

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

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Subject: Advisory - Prevention Against Cryptojacking Malware (Advisory No 141)

1. Introduction. A new **malware attack** capable of **Cryptojacking** has been discovered, is targeting **mac devices**. Cryptojacking is a form of **cyber-attack** in which a hacker hijacks a **target's processing power** in order to mine cryptocurrency.
2. Technical analysis.
 - a. The malware is mining for **Monero cryptocurrency**, attack cycle comprises of following three components:-
 - (1) Dropper. Downloads the malware.
 - (2) Launcher. A file named "**pplauncher**" that installs and launches the malware. It is activated by a **launch** daemon (**com.pplauncher.plist**).
 - (3) Miner "mshelper. Which is based on **XMRig**, an open-source **Monero** miner.
 - b. Analysis reveals that **fake Adobe Flash Player installers** infected files in **phishing emails** or downloads from **unauthentic piracy platforms**.
3. Affected Products. The malware is affecting devices running on Mac operating systems.
4. Mitigation Method.
 - a. To remove **malicious files** following steps are recommended:-
 - (1) To delete "**mshelper**", install an **antivirus** or an **anti-miner** program.
 - (2) In order to remove "**mshelper**" manually, delete these below mentioned files and reboot your device:-
 - (a) /Library/LaunchDaemons/com.pplauncher.plist.
 - (b) /Library/Application Support/pplauncher/pplauncher.
 - b. Following **best practices** are recommended for **MAC users** against cyber-attacks:-
 - (1) It is recommended to use a **standard user account** or everyday activities and the **administrator** user accounts system configuration
 - (2) **Turn Off Java And Auto Download** In Safari Browser.
 - (3) Remove **Standalone Flash Player**.

- (4) Apple has given the 'option to allow other devices to **remotely: access** your Mac, it is advised **disable remote login**.
 - (5) Install **Gatekeeper**, a **malware check app** which protects your Mac from malware and misbehaving apps downloaded from the internet.
 - (6) To ensure your network security and online privacy use **VPN**.
 - (7) It is strongly recommended to Update Your Mac OS X Regularly.
5. **Recommendations.**
- a. Strictly follow all mitigation measures mentioned at para 4.
 - b. **It is Strongly recommended Install and regularly update ;Mac Anti-Virus Software.**
 - c. Download and install applications only form **App store** and avoid third- party sources.
 - d. Don't **download attachments** from **emails** unless you are sure about the source.
 - e. Be vigilant on **social media** groups and **don' t click** on any **link** being , shared buy any known / unknown groups member.
6. Forwarded for perusal and dissemination of information to all concerned, please.



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