Section Quiz

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Score: 80%

Passing Score: 80%

Question 1: ✔ Correct

Match each description on the left with the appropriate cloud technology on the right.

Public cloud

✔ Provides cloud services to just about anyone.

Private cloud

✔ Provides cloud services to a single organization.

Community cloud

✔ Allows cloud services to be shared by several organizations.

Hybrid cloud

✔ Integrates one cloud service with other cloud services.

EXPLANATION

Cloud computing can be implemented in several different ways, including the following:

- A public cloud can be accessed by anyone. Cloud-based computing resources are made available to the general public by a cloud service provider. The service provider may or may not require a fee for use of these resources. For example, Google provides many publicly accessible cloud applications, such as Gmail and Google Docs.
- A private cloud provides resources to a single organization. Access is restricted to only the users within that organization. An organization commonly enters into an agreement with a cloud service provider, which provides secure access to cloud-based resources. The organization's data is kept separate and secure from any other organization using the same service provider.
- A community cloud is designed to be shared by several organizations. Access is restricted to only users within the organizations who are sharing the community cloud infrastructure. Community clouds are commonly hosted externally by a third party.
- A hybrid cloud is composed of a combination of public, private, and community cloud resources from different service providers. The goal behind a hybrid cloud is to expand the functionality of a given cloud service by integrating it with other cloud services.

REFERENCES

9.4.4 Cloud Computing Facts

q_cloud_comp_cloud_secp7.question.fex

Question 2: ✔ Correct

A group of small local businesses have joined together to share access to a cloud-based payment system.

Which type of cloud is MOST likely being implemented?

- Public
- Hybrid
- Community
- Private

EXPLANATION

A community cloud is designed to be shared by several organizations. Access is restricted to users within the organizations who are sharing the community cloud infrastructure.

A hybrid cloud is composed of a combination of public, private, and community cloud resources from different service providers.

A public cloud can be accessed by anyone.

A private cloud provides resources to a single organization.

REFERENCES

9.4.4 Cloud Computing Facts

q_cloud_comp_community_secp7.question.fex

Question 3: ✔ Correct

Which of the following BEST describes the Platform as a Service (PaaS) cloud computing service model?

- PaaS stores and provides data from a centralized location without the need for local collection and storage.
- PaaS delivers everything a developer needs to build an application on the cloud infrastructure.
- PaaS delivers software applications to the client either over the internet or on a local area network (LAN).
- PaaS delivers infrastructure to the client, such as processing, storage, networks, and virtualized environments.

EXPLANATION

Platform as a Service (PaaS) delivers everything a developer needs to build an application on the cloud infrastructure. The deployment comes without the cost and complexity of buying and managing the underlying hardware and software layers.

Software as a Service (SaaS) delivers software applications to the client either over the internet or on a local area network. Infrastructure as a Service (IaaS) delivers infrastructure to the client, such as processing, storage, networks, and virtualized environments. The client deploys and runs software without purchasing servers, data center space, or network equipment. Data as a Service (DaaS) stores and provides data from a centralized location without the need for local collection and storage.

REFERENCES

9.4.4 Cloud Computing Facts

q_cloud_comp_paas_secp7.question.fex

Question 4: ✔ Correct

Which of the following cloud computing solutions delivers software applications to a client either over the internet or on a local area network?

- PaaS
- DaaS
- SaaS
- IaaS

EXPLANATION

Software as a Service (SaaS) delivers software applications to the client either over the internet or on a local area network (LAN).

Infrastructure as a Service (IaaS) delivers infrastructure to the client, such as processing, storage, networks, and virtualized environments. The client deploys and runs software without purchasing servers, data center space, or network equipment. Platform as a Service (PaaS) delivers everything a developer needs to build an application on the cloud infrastructure. The deployment comes without the cost and complexity of buying and managing the underlying hardware and software layers. Data as a Service (DaaS) stores and provides data from a centralized location without the need for local collection and storage.

REFERENCES

9.4.4 Cloud Computing Facts

q_cloud_comp_saas_secp7.question.fex

Question 5: ✔ Correct

You are the security administrator for your organization. You have implemented a cloud service to provide features such as authentication, anti-malware, intrusion detection, and penetration testing.

Which cloud service have you most likely implemented?

- IaaS
- SaaS
- PaaS
- SECaaS

EXPLANATION

Security as a Service (SECaaS) providers integrate their services into a corporate infrastructure. The applications and software are specific to organizational security. SECaaS is based on the Software as a Service (SaaS) cloud computing model. However, it is limited to information security services and does not require on-premises hardware. These security services can include authentication, antivirus, anti-malware, spyware, intrusion detection, penetration testing, and security event management.

IaaS delivers infrastructure to the client, such as processing, storage, networks, and virtualized environments.

PaaS delivers everything a developer needs to build an application.

SaaS delivers software applications to the client over the internet or on a local area network.

