

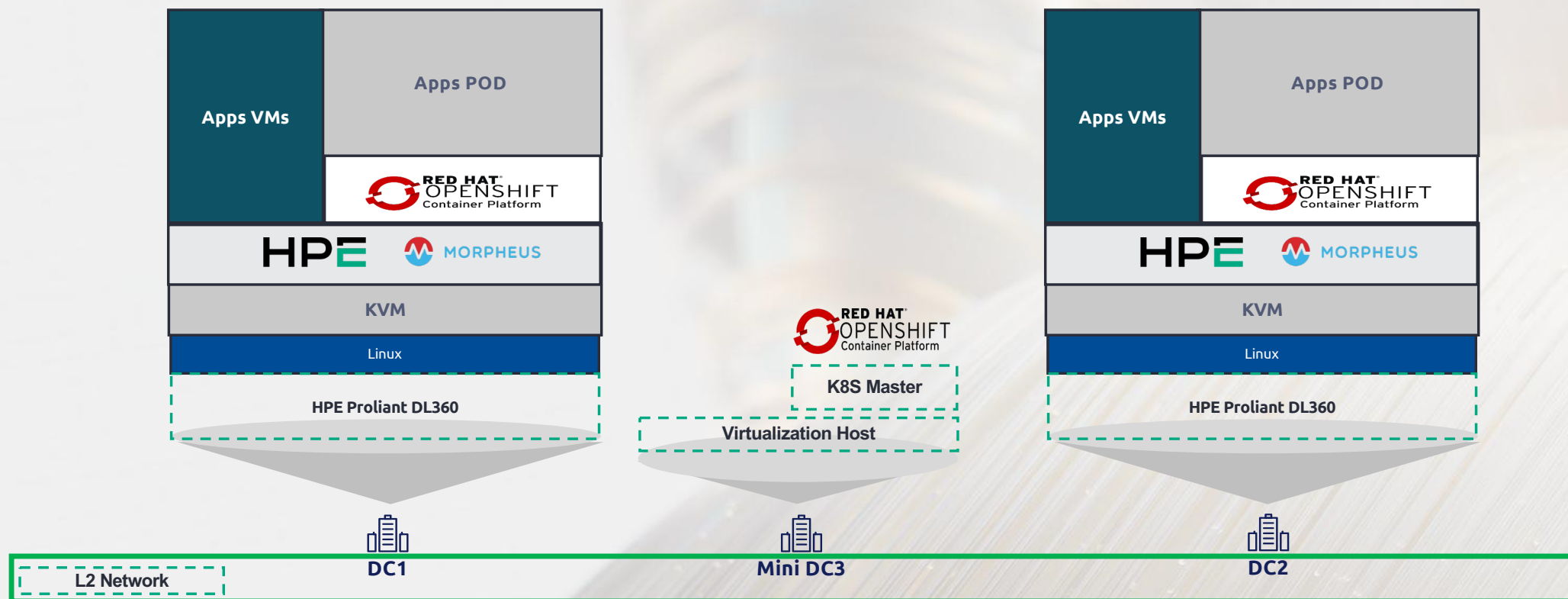


Connect Modernizzare, automatizzare, osservare: potenziare Red Hat OpenShift con HPE e OpsRamp

