Guaranteed to work! (Instructor Version)

Instructor Note: Red font color or Gray highlights indicate text that appears in the instructor copy only.

Objectives

Explain the role of protocols and standards organizations in facilitating interoperability in network communications.

- Students will demonstrate how network communications can be compared to everyday activities using established procedures and standards.

Background / Scenario

You have just completed the Chapter 3 content regarding network protocols and standards.

Assuming you resolved the beginning of this chapter's modeling activity, how would you compare the following steps taken to design a communications system to the networking models used for communications?

Steps to Communicate	Possible Answers	Associated TCP/IP Model Layer
Establishing a language to communicate		
Dividing the message into small steps, delivered a little at a time, to facilitate understanding of the problem		
Checking to see if the message has been delivered correctly to the mechanic who will be performing the repairs		
Delivery of automobile and wait time for repairs		

Instructor Note: This Modeling Activity may be used as a graded assignment. It should demonstrate how network protocols and standards facilitate the transfer of data from source to destination, in both personal and in corporate practice. Facilitation of the discussion should include student-to-student discussions to show how students' perceptions have been changed.

Required Resources

- Blank "Steps to Communicate" table (above) for students to record their answers based upon their Chapter 3 content knowledge.

Reflection

1. How does your network model in developing an automotive repair communications plan compare to a network communications interoperability plan?

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Students' tables might look like this (with variations)

Steps to Communicate	Possible Answers	Associated TCP/IP Model Layer
Establishing a language to communicate	Voice/Language (English,	Application Layer

	Spanish, French, etc.) Written pictures Kinesthetic/physical	(HTTP, VoIP, POP, etc.)
Dividing the message into small steps, delivered a little at a time, to facilitate understanding of the problem	Small descriptions shared a little at a time	Transport Layer (Segments)
Checking to see if the message has been delivered correctly to the mechanic who will be performing the repairs	Asking the mechanic to repeat the full problem which is occurring with the automobile.	Internet Layer (Packets)
Delivery of automobile and wait time for repairs	Physical delivery of the automobile left for repairs – agreement upon the delivery/wait time for repairs	Network Access Layer (Bits)

Identify elements of the model that map to IT-related content:

- Establishing a language to communicate (Application protocol)
- Dividing the message into small steps, delivered a little at a time, to facilitate understanding of the problem to be solved (Transport protocol).
- Checking to see if the message has been delivered correctly to the mechanic who will be performing the repairs. (Internet protocol)
- Delivery of automobile and wait time for repairs (Network Access protocol)