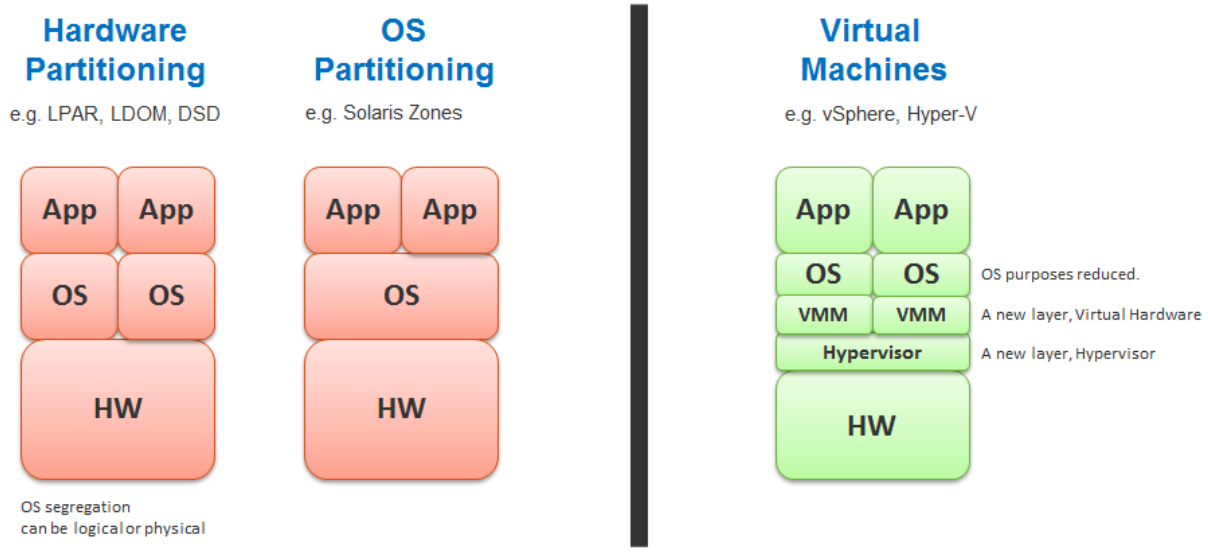