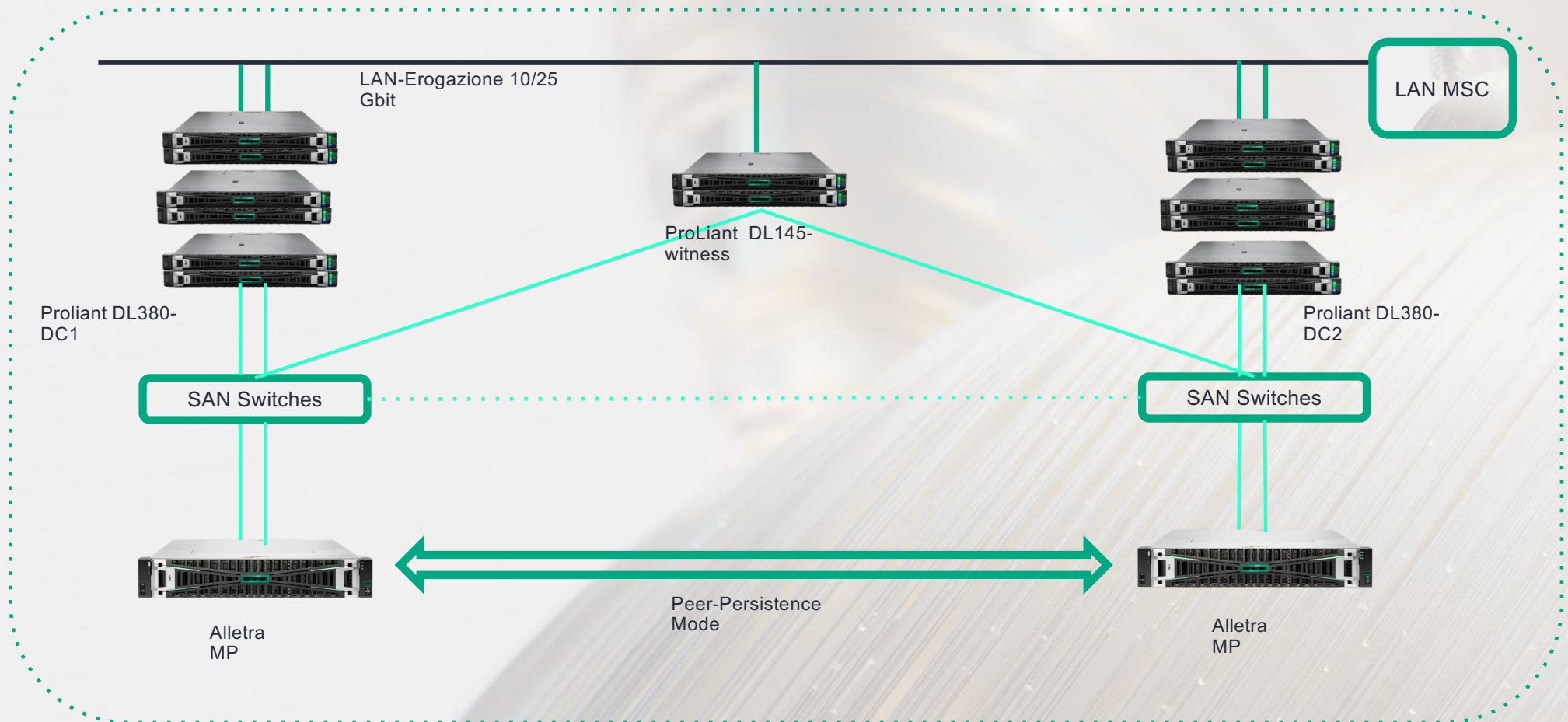
Alessandro Moriondo, *Hybrid Solutions Presales Manager*, HPE
Simone Benzi, *HPE A&PS Laser Business development*, HPE