REFERENCES

9.4.4 Cloud Computing Facts

q_cloud_comp_secaas_secp7.question.fex

Question 6: ✕ Incorrect

The IT manager has tasked you with installing new physical machines. These computer systems are barebone systems that simply establish a remote connection to the data center to run the user's virtualized desktop.

Which type of deployment model is being used?

- IaaS
- Thick client
- ~~PaaS~~
- Thin client

EXPLANATION

This type of deployment is often referred to as a thin client deployment. This deployment utilizes virtual desktop infrastructure (VDI) to virtualize a user's desktop. The client machine is essentially only used to connect to the high-end machines in the data center.

IaaS delivers infrastructure to the client, such as processing, storage, networks, and virtualized environments.

PaaS delivers everything a developer needs to build an application.

Traditional deployments, where most of the processing load is handled by the local workstation, are called thick client deployments.

REFERENCES

9.4.4 Cloud Computing Facts

q_cloud_comp_thin_secp7.question.fex

Question 7: ✕ Incorrect

Which of the following are true concerning virtual desktop infrastructure (VDI)? (Select two.)

- [ ] User desktop environments are provided by individual desktop systems instead of by remote servers.
- [ ] In the event of a widespread malware infection, the administrator can reimage user desktops by pushing an image out to each user desktop system over the network.
- [x] User desktop environments are centrally hosted on servers instead of on individual desktop systems.
- [x] In the event of a widespread malware infection, the administrator can quickly reimage all user desktops on a few central servers.
- [x] ~~Roaming profiles must be configured to allow mobile users to keep their same desktop environment across systems.~~

EXPLANATION

Virtual desktop infrastructure (VDI) is a service that hosts user desktop environments on centralized servers. Users access their desktops from low-end systems over a network connection using a remote display protocol such as Remote Desktop or Virtual Network Computing (VNC). This allows users to access their desktop environment with their applications and data from any location and from any client device. Roaming profiles are not needed.

VDI provides administrators with a centralized client environment that is easier and more efficient to manage. For example, if a widespread malware infection hits multiple user desktops, the affected systems can be quickly reimaged on the VDI server. There is no need to push large images down to client systems over the network.

REFERENCES

9.4.4 Cloud Computing Facts

q_cloud_comp_vdi_secp7.question.fex

Question 8: ✔ Correct

Google Cloud, Amazon Web Services (AWS), and Microsoft Azure are some of the most widely used cloud storage solutions for enterprises. Which of the following factors prompt companies to take advantage of cloud storage? (Select two.)

- [x] Need to bring costs down
- [ ] Need for Software as a Service (SaaS) for managing enterprise applications
- [ ] Need for a storage provider to manage access control
- [x] Growing demand for storage
- [ ] Need for Platform as a Service (PaaS) for developing applications

EXPLANATION

Some of the most widely used cloud storage for enterprises are Google Cloud, Amazon Web Services, and Microsoft Azure. Because of the growing demand for storage and desire to bring costs down, many companies have been taking advantage of cloud storage.

REFERENCES

9.4.5 Cloud Storage Security Facts

q_cloud_stor_available_secp7.question.fex

Question 9: ✔ Correct

Which of the following cloud storage access services acts as a gatekeeper, extending an organization's security policies into the cloud storage infrastructure?

- A web service application programming interface
- A cloud storage gateway
- A cloud-access security broker
- A co-located cloud computer service

EXPLANATION

A cloud-access security broker (CASB) may act as a gatekeeper, extending an organization's security policies into the cloud storage infrastructure. A CASB focuses on the visibility of company data, regulation compliance, user access, and data security through encryption and loss prevention.

Cloud storage services may be accessed through a co-located cloud computer service, a web service application programming interface (API), or by applications that utilize the API, such as cloud desktop storage (in other words, cloud storage gateways or web-based content management systems).

REFERENCES

9.4.3 Cloud Computing Security Issues

9.4.5 Cloud Storage Security Facts

9.5.5 Cloud Security Solutions Facts

q_cloud_stor_casb_secp7.question.fex

Question 10: ✔ Correct

Cloud storage is a virtual service, so the infrastructure is the responsibility of the storage provider. Access control should be set as a local file system would be, with no need for the provider to have access to the stored data.

You are implementing the following measures to secure your cloud storage:

- Verify that security controls are the same as in a physical data center.
- Use data classification policies.
- Assign information into categories that determine storage, handling, and access requirements.
- Assign information classification based on information sensitivity and criticality.

Which of the following is another security measure you can implement?

- Create versioned copies of your cloud data.
- ➡ Dispose of data when it is no longer needed by using specialized tools.
- Configure redundancy and distribution of data.
- Configure distributed resources to act as one in a federated architecture.

EXPLANATION

Disposing of data when it is no longer needed by using specialized tools is another security measure you can implement.

Creating versioned copies of your cloud data, configuring redundancy and distribution of data, and configuring distributed resources to act as one in a federated architecture are all measures that improve the fault tolerance and durability of your data.

REFERENCES

9.4.5 Cloud Storage Security Facts

q_cloud_stor_cloud_secp7.question.fex