CNCF Landscape

Trail Map By KodeKloud

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Containerization

OBJECTIVE:

Encapsulate applications and their dependencies.

TOOLS:

docker podman buildah

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Container Registries & Runtimes

OBJECTIVE:

Store and manage container images; execute containers.

REGISTRY TOOLS:

docker HUB Red Hat Quay.io HARBOR

RUNTIME TOOLS:

containerd RUNC gVisor

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Continuous Integration & Continuous Deployment (CI/CD):

OBJECTIVE:

Automate the build, test, and deployment processes.

TOOLS:

Jenkins GITLAB CI/CD GitHub Actions circleci

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Service Proxy, Discovery, and Mesh:

OBJECTIVE:

Manage service-to-service communication, discover services, and ensure resilient communication.

TOOLS:

Istio LINKERD Consul

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Networking, Policy, and Security:

OBJECTIVE:

Manage network communication, enforce policies, and secure applications.

NETWORKING TOOLS:

CALICO cilium weave

SECURITY TOOLS:

Falco Open Policy Agent

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Distributed Databases & Storage:

OBJECTIVE:

Store data in distributed environments ensuring high availability and fault tolerance.

DATABASE TOOLS:

cassandra CockroachDB etcd

STORAGE TOOLS:

ceph ROOK GLUSTER portworx

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Streaming & Messaging:

OBJECTIVE:

Handle real-time data streams and inter-service communication.

TOOLS:

kafka RabbitMQ PULSAR

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Orchestration:

OBJECTIVE:

Manage, scale, and maintain containerized applications.

TOOLS:

kubernetes docker SWARM Nomad

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Configuration & Secret Management:

OBJECTIVE:

Manage application configurations and secrets securely.

CONFIGURATION TOOL: SECRET MANAGEMENT TOOL:

HELM HashiCorp Vault

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Serverless Frameworks:

OBJECTIVE:

Execute code in response to events without provisioning or managing servers.

TOOLS:

Knative OPENFAAS aws Lambda

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Software Distribution:

OBJECTIVE:

Distribute and manage software across various environments.

TOOLS:

Spinnaker argo HELM