

700-905 Dumps

Cisco HyperFlex for Systems Engineers

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NEW QUESTION 1

Which three capabilities are provided by Virtual Interface Cards? (Choose three.)

- A. Virtualizing object storage environments by pushing meta data directly to the management server
- B. The virtual interfaces created by a VIC do not accommodate hypervisor communication like VMkernel interfaces on vSphere.
- C. Management through Cisco IMC or UCS Manager with dynamic configuration of virtual interface cards based on the server profile (MAC/WWN).
- D. Traffic processing for internal and external communication supporting simultaneous HBA and NIC operation on the same physical hardware.
- E. Multiple-interface-card virtualization without any additional driver requirements with integration of the virtualized cards into the Fabric Interconnect infrastructure.
- F. A virtual environment, such as VMware vSphere, provides VM connectivity via a virtual switch to individual virtual machines bypassing local hardware requests.

Answer: CDE

Explanation:

VIC interface cards provide these capabilities:

- Traffic processing for internal and external communication supporting simultaneous HBA and NIC operation on the same physical hardware.
- Multiple-interface-card virtualization without any additional driver requirements with integration of the virtualized cards into the Fabric Interconnect infrastructure.
- Management through Cisco IMC or UCS Manager with dynamic configuration of virtual interface cards based on the server profile (MAC/WWN).

NEW QUESTION 2

When building a HyperFlex cluster which two recommendations should be followed? (Choose two.)

- A. Use HX 220s for compute nodes and HX 240s for converged nodes
- B. Use B-Series servers to improve converged node scale.
- C. Use the same CPU model but memory configuration can be different.
- D. Use the same server configuration for the cluster.
- E. Use the same server model for the cluster.

Answer: DE

NEW QUESTION 3

Which two features enable RAID cards striping as well as mirroring and parity? (Choose two.)

- A. Integration with Cisco Intersight for a cloud-based storage management solution.
- B. No load on the system resources, drives seem as one drive to the operating system
- C. On RAID card failure, the RAID onboard concurrent cache assists rebuild cache.
- D. Hot replacement of drives available, depending on configuration
- E. Distributed drives across disparate systems can be in RAID together.

Answer: BD

Explanation:

RAID cards enable striping as well as **mirroring and parity**, with these features:

- No load on the system resources, drives seem as one drive to the operating system.
- Hot replacement of drives available, depending on configuration.
- Disk replacements require RAID rebuilds, taking a long time.
- On RAID card failure, the RAID card compatibility can be an issue.
- Limited drives in a raid field, depending on solution, limiting scalability.
- Only local drives can be in RAID together.

NEW QUESTION 4

Which two components are automatically configured from the information provided to the HyperFlex installer? (Choose two)

- A. the network
- B. operating system deployment preparation

- C. controller VM configuration
- D. application dependencies
- E. server firmware policy

Answer: AC

NEW QUESTION 5

What does the letter W indicate when selecting CPUs for your HX Node (ie. HX-CPU 8170M)?

- A. support of 1.5 TB/socket of memory
- B. support for all flash drive array
- C. support for NVMe
- D. support for 768 TB/socket of memory

Answer: A

Explanation:

CPU Options

There are several dozens of CPU variants that are available with Cisco HyperFlex M5 servers. The product IDs ending in "M" support 1.5 TB/socket of memory. All other CPU PIDs support 768-Gbps socket memory.

The table lists a few of the many variants, all with product IDs ending in "M". "M" indicates support for 1.5-TB memory per CPU, and up to 3-TB memory in the HyperFlex server (dual CPU.)

Product ID	Clock Freq (GHz)	Cache Size (MB)	Cores	Highest DDR4 DIMM Clock Support (MHz)
HX-CPU-8180M	2.5	38.50	28	2666
HX-CPU-6142M	2.6	22.00	16	2666
HX-CPU-6134M	3.2	24.75	8	2666
HX-CPU-8176M	2.1	38.50	28	2666
HX-CPU-8170M	2.1	35.75	26	2666
HX-CPU-8160M	2.1	33.00	24	2666

For a full list of available CPUs, refer to the server specification sheets.

