

## Questions

1. What type of hypervisor runs on top of a traditional operating system (e.g. on top of Microsoft Windows)?
  - A. Type 1
  - B. Type 2
  - C. Type 3
  - D. Type 4
  
2. Identify the virtualization technology that includes a specific application a user wants to run, the support files for that applications, but not the operating system on top of which the application runs.
  - A. Virtual Data Path
  - B. Virtual Switch
  - C. Virtual Server
  - D. Container
  
3. Which of the following is true regarding the operation of a virtual server's virtual network interface card (also known as a "virtual NIC" or "vNIC")?
  - A. All virtual NICs share the MAC address of a physical NIC in the physical server.
  - B. All virtual NICs share a virtual MAC address.
  - C. A virtual NIC can simultaneously connect to multiple virtual switches.
  - D. Each virtual NIC within a virtual machine has a unique MAC address.

## Questions and Answers

1. What type of hypervisor runs on top of a traditional operating system (e.g. on top of Microsoft Windows)?
  - A. Type 1
  - B. Type 2
  - C. Type 3
  - D. Type 4

**Answer: B**

Explanation: A Type 1 hypervisor (also known as a “native” or “bare metal” hypervisor) runs directly on a server’s hardware. However, a Type 2 hypervisor (also known as a “hosted” hypervisor) runs on top of a traditional operating system. Hypervisors are not categorized as either Type 3 or Type 4.

**Video Reference: 2.1.1 Hypervisor Types 1 and 2**

2. Identify the virtualization technology that includes a specific application a user wants to run, the support files for that applications, but not the operating system on top of which the application runs.
  - A. Virtual Data Path
  - B. Virtual Switch
  - C. Virtual Server
  - D. Container

**Answer: D**

Explanation: A container contains an application and its support files. The underlying operating system can support multiple containers containing applications need that operating system. A virtual server contains an operating system. A virtual data path is a technology that influences data flow, such as creating a tunnel between two sites. A virtual switch runs on a hypervisor and can logically interconnect virtual devices (e.g. virtual servers or virtual routers) also running on that hypervisor, in addition to logically connecting to a physical server’s network interface card (NIC).

**Video Reference: 2.1.2 Virtual Machines**

3. Which of the following is true regarding the operation of a virtual server’s virtual network interface card (also known as a “virtual NIC” or “vNIC”)?
  - A. All virtual NICs share the MAC address of a physical NIC in the physical server.
  - B. All virtual NICs share a virtual MAC address.
  - C. A virtual NIC can simultaneously connect to multiple virtual switches.

D. Each virtual NIC within a virtual machine has a unique MAC address.

**Answer: D**

Explanation: A virtual NIC is software associated with a unique MAC address, which can be used by a VM to send and receive packets. Also, a vNIC (just a like a physical NIC) can only connect to one switchport at a time.

**Video Reference: 2.1.3 Virtual Switches**