HashiCorp

Consul-Associate

HashiCorp Certified: Consul Associate

QUESTION & ANSWERS

Question: 1

What are two ways that a client or service can programmatically discover healthy nodes for a service registered in a local Consul cluster? (select two)

1. DNS
2. User Interface (UI)
3. HTTP API
4. federation

Answer: A,C

Explanation/Reference:

Applications can discover healthy nodes of a particular service by accessing the DNS name of the service (e.g., website.service.consul) or by making the request via
Consul's HTTP API.
https://learn.hashicorp.com/consul/getting-started/services#query-services

Question: 2

Select the benefits that the LAN gossip pool provides to a Consul datacenter (select three)

1. failure detection work to be shared by the entire cluster
2. automatically discover servers, reducing the amount of configuration needed
3. perform cross datacenter requests
4. reliable and fast event broadcasts

Answer: A,B,D

Explanation/Reference:

Consul makes use of two different gossip pools. We refer to each pool as the LAN or WAN pool respectively. Each datacenter Consul operates in has a LAN gossip pool
containing all members of the datacenter, both clients and servers. The LAN pool is used for a few purposes. Membership information allows clients to automatically
discover servers, reducing the amount of configuration needed. The distributed failure detection allows the work of failure detection to be shared by the entire cluster
instead of concentrated on a few servers. Lastly, the gossip pool allows for reliable and fast event broadcasts.
https://www.consul.io/docs/internals/gossip.html#gossip-in-consul

Question: 3

You are running a Consul Enterprise deployment with immutable nodes and want to establish a backup strategy since Consul is heavily used within your organization.
Which method below would provide automated backups and ensure that the snapshots are stored on a secure, durable storage solution?

1. logging into the node and executing the consul snapshot save command
2. https://www.mytestengine.com/home/index?code=Consul-Associate
3. a cron job that executes the command consul snapshot save backup.snap every hour
4. consul snapshot agent

Answer: D

Explanation/Reference:

The key part of the question is that you are running Consul Enterprise, which permits you to use the Consul Snapshot Agent. The snapshot agent subcommand starts a
process that takes snapshots of the state of the Consul servers and saves them locally or pushes them to an optional remote storage service.
As of Consul 1.6.1, Consul Snapshot Agent can store snapshots on AWS, Azure, or Google. You can also store them locally if you wish.

Question: 4

From the health checks below, which health check would be defined as a script check?

1. 1. {
   2. "check": {
   3. "id": "web-app",
   4. "name": "Web App Status",
   5. "notes": "Web app does a curl internally every 10 seconds",
   6. "ttl": "30s"
   7. }
   8. }
2. 1. {
   2. "check": {
   3. "id": "ssh",
   4. "name": "SSH TCP on port 22",
   5. "tcp": "localhost:22",
   6. "interval": "10s",
   7. "timeout": "1s"
   8. }
   9. }
3. 1. {
   2. "check": {
   3. "id": "api",
   4. "name": "HTTP API on port 5000",
   5. "http": "https://localhost:5000/health",
   6. "tls_skip_verify": false,
   7. "method": "POST",
   8. "header": {"Content-Type": "application/json"},
   9. "body": "{\"method\":\"health\"}",
   10. "interval": "10s",
   11. "timeout": "1s"
   12. }
   13. }
4. 1. {
   2. "check": {
   3. "id": "mem-util",
   4. "name": "Memory utilization",
   5. "args": ["/usr/local/bin/check_mem.py", "-limit", "256MB"],
   6. "interval": "10s",
   7. "timeout": "1s"
   8. }
   9.

Answer: D

Explanation/Reference:

The mem-util health check is using a python (py) script to return a specific metric back, which is then compared to the

limitation set in the arguments. This is an excellent
way to customize health checks to support metrics that may not be supported out of the box with Consul.
api is considered to be an HTTP check
ssh is a tcp check
web-app is a TTL check
https://www.consul.io/docs/agent/checks.html

Question: 5

Scenario: You are manually creating Consul snapshots in preparation for an upgrade. You save two snapshots, as shown in the commands below:
1. $ consul snapshot save snapshot1.snap
2. Saved and verified snapshot to index 20
3.
4. $ consul snapshot save snapshot2.snap
5. Saved and verified snapshot to index 20
After inspecting the snapshots, you have noticed that the version number of the snapshot is not incrementing, and both snapshots display a value of 1. Why is the value not
incrementing?
1. $ consul snapshot inspect snapshot1.snap
2. ID 2-20-1589565937748
3. Size 12070
4. Index 20
5. Term 2
6. Version 1
1. $ consul snapshot inspect snapshot2.snap
2. ID 2-20-1589565954127
3. Size 12070
4. Index 20
5. Term 2
6. Version 1

1. the version number does not correspond to the version of data, rather it is the snapshot format version
2. the version is synonymous with the version of Consul, and this snapshot was created on a cluster running Consul 1.x.x
3. since the snapshot name is different, the version indicates that it is the first version of a snapshot with that particular name
4. the snapshot was not created with the proper flag to indicate it was not the first version of the snapshot

Answer: A

Explanation/Reference:

The version field indicates the snapshot format version. This only refers to the structure of the snapshot, not the data contained within.
https://www.consul.io/docs/commands/snapshot/inspect.html#version

Question: 6

Complete the sentence using the answers below (select two):
In production, you would run a Consul agent in either _____ mode or _____ mode.

1. development
2. client
3. server
4. service
5. performance

Answer: B,C