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Pen drive Theft Detection using Hardcoded Chip and Security Techniques

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Abstract: USB flash drives are typically used for identical functions that floppy disks or CDs were once used; i.e. for storage, information back-up and transfer of laptop files. They are smaller, faster, have thousands of times additional capability, and reliable for users. However due to these functionality of USB drive some malicious user can misuse it for own edges. Existing system is not that much of capable to trace malicious user, hence we tend to propose system that use to detect USB device with the help of hard coded chip.Proposed approach capture device details like latitude and great circle values wherever USB connected and send it to server. Then server sends attentive to user that is registered there on explicit USB id. Efficiency of our proposed approach is a way higher that existing.
Keywords: Google API, Cloud computing, Data Security, Tracking System.

I. INTRODUCTION

USB flash drive products are measure in the market since 2000, and their use is increasing exponentially. As every customers and businesses have increased demand for these drives, manufacturers unit of measurement producing faster devices with larger information storage capacities. The implications of losing drives loaded with such data square measure typically very important, in addition because the loss of consumer data, money data, business plans and various direction, with the associated risk of malicious attacks. Existing system is not that ample capable to trace malicious user, so we have a tendency to propose a system that is used to watch USB device with the help of Google API. Efficiency of our planned approach is far higher thanexisting. Using simple storage media might seem innocuous, but it is the potential to cause many issues for a user or a company. TechAdvisory.org reports that twenty five exploit malware (malicious programs) is unfold these days through USB devices. These devices (such as a jump drive or music player) plug into the USB port of your pc and may contain malware that you just copied unknowingly or that gets launched automatically by the Auto-run or Auto-play feature of your pc. And attacks unit of measurement growing evenmore delicate and hard to get as attackers use small circuit boards inserted in keyboards and mouse devices to launch malicious code once a specific key's ironed or condition is met. Once malware infects your pc to steal or corrupt your information, it would unfold to totally different PCs on your home or structure network.

II.RELATED WORK

A. Paper 1: smart anti-Theft pen-Drive With a Hard Coded Chip

1) *Description:* Securing a pen-drive with the help of a hardcoded chip that contains a program that authenticates the user World Health Organization is presently accessing it. any it in addition provides the recently accessed location of the pen-drive.

B. Paper 2: Multi-radio Wireless Flash Drive Using NFC

1) *Description:* A wireless flash drive may use a detailed to Field Communication (NFC) link with a second device to establish a second, non-NFC, link with the second device, and then use the non-NFC link to wirelessly transfer info between the second device and additionally the non-volatile memory among the flash drive. Some embodiments could in addition turn out alternative choices, sort of a switch to activate the non-NFC link whereas not exploitation the NFC link, A battery to power the non-NFC radio and additionally the non-volatile memory, inductive charging equipment to wirelessly recharge the battery, or directions to be uploaded to the second device to be utilized in establishing the non-NFC link.

C. Paper 3: Self Contained Container Tracking Device

1) *Description:* A system for tracking the locations of a freight container using a self contained and portable container tracking device is described. The container tracking devices includes a GPS receiver, anattachment mechanism to easily secure the

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tracking device to the interior of a container door, an intrusion detection system and an alarm. The user can access the position and status information through a Web site Internet access to a centralized database, SMS interrogation or SMS message updates. The user can load map information, trip alarm conditions, update method, as Well as authentication information on aflash drive and insert it in the tracking deviceIn the event an alarm condition is broken, an alarm is triggered and an alarm message is sent to the user. The tracking device is located inside the container whereas its antennas are locatedon the outside. This prevents damage, tampering and theft of the tracking device.

D. Paper 4: Lockable Portable Memory Storage Devices With Serial Bus Connectors And Locking System Therefore

1) Description: Lockable portable memory storage devices equipped with male connector plugs have a locking system that prevents access to, and connection of the connector to external devices, and thereby prevents unauthorized use of the device and access to data and/or media stored thereon. The locking system may be incorporated in portable memory devices having a cap or cover that fits over the end ofthe male plug, a connector plug that pivots relative to its cover or sheath,and devices having a connector plug that is extensible and retractable relative to its cover or sheath; and allows a locking device to be installed on the housing or sheath of the memory storage device, or between the housing and the cover, cap, or sheath that encloses or covers the connector to prevent exposure of the connector to an extent that would allow connection and use of the device.

III. PROPOSE SYSTEM

Existing system are not that much capable to trace malicious user, hence we have proposed system that use USB device with the help of Google API. When user insert USB drive to laptop or computer the data process address of that laptop or computer and send to server. We offer OTP to user. In proposed system, a hardcoded chip is provided in pen-drive which could contain the information about the owner and a login ID.A hardcoded program would be designed in such a way that it would be able to keep track of the recently accessed location of the pen-drive and would acknowledge a server relating to an analogous.

