

MSE FINANCIAL SERVICES LTD.

Cyber Security Policy

Preface: Rapid technological developments in securities market have highlighted the need for maintaining robust cyber security and cyber resilience framework to protect the integrity of data and guard against breaches of privacy. Since MSE FINANCIAL SERVICES LTD., as Stock Broker and as Self Clearing Member, perform significant functions in providing services to investors, it is desirable that MSE FINANCIAL SERVICES LTD. have robust cyber security and cyber resilience framework in order to provide essential facilities and perform systemically critical functions relating to securities market.

Need of Policy: MSE FINANCIAL SERVICES LTD. is required to Identify, assess and manage the Cyber Risks associated with processes, information, networks and systems. At MSE FINANCIAL SERVICES LTD., in order to achieve the above target, a need of policy for cyber security arose.

Cyber Security Framework and Policy: MSE FINANCIAL SERVICES LTD. shall follow below 5 Point framework for Cyber Security and Cyber Resilience Framework:

1. 'Identify' critical IT assets and risks associated with such assets.
2. 'Protect' assets by deploying suitable controls, tools and measures.
3. 'Detect' incidents, anomalies and attacks through appropriate monitoring tools/processes
4. 'Respond' by taking immediate steps after identification of the incident, anomaly or attack.
5. 'Recover' from incident through incident management and other appropriate recovery mechanisms.

To implement the above framework, a Technology Committee is formed comprising of following individuals:

1. Mr. K.Sundaram, Vice-President – Operations
2. Mr. S.Swaminathan, Vice-President
- 3 Mr. M.V.Swaminath, DGM & Compliance Officer
4. Mr. M.Narasimmaraj, IT Executive

Mr. M.Narasimmaraj shall also act as Designated Officer for the purpose of this policy.

Identification:Mr. M.Narasimmaraj jointly with Mr. B.Chandramouleeswaran will identify all the critical assets based on their sensitivity and criticality for business operations and shall maintain an Up to Date Inventory of its hardware and systems along with name and ID details of personnel to whom such hardware and systems are issued. He shall also be held responsible to identify the software installed, details of network and connection to the networks. Mr. Chandramouleeswaran alongwith guidance of Mr. Narasimmaraj and external agencies (engaged for the purpose of Cyber Security and total IT solutions of the company), shall identify the cyber risks that MSE FINANCIAL SERVICES LTD. may face alongwith the likelihood and impact of the same on business of company.

Protection: No unauthorised person, irrespective of his/her designation, post or rank shall have right to access critical systems, confidential data, applications or facilities. Password Policy is made mandatory for all level of data access with sufficient complexity of the Password placed.

Any access given shall be for defined period and defined purpose only. MSE FINANCIAL SERVICES LTD. shall grant access to IT systems, applications, databases and networks on a need-to-use basis and based on the principle of least privilege. Such access should be for the period when the access is required and should be authorized using strong authentication mechanisms.

The access to the IT systems, applications, databases and networks needs to be sent on mail approved by immediate superior.

Any Application offered by MSE FINANCIAL SERVICES LTD. to clients containing sensitive, private, or critical data such as IBTs, Back office etc. (referred to as "Application" hereafter) over the Internet shall be password protected. A minimum length of 6 characters of complex password shall be enforced across the applications. An attempt to educate the customers shall also be made by team.

Two Factor Authentication shall also be implemented across the applications in phased manner, wherever it is not done so far. Passwords, security PINs etc shall be stored in encrypted manner in one way hashed encryption using cryptographic hash functions.

After Three (3) failed login attempts into Applications, the Client's account shall be set to a "locked" state where further logins are not possible until a password and authentication reset is performed and that is sent to the Client's registered e-mail.

MSE FINANCIAL SERVICES LTD. shall also ensure that records of user access to critical systems, wherever possible, are uniquely identified and logged for audit and review purposes. Such logs shall be maintained for appropriate period of time.

MSE FINANCIAL SERVICES LTD. shall formulate an Internet access policy to monitor and regulate the use of internet and internet-based services such as social media sites, cloud-based internet storage sites, etc. within the critical IT Infrastructure.

IT team shall also address deactivation of access of privilege of users who are leaving the organization or whose access privileges have been withdrawn.

Physical Security: Physical access to the critical systems shall be restricted to minimum and only to authorized officials. Physical access of outsourced staff/visitors shall be properly supervised by ensuring at the minimum that outsourced staff/visitors are accompanied at all times by authorized employees. Physical access to the critical systems shall be revoked immediately if the same is no longer required. Perimeter of the critical equipment room (server Room) shall be secured physically and monitored by employing physical, human and procedural controls such as the use of security guards, CCTVs, etc. where appropriate.

Network Security Management: Continuous and consistent application of security configuration shall be made to Operating Systems, Databases, Network devices and enterprise mobile device with in the IT environment. The LAN and wireless networks shall be secured with Firewall and continuous monitoring shall be made towards any attempt of unauthorised access to the network.

Every individual as well as network connected system shall have an Anti-Virus Software with Anti Malware and Anti Ransomware protection.

Data Security: All the critical data shall be identified and encrypted using strong encryption methodologies, such as masking of critical information, masking of passwords while logging in, encrypted transfer of password to server etc.

