

# Cisco

## 700-905

### Cisco HyperFlex for Systems Engineers



## QUESTION & ANSWERS

## QUESTION 1

Which statement about Standalone Cisco UCS Server Deployments is valid?

- A. They require Cisco Fabric Interconnects to operate, which reduces the Operating Expenses (OpEx) associated with the deployment
- B. They do not require Cisco Fabric Interconnects to operate, which reduces the Operating Expenses (OpEx) associated with the deployment
- C. They do not require Cisco Fabric Interconnects to operate, which reduces the Capital Expenses (CapEx) associated with the deployment
- D. They require Cisco Fabric Interconnects to operate, which reduces the Capital Expenses (CapEx) associated with the deployment

**Correct Answer: C**

### Explanation/Reference:

Standalone **deployments** have these features

- Reduced upfront cost, but increased management overhead
- Good for single **deployments** or small environments, but do not scale well
- You are always able to integrate a single deployment into a centrally managed infrastructure

Standalone **deployments** of servers do not require Cisco Fabric Interconnects to operate, which reduces the Capital Expenses (CapEx) associated with the deployment. It does not mean that the long-term total cost of ownership (TCO) is better in standalone deployment scenarios, because management overhead is much greater than in a managed deployment scenario, especially in larger **deployments**.

## QUESTION 2

Which Cisco UCS Server running HXDP supports the largest storage pool?

- A. UCS B200
- B. HX220
- C. HX 240
- D. UCS B480

**Correct Answer: C**

### Explanation/Reference:

When you evaluate the servers that are most appropriate for your environment, consider these general guidelines:

- Choose HX240 servers to maximize the storage pool
- Choose HX220 servers to ensure high compute power (relative to storage)
- Choose all-flash platforms to increase IO performance
- For environments where storage performance is crucial, use All-NVMe nodes once HyperFlex 4.0 is released.

### QUESTION 3

Which version of HXDP was the first to support multiple VICs on a single server?

- A. HXDP 3.5.1
- B. HXDP 3.0
- C. HXDP 4.0
- D. HXDP 3.5

**Correct Answer: A**

**Explanation/Reference:**

#### Network Adapters: **Multi-NIC** Support

Starting with HXDP v3.5.1, **multiple** NICs are supported per server.

- Increases resiliency and enables use cases such as offline streaming and backup
- Primary, mLOM-placed NIC is still mandatory, other NICs fit into PCIe slots.
- Only supported on fresh installations, no upgrade of existing cluster with additional cards.

### QUESTION 4

The process of optimizing information is tightly tied to the writing process as it is performed inline as the writing process is being performed. The process of data optimization is performed with which two processes? (Choose two)

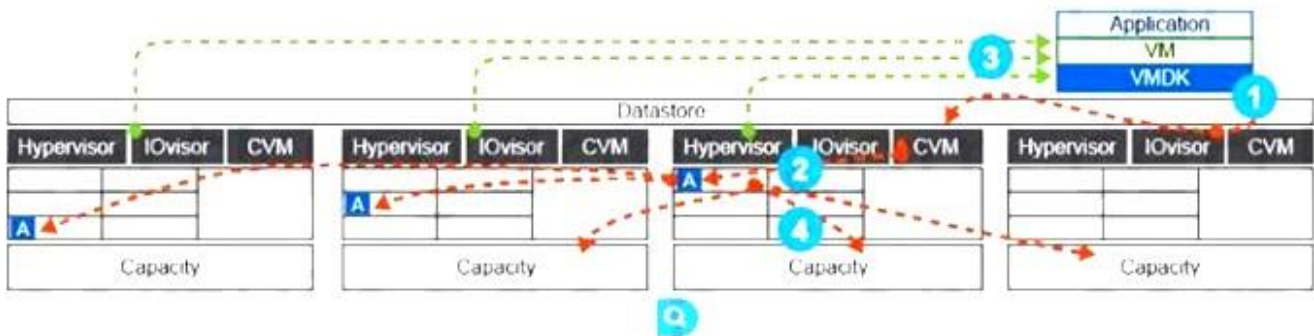
- A. The primary CVM compresses the data, writes it to its cache drive and mirrors it
- B. ACK is sent to the CVM that the write is about to be initiated
- C. On write, the local IOvisor sends the write to the primary CVM for that block
- D. On read/Write, the distributed VAAI sends the write to the primary CVM for that block
- E. The secondary CVM compresses the data, reads it from its cache drive and mirrors it

**Correct Answer: A,C**

## Explanation/Reference:

### Data Optimization Process and Actual Data Savings

The process of optimizing information is tightly tied to the writing process as it is performed inline as the writing process is being performed. The system is designed so that the deduplication and compression are done only once by the primary CVM. The IOvisor determines which CVM is primary when the initiated write is intercepted before it is forwarded to the chosen CVM.



The process of data optimization is performed in this sequence:

1. On write, the local IOvisor sends the write to the primary CVM for that block.
2. The primary CVM compresses the data, writes it to its cache drive, and mirrors it.
3. ACK is sent to the virtual machine that the write has been successfully performed.
4. Once the write log is full, a destage is initiated, where the primary CVM performs a best effort deduplication and writes the information across nodes.

## QUESTION 5

Cisco HyperFlex All-NVMe nodes are expected to be supported beginning in which HXDP version?

- A. HXDP 4.0.1
- B. HXDP 3.5.1
- C. HXDP 3 5.2
- D. HXDP 4.0

## Correct Answer: D

## Explanation/Reference:

When you evaluate the servers that are most appropriate for your environment, consider these general guidelines:

- Choose HX240 servers to maximize the storage pool.
- Choose HX220 servers to ensure high compute power (relative to storage).
- Choose all-flash platforms to increase IO performance.
- For environments where storage performance is crucial, use All-NVMe nodes once HyperFlex 4.0 is released.