A. Outcomes

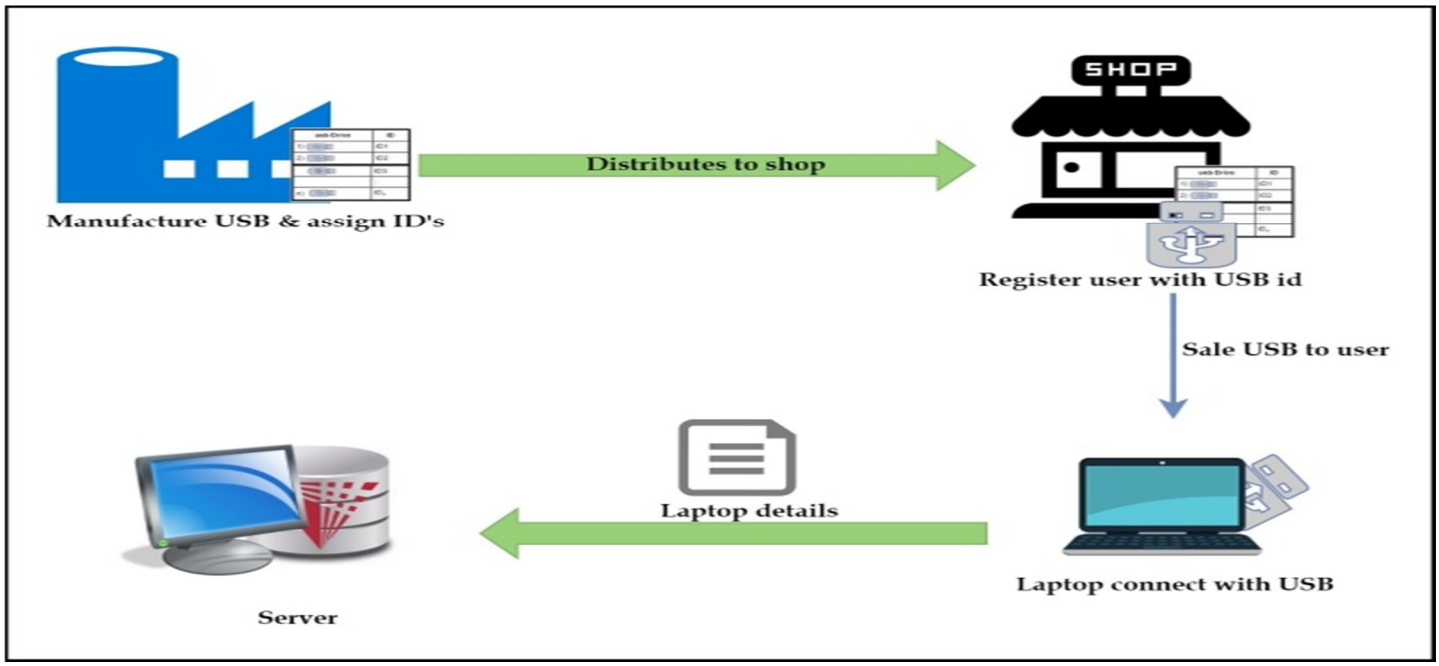
Outcomes of system, we offer security to USB Drive that indirect defend our knowledge from malicious uses.

IV. GOALS AND OBJECTIVES

The target of invention is securing a pen-drive by using a hardcoded chip which contains a program that authenticates the user who is presently accessing it. Additional it co-jointly provides the recently accessed location of the pen-drive.

A. Application

Tracking Devices like (mobiles, electronic devices)



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V. MATHEMATICAL MODEL

System S as a whole can be defined with the following main components.

S= {I, O,P, s, e, m, s};
S=System
s=Initial State
e=Final State
m=Manufacturer
s=Set of shops
Input {I} = {Input1, Input2, Input3}
Where,
Input1=Geographical Location details (latitude and longitude).
Input2=Mapping USB id with physical devices.
Input3=User details with USB id.
Procedures {P} = {$Shop_{register}$,
$Map_{id->device}$,$Register_{id->user,}$Alert}
Where,
$Shop_{register}$=.Register shop where manufacture distribute devices.
$Map_{id->device}$ =Mapping USB ids with physical.
$Register_{id->user}$ = Register USB id with User.
Alert=alrt to user.