NEW QUESTION 6

Which three advantages of using the M5 generation of HyperFlex servers over the M4 generation are valid? (Choose three)

- A. Support for Cisco VICs
- B. Multiple GPUs
- C. M.2 SATA drive support for faster disk I/O
- D. DDR3 memory
- E. Microsoft Hyper-V support
- F. NVMe support

Answer: CEF

Explanation:

HyperFlex **M5 generation** servers are configured with these important features:

- HDD or SSD drives for capacity storage.
 - Self-encrypting drive options are available.
- SSD cache drive (SAS, NVMe, or NVMe Optane).
- M.2 SATA drives as boot drives for the hypervisor (ESXi or Hyper-V).
- All nodes use Intel Xeon Scalable CPUs and DDR4 memory.

M5 servers supersede the M4 generation of Cisco UCS servers that was the first to support Cisco HyperFlex. M4 nodes used Intel Xeon processor E5-2600 v4 family CPU. M4 servers did not contain M.2 drives for the hypervisor boot and did not support Microsoft Hyper-V.

NEW QUESTION 7

HyperFlex is tightly integrated into the Cisco portfolio, allowing which two powerful service integrations" (Choose two)

- A. Cloud mobility: CloudCenter enables workload mobility between HyperFlex and public and private clouds, including private cloud self-service Infrastructure as a service (IaaS) capabilities
- B. Application centric infrastructure: ACI enables faster deployment via End-Point Group integration of the HyperFlex clusters into existing application environments
- C. Multi-cloud integration Workloads are able to seamlessly migrate to platforms such as Amazon Web Services: Microsoft Azure and Google Cloud Platform
- D. On-premise container platform: Cisco Container Platform automates repetitive tasks, such as installing Kubernetes and Docker, installing analytics tools, creating clusters, load balancing, curating the OS
- E. and even updating the distribution
- F. Data Center Network Monitor: This management platform enables administrators to monitor storage in the HyperFlex solution and provide real-time storage performance for the HyperFlex cluster

Answer: AD

Explanation:

HyperFlex is tightly integrated into the Cisco portfolio, so it allows powerful service integrations:

- **Application performance monitoring:** AppDynamics enables performance monitoring of the hybrid applications running application tiers on HyperFlex and across clouds.
- **Application placement:** Cisco Workload Optimization Manager (WOM) analyzes workloads to assist with workload placement on HyperFlex.
- **Cloud mobility:** CloudCenter enables workload mobility between HyperFlex and public and private clouds, including private cloud self-service infrastructure as a service (IaaS) capabilities.
- **On-premise container platform:** Cisco Container Platform automates repetitive tasks, such as installing Kubernetes and Docker, installing analytics tools, creating clusters, load balancing, curating the OS, and even updating the distribution.

NEW QUESTION 8

Which two steps should be performed before installing HyperFlex? (Choose two.)

- A. Determine and download recommended installer OVA version required
- B. Complete the pre-installation checklist.
- C. Determine and download recommended hypervisor
- D. Download service profile templates
- E. Determine and download virtual machine OS! required

Answer: AB

NEW QUESTION 9

How many DIMMs are supported per memory channel in the Cisco UCS M5 server?

- A. 2
- B. 1
- C. 8
- D. 4

Answer: A

Explanation:

Memory

OS memory is used by the Cisco HyperFlex servers not only to serve the internal hypervisor processes but also to expedite VM-related functions. Its performance has a significant impact on overall system operation.

Memory in HyperFlex M5 nodes provides these benefits:

- Allows up to two DIMMs per memory channel.
- Is organized with six memory channels per CPU.
- Comes in 128-, 64-, 32- and 16-GB DIMMs.
- Permits 3-TB (3072-GB) maximum memory.

– 2 x 128 GB x 6 channels x 2 CPU = 3072 GB.

NEW QUESTION 10

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

Answer: C

Explanation:

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**.

NEW QUESTION 10

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

Answer: A

Explanation:

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.

NEW QUESTION 13

In all HX server types, where are capacity drives installed?

- A. side
- B. top
- C. back
- D. front

Answer: D

Explanation:

Identifying Capacity Drives

In all server types, the capacity drives are installed on the **front**.

