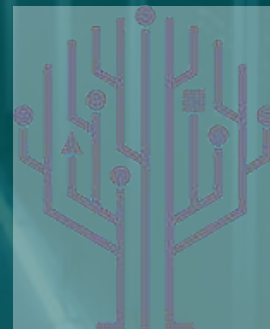

HPE Morpheus VM Essentials

Adapt your virtualization stack with an eye to the future

Bart Heungens – HPE Solution Architect



BNS hybrIT

INFRA • SOFTWARE • CLOUD

Today's realities are paralyzing virtually every enterprise

3 to 5x
cost increase

due to lock-in, forced
bundling, and VM sprawl

Forcing new
strategic plans

need to support current
workloads and new runtimes

Leading to
complexity

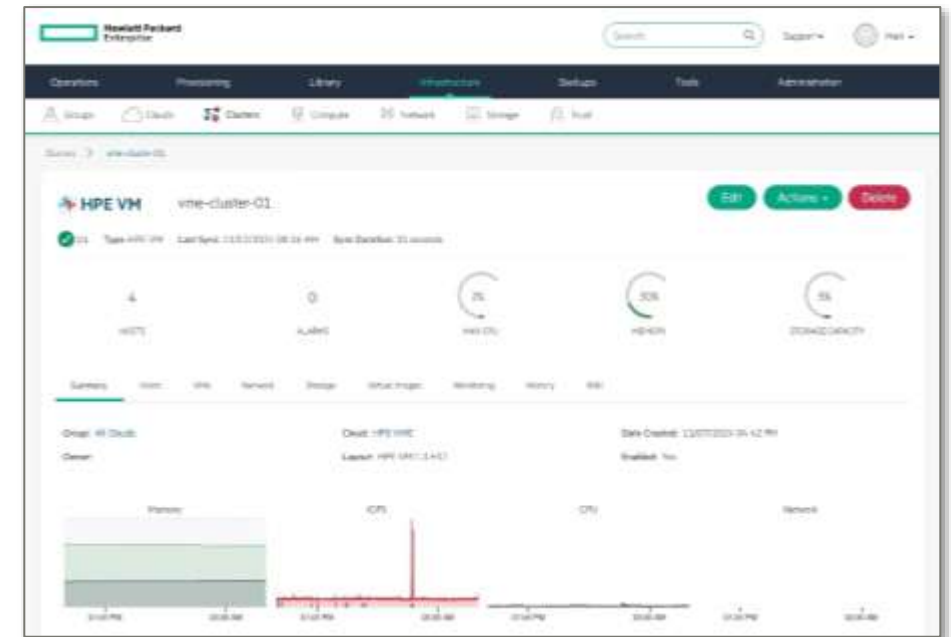
more apps, more formats,
more places... same team

“I’m evaluating options, but it will take 2 years to deal with VMware while I also adjust our container strategy, figure out AI, and re-evaluate public cloud, Oh yeah... and I’m not getting any new people to help.”



HPE Morpheus VM Essentials Software to unify VMware & HPE VME hypervisor

- Reduce costs with HPE VM Essentials integrated hypervisor
Featuring core capabilities to diversity VM estates including storage optionality (local, NFS, iSCSI, Fibre Channel), distributed workload placement, VM HA and live migration, data protection via snapshots and native backup, and DR with Zerto*
- Simplify management across VMware and HPE
Connect existing VMWare® clusters for management and VM-vending into ESXi and HPE VME hypervisor from one interface. Also includes IPAM and DNS integration, automation execution, secrets management, and VMWare to KVM image conversion
- Future-proof IT with flexible consumption & upgrade paths
Available as standalone software and integrated into HPE Private Cloud. Customers can upgrade to full Morpheus PlatformOps for hybrid cloud management, K8s support, governance, and FinOps capabilities
- Lower risk with enterprise-grade support & ecosystem
Building on a proven KVM core, HPE VM Essentials includes HPE's enterprise-class global support. HPE is working with its ecosystem of ISVs to expand HPE VME hypervisor certification and support for Data Protection, VDI, ERP, etc.