Output {O} = {Output1}

Where,
Output1=Alert to USB Id Register user
s= {initially system will be in a state where shop are not enrolled, only manufacturer of USB}
e= {shops are enrolled and successfully sale and register user with USB id which is provide by manufacturer. And manufacturer add shops and add USB id to physical devices}

VI. CONCLUSION

Thus, with the help of java programming language we developed desktop application(.exe) and implemented auto-run file i.e. INF file that automatically run exe file and through that file we retrieve location of laptop or computer on which pen-drive is connected.Laptop details are stored on server, server encountered SMS to USB owner. Therefore, getting SMS from wecreated.com URL. A hardcoded chip is provided within the pen-drive itself which contain information of owner and a login ID. Additionally, hardcoded program would be designed in such a simplest way that it would keep a track of the recently accessed location of the pen-drive and would acknowledge a server regarding similar.

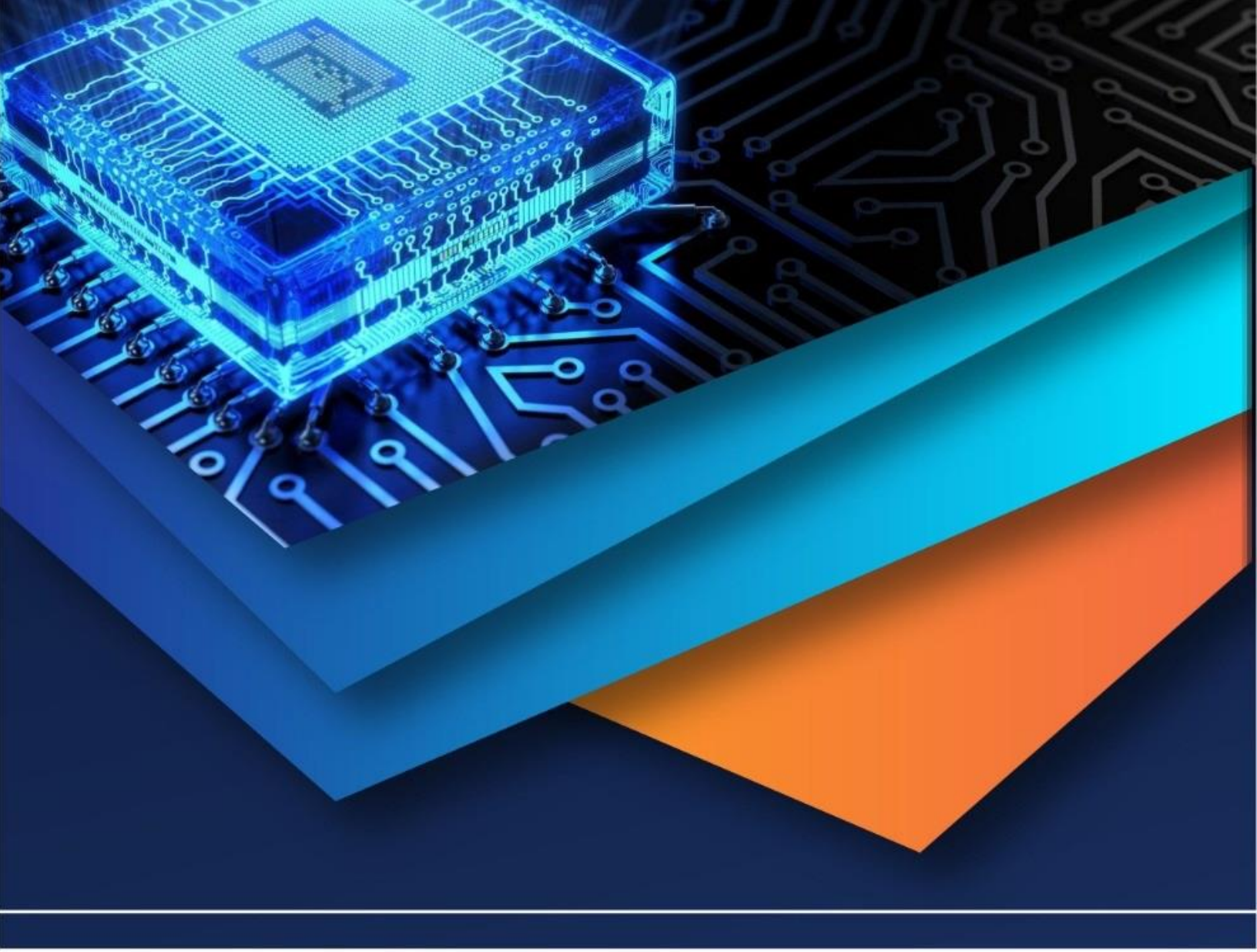
VII. ACKNOWLEDGEMENTS

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