

SDIY

management plane -) used to monitor traffic conditions, the status of the network and allows network administrator to oversees the network and gain insight into its operations.

Application layer focuses on the communication resource requests or information about the network.

control layer -) uses the information from the application to decide how to route data packets on the network.

infrastructure layer -) Contains physical networking devices that receive information from the control layer about where to move the data and then perform.

The syslog server -) Is a centralized log management solution. By looking through the syslog servers log, the technician can decide which service failed on which server since all of the logs are retained on the syslog server from all of the network devices and servers.

< Network mapping -)

- 1102
- Network mapping :- is conducted by using active and passive scanning techniques and could help to determine which server was offline but cannot determine ~~why it is~~ that caused it offline.
 - Electrostatic discharge :- is the sudden flow of electricity between two electrically charged object.
 - Cross talk :- is the coupling of voltage to an adjacent line through mutual coupling composed of a mutual inductance, a coupling capacitance, or both. Cross talk occurs within a twist pair cable when the pairs become unstated or no shielding or insulation remaining.
 - wavelength mismatch occurs only for fiber optic
 - PAP by Password Authentication protocol is a password based authentication protocol used by point to point protocol to validate users. PAP used by PPP
 - PKI - EAP - TLS

microwave links require direct line of sight (LOS) between the antennas to maintain a strong and effective link.

Throttling is the intentional slowing or speeding of an internet service by an internet service provider to regulate network traffic and minimize bandwidth congestion.

Modulation is the process of varying one or more properties of a periodic waveform, called the carrier signal, with separate signal called modulation signal.

Static NAT - ~~multiple~~ ^{one} private IP to single public IP. [one to one]

Dynamic NAT - one private IP to many public IP.

VLAN Tagging and trunking

802.1-9

RPO - Recovery point objective - is the interval of time that might pass during a disruption before the quantity & of data lost during that period exceeds the business continuity plan's maximum allowed threshold.

RTO - Recovery time objective - is duration of time and a service level within which a business process must be restored after a disaster to avoid unacceptable consequences associated with break in continuity.

MTTR - mean time to repair - Average time it takes to repair a network device when it breaks.

MTBF - mean time between failures - Average time between failure occurs.

Bandwidth saturation - If too many devices are on one WAN link.

~~noting~~

spoofing :- Act of the disguising a communication from an unknown source as being from a known, trusted source.

wardriving is the act of searching for wifi wireless networks usually from a moving vehicle, using laptop or smartphone

Sniffing occurs at OSI layer 2

Sniffing

Sniffing

DWDM → Dense wavelength-division multiplexing

→ It is a high-speed optical network type commonly used in MANs. DWDM uses as many as 32 light wavelengths on a single fiber, where each wavelength can support as many as 160 simultaneous connections.

ADSL → Asymmetric digital subscriber line
→ It is a type of digital subscriber line technology, a data communications technology that enables fast data transmission over copper telephone lines than a conventional V.90 modem can provide.

(a) LTE-LTE-A

Real/theor

20/150 40/300

(b) Low Band mid Band High Band
55/150 150/150bps 300bps/7000

(c) HSPA+

34/108
20/168

EV-DO ← CDMA
3.1 download)

NOM

Discovery protocol & by enabling discovery protocols on the network devices, technician will be able to get detailed information such as the IP address, system version and device info from supporting devices directly. Primary discovery protocols are SNMP, LLDP, and ping.

Dynamic ARP inspection

Dynamic ARP inspection validates Address Resolution Protocol packets in a network and allows a network administrator to intercept, log, and discard ARP packet within invalid or more address to IP address binding.

Douled Advertisement guard

The IPv6 Doubled Advertisement guard feature provides support for allowing the network administrator to block or reject unwanted or forged doubled advertisement guard message that arrives at the network device port.