

Diamanti D10 Bare-Metal Container Platform

FULLY INTEGRATED

Docker and Kubernetes

NETWORK

4x10 GbE per node

STORAGE

3.2 TB or 6.4 TB NVMe

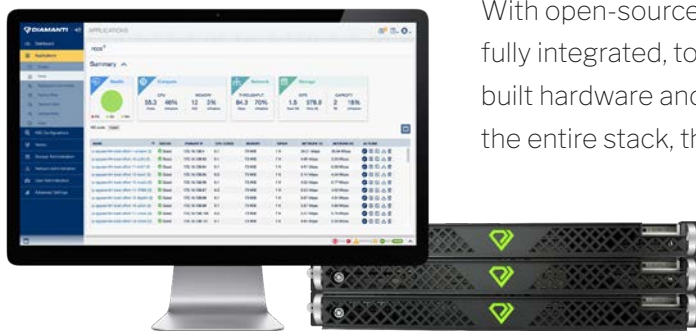
COMPUTE

2x E5-2630V4 2.2 GHz Intel Xeon

Containers accelerate application development and deployment, but legacy infrastructure is a major obstacle to building a fully functional container stack. Developers and application owners demand performance and control, while infrastructure managers require efficiency and low total cost of ownership.

Containers are incompatible with traditional storage and network infrastructure, so a do-it-yourself approach to building a container environment is a complex, months-long project that risks slower time to market, rising personnel and equipment costs, and growing frustration between developers and IT operations.

Diamanti's D10 bare-metal container platform gives infrastructure architects, IT operations, and application owners the speed, simplicity, efficiency, and control they need to run stateful containerized applications at scale.



With open-source Docker and Kubernetes fully integrated, together with purpose-built hardware and complete support for the entire stack, the Diamanti D10 is a

proven full container solution that deploys in minutes.

DIAMANTI AT A GLANCE

SPEED

- Container infrastructure deploys in 15 minutes
- 2.4M+ IOPS per three-node cluster
- 100µs latency across the entire cluster

SIMPLICITY

- Plug-and-play cluster deployment and easy management
- Networking, storage, and capacity scaling with a few clicks
- RBAC and Active Directory integration

EFFICIENCY

- 50% smaller infrastructure footprint
- 70% lower TCO compared to public cloud deployments
- 90% utilization using existing networks and software
- Integrates easily with established workflows

CONTROL

- Container-granular policies and monitoring
- Guaranteed SLAs
- Network and storage QoS
- No vendor lock-in
- 24x7 full-stack support



The Diamanti D10: INFRASTRUCTURE ARCHITECTED FOR CONTAINERS

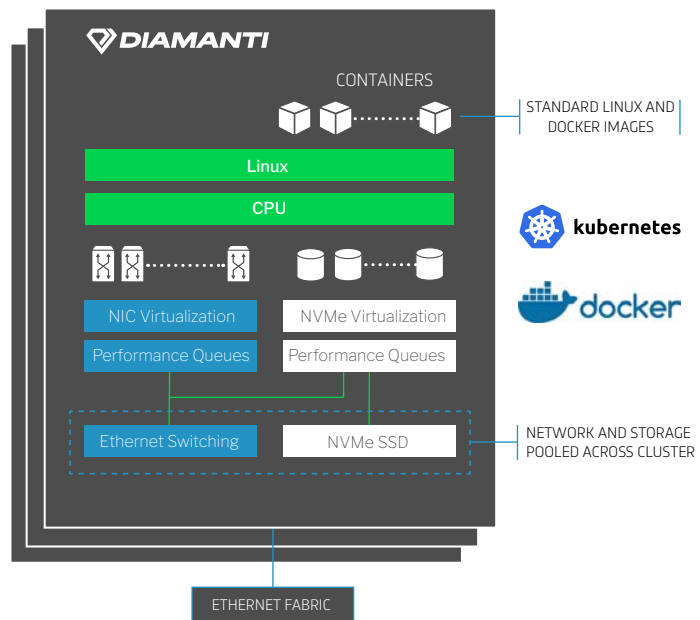
Diamanti's virtualized approach to network and storage traffic management addresses the unique requirements of stateful containerized applications. At the same time, Diamanti delivers unmatched resource utilization—up to 90%—across the entire cluster. No other container stack achieves such a small data center footprint. Volumes deploy and configure in seconds using open-source software including Docker and Kubernetes. Low-latency block storage is built using NVMe, which requires roughly one-third the transactional CPU overhead of SCSI, delivering 100-microsecond read/write latency. Diamanti extends NVMe across the cluster using standard 10 Gb Ethernet, offering data mobility without compromise.

PLUG-AND-PLAY NETWORKING

Containers have their own unique concept of port mappings and overlays that create a host of interoperability challenges. Diamanti eliminates these configuration roadblocks with networking that plugs into existing VLANs and DNS. Diamanti enables the creation of real MAC addresses and corresponding fixed, routable IPs for each pod.

FAST NVME PERSISTENT STORAGE

Legacy scale-up storage arrays don't fit modern scale-out containers. Organizations are challenged with providing highly available databases with high-performance persistent storage, managed and operated in the same way as the applications that consume those services.



Diamanti D10 meets the storage needs of your stateful applications with low-latency NVMe persistent container volumes, delivering 100-microsecond read/write latency. Diamanti extends NVMe across the cluster using dedicated dual 10Gb Ethernet, offering data mobility without compromise.

SEAMLESS SCALABILITY

Easily scale the Diamanti container stack from the minimum three-node cluster that delivers over 2.4 million IOPS with sub-millisecond latency.

24X7 ENTERPRISE-CLASS SUPPORT

Diamanti is your single support point of contact for your container stack, allowing you to focus on developing applications instead of building and maintaining infrastructure.

Diamanti D10:

SPECIFICATIONS



MANAGEMENT

USER INTERFACE

DIAMANTI OS

- Detailed monitoring and reporting
- Tunable performance tiers (QoS) for both network and storage
- Automatic IP address assignment per interface
- Synchronous volume mirroring and failover
- Role-based access control (RBAC)
- Authenticated GUI, CLI, and REST API
- User authentication with LDAP, Active Directory
- Audit log
- SNMP monitoring

CONTAINER STACK (fully integrated)

ORCHESTRATION

Kubernetes (Kubernetes 1.10 certified)

CONTAINER RUNTIME

Docker version 1.12.6

HARDWARE SPECIFICATIONS (minimum 3-node configuration is recommended)

NETWORK

4x10 GbE via a single 40 GbE QSFP+ connection (per node)

STORAGE

DATA STORAGE

3.2 TB configuration (4x800 GB NVMe SSD per node)
6.4 TB configuration (4x1600 GB NVMe SSD per node)

HOST OS AND DOCKER REGISTRY STORAGE

960 GB (2x480 GB SATA SSD per node)

COMPUTE

CPU: 2xE5-2630V4 2.2 GHz Intel® Xeon® Processors (per node)
RAM: 128 GB / 512 GB (per node)

PHYSICAL SPECIFICATIONS

RACK SPACE

1U

DIMENSIONS AND WEIGHT (PER NODE)

17.25" W x 28" D x 1.72" H / 52 lbs
43.8 cm x 71.1 cm x 4.4 cm / 23.6 kg

POWER

Dual redundant 110/220V power supplies

ENVIRONMENTAL

Operating temperature: 50°F to 95°F (10°C to 35°C)