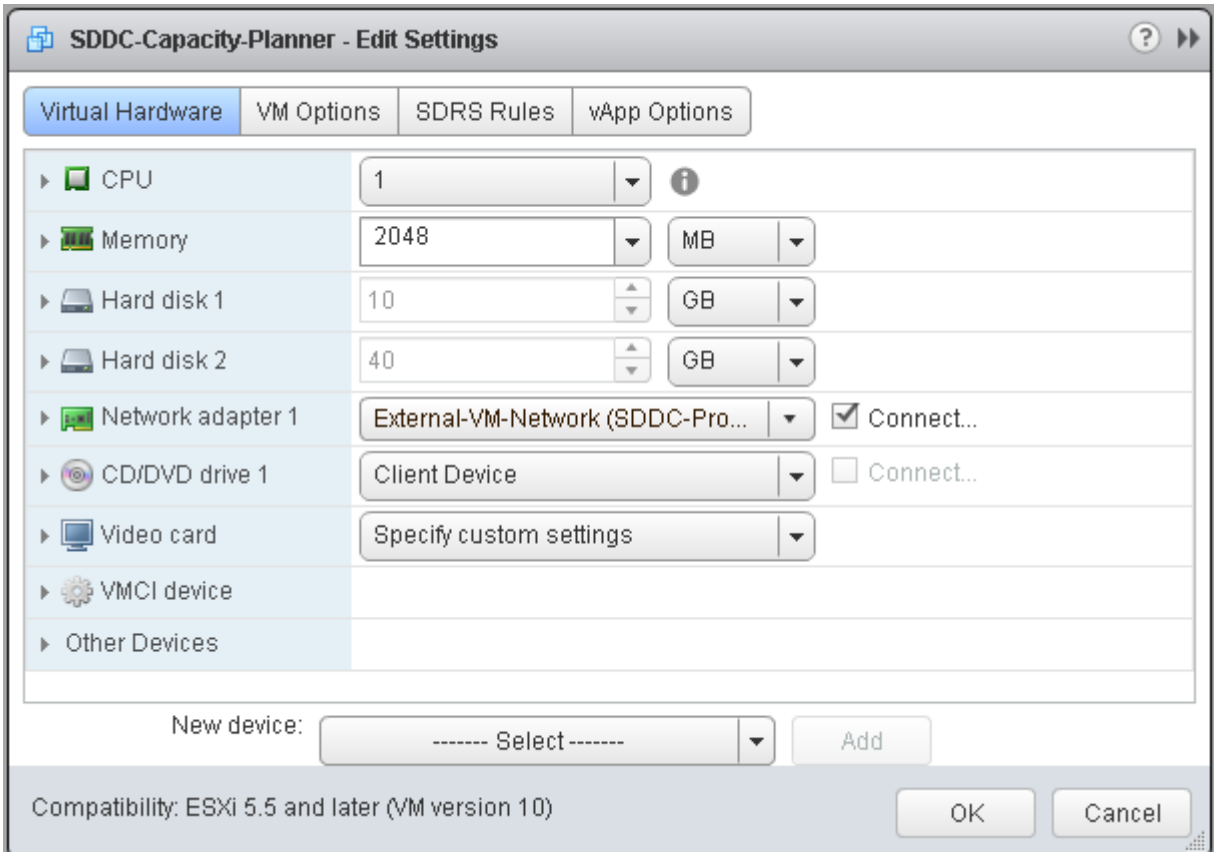
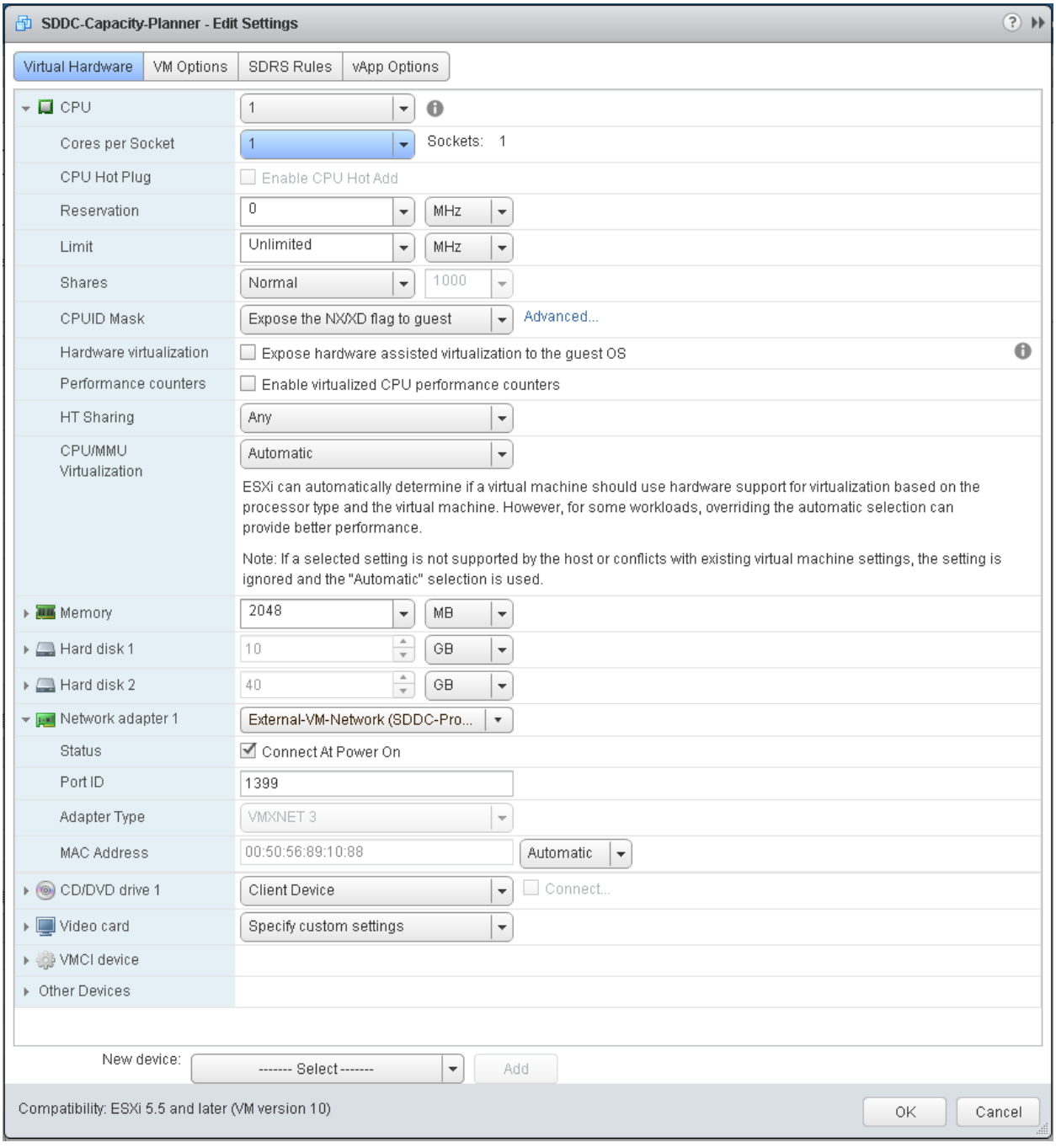