Capacity drives are installed in:

- All HX220c (hybrid/all-flash/all-NVMe):
 - **Front** slots 3-10.
 - First two slots used by housekeeping and cache drives.
- HX240c-M5SX (hybrid/all-flash):
 - **Front** slots 2-24.
 - First slot used by housekeeping drive.
- HX240c-M5L (hybrid only):
 - **Front** slots 1-12.

NEW QUESTION 18

Which three functionalities are provided by VAAI? (Choose three.)

- A. When a native snapshot is requested, the request is processed by the hypervisor.
- B. Missing pieces of data are re-created from the remaining nodes in service
- C. Cisco HXDP creates a file system native snapshot which is registered in the vSphere.
- D. VAAI performs caching, deduplication, and compression of data.
- E. Instead of the snapshot being performed in hypervisor it is offloaded to Cisco HXDP.
- F. VAAI uses RAID to consolidate disks into a shared data platform.

Answer: ACE

Explanation:

VAAI provides these functionalities:

- When a native snapshot is requested, the request is processed by the hypervisor.
- Instead of the snapshot being performed in hypervisor it is offloaded to Cisco HXDP.
- Cisco HXDP creates a file system native snapshot, which is registered in the vSphere.

NEW QUESTION 23

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

Answer: D

Explanation:

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.

NEW QUESTION 26

Which three configurations for read caching in Cisco HyperFlex are valid? (Choose three.)

- A. Battery-Initiated Read-back (default): Only read data and most commonly used data are deposited in the Level 4 read-back cache
- B. Write-back (default): Only write information and most commonly used information are deposited in the cache
- C. Write-through (install option for VDI): Only most commonly used data is cached: optimizing VDI performance
- D. No caching (SSD): With all-flash nodes; because there is little difference in read speeds between SSDs
- E. Level 4 cached (SSD): With semi-flash nodes; there is a large difference in read speeds between SSDs
- F. Write-first (default for VDI): Infrequently used data is cached: freeing system resources for VDI performance

Answer: BCD

Explanation:

There are three options for read **caching** in Cisco HyperFlex:

- **Write-back (default):** Only write information and most commonly used information are deposited in the cache
- **Write-through (install option for VDI):** Only most commonly used data is cached, optimizing VDI performance.
- **No **caching** (SSD):** With all-flash nodes, because there is little difference in read speeds between SSDs.

Regular Hybrid
(Write-Through)

VDI Hybrid
(Write-Back)

All-Flash
(No Read Cache)

NEW QUESTION 30

Which two ways does Cisco HyperFlex upgrade the traditional RAID? (Choose two.)

- A. HyperFlex enables stretched RAID arrays spanning multiple geographic sites.
- B. Hardware replacement initiates self-healing with minimal impact
- C. Limiting the number of drives locally, which are not a part of the shared datastore.
- D. Distributing data locally, not just across the hosts in HyperFlex cluster
- E. Eliminating the need for additional hardware cards, while maintaining high performance.

Answer: BE

Explanation:

Cisco HyperFlex upgrades the **traditional** RAID by:

- Not limiting the number of drives, which are a part of the shared datastore.
- Distributing data across the hosts in HyperFlex cluster, not just locally.
- Hardware replacement initiates self-healing with minimal impact.
- Eliminating the need for additional hardware cards, while maintaining high performance.

NEW QUESTION 34

How many vCPUs does the HXDP controller VM require?

- A. 8
- B. 6
- C. 2
- D. 4

Answer: A

Explanation:

CPU and Memory Guidelines

When selecting the most appropriate CPU for your cluster, you should consider the overhead consumed by 1 Controller VM and RAM support limits.

Consider these facts when choosing hardware:

- These resources are reserved for the Controller VM:
 - 8 vCPUs, shared.
 - 10.8-GHz of CPU power.
 - 48-GB memory on each HX220c, reserved.
 - 72-GB memory on each HX240c, reserved.
 - 78-GB memory on each HX240c I FF reserved.

NEW QUESTION 35

Which uses for the system drive in an HX node are valid? (Choose two.)

