

# **Arcitura Education**

**C90.06 Exam**

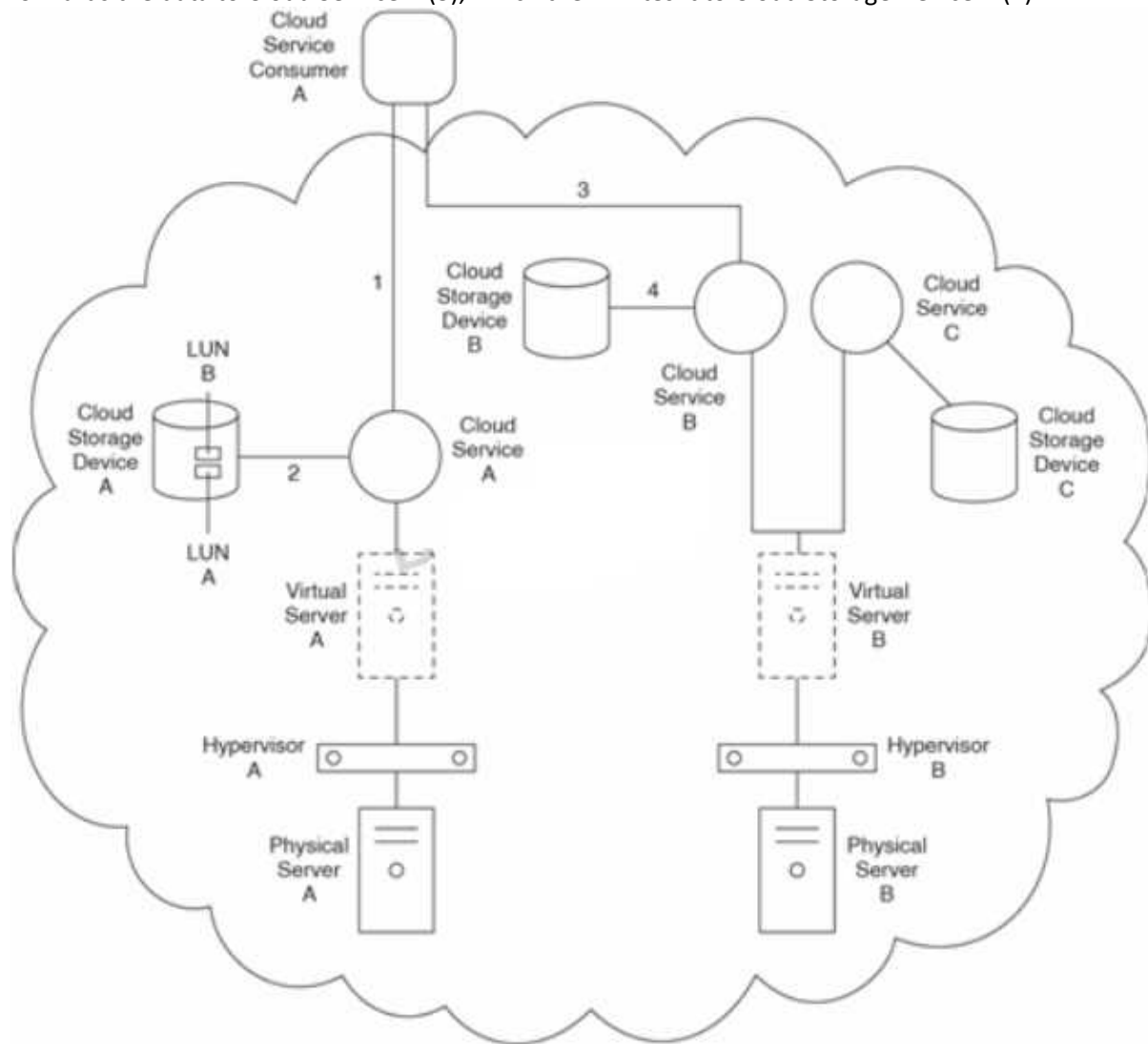
**Cloud Architecture Lab**

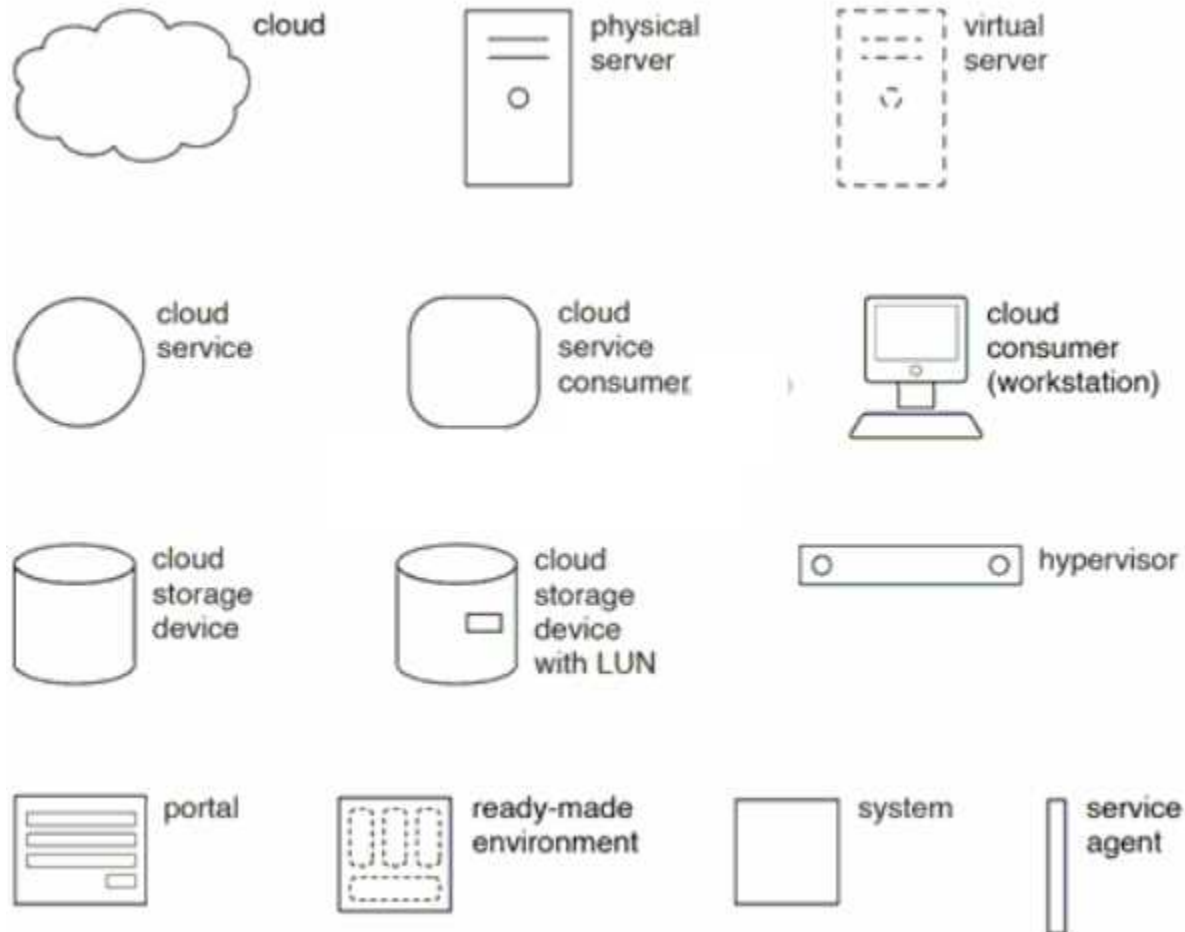
**[Questions & Answers Demo]**

# Version: 5.0

## Question: 1

Cloud Service A requires access to Cloud Storage Device A, which contains LUNs A and B. Cloud Service A is hosted by Virtual Server A, which resides on Hypervisor A on Physical Server A. Virtual Server B hosts Cloud Service B and Cloud Service C. Cloud Service Consumer A accesses Cloud Service A (1), which then accesses LUN A or B on Cloud Storage Device A (2). After receiving the requested data from Cloud Service A, Cloud Service Consumer A forwards the data to Cloud Service B (3), which then writes it to Cloud Storage Device B (4).





