

CAE-1COMPUTER NETWORKSPART-B

⑥ ⑥ ~~They~~ As a network engineer we have to choose the best development structure based on the requirements of the company.

→ The requirements will be different ~~so is~~ and so is the design approach for each ~~cor~~ structure.

→ There are 2 different types of ~~structure~~ approaches.

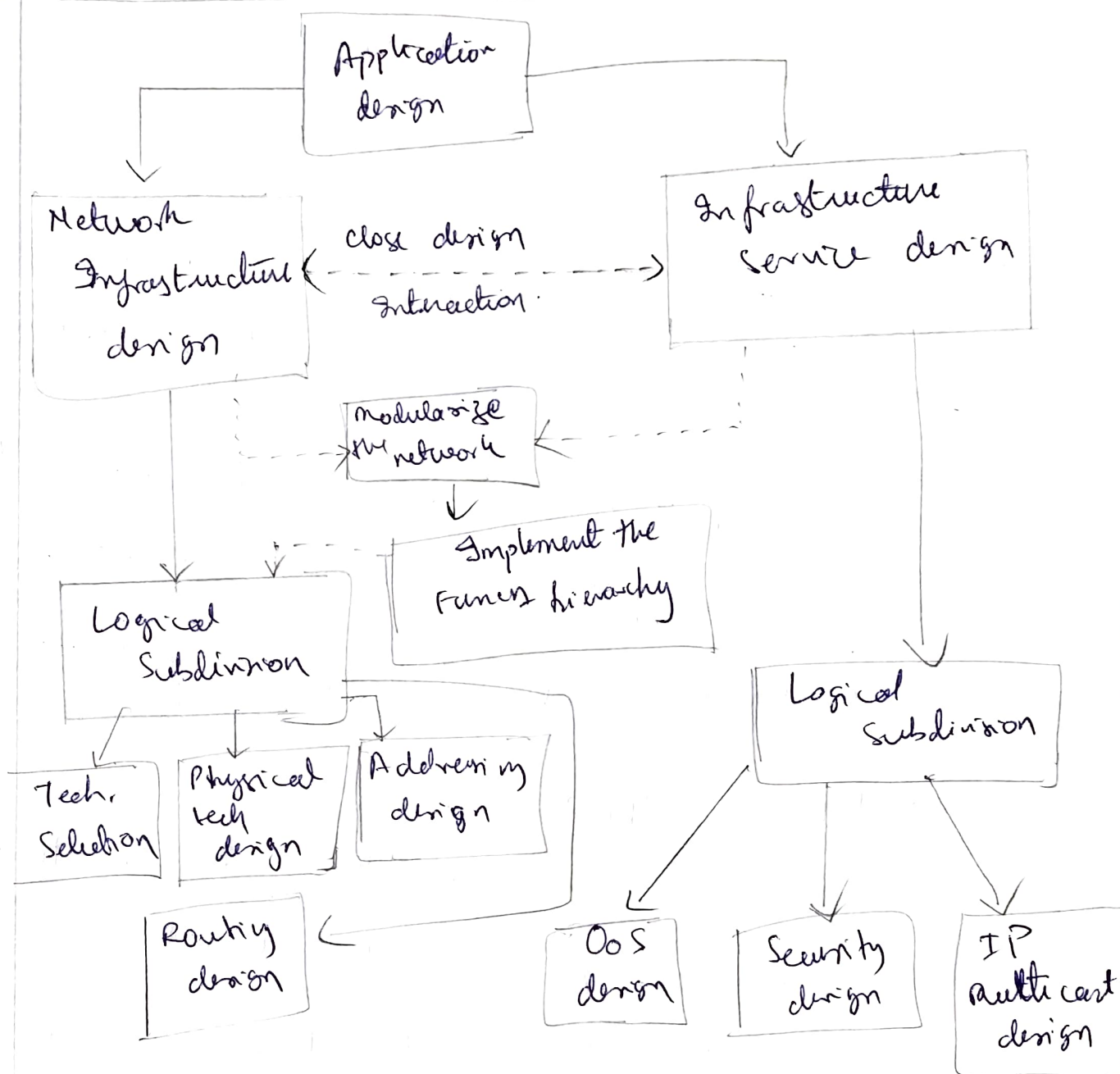
① Top down Approach:-

→ This approach to network design means that requirements are considered first with the applications and network solutions that will run on the network driving the design.