Morpheus Enables Hybrid Cloud Platform Operations

Hybrid Cloud, DevOps, Internal Development Platforms Are All About Self-Service... and so Is Morpheus

Provision Any Workload Into Any Cloud On-Demand

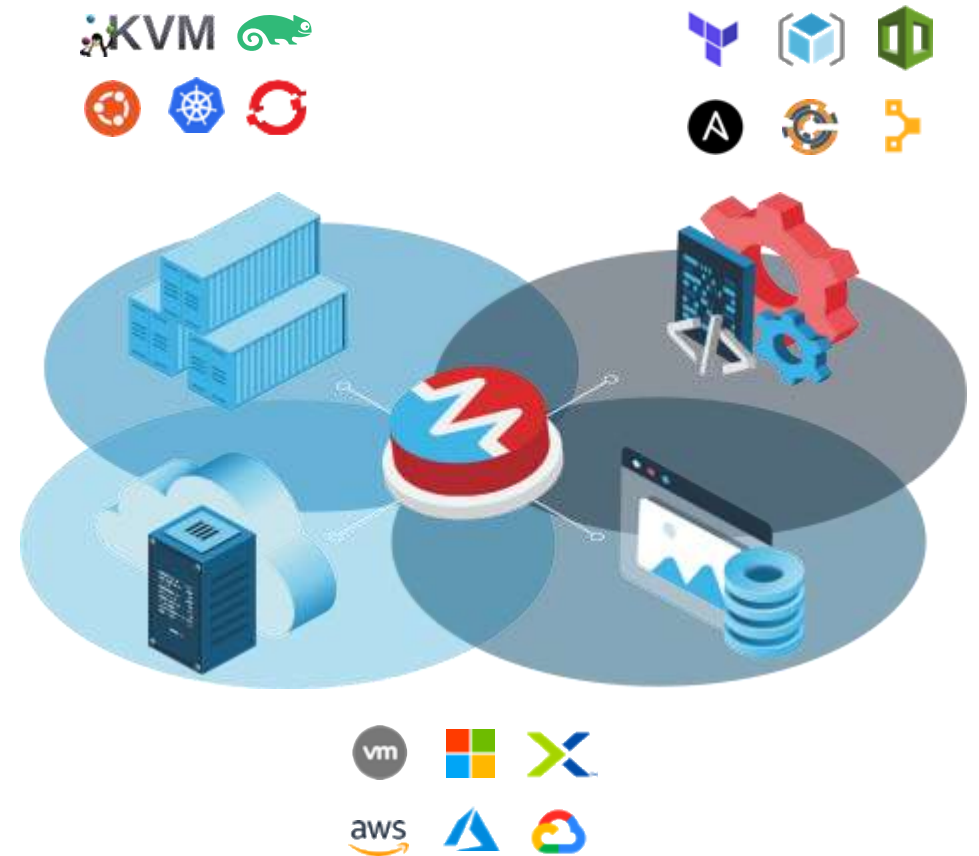
Orchestrate the tools and dependencies to enable catalogue deployment and management of VMs (IaaS / VMaaS), containers (CaaS), services (DBaaS / PaaS), app stacks, and cloud services.

Simplify Runtime Deployment for Flexibility and Choice

Push button deployment and management of **Virtualization and Kubernetes Clusters** plus cloud-managed EKS, AKS, GKE. Extend with brownfield of 3rd Party K8s like SUSE, OpenShift, etc.

Lower Cloud Cost with Visibility and Optimization

Discover brownfield on-prem and public cloud instances, optimize resource use with analytics and rightsizing, enforce budgets policy, enable show back, and centralize multi-cloud reporting.



