the execution destination based on factors viz. price, costs, speed, likelihood of execution and settlement, size, nature or any other consideration relevant to the execution of the order.

2. Upon examination of the proposal, feedback of the stock exchanges and based on the recommendations of the Technical Advisory Committee, it has been decided to permit Smart Order Routing in Indian Securities Market.

3. Stock Exchanges are advised to ensure the following conditions with regard to the Smart Order Routing facility:
   a. Stock broker interested to offer Smart Order Routing facility shall apply to the respective stock exchanges.
   b. Stock broker shall submit a third party system audit of its Smart Order Routing system and software. Stock exchanges shall disseminate to its stock brokers a list of approved system auditors (CISA or equivalent) qualified to undertake such system audits.
   c. Stock broker shall provide the following to the respective stock exchanges:
      i. An undertaking to the respective stock exchanges that Smart Order Routing shall route orders in a neutral manner.
      ii. Provide the features of the Smart Order Routing to stock exchange.
   d. Stock exchange shall communicate its decision to the broker within 30 calendar days from the date of receipt of complete application by the stock exchange. Stock exchange shall not consider testing and demonstration of the SOR system/software as a criterion for declaring the application of the broker as ‘complete’. Further, testing and demonstration of SOR system/software, if required, shall be suitably scheduled within the aforesaid period of 30 calendar days.

In case of rejection of the application on smart order routing of a stock broker, the stock exchange shall communicate such reasons of rejections.

24 Circular No. CIR/MRD/DP/26/2010 dated August 27, 2010
to the stock broker. Further, the decision of the stock exchange on the SOR application of the stock broker and reasons for rejection of the SOR application shall also be communicated to all the other stock exchanges where the broker’s SOR facility intends to route orders.25

e. Stock exchange shall ensure that brokers adhere to the best execution policy while using Smart Order Routing.

f. Smart Order Routing facility shall be provided to all class of investors.

g. Stock Broker shall communicate to all clients the features, possible risks, rights, responsibilities and liabilities associated with the smart order routing facility. The client desirous of availing such facility shall do so by entering into a broker-client agreement, as applicable. For the existing clients, the same shall be implemented through an addendum to the existing broker-client agreement, as applicable.26

h. Stock broker shall maintain logs of all activities to facilitate audit trail. Broker shall maintain record of orders, trades and data points for the basis of decision.

i. In case the client has availed Smart Order Routing facility and does not want to use the same for a particular order, the same shall be well documented by the stock broker.

j. System audit of the Smart Order Routing systems and software shall be periodically carried out by the brokers as may be specified by the exchange and certificate in this regard shall be submitted to the exchange.

k. Stock exchange shall ensure that Smart Order Routing is not used to place orders at venues other than the recognised stock exchanges.

l. The stock broker shall carry out appropriate validation of all risk parameters before the orders are placed in the Smart Order Routing system.

m. Stock exchange shall provide unique identification number for the orders placed through Smart Order Routing system. Further, stock exchanges shall maintain data on Smart Order Routing orders and trades.

26 Circular No. CIR/MRD/DP/ 36 /2010 dated December 09, 2010
n. Stock exchange shall have necessary surveillance mechanism in place to monitor trading done through Smart Order Routing.

o. Stock broker shall ensure that alternative mode of trading system is available in case of failure of Smart Order Routing facility.

p. Stock exchange shall ensure that within a period of three months from implementation of Smart Order Routing, a system is put in place to time stamp market data feed that is disseminated to the market, if the same is not already available.

q. Stock exchange shall strengthen investor grievance cell in order to address complaints, if any, received with regard to Smart Order Routing. Further, in case of any disputes or complaints, stock exchanges shall share necessary data as and when required in order to facilitate necessary examination.

r. Stock exchange shall synchronise their system clocks with atomic clock before the start of market.

s. The broker server routing orders placed through Smart Order Routing system to the exchange trading system shall be located in India. Stock exchange shall permit SOR approved brokers to offer SOR facility through all their servers irrespective of their location in India.27