Cloud Service Consumer A belongs to Organization A, Organization A uses LUN A and LUN B on Cloud Storage Device A to store their important client account data. Cloud Storage Device A is a low-performance cloud storage device, which begins to cause performance issues as more data is added to LUNs A and B and as Cloud Service Consumer A performs data access requests more frequently. Organization A asks that its cloud architecture be upgraded to process increased quantities of data and higher volumes of data requests.

Organization A has been leasing a PaaS environment that it used to build Cloud Service A, which it would like to make available to the general public. Organization A needs to establish a system capable of monitoring usage of Cloud Service A for billing purposes.

The cloud provider is using a usage data collection and reporting system that gathers information on Organization A's hosted IT resources approximately ten hours after the time of usage. One day, Organization A attempts to retrieve information on whether Virtual Server B has available Cloud Service C instances. They discover that they are unable to obtain the current status of Virtual Server B. Organization A demands a system that provides instant availability reporting.

Which of the following statements lists the patterns that can be applied to solve these three requirements and problems?

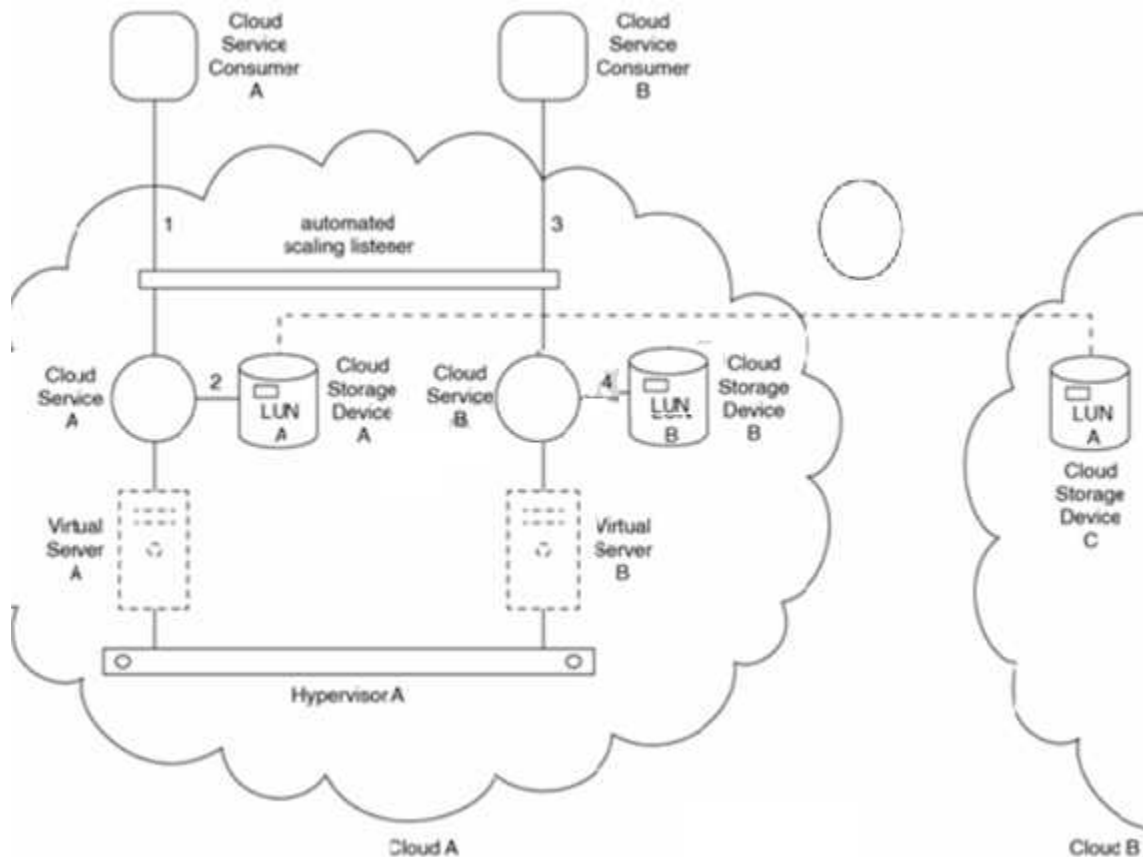
- A. Cross-Storage Device Vertical Tiering, Pay-as-You-Go. Self-Provisioning
- B. Service Load Balancing, Pay-as-You-Go, Multipath Resource Access
- C. Intra-Storage Device Vertical Data Tiering, Usage Monitoring, Centralized Remote Administration
- D. None of the above.