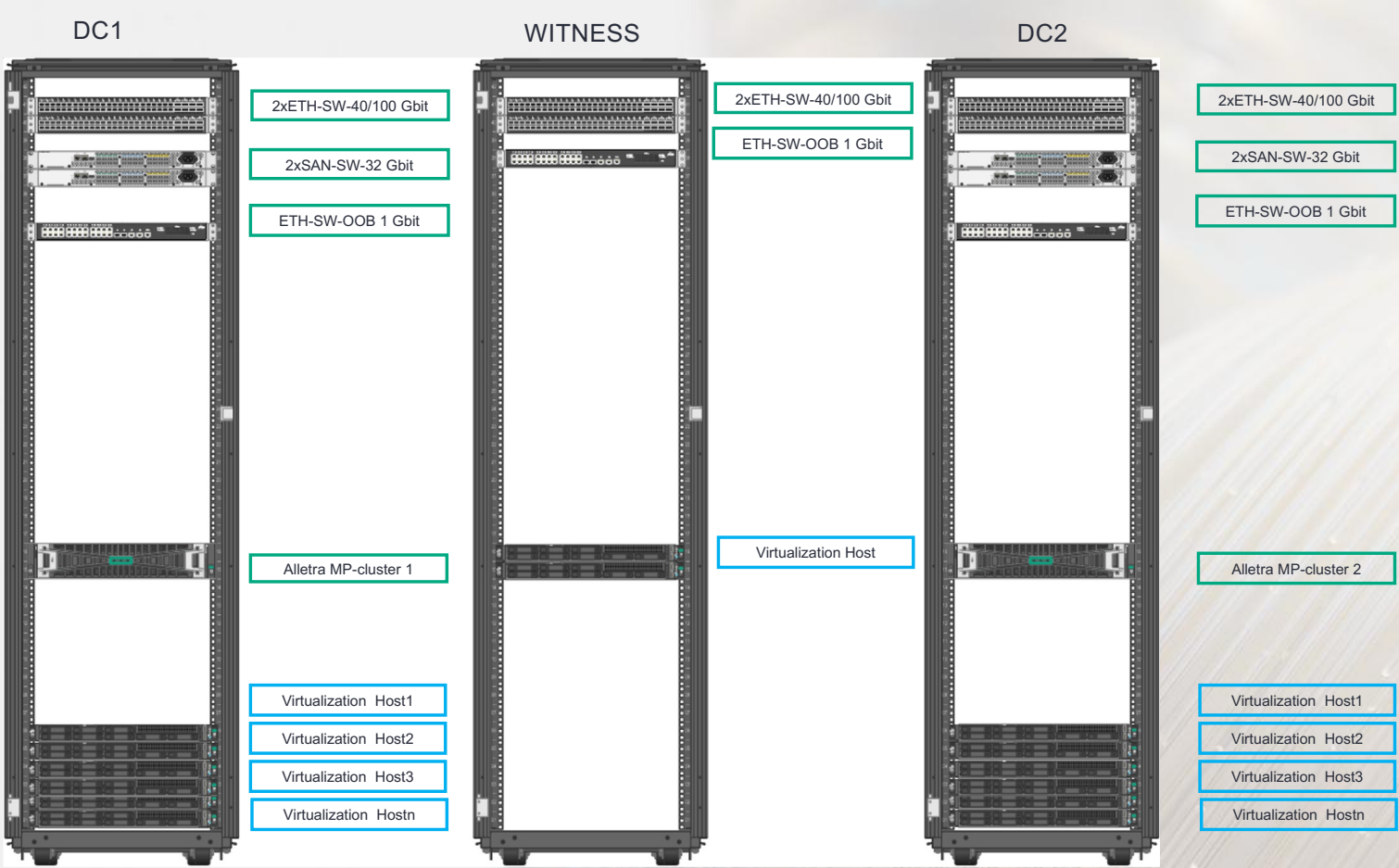
High Level Architecture



Physical Architecture



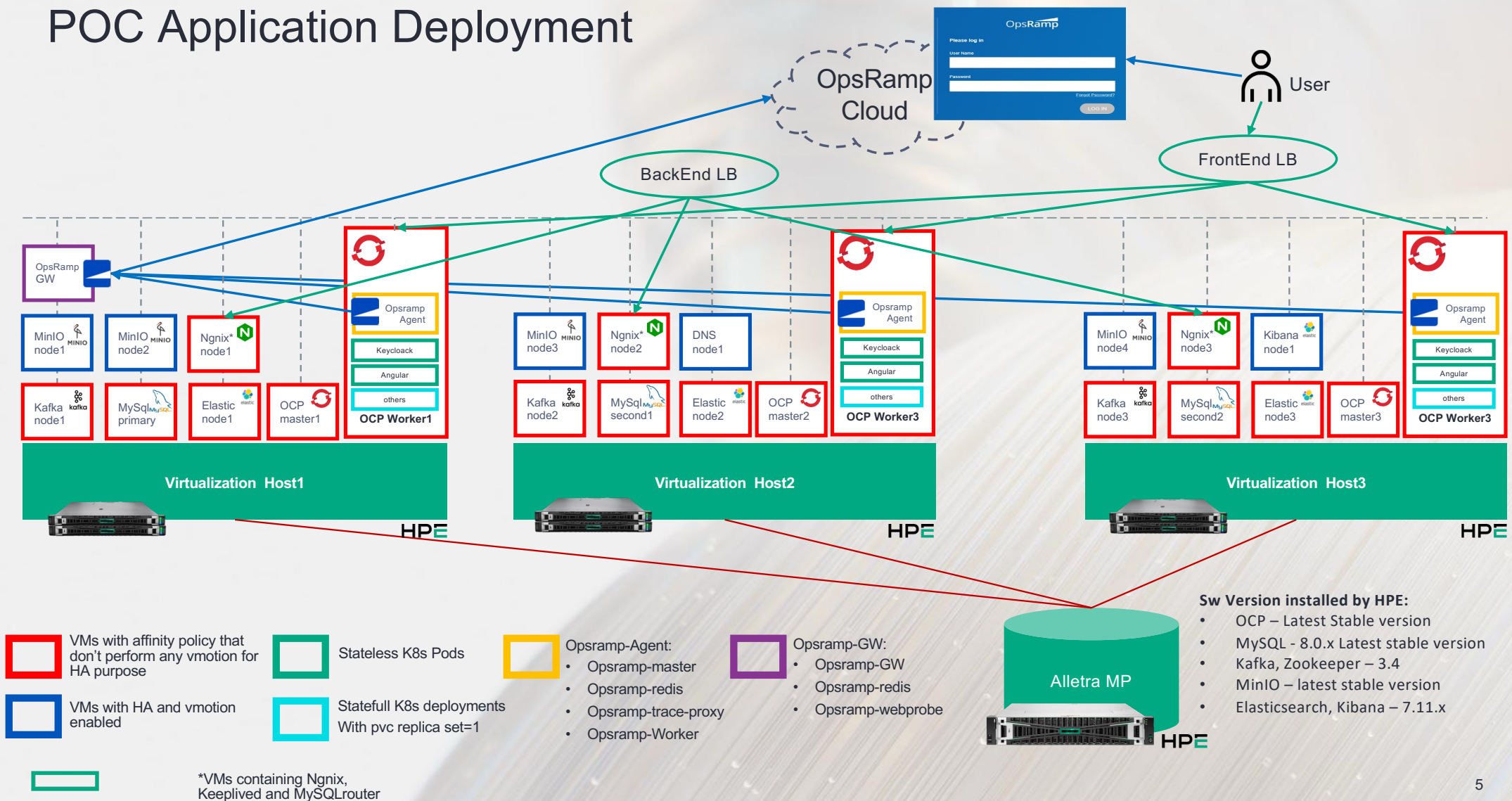
Rack view



DC1/DC2	Q.ty
Switch LAN Aruba 8325 10/25/40/100	2
Switch SAN SN3600B	2
Switch OOB Comware o Aruba	1
SAN Alletra MP Clusters FC	2
Virtualization Host	6

