

HashiCorp Certified Consul Associate

1 Explain Consul architecture

- Identify the components of the Consul datacenter, including agents and communication protocols
- Prepare Consul for high availability and performance
- Identify Consul's core functionality
- Differentiate agent roles

2 Deploy a single datacenter

- Start and manage the Consul process
- Interpret a Consul agent configuration
- Configure Consul network addresses and ports
- Describe and configure agent join and leave behaviors

3 Register services and use service discovery

- Interpret a service registration
- also, Differentiate ways to register a single service
- furthermore, Interpret a service configuration with a health check
- moreover, Check the service catalog status from the output of the DNS/API interface or via the Consul UI
- also, Interpret a prepared query
- furthermore, Use a prepared query

4 Access the Consul key/value (KV)

- Understand the capabilities and limitations of the KV store
- also, Interact with the KV store using both the Consul CLI and UI
- furthermore, Monitor KV changes using `watch`
- moreover, Monitor KV changes using `envconsul` and `consul-template`

5 Back up and restore

- Describe the content of a snapshot
- also, Back up and restore the datacenter
- [Enterprise] Describe the benefits of snapshot agent features

6 Use Consul service mesh

- Understand Consul Connect service mesh high-level architecture
- also, Describe the configuration for registering a service proxy
- furthermore, Describe intentions for the Consul Connect service mesh
- moreover, Check intentions in both the Consul CLI and UI

7 Secure agent communication

- Understanding Consul security/threat model
- Differentiate certificate types needed for TLS encryption
- Understand the different TLS encryption settings for a fully secure datacenter

8 Secure services with basic access control lists (ACL)

- Set up and configure a basic ACL system
- Create policies

- Manage token lifecycle: multiple policies, token revoking, ACL roles, service identities
- Perform a CLI request using a token
- Perform an API request using a token

9 Use gossip encryption

- Understanding the Consul security/threat model
- Configure gossip encryption for the existing data center
- Manage the lifecycle of encryption keys