

Statement:

Kiosk Mode windows 10 OS (Windows 10 IoT)

Problem:

Computers are used on Kiosk mode where “purpose-built devices” use is required and to restrict user from performing alterations to the system.

ATM machines, Ticket Counters, Photograph Printers are usually use Windows / Linux OS configured into Kiosk mode for performing single task Systems.

Windows 10 has built in Kiosk Mode, but it can be used for only windows built-in applications. But using Shell platform (Power-Shell) task based alteration can be made to perform Kiosk level operations.

There are also many third party applications available in market to configure windows in Kiosk Environment like “Scalefusion”.

Windows 10-IoT is Windows OS specially designed for IoT appliances, where small computers like raspberry-Pi, low platform Intel computers.

Objective:

Program Windows 10 / Windows 10 IoT OS into single App / Multi App Kiosk mode using platforms available in open source market. Use Power-Shell , Script etc.

Understand how MDM platforms works. Deep study into how kiosk mode machines works. Understand how security and integrity of the machine is managed in kiosk mode systems.

Statement:

Create/ Modify low level, easy to use, AES encryption based “Encryption Application Software for Data Drive / Pen Drive (USB Interface)”

Problem:

Removable Data Drive / Pen Drive (USB Interface) used in day to day life are usually unencrypted or plug to access mode configuration.

To keep data safe while on the go, many types of encryption platforms available in market as

- 1) **Software** based encryption applications.
Example- San-disk Secure Access, DiskCryptor, VeraCrypt etc.
- 2) **Hardware** based encrypted Data Drives.
Exmaple – Kingstorm Iron Key Keypad, SIUKE Encrypted USB Drive.
- 3) **Hybrid** encrypted Data Drives
Exmaple- Kingston Ironkey Locker.

Out of which Hardware Based and Hybrid Encryption Data Drives are usually patented of Manufacture licensed products and due to grade of electronics used on them makes them costlier.

On other hand Software based encryption applications are usually open source platforms and can be created on different language models with help of available libraries.

Objective:

Create/ Modify low level, easy to use, AES encryption Software based encryption application for Data Drive / Pen Drive (USB Interface)

Use open source applications like DiskCryptor, VeraCrypt whose source code are available and open source licensed.