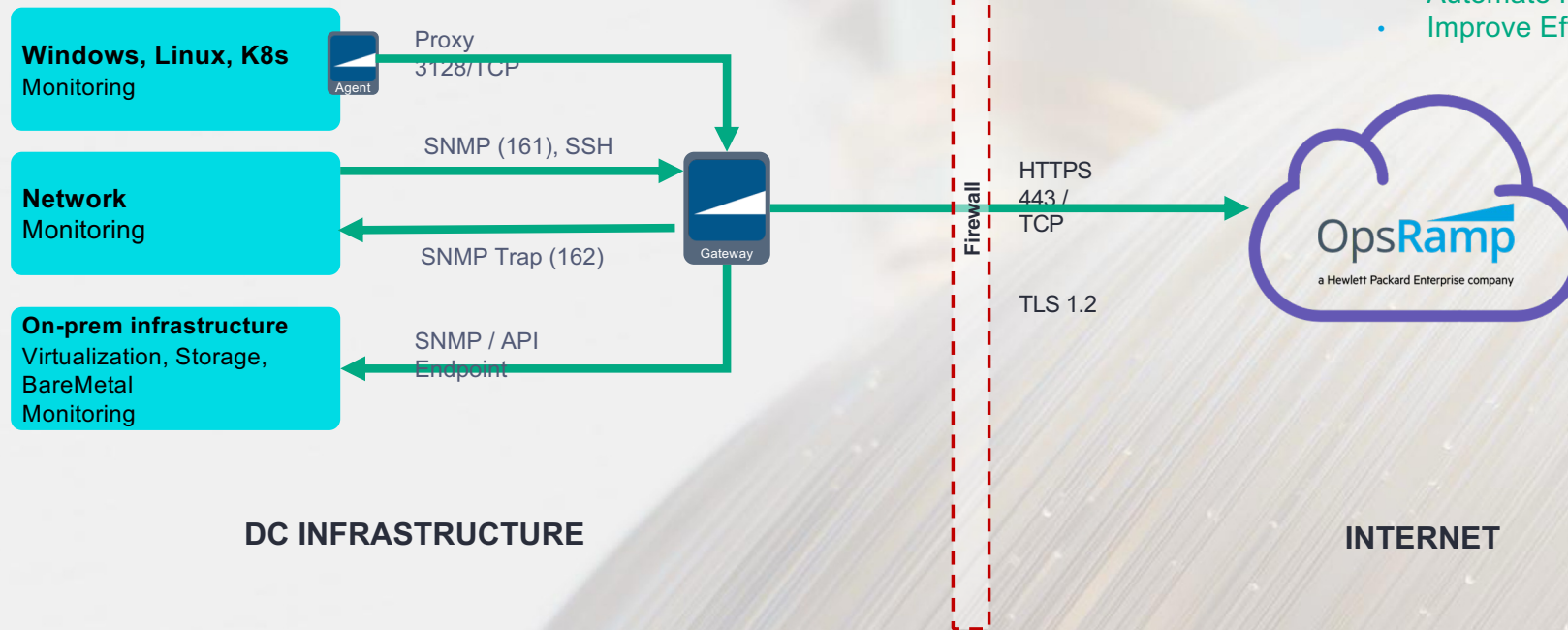
Witness Site (Center)	Q.ty
Switch LAN Aruba 8325 10/25/40/100	2
Switch OOB Aruba 6300	1
Virtualization host	1