HPE VM Essentials solution features



Multi-hypervisor support

HPE VM Essentials enables simple provisioning and management of HPE VM Essentials and VMware virtual machines

Centralized identity & single sign-on (SSO)

Enables external user authentication using Active Directory (AD) or LDAP. Optional SSO with Okta, OneLogin, Azure AD, or other SAML-enabled providers

IPAM integration

Integrate with external IP address management providers (Infoblox, phpIPAM, BlueCat) to automate the reservation of an IP address for the VM during the provisioning process

DNS integration

Integrate with external DNS providers (Infoblox, Microsoft DNS, BlueCat) to automate the creation of DNS records for a VM during the provisioning process

Provisioning automation

Execute Bash or PowerShell scripts during VM provisioning, to automate system bootstrapping operations

Day 2 automation

HPE VM Essentials supports the execution of Bash and PowerShell scripts on provisioned and discovered VMs

Secrets management

Securely store and retrieve secrets from the native secrets **manager for use with the solution's task automation** feature

HTML 5 virtual machine console

Access the dashboard of HPE VM Essentials and VMware virtual machines via the HTML 5 console



HPE VM Essentials hypervisor features

HPE-validated hardware

The HPE VM Essentials hypervisor will be validated on HPE servers to deliver an optimal experience and provide hardware compatibility assurance

VM live migration

Migrate a running HPE VM Essentials virtual machine from one host to another within the same cluster with zero downtime

VM high availability

Automatically restart HPE VM Essentials virtual machines on another host in the same cluster in the event of an unexpected host failure within the cluster

Dynamic workload scheduler

Dynamically schedule the placement of HPE VM Essentials virtual machines within a cluster, based upon optimal workload distribution across the cluster

Storage migration

Migrate the virtual disks of a running HPE VM Essentials virtual machine from one storage datastore to another with zero downtime

VMware VM conversion

Convert existing VMware virtual machines to the HPE VM Essentials hypervisor using the native conversion feature within the HPE VM Essentials solution



HPE VM Essentials hypervisor features

Virtual machine snapshots

Create and revert snapshots for HPE VM Essentials virtual machines

Native data protection

Backup and restore HPE VM Essentials virtual machines **using the solution's native data protection feature**

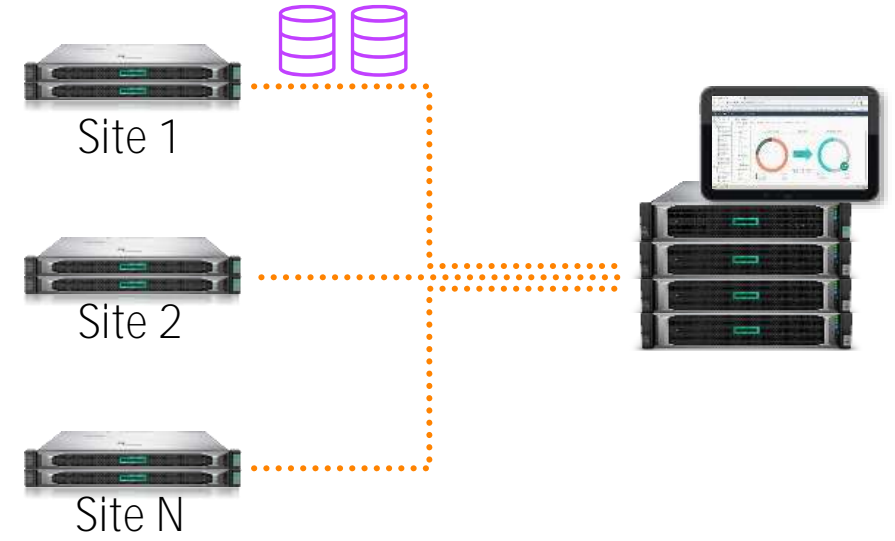
External storage support

The HPE VM Essentials hypervisor supports running virtual machines on external storage via iSCSI, NFS, and Fibre Channel



