GOVERNMENT OF PAKISTAN
CABINET SECRETRIAT,CABINET DIVISION
NATIONAL TELECOM & INFORMATION TECHNOLOGY SECURITY BOARD
(NTISB-II)

No. 1-5/2003 (NTISB-II) Islamabad 16 August, 2018

M(A)

M(I.T)

A.S (Rev. Div.)

Subject: **Advisory - Prevention Against Windows Banking Trojan "Emotet" (Advisory No 149)**

1. **Introduction.** A **malware** named **"Emotet"** has been spreading through **emails, social media** and targeting **windows** based users. This malware is **highly sophisticated, undetectable banking trojan** capable of stealing **sensitive** information causing **disruption** to regular operations.

2. **Technical Analysis**

a. **Emotet** is an advanced, modular banking Trojan that primarily **functions** as **downloader** or **dropper** of other **banking Trojans.**

b. Malware use several **methods** for maintaining **persistence,** including auto-start registry keys and services.

c. It uses modular **Dynamic Link Libraries (DLLs)** to continuously evolve and **update** its **capabilities.**

d. Malware can also evade **signature based detection** mechanism due to its **polymorphic** design.

e. Malware is spreading via **posts** on **Facebook groups, malspam** (emails containing **malicious** attachments or links) and **whatsApp messages** encouraging users to visit hackers-controlled fake websites.

f. **Emotet artifacts** are typically found in **arbitrary paths** located at **AppData\Local** and **AppDataRoaming** directories.

3. **Mitigation Measures.** Following **mitigation** measures are suggested in this regard:-

a. Use **Group Policy Object** to set a **windows Firewall** rule for restricting **inbound SMB** communication between **client systems.**

b. Use **antivirus programs,** with **automatic updates** of **signatures** and software, on **clients** and **servers.**

c. **Vendors** release **security patches** times to time, apply **appropriate patches** and **software updates immediately.**

d. Implement **filters** at the **email gateway** to filter out emails with known **indicators;** such as known **malicious subject lines** and **block suspicious IP** addresses at the **firewall.**

e. **Formulate** a **policy** regarding **suspicious emails** so that all suspicious **emails** should be **reported** to the **security** or **IT**

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Department.

f. Provide **employees** basic **cyber security** awareness **training.**

4. **Recommendations**

a. **Install** and **update** well reputed antivirus such as **Kaspersky,** Bitdefender, Nod32 and **Avast** etc.

b. Regularly update all software's including **Windows OS, Microsoft** Office and all other software's.

c. Strictly follow all **mitigation measures** mentioned at **para 3.**

5. Forwarded for perusal and dissemination of information to all concerned, please.

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