POC Application Deployment

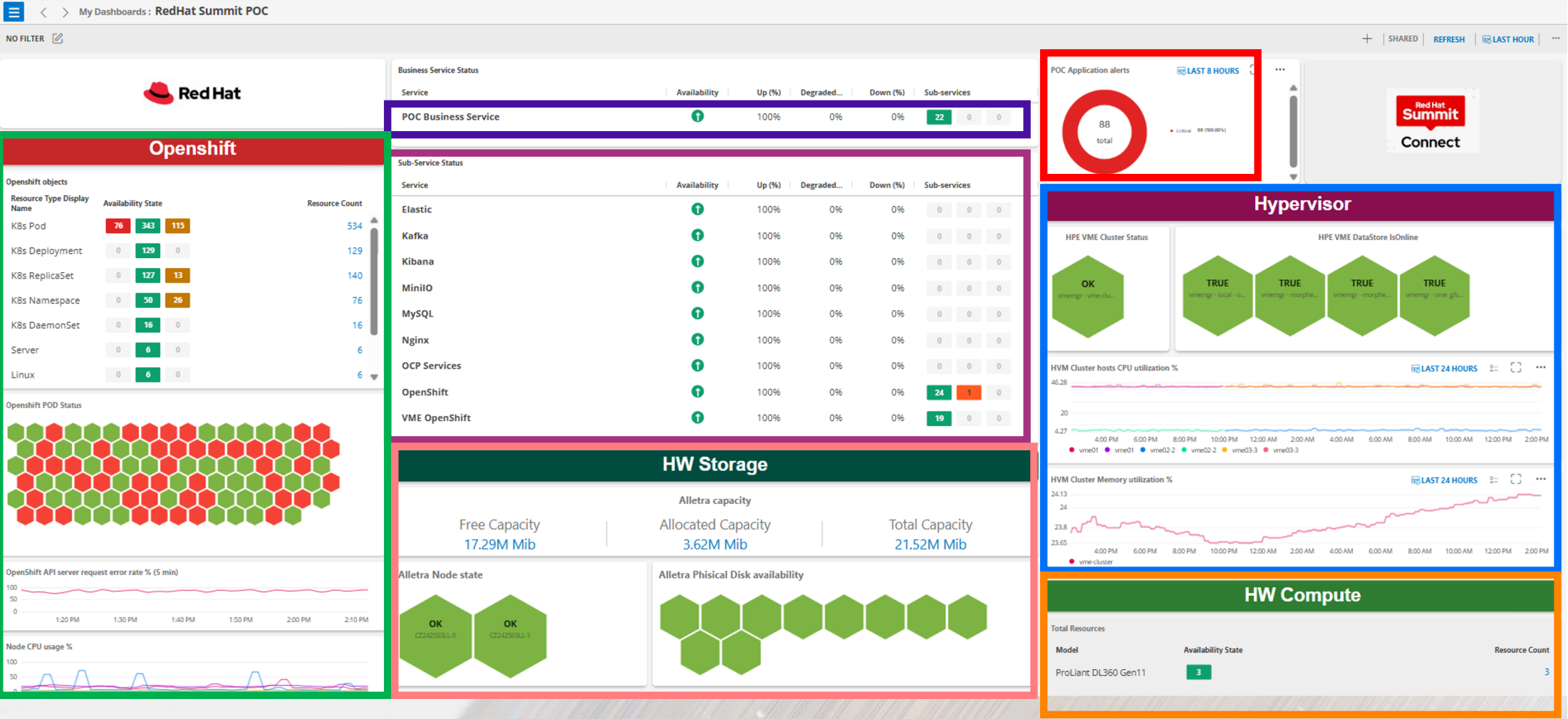


OpsRamp Architecture

- Consolidate Point Tools
- Drive Efficiencies & Governance
- Improve Visibility & Performance
- Improve Service Levels
- Reduce Alert Noise > 95%
- Reduce MTTD & MTTR by > 5
- Automate Repetitive Tasks
- Improve Efficiency by > 30%