HPE SimpliVity

HCI without compromise
All-in-one solution for edge to core workloads



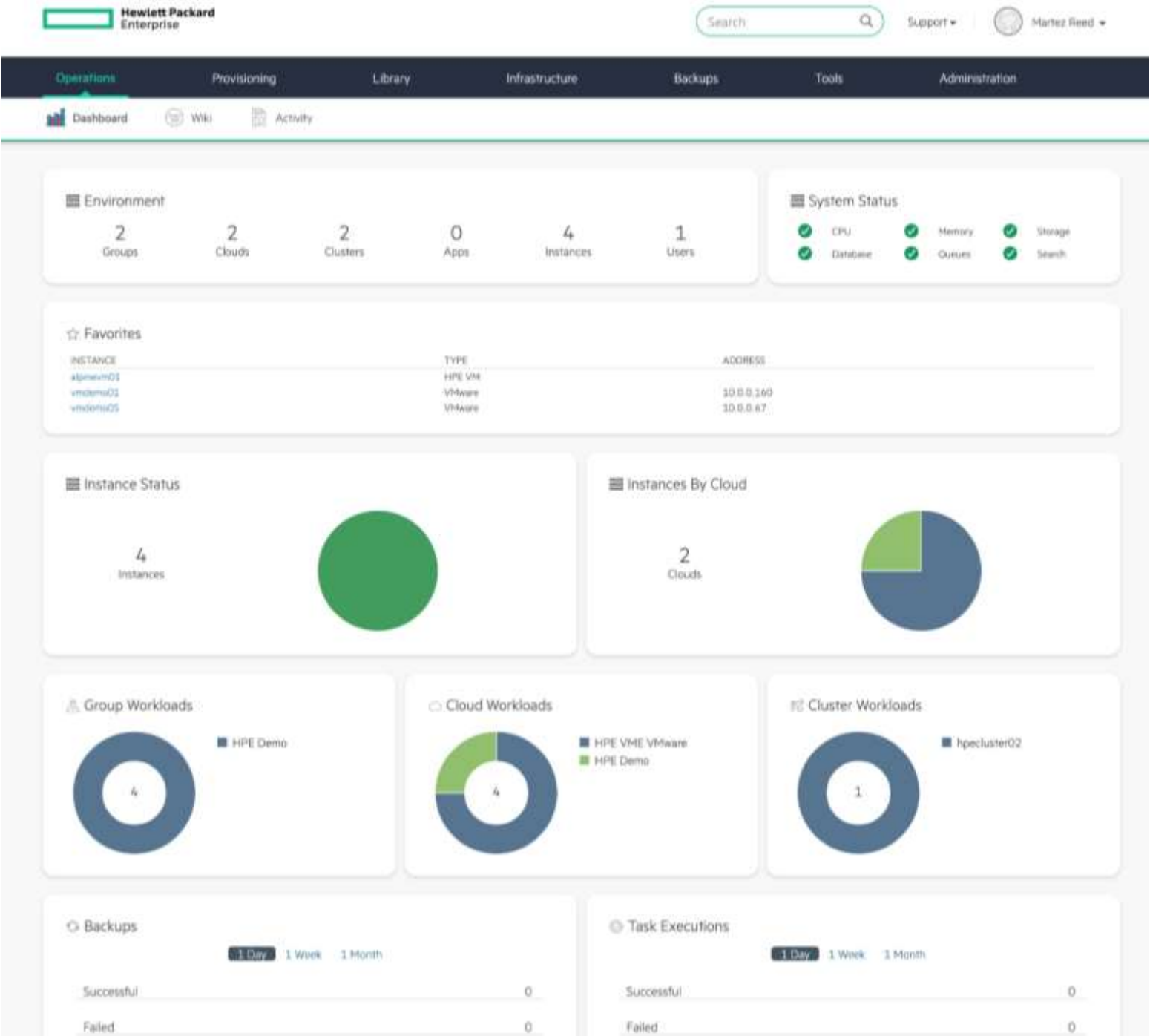
2-node
High Availability

Built-in
Data Protection

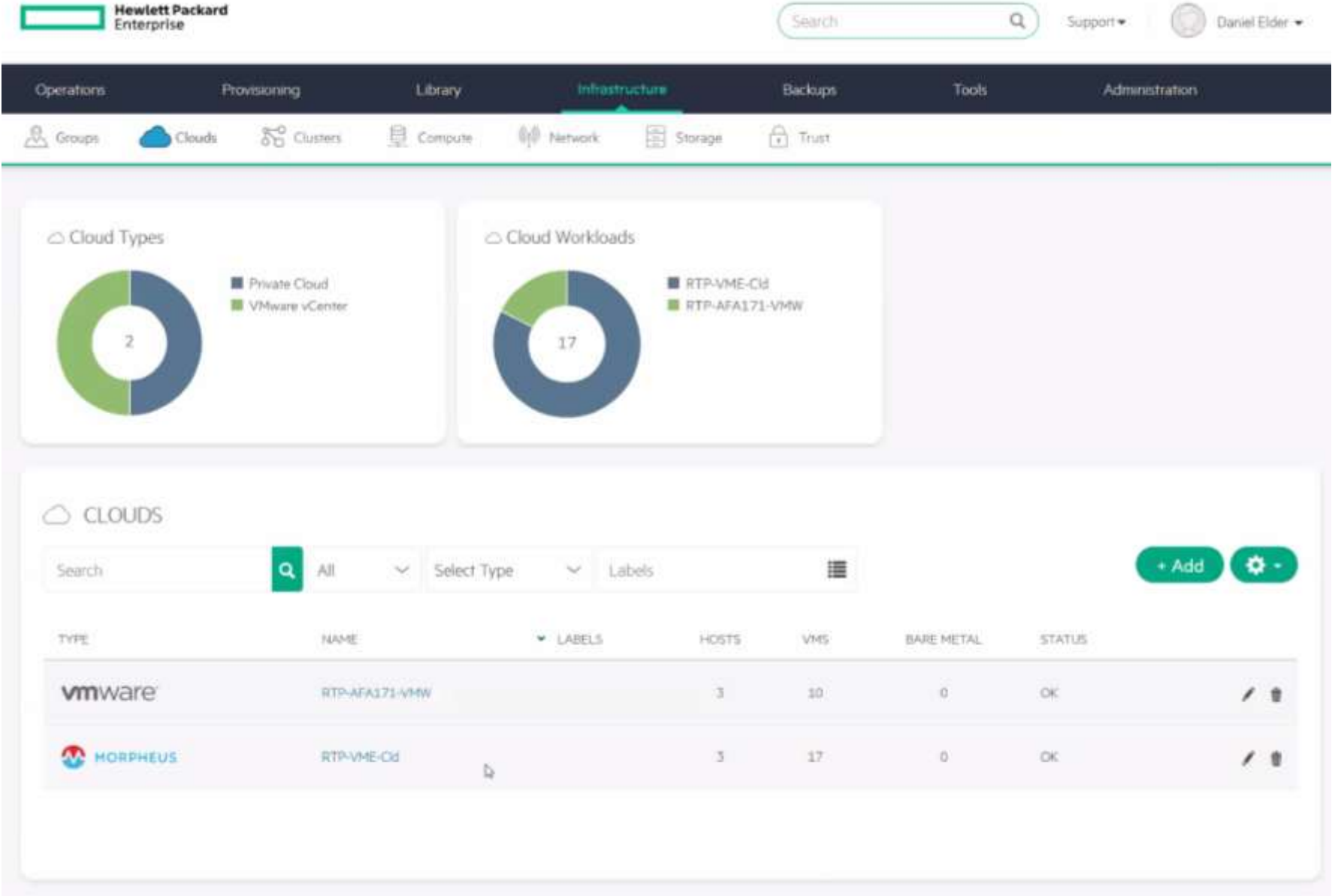
Hyper
Efficiency



Dashboard view



Clusters view



Clusters view

Hewlett Packard Enterprise

Search

Support

Martez Reed

Operations

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Groups

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Clusters

Compute

Network

Storage

Trust

Clusters

hpecluster02

HPE VM

hpecluster02

Edit

Actions

Delete

Ok

Type: HPE VM

Last Sync: 11/26/2024 01:10 PM

Sync Duration: 4 seconds

2

HOSTS

0

ALARMS

2%

MAX CPU

4%

MEMORY

4%

STORAGE CAPACITY

Summary

Hosts

VMs

Network

Storage

Virtual Images

Monitoring

History

Wiki

Group: HPE Demo

Cloud: HPE Demo

Date Created: 11/13/2024 07:52 AM

Owner: Martez Reed

