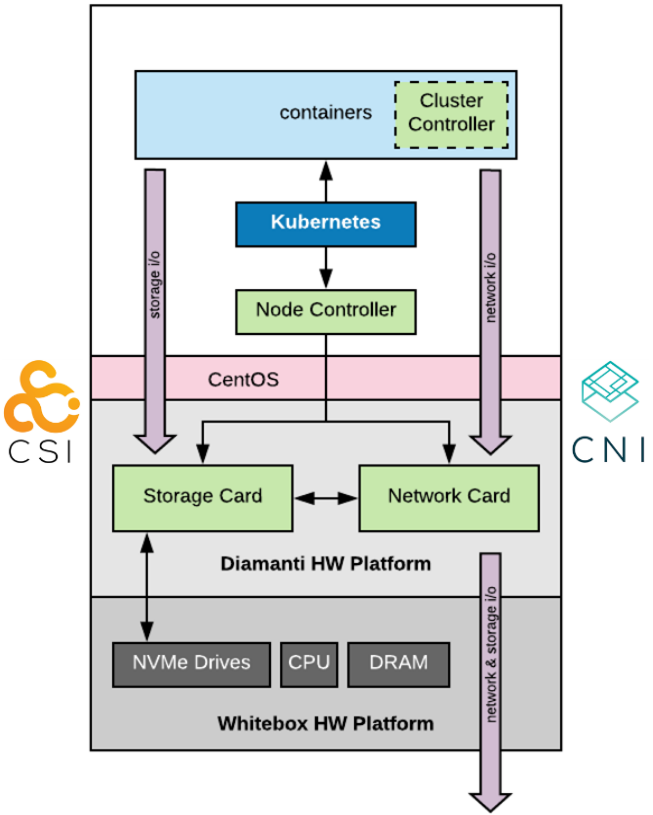
DIAMANTI

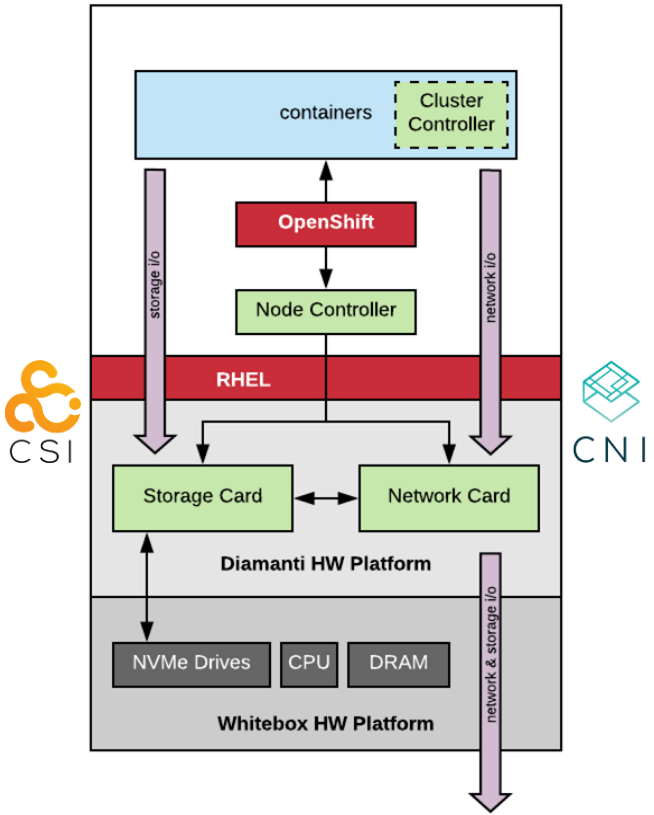
HCI for Red Hat OpenShift

Hiral Patel, Founding Engineer

Challenges in Deploying Kubernetes on Hyperconverged Infrastructure (HCI)



