

Assignment: Transfer protocols and their default ports

1. SMTP - 25

SMTP is known as the Simple Mail Transfer Protocol. It is associated with the TCP port number 25. The primary purpose of this protocol is to make sure that email messages are communicated over the network securely.

2. HTTPS - 443

HTTPS - 443 is also associated with the TCP protocol. HTTPS port 443 also lets you connect to the internet by establishing a connection between the webpages and the browser. This lets you connect to the World Wide Web. However, this port has an added feature of security to it, which HTTP port 80 does not have. This port is intended for establishing secure connections to make sure that the data is transmitted over a secure network.

3. FTP - 20, 21

FTP is the abbreviation of "File Transfer Protocol". The purpose of FTP is to transfer files over the internet. It basically lays down all the rules which are to be followed during the transfer of data. Due to the concern of security, it also asks for authentication by the user before the transfer of data. It is associated with the TCP protocol and corresponds to two ports, port 20 and 21. Both ports function during the application layer.

Port 20 performs the task of forwarding and transferring of data. It takes over the task of transferring FTP data when it is in active mode.

Port 21 performs the task of signaling for FTP. It listens to all the commands and provides a flow control for data. It is quite essential for maintaining the flow of data.

4. TELNET - 23

TELNET port 23 comes under the category of TCP (Transmission Control Protocols). Its main function is to establish a connection between a server and a remote computer. It establishes a connection once the authentication method has been approved.

5. IMAP – 143

IMAP is the abbreviation of 'Internet Message Access Protocol'. The IMAP -143 Port lies under the category of TCP protocol. The primary purpose of this port is to retrieve emails from a remote server without having the need to download the email. You have the liberty to access the emails from anywhere by connecting to the server and viewing your email after providing authentication.

6. RDP - 3389

RDP is also known as the 'Remote Desktop Protocol'. It operates on the port 3389 of the TCP protocol. This port has been developed by Microsoft. It enables you to establish a connection with a remote computer.

7. DNS - 53

DNS is referred to as 'Domain Name System'. It operates on the port 53 of TCP and UDP protocols (User Datagram Protocol). DNS makes use of relational databases to link the host names of the computers or networks to their respective IP Addresses.

8. DHCP - 67, 68

DHCP is also known as 'Dynamic Host Configuration Protocol'. It basically runs on the UDP protocol. The basic purpose of DHCP is to assign IP Address related information to the clients on a network automatically. DHCP basically makes use of 2 ports; Port 67 and Port 68.UDP Port 67 performs the task of accepting address requests from DHCP and sending the data to the server. On the other hand, UDP Port 68 performs the task of responding to all the requests of DHCP and forwarding data to the client.

9. POP3-110

POP3 is also referred to as Post Office Protocol Version 3. It operates on the port 110 of TCP Protocol. It allows the email messages to be retrieved from the SMTP servers. Using this port, you can download the messages from the server and then read them. However, this means that you will not be able to access the messages and read them without downloading them.

10. TFTP-69

This is known as the Trivial File Transfer Protocol. TFTP offers a method of file transfer without the session establishment requirements that FTP uses. Because TFTP uses UDP instead of TCP it has no way of ensuring the file has been properly transferred, the end device must be able to check the file to ensure proper transfer. TFTP is typically used by devices to upgrade software and firmware; this includes Cisco and other network vendors' equipment.

11. BGP-179

BGP (Border Gateway Protocol) version 4 is widely used on the public internet and by Internet Service Providers (ISP) to maintain very large routing tables and traffic processing. BGP is one of the few protocols that have been designed to deal with the astronomically large routing tables that must exist on the public Internet.

12. LDAP-389

LDAP means Lightweight Directory Access Protocol. This provides a mechanism of accessing and maintaining distributed directory information. LDAP is based on the ITU-T X.500 standard but has been simplified and altered to work over TCP/IP networks.

13. SNMP-161,162

Simple network Management Protocol is used by network administrators as a method of network management. SNMP has several abilities including the ability to monitor, configure and control network devices. SNMP traps can also be configured on network devices to notify a central server when specific actions are occurring.