

Network Security Concepts:

Viruses: Viruses are programs which replicate and attach to other programs in order to corrupt the executable codes. Virus enters the computer system through an external source and become destructive.

Worms: Worms are also self- replicating programs that do not create multiple copies of itself on one computer but propagate through the computer network. Worms log on to computer systems using the username and passwords and exploit the system.

Trojan horse: – Though it is a useful program, however, a cracker can use it to intrude the computer system in order to exploit the resources. Such a program can also enter into the computer through an email or free programs downloaded through the Internet.

Spams: Unwanted e-mail (usually of a commercial nature sent out in bulk)

Cookies: Cookies are the text messages sent by a web server to the web browser primarily for identifying the user.

Firewall: A firewall is used to control the traffic between computer networks. It intercepts the packets between the computer networks and allows only authorized packets to pass.

Cyber Law: Cyber law refers to all the legal and regulatory aspects of Internet and the World Wide Web.

Cyber Crimes: Cyber crime involves the usage of the computer system and the computer network for criminal activity.

Hacking: Hacking is an unauthorized access to computer in order to exploit the resources.

Web Services:

WWW: The World Wide Web or W3 or simply the Web is a collection of linked documents or pages, stored on millions of computers and distributed across the Internet.

HTML (Hyper Text Markup Language):– HTML is a computer language that describes the structure and behavior of a web page. This language is used to create web pages.

XML (eXtensible Markup Language):– Extensible Markup Language (XML) is a meta language that helps to describe the markup language.

HTTP (Hyper Text Transfer Protocol):– A protocol to transfer hypertext requests and information between servers and browsers.

Domain Names: A domain name is a unique name that identifies a particular website and represents the name of the server where the web pages reside.

URL:– The Uniform Resource Locator is a means to locate resources such as web pages on the Internet. URL is also a method to address the web pages on the Internet. There are two types of URL, namely, absolute URL and relative URL.

Website: A collection of related web pages stored on a web server is known as a website.

Web browser: A software application that enables to browse, search and collect information from the Web is known as Web browser.

Web Servers: The web pages on the Internet are stored on the computers that are connected to the Internet. These computers are known as web servers. 119

Web Hosting: – Web Hosting or website hosting is the service to host, store and maintain the websites on the World Wide Web.

Web Scripting: – The process of creating and embedding scripts in a web page is known as Web Scripting. Types of Scripts:–

(i) **Client Side Scripts:** – Client side scripts supports interaction within a webpage. E.g. VB Script, Java Script, PHP (PHP'S Hypertext Preprocessor).

(ii) **Server Side Scripts:** – Server side scripting supports execution at server – end. E.g. ASP, JSP, PHP

OPEN SOURCE TERMINOLOGIES

☛ **Free Software:** The S/W's is freely accessible and can be freely used changed improved copied and distributed by all and payments are needed to make for free S/W.

☛ **Open Source Software:** S/w whose source code is available to the customer and it can be modified and redistributed without any limitation .OSS may come free of cost but nominal charges has to pay nominal charges (Support of S/W and development of S/W).

☛ **FLOSS (Free Libre and Open Source Software) :** S/w which is free as well as open source S/W. (Free S/W + Open Source S/W).

☛ **GNU (GNU's Not Unix) :** GNU project emphasize on the freedom and its objective is to create a system compatible to UNIX but not identical with it.

☛ **FSF (Free Software Foundation) :** FSF is a non –profit organization created for the purpose of the free s/w movement. Organization funded many s/w developers to write free software.

☛ **OSI (Open Source Initiative) :** Open source software organization dedicated to cause of promoting open source software it specified the criteria of OSS and its source code is not freely available.

☛ **W3C(World Wide Web Consortium) :** W3C is responsible for producing the software standards for World Wide Web.

☛ **Proprietary Software:** Proprietary Software is the s/w that is neither open nor freely available, normally the source code of the Proprietary Software is not available but further distribution and modification is possible by special permission by the supplier.

☛ **Freeware:** Freeware are the software freely available , which permit redistribution but not modification (and their source code is not available). Freeware is distributed in *Binary Form* (ready to run) without any licensing fees. ☐ **Shareware:** Software for which license fee is payable after some time limit, its source code is not available and modification to the software are not allowed.

☛ **Localization:** localization refers to the adaptation of language, content and design to reflect local cultural sensitivities .e.g. Software Localization: where messages that a program presents to the user need to be translated into various languages.

☛ **Internationalization:** Opposite of localization.

OPEN SOURCE / FREE SOFTWARE

☛ **Linux :** Linux is a famous computer operating system . popular Linux server set of program – LAMP(Linux, Apache, MySQL, PHP)

☛ **Mozilla :** Mozilla is a free internet software that includes

☛ a web browser

☛ an email client

☛ an HTML editor

☛ IRC client

☛ **Apache server:** Apache web server is an open source web server available for many platforms such as BSD, Linux, and Microsoft Windows etc.

☛ Apache Web server is maintained by open community of developers of Apache software foundation.

☛ **MYSQL :** MYSQL is one of the most popular open source database system. Features of MYSQL :

☛ Multithreading

☛ Multi –User

☛ SQL Relational Database Server

☛ Works in many different platform

☛ **PostgreSQL :** Postgres SQL is a free software object relational database server .

PostgreSQL can be downloaded from www.postgresql.org.

☛ **Pango :** Pango project is to provide an open source framework for the layout and rendering of internationalized text into GTK + GNOME environment.Pango using Unicode for all of its encoding ,and will eventually support output in all the worlds major languages.

☛ **OpenOffice :** OpenOffice is an office applications suite. It is intended to compatible and directly complete with Microsoft office. OOo Version 1.1 includes:

☛ Writer (word processor)

☛ Calc(spreadsheet)

☛ Draw(graphics program)etc

☛ **Tomcat :** Tomcat functions as a servlet container. Tomcat implements the servlet and the JavaServer Pages .Tomcat comes with the jasper compiler that compiles JSPs into servlets.

☛ **PHP(Hypertext Preprocessor) :** PHP is a widely used open source programming language for server side application and developing web content.

☛ **Python:** Python is an interactive programming language originally as scripting language for Amoeba OS capable of making system calls.