Diamanti + Open Source Kubernetes

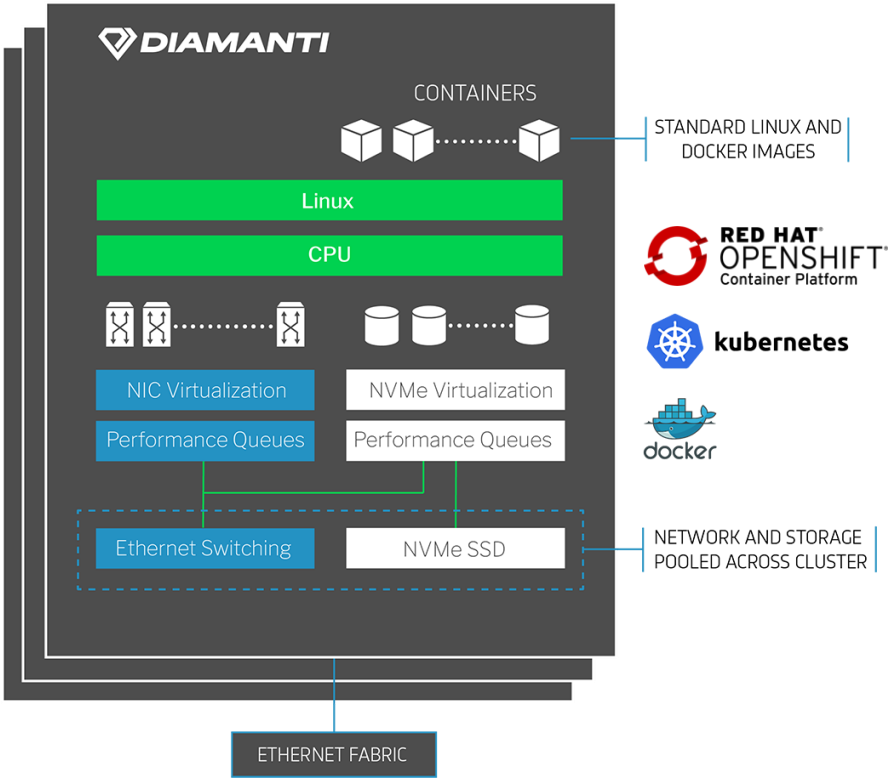


Diamanti + Red Hat OpenShift

CNCF Webinar: https://www.cncf.io/webinars/challenges-in-deploying-kubernetes-on-hyperconverged-infrastructure-hci/

Unique to Diamanti

- Complete I/O isolation at VF level using SR-IOV
- Separate Management and Data plane
- Guaranteed SLA's at firmware level to avoid noisy neighbor problems & denial of service attacks
- IPSec and SSL encryption/decryption offload in hardware



Diamanti D20 RH for Red Hat® OpenShift® Benefits

x86 bare-metal hyperconverged hardware

Low-latency NVMe flash storage

Plug-and-play overlay-less networking

Enterprise OpenShift for orchestration

24x7 full-stack support

+1M IOPS
per node

< 100µs
deterministic latency

Up to
32TB
NVMe per node

10x-30x
faster than competing HCI

Why it Matters?

MongoDB

- **15x faster** compared to virtualized infrastructure

PostgreSQL

- **1M IOPS** per node (1U)
- **200K transactions** per second (TPS) **@ less than 1 ms latency** with ZERO caching (read-only workload)

Splunk

- **24x faster** data ingestion... **1TB per hour** ingestion rate

Kafka

- **9 million** messages per second @ **10 milliseconds latency**

DevOps

- **Reduce** CI/CD pipeline execution times by **at least 30%**

Diamanti D20 RH for Red Hat® OpenShift®

- **Diamanti + Red Hat = best of breed Kubernetes platform**
- **Industry leading container platform with built-in:**
  - Hardware offloads
  - Guaranteed QoS
  - Disaster Recovery (DR)
  - Data Protection (DP)
- **Shipping with OCP 3.11**
- **OCP 4.x in 2020**
- **24x7 full-stack support by Diamanti**

RED HAT® OPENSHIFT® Container Platform

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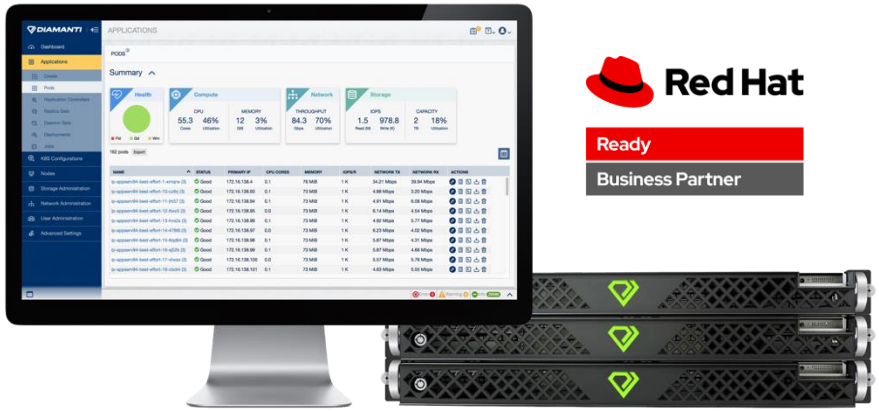

Red Hat Ready Business Partner

MariaDB MySQL apache kafka splunk>

PostgreSQL Microsoft SQL Server mongoDB confluent ELK Stack

Resources

- **Visit www.diamanti.com**
  - White papers, webinars, tutorials, blogs
- **Request a demo at demo@diamanti.com**
- **CNCF Webinar: https://www.cncf.io/webinars/challenges-in-deploying-kubernetes-on-hyperconverged-infrastructure-hci/**
- **https://landscape.cncf.io/**

Thank You!