Privilege escalation in regard to protection in an OS

Privilege escalation can be defined as an attack that involves gaining illicit access of elevated rights, or privileges, beyond what is intended or entitled for a user.

Virtualization

Virtualization is the creation of a virtual -- rather than actual -- version of something, such as an operating system ,Virtualization uses software that simulates hardware functionality to create a virtual system which allows IT organizations to operate multiple operating systems, more than one virtual system and various applications on a single server.

Local Area Network

A local area network (LAN) is a group of computers and peripheral devices that share a common communications line or wireless link to a server within a distinct geographic area. A local area network may serve as few as two or three users in a home office or thousands of users in a corporation's central office.

Wide Area network

A wide area network (WAN) is a large computer network that connects groups of computers over large distances. WANs are often used by large businesses to connect their office networks; each office typically has its own local area network, or LAN, and these LANs connect via a WAN.

Clustered Systems

The clustered systems are a combination of hardware clusters and software clusters. The hardware clusters help in sharing of high performance disks between the systems. The software clusters makes all the systems work together. Each node in the clustered systems contains the cluster software

Distributed Systems

A distributed system is a computing environment in which various components are spread across multiple computers (or other computing devices) on a network. These devices split up the work, coordinating their efforts to complete the job more efficiently than if a single device had been responsible for the task.

Network Operating System

A network operating system is a computer operating system (OS) that is designed primarily to support workstations, personal computers and, in some instances, older terminals that are connected on a local area network.

Web Portal

A portal is a web-based platform that collects information from different sources into a single user interface and presents users with the most relevant information for their context.

Augmented reality

Augmented reality is an experience where designers enhance parts of users' physical world with computer-generated input. Designers create inputs ranging from sound to video, to graphics to GPS overlays and more in digital content which responds in real time to changes in the user's environment, typically movement.

Cloud Computing

Cloud computing is a general term for anything that involves delivering hosted services over the internet. These services are divided into three main categories or types of cloud computing: infrastructure as a service (IaaS), platform as a service (PaaS) and software as a service (SaaS).

Real time Embedded systems

Real time systems are computer systems that monitor, respond to, or control an external environment. This environment is connected to the computer system through sensors, actuators, and other input-output interfaces.

Closed source Operating systems

Closed source software is software that holds the source code safe and encrypted. Meaning, the user can't copy, modify, or delete parts of the code without some type of consequence. It can go from voiding the warranty to even legal repercussions.

Proprietary Operating system

A proprietary operating system is one which a particular company conceptualizes, designs, develops and sells. Examples of proprietary operating systems are Windows and Mac OS X. These operating systems are designed and sold by these companies and are not meant to be tampered with or tweaked by users.

Aqua GUI Interface

Aqua is the graphical user interface, design language and visual theme of Apple's macOS operating system. It was originally based on the theme of water, with droplet-like components and a liberal use of reflection effects and translucency.

Win32 API

Win32 is the 32-bit application programming interface (API) for versions of Windows from 95 onwards. The API consists of functions implemented and it is focused mainly on the programming language C

POSIX API

The Portable Operating System Interface (POSIX) is a family of standards specified by the IEEE Computer Society for maintaining compatibility between operating systems, POSIX defines both the system and user level application programming interfaces (API), along with command line shells and utility interfaces,

Java Virtual Machine

A Java virtual machine is a virtual machine that enables a computer to run Java programs as well as programs written in other languages that are also compiled to Java bytecode

Parameters in System call

Because a system call does not have direct access to the application's stack all parameters for system calls must fit in eight registers. Third, some parameters are passed in multiple registers. Parameters should be pushed on or popped off the stack by the operating system. Parameters can be passed in registers. When there are more parameters than registers, it should be stored in a block, and the block address should be passed as a parameter to a register.