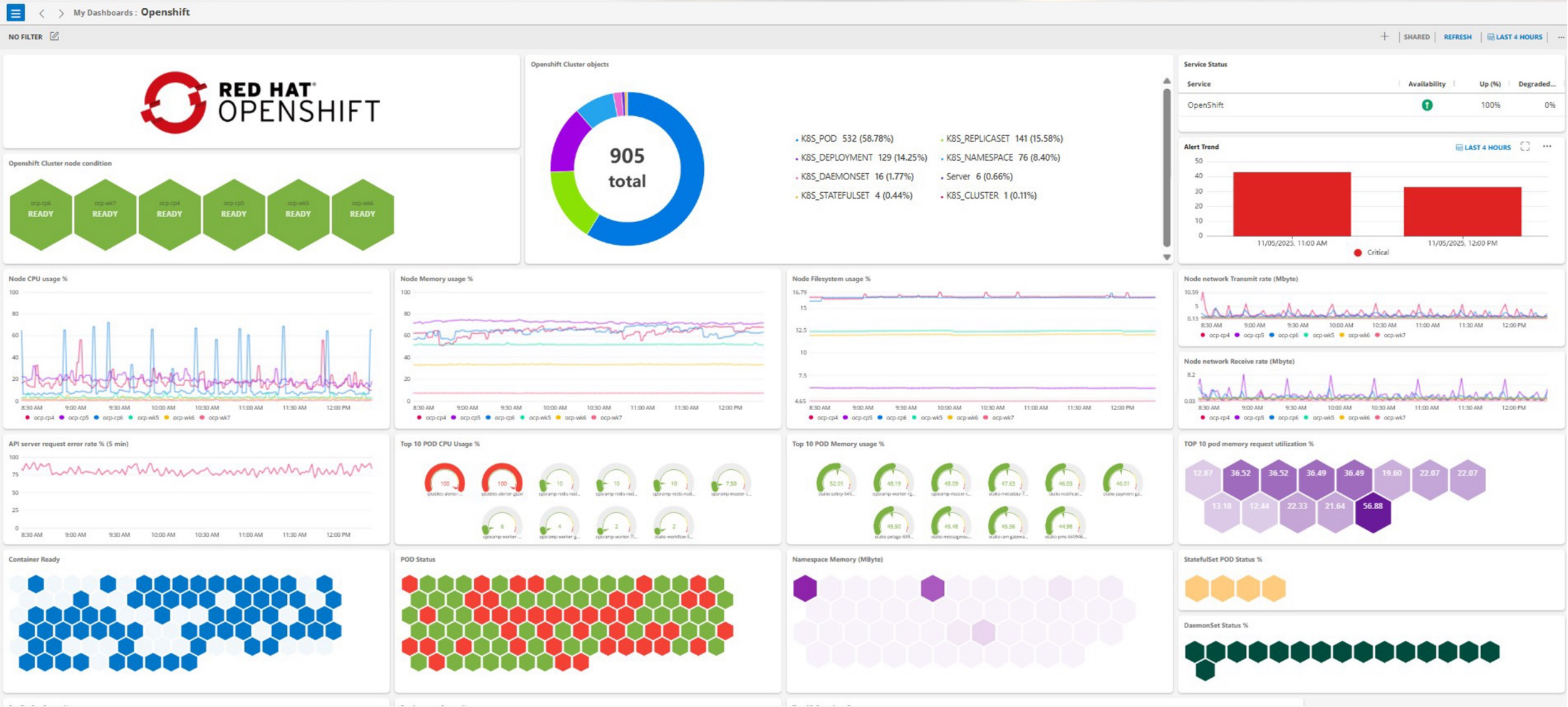
POC Business Service Dashboard



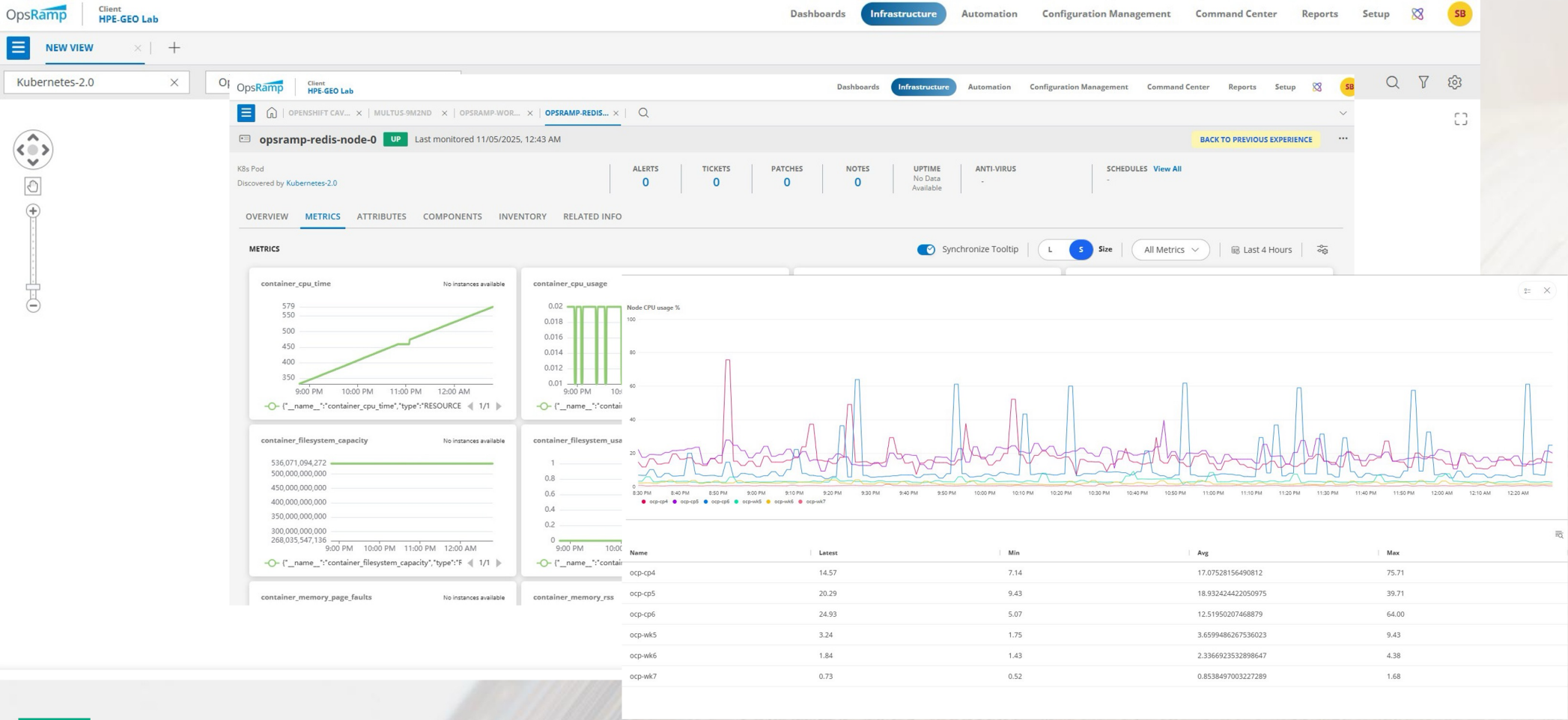
The image is a composite of three parts related to Kubernetes monitoring:

- Top Left:** A partial view of a Kubernetes cluster diagram showing nodes like 'Flume', 'Kafka', 'Flume-1', 'Kafka-1', and 'Flume-2'.
- Top Center:** A diagram of a 'Cluster' node connected to several resource types: 'DaemonSet', 'Deployment', 'Namespace', 'ReplicaSet', and 'StatefulSet'. A 'POD' node is highlighted with a red circle and a '76' alert count.
- Top Right:** A 'RESOURCE NODE DETAILS' panel for a 'POD' in a 'DEGRADED' state. It shows metrics: ALERTS (76), TICKETS (0), ACK (0), TICKETS (0), and ARTICLES (0). Below is an 'AVAILABILITY' section with a 'Down time' of '05' and a 'Threshold' of '>=50% down member.'. A 'RESOURCES' tab is active, showing a list of alerts with names like 'image-pruner-29368800-ggrkf' and 'installer-33-ocp-cp4', each with a red status indicator.
- Bottom Left:** A partial view of a Kubernetes cluster diagram showing nodes like 'Flume', 'Kafka', 'Flume-1', 'Kafka-1', and 'Flume-2'.
- Bottom Center:** A diagram of a 'Cluster' node connected to several resource types: 'DaemonSet', 'Deployment', 'Namespace', 'ReplicaSet', and 'StatefulSet'. A 'POD' node is highlighted with a red circle and a '76' alert count.
- Bottom Right:** A diagram of a 'Cluster' node connected to several resource types: 'DaemonSet', 'Deployment', 'Namespace', 'ReplicaSet', and 'StatefulSet'. A 'POD' node is highlighted with a red circle and a '76' alert count.

RedHat OpenShift Status dashboard



Infrastructure Topology and Metrics drill down



Application Log Management

OpsRamp Client HPE-GEO Lab

Dashboards Infrastructure Automation Configuration Management Command Center Reports Setup SB

NGINX DEMO

Logs + FILTER </>

← FIELDS

SELECTED FIELDS

- resourceName 6 100%
- time 39 100%
- message 50 100%
- host - -

AVAILABLE FIELDS

- k8s.pod.name 6 100%
- k8s.cluster.resourceUUID 1 100%
- k8s.namespace.name 5 100%
- k8s.node.resourceUUID 2 100%
- k8s.daemonset.name 2 24%
- source 1 100%
- type 1 100%
- k8s.pod.resourceUUID 6 100%
- k8s.deployment.name 1 62%
- k8s.replicaset.name 1 62%
- k8s.node.name 2 100%
- resourceUUID 6 100%
- level 3 100%

135,901 Results

12:25 AM 12:30 AM 12:35 AM 12:40 AM 12:45 AM 12:50 AM

632 Normal 16,116 Error 161 Warn 10,842 Info 16 Debug 9 Trace 108,125 Unknown

Fetching completed

LOGS

Timestamp	Host	Resource Name	Message
Nov 5, 2025, 12:53:37 AM	-	etcd-ocp-cp6	["level":"info","ts":"2025-11-04T23:53:37.753624Z","caller":...
Nov 5, 2025, 12:53:37 AM	-	etcd-ocp-cp6	["level":"info","ts":"2025-11-04T23:53:37.753452Z","caller":...
Nov 5, 2025, 12:53:37 AM	-	kube-controller-manage...	I1104 23:53:37.750159 1 job_controller.go:554] "enqueue..."
Nov 5, 2025, 12:53:37 AM	-	ovnkube-node-lf6m7	I1104 23:53:37.750163 9874 obj_retry.go:459] Detected o...
Nov 5, 2025, 12:53:37 AM	-	ovnkube-node-lf6m7	I1104 23:53:37.749329 9874 obj_retry.go:459] Detected o...
Nov 5, 2025, 12:53:37 AM	-	etcd-ocp-cp6	["level":"info","ts":"2025-11-04T23:53:37.746737Z","caller":...
Nov 5, 2025, 12:53:37 AM	-	kube-controller-manage...	I1104 23:53:37.616219 1 job_controller.go:554] "enqueue..."
Nov 5, 2025, 12:53:37 AM	-	ovnkube-node-lf6m7	2025-11-04T23:53:37.101Z[31599]memory_trim[INFO]Det...
Nov 5, 2025, 12:53:36 AM	-	kube-controller-manage...	I1104 23:53:36.663934 1 replica_set.go:676] "Finished sy..."
Nov 5, 2025, 12:53:36 AM	-	kube-controller-manage...	I1104 23:53:36.608750 1 job_controller.go:554] "enqueue..."
Nov 5, 2025, 12:53:35 AM	-	ovnkube-node-2ht7b	2025-11-04T23:53:35.523Z[25209]binding[INFO]Setting l...
Nov 5, 2025, 12:53:35 AM	-	ovnkube-node-2ht7b	2025-11-04T23:53:35.523Z[25210]binding[INFO]Setting l...

