

Exercise for Security in Computer Networks

Question 1:

You have 6 communication partners with use of PGP. A and B are fully trusted, C is untrusted and D, E and F are partly trusted. All are deemed legitimate. Which of the following keys are deemed legitimate, too?

- a) G is signed by A.
- b) H is signed by A and B.
- c) I is signed by B and C.
- d) J is signed by C.
- e) K is signed by A and D.
- f) L is signed by F.
- g) M is signed by D and E.

Solution:

- a) legitimate
- b) legitimate
- c) legitimate
- d) not legitimate
- e) legitimate
- f) not legitimate
- g) legitimate

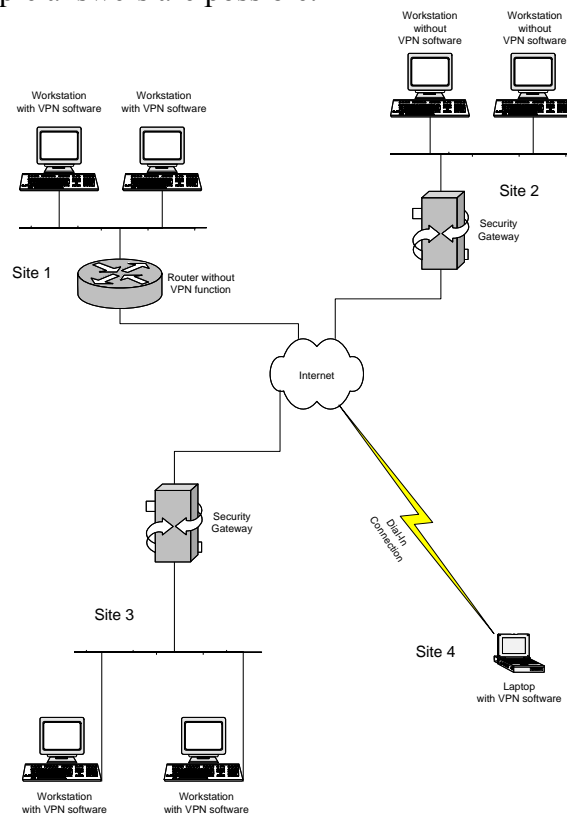
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Question 2:

Consider the network depicted in the figure below. Which mode of data transfer for VPN connections make(s) sense for the following connections?

- a) 1 ↔ 2
- b) 1 ↔ 3
- c) 1 ↔ 4
- d) 2 ↔ 3
- e) 2 ↔ 4
- f) 3 ↔ 4

Use the expressions *End-to-End*, *Node-to-Node*, *End-to-Node* and *Node-to-End*. Combinations and multiple answers are possible.



Example Network

Solution:

- a) 1 ↔ 2: End-to-Node
- b) 1 ↔ 3: End-to-End, End-to-Node, End-to-End via End-to-Node
- c) 1 ↔ 4: End-to-End
- d) 2 ↔ 3: Node-to-Node, Node-to-End, Node-to-End via Node-to-Node
- e) 2 ↔ 4: Node-to-End
- f) 3 ↔ 4: End-to-End, Node-to-End, End-to-End via Node-to-End