27 Circular No. CIR/MRD/DP/36/2010 dated December 09, 2010

28 Circular No. CIR/MRD/DP/36/2010 dated December 09, 2010

29 Circular No. CIR/MRD/DP/36/2010 dated December 09, 2010

28 Circular No. CIR/MRD/DP/36/2010 dated December 09, 2010

29 Circular No. CIR/MRD/DP/36/2010 dated December 09, 2010

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29 Circular No. CIR/MRD/DP/36/2010 dated December 09, 2010

29 Circular No. CIR/MRD/DP/36/2010 dated December 09, 2010

w. All other existing obligations for the broker as per current regulations and circulars will continue.

u. Stock exchange may specify additional safeguards as they deem fit for allowing Smart Order Routing facility to their brokers.

v. Stock exchange shall permit smart order routing for all orders, without restricting to any specific type of order. The choice on order types shall be left to the client.28

28 Circular No. CIR/MRD/DP/36/2010 dated December 09, 2010

29 Circular No. CIR/MRD/DP/36/2010 dated December 09, 2010

29 Circular No. CIR/MRD/DP/36/2010 dated December 09, 2010

29 Circular No. CIR/MRD/DP/36/2010 dated December 09, 2010

29 Circular No. CIR/MRD/DP/36/2010 dated December 09, 2010

w. If stock exchange desires to advise its brokers to seek re-approval, it may do so only in case of 29

(a) Inclusion of a new stock exchange for offering SOR facility; and/or,
(b) Material changes in the software/system of the smart order routing facility.
4. The initial list of system auditors for SOR for all the three stock exchanges i.e. BSE, NSE and MCX-SX is given below30 –

i. HCL Technologies
ii. iSec Services Pvt. Ltd
iii. Tata Consultancy Services
iv. Jain & Jain Chartered Accountants
v. Kanhere Consultants Pvt Ltd
vi. Kochar Consultants Pvt Ltd
vii. Deloitte Touche Tohmatsu India Pvt Ltd
viii. Ernst & Young Pvt Ltd.
ix. KPMG

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30 Letter no MRD/DoP/ST/OW/11982/11 dated April 08, 2011
SECTION - 8: ALGORITHMIC TRADING

8.1 Broad Guidelines on Algorithmic Trading

Definition

1. Algorithmic Trading – Any order that is generated using automated execution logic shall be known as algorithmic trading.

Guidelines to the stock exchanges and the stock brokers

2. Stock exchanges shall ensure the following while permitting algorithmic trading:

(i) The stock exchange shall have arrangements, procedures and system capability to manage the load on their systems in such a manner so as to achieve consistent response time to all stock brokers. The stock exchange shall continuously study the performance of its systems and, if necessary, undertake system upgradation, including periodic upgradation of its surveillance system, in order to keep pace with the speed of trade and volume of data that may arise through algorithmic trading.

(ii) In order to ensure maintenance of orderly trading in the market, stock exchange shall put in place effective economic disincentives with regard to high daily order-to-trade ratio of algo orders of the stock broker. Further, the stock exchange shall put in place monitoring systems to identify and initiate measures to impede any possible instances of order flooding by algos.

(iii) The stock exchange shall ensure that all algorithmic orders are necessarily routed through broker servers located in India and the stock exchange has appropriate risk controls mechanism to address the risk emanating from algorithmic orders and trades. The minimum order-level risk controls shall include the following:

a. Price check - The price quoted by the order shall not violate the price bands defined by the exchange for the security. For securities that do not have price bands, dummy filters shall be brought into effective use to serve as an early warning system to detect sudden surge in prices.

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Page 38 of 42
b. **Quantity Limit check** - The quantity quoted in the order shall not violate the maximum permissible quantity per order as defined by the exchange for the security.

(iv) In the interest of orderly trading and market integrity, the stock exchange shall put in place a system to identify dysfunctional algos (i.e. algos leading to loop or runaway situation) and take suitable measures, including advising the member, to shut down such algos and remove any outstanding orders in the system that have emanated from such dysfunctional algos. Further, in exigency, the stock exchange should be in a position to shut down the broker’s terminal.

