



# KCNA<sup>Q&As</sup>

Kubernetes and Cloud Native Associate (KCNA)

## Pass Linux Foundation KCNA Exam with 100% Guarantee

Free Download Real Questions & Answers **PDF** and **VCE** file from:

<https://www.pass4itsure.com/kcna.html>

100% Passing Guarantee  
100% Money Back Assurance

Following Questions and Answers are all new published by Linux Foundation Official Exam Center

- ⚙️ **Instant Download** After Purchase
- ⚙️ **100% Money Back** Guarantee
- ⚙️ **365 Days** Free Update
- ⚙️ **800,000+** Satisfied Customers





### QUESTION 1

Which style of operations are preferred for kubernetes and cloud-native applications?

- A. Imperative
- B. None of the above
- C. Declarative

Correct Answer: C

Explanation: <https://kubernetes.io/docs/tasks/manage-kubernetes-objects/declarative-config/#trade-offs>

---

### QUESTION 2

Which of the following best describes a cloud-native app?

- A. An application where all logic is coded into a single large binary.
- B. An application that publishes an HTTPS web front-end.
- C. An application that takes advantages of cloud computing frameworks and their loosely coupled cloud services.
- D. An application that leverages services that are native to public cloud platforms such as Azure, GCP, and/or AWS.

Correct Answer: C

Explanation: Cloud-native apps leverage cloud computing frameworks and tend to be microservices based, where individual components of the app are coded as individual.

---

### QUESTION 3

Fluentd is the only way to export logs from Kubernetes cluster or applications running in cluster

- A. True
- B. False

Correct Answer: B

Explanation: <https://github.com/cncf/landscape#trail-map>



## CLOUD NATIVE TRAIL MAP

The Cloud Native Landscape [cncf.io](https://cncf.io) has a large number of options. This Cloud Native Trail Map is a recommended process for leveraging open source, cloud native technologies. At each step, you can choose a vendor-supported offering or do it yourself, and everything after step #3 is optional based on your circumstances.

### HELP ALONG THE WAY

#### A. Training and Certification

Consider training offerings from CNCF and then take the exam to become a Certified Kubernetes Administrator or a Certified Kubernetes Application Developer [cncf.io/training](https://cncf.io/training)

#### B. Consulting Help

If you want assistance with Kubernetes and the surrounding ecosystem, consider leveraging a Kubernetes Certified Service Provider [cncf.io/kcsp](https://cncf.io/kcsp)

#### C. Join CNCF's End User Community

For companies that don't offer cloud native services externally [cncf.io/enduser](https://cncf.io/enduser)

### WHAT IS CLOUD NATIVE?

Cloud native technologies empower organizations to build and run scalable applications in modern, dynamic environments such as public, private, and hybrid clouds. Containers, service meshes, microservices, immutable infrastructure, and declarative APIs exemplify this approach.

These techniques enable loosely coupled systems that are resilient, manageable, and observable. Combined with robust automation, they allow engineers to make high-impact changes frequently and predictably with minimal toil.

The Cloud Native Computing Foundation seeks to drive adoption of this paradigm by fostering and sustaining an ecosystem of open source, vendor-neutral projects. We democratize state-of-the-art patterns to make these innovations accessible for everyone.

[cncf.io](https://cncf.io)

v20200501



### 1. CONTAINERIZATION

- Commonly done with Docker containers
- Any size application and dependencies (even PDP-11 code running on an emulator) can be containerized
- Over time, you should aspire towards splitting suitable applications and writing future functionality as microservices

### 3. ORCHESTRATION & APPLICATION DEFINITION

- Kubernetes is the market-leading orchestration solution
- You should select a Certified Kubernetes Distribution, Hosted Platform, or Installer [cncf.io/ck](https://cncf.io/ck)
- Helm Charts help you define, install, and upgrade even the most complex Kubernetes applications

### 5. SERVICE PROXY, DISCOVERY, & MESH

- CoreDNS is a fast and flexible tool that is useful for service discovery
- Envoy and Linkerd each enable service mesh architectures
- They offer health checking, routing, and load balancing

### 7. DISTRIBUTED DATABASE & STORAGE

When you need more resiliency and scalability than you can get from a single database, Vitess is a good option for running MySQL at scale through sharding. Rook is a storage orchestrator that integrates a diverse set of storage solutions into Kubernetes. Serving as the "brain" of Kubernetes, etcd provides a reliable way to store data across a cluster of machines. TiKV is a high performance distributed transactional key-value store written in Rust.

