ICT: Emerging Technological Trends and Society

TuK



Btech IT/CT/CCN Year IV term 3

003: COMPUTER MANAGEMENT TRENDS

SUBJECT CODE: ECII/ECSI/ECCI 4204

COMPUTER

MANAGEMENT

TRENDS

http://elearning.tukenya.ac.ke

LECTURE OVERVIEW

- 1. Lecture Aims & Objectives
- 2. Lecture Outline
- 3. Recommended chapter from recommended reading list
- 4. Lecture Topic
- 5. Q&A

AIMS & OBJECTIVES

- 1) To study past and present TRENDS in traditional, current and future computer management
- 2) To learn future trajectories of growth projected for emerging trend in computer management
- 3) To identify and explain the characteristics, advantages and disadvantages of computing management trends
- 4) To discuss the social and ethical implications on society related to trends in computer management

- introduction to topic and why study computer management trends?
- 2) What is computer management?
- 3) Current best practises in computer management?
- 4) Future emerging trends in computer management
- 5) Q & A

>>>Endpoint management s/w (EMS):-s/w for device governance and compliance i.e.

- (i) Track devices in M.U.C.E.
- (ii) Ensure h/w, s/w & n/work is secure and up-to-date

- >>>EMS purpose:-
 - Manage endpoint assets connected to a network
 - Manage patch updates
 - **☐** Ensure device compliance
 - **□** Detect new/suspicious devices connected to a network
 - ☐ Install new OS or applications to an endpoint device



DEFINITION:-RANSOMWARE-AS-A-SERVICE (RAAS) MODEL

- -Use of malicious software
- -Break into, encrypt and hold data ransom
- -Home router the target of attack (why? how?)
- -Role of cryptocurrency:- making RAAS easier for cybercriminals (how? why?)

DEFINITION:-RANSOMWARE-AS-A-SERVICE (RAAS) MODEL

-World emerging from COVID-19 coronavirus pandemic lockdowns

-New Pandemic:-COVID-19 ransomware attacks

-May lead to a new internet (meaning?)

- -Data breaches and security incidents now commonplace
- -Every week a new cyber attack

DEFINITION:-RANSOMWARE-AS-A-SERVICE (RAAS) MODEL

- -2016: Cyber attack every 40 seconds
- -2019: Cyber attack every 19 seconds
- -2021: Cyber attack incident every 11 seconds.
- -2021: \$350 million in ransom payments to ransomware gangs
- -2022: Attacks costs \$6.1 trillion (Ksh 717,431,980,00.00/=)
- -Cybercrime = third-largest economy after U.S & China.

SOPHISTICATED MALWARE AND ROUTERS:-RANSOMWARE-AS-A-SERVICE (RAAS)

- -Custom-built remote access malware
- -Written for MIPS architecture
- -Compiled for small office and home office routers
- -Infects routers by Cisco, Netgear, Asus, DrayTek etc.
- -Controls connected devices running Windows, macOS, Linux

SOPHISTICATED MALWARE AND ROUTERS: RANSOMWARE-AS-A-SERVICE (RAAS)

MODEL

1) Enumerate devices connected to infected router

5) DNS hijacking and HTTP hijacking

2) Collect DNS lookups and all network traffic

6) Cripple Internet services:

- 3) Undetectability
- 4) installation of other malware

RANSOMWARE-AS-A-SERVICE (RAAS) DEFENCE MODEL:

- 1) Multi-factor authentication:
- 2) Avoid Shadow I.T.- (What is it? how? why?)
- 3) Reboot:-
- 4) Factory reset.

QUESTION AND ANSWER SESSION

ANY
QUESTIONS
?