Layout: HPE VM 1.1 Cluster on Existing Ubuntu 22.04

Enabled: Yes

Memory

IOPS

CPU

Network

06:02 PM

06:28 AM

06:02 PM

06:28 AM

06:02 PM

06:28 AM

06:02 PM

06:28 AM

VMS

1

1

0

0

0

TOTAL

ON

PAUSED

SUSPENDED

OFF

Clusters view

Hewlett Packard Enterprise

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Daniel Elder

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Clusters

RTP-VME-Clst1

HPE VM

RTP-VME-Clst1

Edit

Actions

Delete

Ok

Type: HPE VM

Last Sync: 12/05/2024 10:35 AM

Sync Duration: 7 seconds

3

HOSTS

0

ALARMS

2%

MAX CPU

1%

MEMORY

1%

STORAGE CAPACITY

Summary

Hosts

VMs

Network

Storage

Virtual Images

Monitoring

History

Wiki

Data Stores

Volumes

Search

Add

NAME	TYPE	CAPACITY	ONLINE	
DirPoolDS01	Directory Pool	14.2GB / 97.9GB	Yes	ACTIONS
DS01-TME-VME	GF52 Pool (Global File System 2)	140.3GB / 3.0TB	Yes	ACTIONS
local	Directory Pool	14.2GB / 97.9GB	Yes	ACTIONS