- A. Migration
- B. Saving and restoring program state
- C. Virtual machine store
- D. Garbage collection
- E. Write Cache

Answer: BD

Explanation:

Housekeeping/System Drive

Main notes to remember about 240-GB SSD housekeeping drive:

- Also known as system drive.
- Second drive used by the controller VM.
 - In addition to the boot drive.
- Used for various system operations:
 - Saving and restoring program state.
 - Removal of unneeded software.
 - Executing disk maintenance utilities.
 - **Garbage** collection.
 - Freeing local memory on the stack on exit from a function.
 - File backup.

NEW QUESTION 39

HyperFlex compute nodes contribute what percentage of the overall disk storage capacity?

- A. 5%
- B. 20%
- C. 0%
- D. 10%

Answer: C

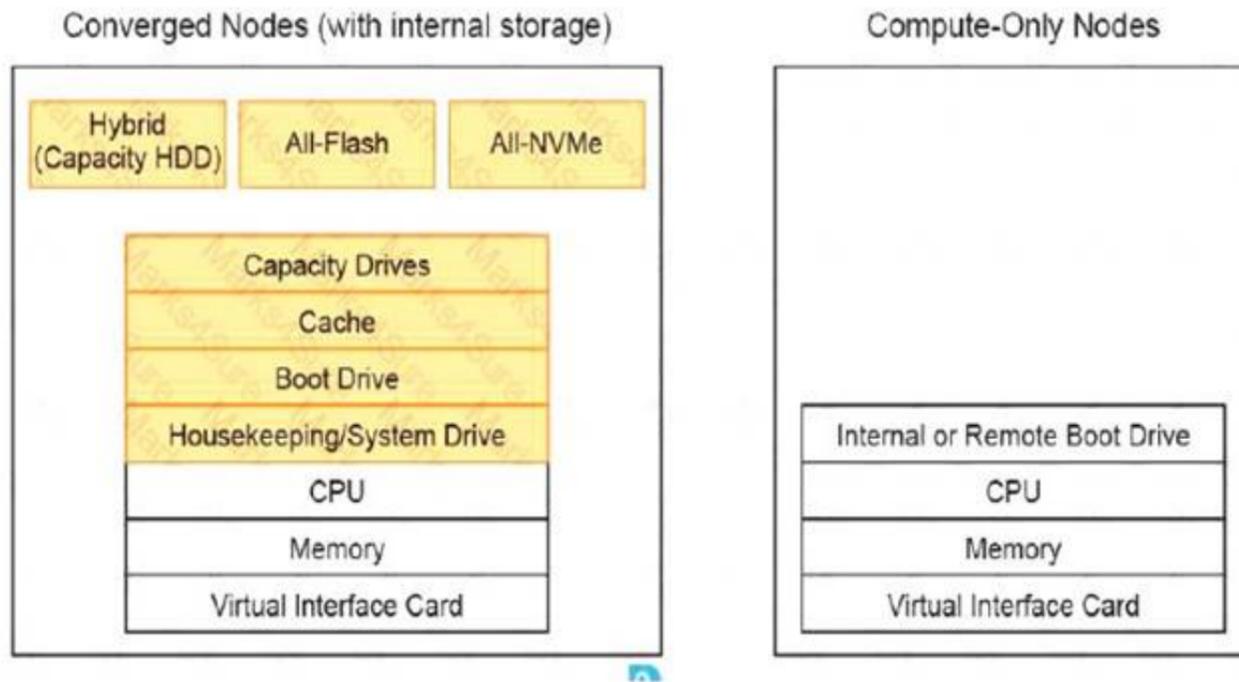
Explanation:

Compute-only nodes are part of the same vSphere cluster as the converged nodes. Since **compute-only nodes do not have storage, they utilize resources available from the converged nodes.**

Storage Components of Cisco HyperFlex Converged Nodes

Cisco HyperFlex converged nodes differ from compute-only nodes by the internal storage resources that they contribute to the overall storage pool. These storage resources include the capacity drives and cache drives.

The figure illustrates a high-level diagram of hardware components of HyperFlex servers.



NEW QUESTION 43

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