→ LOG

Nov 5, 2025, 12:53:37 AM

```
{ "level": "info", "ts": "2025-11-04T23:53:37.753624Z", "caller": "etcdserver/server.go:2501", "msg": "compacted Raft logs", "compact-index": 188604158 }
```

Show Less

RELATED RESOURCES

- resourceName etcd-ocp-cp6
- k8s.cluster.name Openshift Cavenago
- k8s.pod.name etcd-ocp-cp6
- k8s.node.name ocp-cp6

ATTRIBUTES View raw log

- K8s.container.name etcd
- K8s.namespace.name openshift-etcd
- K8s.pod.ip 10.160.108.23
- K8s.pod.uid 31dcec24-55ea-41e2-9952-ece631e79414
- Level Info
- Log.iostream stderr
- Logtag F

Opsramp Log Id 825008833935769757

Hypervisor Status dashboard

My Dashboards : HPE VM Essentials

NO FILTER

+

SHARED

REFRESH

LAST HOUR

...

VM Essential Manager

VME Database Status

VME RabbitQueue Status

VME Elastic Status

Database connections

Virtual Machine Status (HVM + VMware)

VM Essentials

Name	Ip Address	Model	Availability State
vme03-3	10.160.101.52	ProLiant DL360 Gen11	UP
vme02-2	10.160.101.51	ProLiant DL360 Gen11	UP
vme01	10.160.101.50	ProLiant DL360 Gen11	UP

HVM cluster VM

Name	Os	Ip Address	Availability State	Id
zk03	-	-	UP	47f3ff11-8a6f-4f36-bd72-650ed...
zk02	-	-	UP	0b07c2e4-9c1d-4f3d-b39f-3630...
zk01	-	-	UP	80ede6a6-177e-4a46-acaf-220...

HVM Cluster CPU utilization %

HVM Cluster hosts CPU utilization %

HVM Cluster DataStore Free Space Gb

HVM Cluster Storage utilization %

HPE VME Cluster Status

HPE VME Host Status

HPE VME DataStore IsOnline

Alerts

Open Alerts by Status

12

HW Compute Status dashboard

NO FILTER

SHARED REFRESH LAST HOUR



Total Resources

Model	Availability State	Resource Count
ProLiant DL360 Gen11	3	3

Inventory by Type

Name	Model	Ip Address	Id
hyv03	ProLiant DL360 Gen11	10.160.101.20	35545fc6-9823-4ccb-8e1...
hyv02	ProLiant DL360 Gen11	10.160.101.19	95eb73cf-dc32-490c-9aa...
hyv01	ProLiant DL360 Gen11	10.160.101.18	a7e577d3-b9ed-431d-83...

DL360 Component Summary

Processor



Memory



Drive Status



Temperature Sensor Status



CPU Temperature



Fan



iLO Network



Devices



Power Supply



Memory DIMM Temperature



Average Power Consumption

246.80

246.80

246.80

Average Power Consumption



Average CPU Utilization

42.67

42.67

42.67

Average CPU Utilization



Average Memory Bus Utilization

2

2

2

Average Memory Bus Utilization



Redfish Alerts

Alert Trend



HW Storage Status dashboard

Alletra MP 10000

Software

CPG status

WARNING

1302 r16

Remote Copy status

NORMAL

all02

Remote Volume Sync status

FAILSAFE

all02 lock...

FAILSAFE

all02 data...

STOPPED

all02 pvc 7...

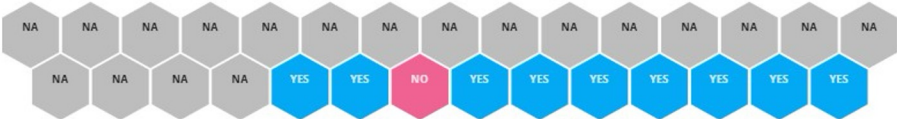
FAILSAFE

all02 quies...

Volume state



Deduplication state



License state



Capacity

Alletra capacity

Free Capacity

17.29M Mib

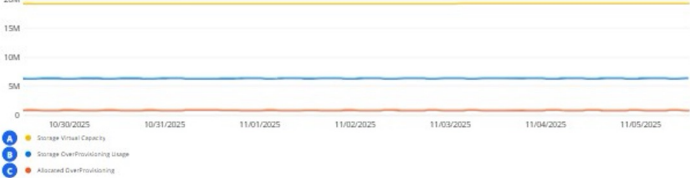
Allocated Capacity

3.62M Mib

Total Capacity

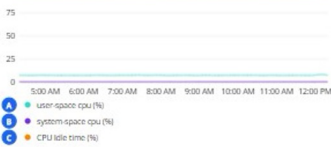
21.52M Mib

Storage System Provisioning



CPU

Storage System CPU utilization



Controller Node CPU Utilization



Hardware

Node state



Physical Disk availability



Physical Disk temperature



Cage state



Cage Power Supply state



Cage Power Supply Fan state



Red Hat
Summit

Connect

Grazie



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