### 9. CONTAINER REGISTRY & RUNTIME

Harbor is a registry that stores, signs, and scans content. You can use alternative container runtimes. The most common, both of which are OCI-compliant, are containerd and CRI-O.

### 2. CI/CD

- Setup Continuous Integration/Continuous Delivery (CI/CD) so that changes to your source code automatically result in a new container being built, tested, and deployed to staging and eventually, perhaps, to production
- Setup automated rollouts, roll backs and testing
- Argo is a set of Kubernetes-native tools for deploying and running jobs, applications, workflows, and events using GitOps paradigms such as continuous and progressive delivery and MLops

### 4. OBSERVABILITY & ANALYSIS

- Pick solutions for monitoring, logging and tracing
- Consider CNCF projects Prometheus for monitoring, Fluentd for logging and Jaeger for Tracing
- For tracing, look for an OpenTracing-compatible implementation like Jaeger

### 6. NETWORKING, POLICY, & SECURITY

To enable more flexible networking, use a CNI-compliant network project like Calico, Flannel, or Weave Net. Open Policy Agent (OPA) is a general purpose policy engine with uses ranging from authorization and admission control to data filtering. Falco is an anomaly detection engine for cloud native.

### 8. STREAMING & MESSAGING

When you need higher performance than JSON-RPC, consider using gRPC or NATS. gRPC is a universal RPC framework. NATS is a multi-modal messaging system that includes request/reply, pub/sub and load balanced queues. Cloudvents is a specification for describing event data in common ways.

### 10. SOFTWARE DISTRIBUTION

If you need to do secure software distribution, evaluate Notary, an implementation of The Update Framework.



#### QUESTION 4

What command can you use to get documentation about a resource type from the command line?

- A. `kubectl api-resources`
- B. `kubectl explain`
- C. `kubectl get`
- D. `kubeadm get-resource`

Correct Answer: B

Explanation: <https://kubernetes.io/docs/reference/generated/kubectl/kubectl-commands#explain>

## explain

---

Get the documentation of the resource and its fields

```
kubectl explain pods
```

Get the documentation of a specific field of a resource

```
kubectl explain pods.spec.containers
```

List the fields for supported resources.

This command describes the fields associated with each supported API resource. Fields are identified via a simple JSONPath identifier:

```
<type>.<fieldName>[.<fieldName>]
```

Add the `--recursive` flag to display all of the fields at once without descriptions. Information about each field is retrieved from the server in OpenAPI format.

Use `"kubectl api-resources"` for a complete list of supported resources.

## Usage

```
$ kubectl explain RESOURCE
```

**QUESTION 5**

What does the 'kops' acronym means?

- A. Kubernetes Open Platform Specification
- B. Kubernetes Operations
- C. Kubernetes Operators
- D. Kubernetes Operation Policy Specification

Correct Answer: B

Explanation: <https://github.com/kubernetes/kops>

☰ README.md

## kOps - Kubernetes Operations

go report A+ reference

The easiest way to get a production grade Kubernetes cluster up and running.

### What is kOps?

We like to think of it as `kubect1` for clusters.

`kops` will not only help you create, destroy, upgrade and maintain production-grade, highly available, Kubernetes cluster, but it will also provision the necessary cloud infrastructure.

AWS (Amazon Web Services) is currently officially supported, with DigitalOcean, GCE, and OpenStack in beta support, and Azure and AliCloud in alpha.

Graphical user interface, text, application, email

[Latest KCNA Dumps](#)

[KCNA Practice Test](#)

[KCNA Study Guide](#)