All the ports, for connecting external storage device or unauthorised USB tokens, of all critical systems as well as network connected systems shall be disabled and log shall be maintained for all the access granted for any given time to any users with specific reason of same.

Any authorised access to Printers, Scanner shall be prevented by application of proper access control and restricting the usage to prevent misuse of resources and to avoid transmission of sensitive data. Use of mobile phones shall not be allowed to any employees for dealing with clients as well as any other external parties and any call to clients shall be made using baseline phones having voice logger facility only.

Hardening of Hardware and Software: Procurement of all the hardware and software shall be done from renowned vendor/supplier only in company sealed packaging and any unauthorised software and hardware shall not be installed on any system, which form part of network. All the test software and hardware shall be installed and tested on designated separate system/network to prevent misuse from such devices and software.

Certification of off-the-shelf products: IT team shall ensure that all the off-the-shelf products procured for core business activities should bear Indian Common criteria certification of Evaluation Assurance Level 4 provided by STQC. Custom developed / in-house software and components need not obtain the certification, but have to undergo intensive regression testing, configuration testing etc. The scope of tests shall include business logic and security controls.

Patch management: Team shall perform rigorous testing of security patches and updates, where possible, before deployment into the production environment so as to ensure that the application of patches do not impact other systems.

Team shall also ensure that the patch management procedures include the identification, categorization and prioritization of patches and updates. An implementation timeframe for each category of patches should be established to apply them in a timely manner.

Disposal of data, systems and storage devices: Any disposal of any data, system or storage devices shall be done in closely monitored manner. All the sensitive data, including encrypted system files, shall be removed completely before disposal of any system or storage device. The critical information on such devices shall be removed by using methods such as crypto shredding / Physical destruction as applicable.

Vulnerability Assessment and Penetration Testing (VAPT): IT Team with the help of IT Experts shall regularly conduct vulnerability assessment to detect security vulnerabilities in the IT environments exposed to the internet.

Penetration test shall also be carried out atleast once in a year.

In case of vulnerabilities discovered in off-the-shelf products (used for core business) or applications provided by exchange empanelled vendors, IT Team shall report them to the vendors and the exchanges in a timely manner.

Remedial actions shall be immediately taken to address gaps that are identified during vulnerability assessment and penetration testing.

Monitoring and Detection: MSE FINANCIAL SERVICES LTD. shall establish appropriate security monitoring systems and processes to facilitate continuous monitoring of security events / alerts and timely detection of unauthorised or malicious activities, unauthorised changes, unauthorised access and unauthorised copying or transmission of data / information held in contractual or fiduciary capacity, by internal and external parties. The security logs of systems, applications and network devices exposed to the internet shall also be monitored for anomalies.

Further, to ensure high resilience, high availability and timely detection of attacks on systems and networks exposed to the internet, MSE FINANCIAL SERVICES LTD. shall implement suitable mechanisms to monitor capacity utilization of its critical systems and networks that are exposed to the internet, for example, controls such as firewalls to monitor bandwidth usage.

Response and Recovery: Alerts generated from monitoring and detection systems shall be suitably investigated in order to determine activities that are to be performed to prevent expansion of such incident of cyber attack or breach, mitigate its effect and eradicate the incident.

The response and recovery plan shall have plans for the timely restoration of systems affected by incidents of cyber-attacks or breaches, for instance, offering alternate services or systems to Customers. Team shall ensure that MSE FINANCIAL SERVICES LTD. have the same Recovery Time Objective (RTO) and Recovery Point Objective (RPO) as specified by SEBI for Market Infrastructure Institutions vide SEBI circular CIR/MRD/DMS/17/20 dated June 22, 2012 as amended from time to time.

Any incident of loss or destruction of data or systems shall be thoroughly analysed and lessons learned from such incidents should be incorporated to strengthen the security mechanism and improve recovery planning and processes.

Sharing of Information: Quarterly reports containing information on cyber-attacks and threats experienced by IT team and measures taken to mitigate vulnerabilities, threats and attacks including information on bugs / vulnerabilities / threats that may be useful for other Stock Brokers / Depository Participants shall be submitted to Stock Exchanges / Depositories.

Training and Education: MSE FINANCIAL SERVICES LTD. shall work on building Cyber Security and basic system hygiene awareness of staff (with a focus on staff from non-technical disciplines). MSE FINANCIAL SERVICES LTD. shall also conduct periodic training programs to enhance knowledge of IT / Cyber Security Policy and standards among the employees incorporating up-to-date Cyber Security threat alerts.

The training programs shall be reviewed and updated by team to ensure that the contents of the program remain current and relevant.

Systems managed by vendors: Where the systems (IBT, Back office and other Customer facing applications, IT infrastructure, etc.) are managed by vendors and due to which MSE FINANCIAL SERVICES LTD. shall not be able to implement some of the aforementioned guidelines directly, MSE FINANCIAL SERVICES LTD. shall instruct the vendors to adhere to the applicable guidelines in the Cyber Security and Cyber Resilience policy and obtain the necessary self-certifications from them to ensure compliance with the policy guidelines.

Periodic Audit: MSE FINANCIAL SERVICES LTD. shall arrange to have our system audited on periodic basis and shall obtain certification from any independent auditor, capable to do the same.

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