DIAMANTI

Kubernetes®, containers, and microservices are fundamentally transforming the way applications are developed and run. However, legacy virtualized IT infrastructure isn't architected for how cloud-native applications consume compute, network, and storage resources. Taking a do-it-yourself approach to building a production Kubernetes environment can be an expensive process that requires months of installation, integration, and testing.

Why Diamanti?

The Diamanti Enterprise Kubernetes Platform gives architects, IT operations, and application owners the simplicity, performance, efficiency, and enterprise features needed to run cloud-native applications at scale. With open-source Kubernetes fully integrated in the platform, together with purpose-built hardware and multi-cloud integration, Diamanti is full-featured Kubernetes infrastructure that deploys in minutes.

Technology Overview

The Diamanti Enterprise Kubernetes Platform is a complete Kubernetes stack that deploys as a scale-out hyperconverged x86-based appliance. Each D20 appliance features Diamanti's intelligent networking and storage architecture, low-latency NVMe storage, plug-and-play networking, open-source Kubernetes and 24x7 full-stack support by Diamanti.

Intelligent Storage and Networking Architecture

Plug-and-Play Networking

Containers have their own unique system of port mappings, overlays, and bandwidth requirements that create a host of interoperability challenges.

Diamanti eliminates these configuration roadblocks by integrating directly with existing network infrastructure. Eachcontainer is automatically allocated an IP address and can reside on any subnet.

Fast NVMe-Based Persistent Storage

Legacy scale-up storage arrays don't fit modern scale-out containers. Trying to achieve performance at scale for databases and key value stores has ops teams scrambling to deliver persistent storage. Diamanti meets the storage needs of your stateful applications with low-latency NVMe block storage, delivering 100-microsecond read/write latency. Diamanti extends NVMe across the cluster using standard 10 Gb Ethernet, offering data mobility without compromise.

Enterprise Features

The Diamanti console is your portal to deploying and managing your Kubernetes infrastructure. With access via browser, CLI, or REST API, the Diamanti console offers a rich set of container configuration capabilities, resource management features, detailed real-time dashboards, and enterprise-class data protection and security:

- Guaranteed per-container Quality of Service (QoS) with no overprovisioning
- On-premises availability zones and hybrid cloud support
- Data protection and disaster recovery with allocate-on-write snapshots and volume mirroring
- Detailed real-time monitoring of resource utilization and performance
- Secure platform operation via isolation of storage and network traffic
- Secure communication via TLS certificates
- Role-based access control (RBAC)
- Authentication through LDAP and AD
- 24x7 enterprise-class support

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