**Answer: D**

**Question: 2**

Cloud Service A is hosted by Virtual Server A. Cloud Storage Device A contains LUN A. Cloud Storage Device A is a multi-tiered cloud storage device with different types of disk groups that perform at different levels. LUN A is located in the disk group with the highest performance level.

Cloud Service B is hosted by Virtual Server B. Virtual Servers A and B are hosted by Hypervisor A, which is installed on a physical server (not shown) that resides in Cloud A. A redundant implementation of LUN A is replicated synchronously to Cloud Storage Device C. Cloud Storage Device C does not support multiple types of disk groups and resides in Cloud B, which is located in a different geographic region than Cloud A. Requests that cloud service consumers send to Cloud Services A and B are intercepted by an automated scaling listener responsible for initiating scaling activities.



Cloud Service Consumer A issues a request to Cloud Service A (1). To process the request, Cloud Service A accesses LUN A on Cloud Storage Device A (2). Cloud Service Consumer B issues a request to Cloud Service B (3). To process the request, Cloud Service B accesses LUN B on Cloud Storage Device B (4).

When Cloud Service Consumer A accesses Cloud Service A, there is usually no noticeable performance fluctuation, even during peak usage periods. However, recently, Cloud Storage Device A became unexpectedly unavailable, requiring that Cloud Service A access LUN A on Cloud Storage Device C instead. During the following outage period for Cloud Storage Device A, Cloud Service Consumer A encounters inconsistent performance from Cloud Service A, including unusual delays that occur whenever the data requested by Cloud Consumer A isn't cached and

Cloud Service A is required to retrieve the data from LUN A.

Which of the following statements describes a solution that can address this problem?

- A. The Storage Maintenance Window pattern can be applied so that future outages of Cloud Storage Device A do not occur unexpectedly. The Resource Pooling and Resource Reservation patterns can be further applied to establish a resource pool on Cloud A that has resources reserved specifically for Cloud Service A. This will prevent other cloud service consumers, such as Cloud Service Consumer B, from competing for Cloud Service A's resources.
- B. The Shared Resources pattern can be applied to prevent Cloud Service A from encountering performance issues when IT resources hosted by Hypervisor A are accessed by other cloud service consumers. The Cross-Storage Device Vertical Tiering pattern can be applied to enable Cloud Storage Device A to scale to a higher performance disk type when an outage occurs.
- C. The Cloud Balancing pattern can be applied to enable Cloud Service A to switch over to Cloud Storage Device C if Cloud Storage Device A becomes unavailable. The Dynamic Data Normalization pattern can be further applied to streamline and reduce the quantity of the data being stored by LUN A within Cloud Storage Device A, so as to correspondingly reduce the performance impacts during high usage volumes.
- D. None of the above.

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**Answer: D**

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