(v) Terminals of the stock broker that are disabled upon exhaustion of collaterals shall be enabled manually by the stock exchange in accordance with its risk management procedures.

(vi) The stock exchange may seek details of trading strategies used by the algo for such purposes viz. inquiry, surveillance, investigation, etc.

(vii) The stock exchange shall include a report on algorithmic trading on the stock exchange in the Monthly Development Report (MDR) submitted to SEBI inter-alia incorporating turnover details of algorithmic trading, algorithmic trading as percentage of total trading, number of stock brokers / clients using algorithmic trading, action taken in respect of dysfunctional algos, status of grievances, if any, received and processed, etc.

(viii) The stock exchange shall synchronize its system clock with the atomic clock before the start of market such that its clock has precision of atleast one microsecond and accuracy of atleast +/- one millisecond.

3. Stock exchange shall ensure that the stock broker shall provide the facility of algorithmic trading only upon the prior permission of the stock exchange. Stock exchange shall subject the systems of the stock broker to initial conformance tests to ensure that the checks mentioned below are in place and that the stock broker’s system facilitate orderly trading and integrity of the securities market. Further, the stock exchange shall suitably schedule such conformance tests and thereafter, convey the outcome of the test to the stock broker.

For stock brokers already providing algo trading, the stock exchange shall ensure that the risk controls specified in this circular are implemented by the stock broker.
Additionally, the annual system audit report for a stock broker, as submitted to the stock exchange, shall include a specific report ensuring that the checks are in place. Such system audit shall be conducted by Certified Information System Auditors (CISA) empanelled by stock exchanges. Further, the stock exchange shall subject the stock broker systems to more frequent system audits, if required.

4. The stock broker, desirous of placing orders generated using algos, shall satisfy the stock exchange with regard to the implementation of the following minimum levels of risk controls at its end -

   (i) **Price check** – Algo orders shall not be released in breach of the price bands defined by the exchange for the security.

   (ii) **Quantity check** – Algo orders shall not be released in breach of the quantity limit as defined by the exchange for the security.

   (iii) **Order Value check** – Algo orders shall not be released in breach of the ‘value per order’ as defined by the stock exchanges.

   (iv) **Cumulative Open Order Value check** – The individual client level cumulative open order value check, may be prescribed by the broker for the clients. Cumulative Open Order Value for a client is the total value of its unexecuted orders released from the stock broker system.

   (v) **Automated Execution check** – An algo shall account for all executed, un-executed and unconfirmed orders, placed by it before releasing further order(s). Further, the algo system shall have pre-defined parameters for an automatic stoppage in the event of algo execution leading to a loop or a runaway situation.

   (vi) All algorithmic orders are tagged with a unique identifier provided by the stock exchange in order to establish audit trail.

5. The other risk management checks already put in place by the exchange shall continue and the exchange may re-evaluate such checks if deemed necessary in view of algo trading.

6. The stock broker, desirous of placing orders generated using algos, shall submit to the respective stock exchange an undertaking that -

   (i) The stock broker has proper procedures, systems and technical capability to carry out trading through the use of algorithms.
(ii) The stock broker has procedures and arrangements to safeguard algorithms from misuse or unauthorized access.

(iii) The stock broker has real-time monitoring systems to identify algorithms that may not behave as expected. Stock broker shall keep stock exchange informed of such incidents immediately.

(iv) The stock broker shall maintain logs of all trading activities to facilitate audit trail. The stock broker shall maintain record of control parameters, orders, trades and data points emanating from trades executed through algorithm trading.

(v) The stock broker shall inform the stock exchange on any modification or change to the approved algos or systems used for algos.

7. The stock exchange, if required, shall seek conformance of such modified algo or systems to the requirements specified in the circular.
REFERENCE – List of Circular

5. Circular No. SMDRP/POLICY/CIR-56/00 dated December 15, 2000
11. Ref. No. DNPD/Cir- 22 /04 dated April 01, 2004
12. Ref. No. DNPD/Cir-23/04 dated April 27, 2004
15. Ref. No. DNPD/14785/04 dated July 08, 2004