→ This ~~is~~ type of approach is preferred by many ~~networks~~ network engineers as it follows the requirements to ~~dev~~ develop the network for the company.

→ This also lays a foundation for a good and accurate network design.

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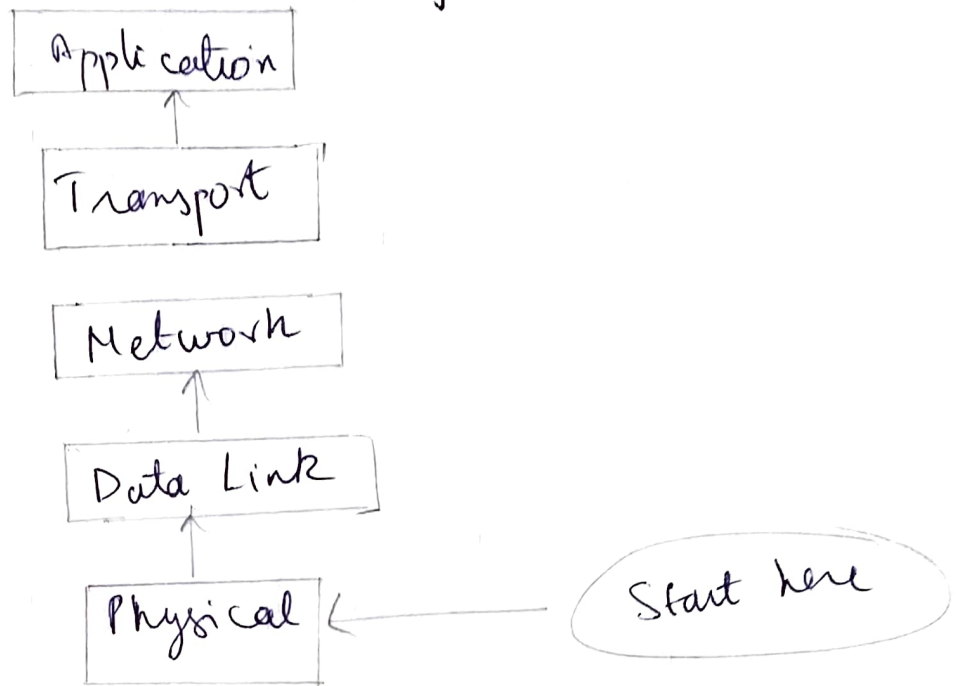


Best

② Bottom-up Approach

→ It would 1st select devices, features, cabling etc. and then try to fit the application ~~into~~ this onto this network.

- This type of approaches are not ~~recommended~~ recommended as they ~~can~~ can lead to redesign if the applications are not accommodated properly.



- For me, I would always choose the top-down approach for any case of requirements given to me by the company.
- This will reduce my redesign job and it will be complex to make.

- ⑨ → Ethernet is a widely used ~~LAN~~ LAN technology which is defined under IEEE ~~standards~~ standards, 802.3.
- The reason ~~behind~~ behind its well usability is Ethernet and it is easy to implement and maintain.

Types of Ethernet

(i) 10 Base 5

- Thick ethernet
- Up to 100 stations can be connected.
- 10 refers to transmission speed of 10 mbps. BASE is for baseband signaling.
- 5 for max. segment length (500 meters).

(ii) 10 Base 2

- Thin ethernet.
- Max. segment length of 185 m

(iii) 10 Base T

- go from computer to a hub.
- Supported Speed 10 MBit/sec.
- Max. length is 100m

(iv) 10 Base F

← Same as 10 Base T, but this transfer light pulses

- this ~~star~~ ^{star} topology.

PART - A

① Computer networks help users on the network to share the resources and it helps in communication.

② The following are the design methodologies

① Ensure that our communication network can adjust to the new demands

② Support our network based economy.

③ Information network security must be designed to automatically fend off unexpected incidents

④ Using hierarchical network design principles ..

③ following are the goals

① Scalability

② adaptability

③ Cost Control.

④ manageability

⑤ predictability

⑥ ease of implementation.

④ The following are the key elements.

① Syntax

② Semantics

③ Timing.

⑤

Routing is the process of selecting a path for traffic in a network / between / across multiple networks. Broadly, routing is performed in many types of networks: ~~and~~ including circuit switched networks.