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ASSIGNMENT - 7

AIM : INTRODUCTION TO SERVER ADMINISTRATION

PROBLEM STATEMENT : STUDY FTP, WEB SERVER, DHCP, TELNET, MAIL, DNS.

THEORY:

- TELNET:

- Telnet is a network protocol used on internet or LANs to provide a bidirectional interactive text-orientated communication facility using a virtual terminal connection.

- User data is interpreted interspersed in-band with Telnet control information in an 8-bit byte oriented data connection over TCP.

- Telnet commands allow you to communicate with a remote computer that is using Telnet protocol

- You can run telnet without parameters in order to enter the telnet context, indicated by the Telnet prompt (telnet >). From this, use the required commands to manage a Telnet client.

- FTP SERVER:

- File Transfer Protocol (FTP) is used as one of the most common means of copying the files between servers over the internet

- Types of FTP:

1. ACTIVE FTP:

Sequence of events in active FTP:

i. your client connects to the FTP server by establishing an FTP control connection to port 21 of the server. commands such as 'ls' & 'get' are sent over this connection

ii. Whenever client requests data over the control connection, server initiates data transfer connections back to the client. Source port of these data transfer connections is always port 20 o the server, & the destination port is a high (greater than 1024) on the client

iii. Thus, the ls listing that you asked for comes ba over the port 20 to high port connection, not port 21 control connections.

- Active FTP may fail in cases where the client is protected from the internet via many to one NAT, as the firewall won't know which of t many servers behind it should recieve the retu connection.

2. PASSIVE FTP:

Passive works as:

i. your client connects to the FTP server by establishing an FTP control connection to port 21 of the server. 'ls' & 'get' are sent over th connection.

ii. Whenever the client requests data over the control connection, the client initiates the data transfer connections to the server. Source port of these data transfer connections is always a high port on the client with a destination port of a high port on the server.

3. REGULAR FTP :

- By default, VSFTPD package allows regular Linux users to copy files to & from their home directories with an FTP client using their Linux usernames & passwords as login credentials.

- VSFTPD also has option of allowing this type of access to only a group of Linux users, enabling you to restrict addition of new files to your system to authorised personnel

- It isn't suitable for general download distribution of software as everyone either has to get a unique Linux user account or has to use a shared username & password.

- Anonymous FTP allows you to avoid this difficulty

4. ANONYMOUS FTP :

- It is the choice of websites that need to exchange files with numerous unknown remote users.

- Unlike regular FTP, where you login with a preconfigured Linux username & password, anonymous FTP requires only usernames of the anonymous & your email Id for the password.

- Once logged into a VSFTPD server, you automatically have access to only the default anonymous FTP directory (/var/ftp/ in case of VSFTPD) & all its sub-directories.

- DHCP SERVER:
- Dynamic Host Configuration Protocol (DHCP) is a standardised networking protocol used on IP networks for dynamically distributing N/w configuration parameters, such as IP addresses for interfaces & services.

- With DHCP, computers request parameters such as IP addresses & N/w parameters automatically from DHCP server, reducing the need for a N/w administrator or a user to configure these settings manually.

- 3 methods of allocating IP:
i. Dynamic Allocation:
ii. Automatic Allocation.
iii. Static Allocation.

- DHCP is used for IPV4 as well as IPV6.

- CONCLUSION:
Thus we studied about FTP, web server & DHCP server.