AWS - Storage Gateway

1. **For volume gateways you can use either cached volume or stored volumes. Why would you use Cached volumes?**	By using cached volumes, you can use Amazon S3 as your primary data storage, while retaining frequently accessed data locally on your storage gateway.
2. **How are objects encrypted in File gateways? How are data transfers from on-premise to Amazon S3 secure?**	Objects are encrypted with server-side encryption with Amazon S3 managed encryption keys. All data transfer is done through HTTPS.
3. **How can you create storage volumes? (Volume Gateways)**	You can create storage volumes and mount them as iSCASO devices from your on-premises application servers.
4. **How does Files Gateways work?**	To use file gateway storage, you start by downloading a V image for the file storage gateway. You then activate it from the AWS Management Console. After the VM is activated, you configure the S3 buckets that the gateway later exposes as file systems through NFS. Files written to NFS become objects in Amazon S3, with the path as the key. There is a on-to-one mapping between files and objects, and the gateway asynchronously updates the objects in Amazon S3 as you change the files. Existing files in the bucket appear as files in the file system, and the key becomes the path.
5. **How is data written and transferred when using storage volumes?**	Data written to your stored volumes is stored on your on-premises storage hardware. Then, using features that help maintain data security, the gateway uploads data to the AWS cloud for cost-effective backup and rapid disaster recovery. This data is asynchronously uploaded to Amazon S3 as Amazon Elastic Block Storage Snapshots (EBS).
6. **IN AWS Storage Gateway, your iSCASI initiators connect to your volumes as iSCASI targets. What does Storage Gateways use to authenticate iSCASI initiator challenges to protect agains playbacks attacks?**	Storage Gateway uses Challenge-Handshake Authentication Protocol (CHAP) to authenticate iSCASI and initiator connections.
7. **What are the network and firewall requirements for your locally deployed gateway?**	AWS Storage gateway requires certain ports to be allowed for its operation and access through the firewall to certain endpoints in order to communicate with AWS.
8. **What does a file gateway allow you to do?**	A file gateway allows to store and retrieve files from S3 using NFS.
9. **What does a tape gateway eliminate?**	A tape gateway eliminates the operational burden of provisioning, scaling and maintaining a physical tape infrastructure.
10. **What do stored volumes (Volume Gateways) enable you to do?**	By using stored volumes you can store your primary data locally, while asynchronously backing up that data to AWS. Stored volumes provide your n-premise applications with low-latency access to their entire data sets. At the same time, they provide durable, offsite backups.
11. **What do volume gateway configured as cached volumes minimise?**	Cached volumes eliminate the need to scale your on-premises storage infrastructure, while still providing your applications with low-latency access to their frequently accessed data
12. **What is a File Gateway and how does it work?**	A file gateway allows you to store and retrieve objects in Amazon S3 using industry-standard file protools such as NFS. A software appliance (also known as a gateway) is deployed into your on-premise environment as a virtual machine (VM) running on VMware ESXi or Microsoft Hyper-V hypervisor. The gateway provides access to objects in S3 as files on an NFS mount point
13. **What is a Tape Gateway?**	A tape gateway allows you to durably archive backup data in Amazon Glacier.

14.	**What is a Volume Gateway and how does it work?**	A volume gateway provides cloud-backed storage volumes that you can mount as iSCASI devices from your on -premises application servers.
15.	**What is AWS Storage Gateway?**	AWS Storage Gateway connects on-premise software appliance with cloud-based storage to provide seamless integration with data security features between you on-premise IT environment and the AWS storage infrastructure.
16.	**What is the benefit of a file gateway?**	A file gateway simplifies file storage in Amazon S3 , integrates to existing applications through industry standard file system protocols and provides a cost effective alternative to on-premises storage.
17.	**What kind of cached volumes can you create? (Volume Gateways)**	You can create storage volumes up to 32 TiB in size and attach to them as iSCASI devices from your on premises application servers.
18.	**What type of storage services does the AWS storage gateway service offer?**	AWS storage gateways offers file-based, volume based and tape based storage solutions.
19.	**What volume configurations does Volume gateway support?**	Cached volumes and Stored volumes.
20.	**You would like to store your data in Amazon S3 as mounted iSCASI devices from your on premises application servers. You need low latency access to your entire dataset, hence need access to your data to be on-premise. You would also like to asynchronously backup snapshots of your on-premise data set to S3. What type of storage gateway should you select and how should you configure it?**	You should select a Volume gateway and configure the volume as a stored volume.