Images view

Hewlett Packard Enterprise

Search

Support

Daniel Elder

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Automation

Virtual Images

Search

Q














































All Types

User

Labels

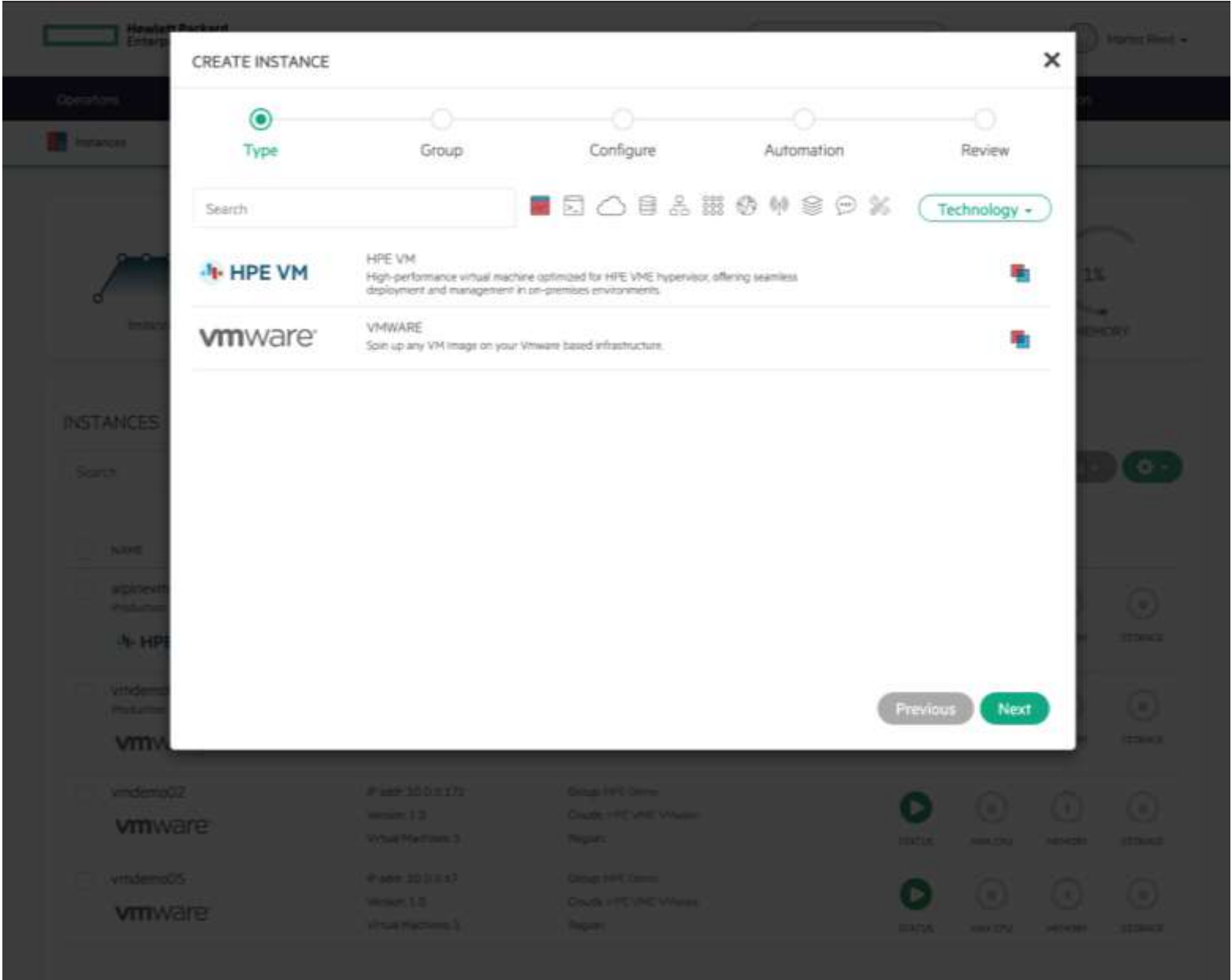
Actions

+ Add

<input type="checkbox"/>	TYPE	NAME	PLATFORM	LABELS	SIZE	SOURCE	STATUS	
<input type="checkbox"/>		Cent OS 7 Image	 centOS 7 64-bit		2.3GiB	UPLOADED	Active	  
<input type="checkbox"/>		Cent OS 8.1 ISO	 centOS 8 64-bit		7.0GiB	UPLOADED	Queued	  
<input type="checkbox"/>		TestImportImageVMW	 windows server 2016		N/A	UPLOADED	Active	  
<input type="checkbox"/>		TME-Ubuntu2204-Image	 ubuntu 22.04 64-bit		N/A	UPLOADED	Active	  
<input type="checkbox"/>		TME-Win2k6-Image	 windows server 2016		N/A	UPLOADED	Active	  
<input type="checkbox"/>		Ubuntu 22.04.5 ISO	 ubuntu 22.04 64-bit		2.0GiB	UPLOADED	Active	  
<input type="checkbox"/>		Windows Server 2016 ISO	 windows server 2016		6.5GiB	UPLOADED	Active	  
