Container Platform

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Discussion

A Container Platform is a computing platform that supplies the runtime and supporting capabilities required to deploy and operate Containerized Workloads.

A Container Platform may supply:

- A container runtime
- Workload scheduling
- Resource allocation
- Network connectivity
- Service discovery
- Storage integration
- Identity and access controls
- Security controls
- Configuration distribution
- Secret distribution
- Health monitoring
- Logging
- Scaling
- Workload restart and recovery

A Container Platform uses one or more Container Images to instantiate the containers associated with a Containerized Workload.

A Container Platform differs from a container runtime:

- A container runtime creates and operates individual containers
- A Container Platform combines a container runtime with capabilities used to deploy and operate Containerized Workloads

A Container Platform differs from a Kubernetes Cluster:

- A Container Platform is the general concept
- A Kubernetes Cluster is a Container Platform realized through Kubernetes control-plane components and worker nodes

A Container Platform may operate:

- On physical computing resources
- On Virtual Machines
- Within an Infrastructure Environment
- Through a provider-managed service
- In a Connected Environment
- In a Disconnected Environment

- In an Air-Gapped Environment

Definition

computing platform that supplies the runtime and supporting capabilities required to deploy and operate Containerized Workloads

Source

Dido Solutions, Inc. and Jackrabbit Consulting, Inc.

Note

A Container Platform does not by itself establish that the platform is:

- Securely configured
- Highly available
- Compliant with an applicable Baseline
- Authorized to execute a particular Workload
- Connected to an external network
- Suitable for production operation

Separate requirements govern those determinations.

The term does not prescribe:

- A container runtime
- An orchestration technology
- A deployment topology
- A network implementation
- A storage implementation
- An operating system
- A provider
- A Provider Implementation

Example

A Kubernetes Cluster, comprising worker nodes, a container runtime, networking, storage integration, identity controls, logging, and monitoring, serves as a Container Platform for deployed Containerized Workloads.