Informal Quiz 1

True or False?

T F

- ❑ ❑ The structure of MAC addresses facilitates performance scalability.
- ❑ ❑ The interface between layers often outlives the technology used in each layer.
- ❑ ❑ If a node is multi-homed, it must be configured as a router
- ❑ ❑ Heterogeneity and scale is the reason why routers are required for internetworking.
- ❑ ❑ A layer-2 switch connects two broadcast domains.
- ❑ ❑ ARP and RARP run over IP
- ❑ ❑ The protocol field in the PPP header is used for demultiplexing

- ❑ ❑ The CRC field in Ethernet is found in the trailer because there was no space in the header .
- ❑ ❑ Meta-data about voice samples in telephony is in a large part inferred from timing.
- ❑ ❑ Statistical multiplexing is most useful when the peak rate is close to the average rate
- ❑ ❑ The heterogeneity issue is addressed in IP by defining a common packet format, a common address space, and mapping them to lower layers using fragmentation/reassembly and address resolution techniques.
- ❑ ❑ Performance scalability is achieved in routers by providing better filtering (cutting out the fall-back on broadcast) and higher-level forwarding
- ❑ ❑ Telephony and ATM networks can afford to have variable length addresses because their performance cost is amortized over the life of the session

Informal Quiz 1: Solutions

True or False?

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❑ √ The structure of MAC addresses facilitates performance scalability.

√ ❑ The interface between layers often outlives the technology used in each layer.

❑ √ If a node is multi-homed, it must be configured as a router

√ ❑ Heterogeneity and scale is the reason why routers are required for internetworking.

❑ √ A layer-2 switch connects two broadcast domains.

❑ √ ARP and RARP run over IP

√ ❑ The protocol field in the PPP header is used for demultiplexing

- √ The CRC field in Ethernet is found in the trailer because there was no space in the header .
- √ Meta-data about voice samples in telephony is in a large part inferred from timing.
- √ Statistical multiplexing is most useful when the peak rate is close to the average rate
- √ The heterogeneity issue is addressed in IP by defining a common packet format, a common address space, and mapping them to lower layers using fragmentation/reassembly and address resolution techniques.
- √ Performance scalability is achieved in routers by providing better filtering (cutting out the fall-back on broadcast) and higher-level forwarding
- √ Telephony and ATM networks can afford to have variable length addresses because their performance cost is amortized over the life of the session