<input type="checkbox"/>		Windows Server 2022 ISO	 windows server 2022		5.2GiB	UPLOADED	Active	  



Create Instance view



Virtual Machine view

Hewlett Packard Enterprise

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Martez Reed

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Instances

alpinevm01

HPE VM

alpinevm01

Edit

Actions

Delete

Running

Env: Production

Type: HPE VM

Plan: 2 CPU, 8GB Memory

LAST BACKUP

0%

MAX CPU

0%

MEMORY

0%

STORAGE

Summary

Resources

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History

Console

WLS

Group: HPE Demo

Date Created: 11/13/2024 04:43 PM

Version: 1.0

Total Storage: 60.0GiB

Cloud: HPE Demo

Owner: Martez Reed

Cores: 2

Provision Time: 15 minutes 31 seconds

Cluster: hpecluster02

Layout: Single HPE VM

Memory: 8.0GiB

STATUS

NAME

HOST

ADDRESSES

alpinevm01

hpevm04

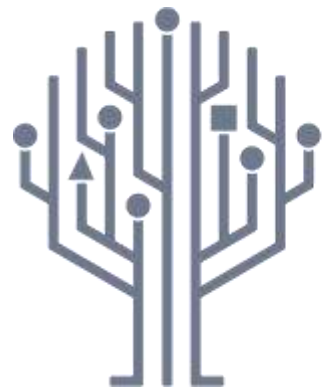
Memory

Storage

CPU

Network

Questions ?



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