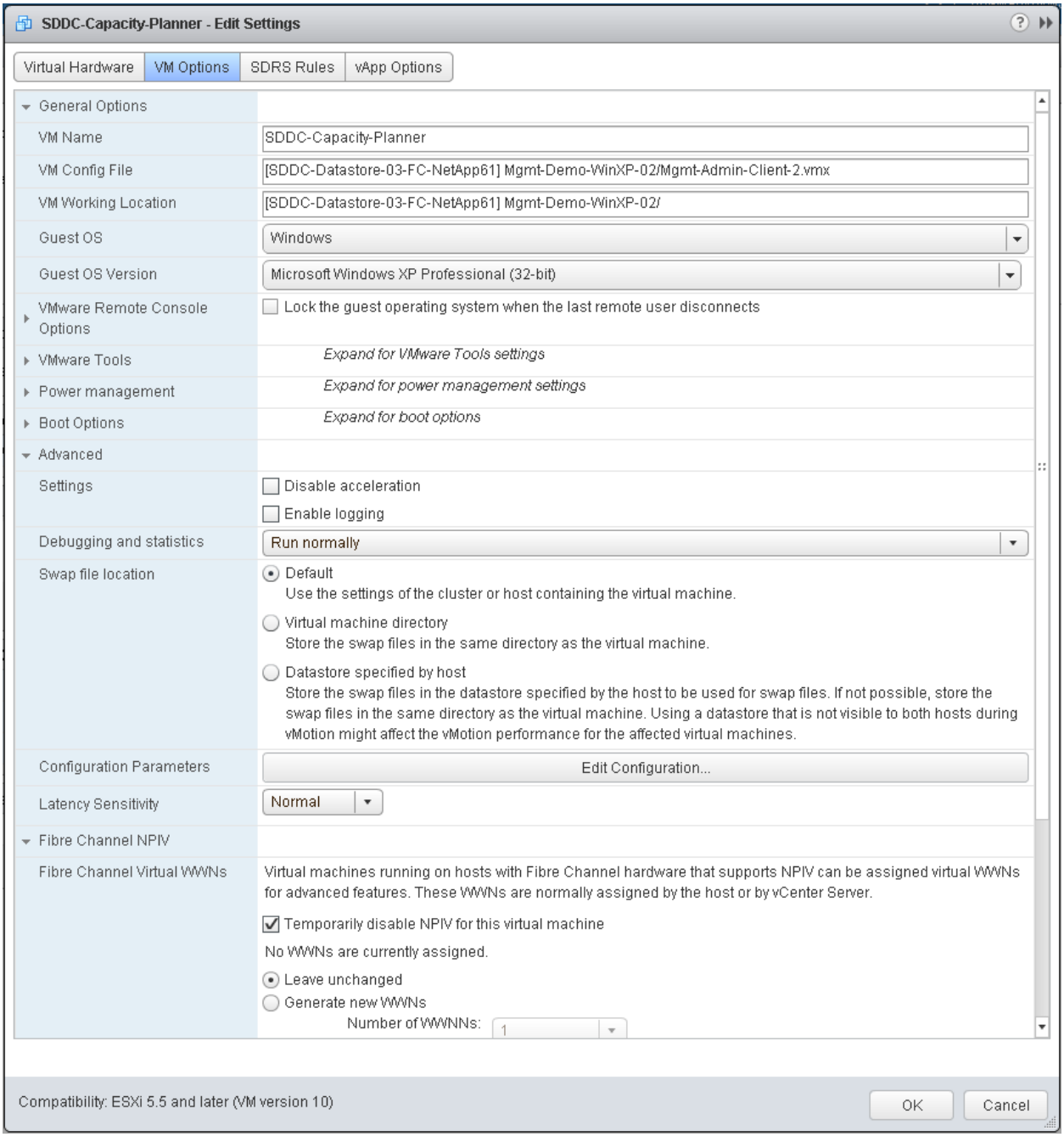
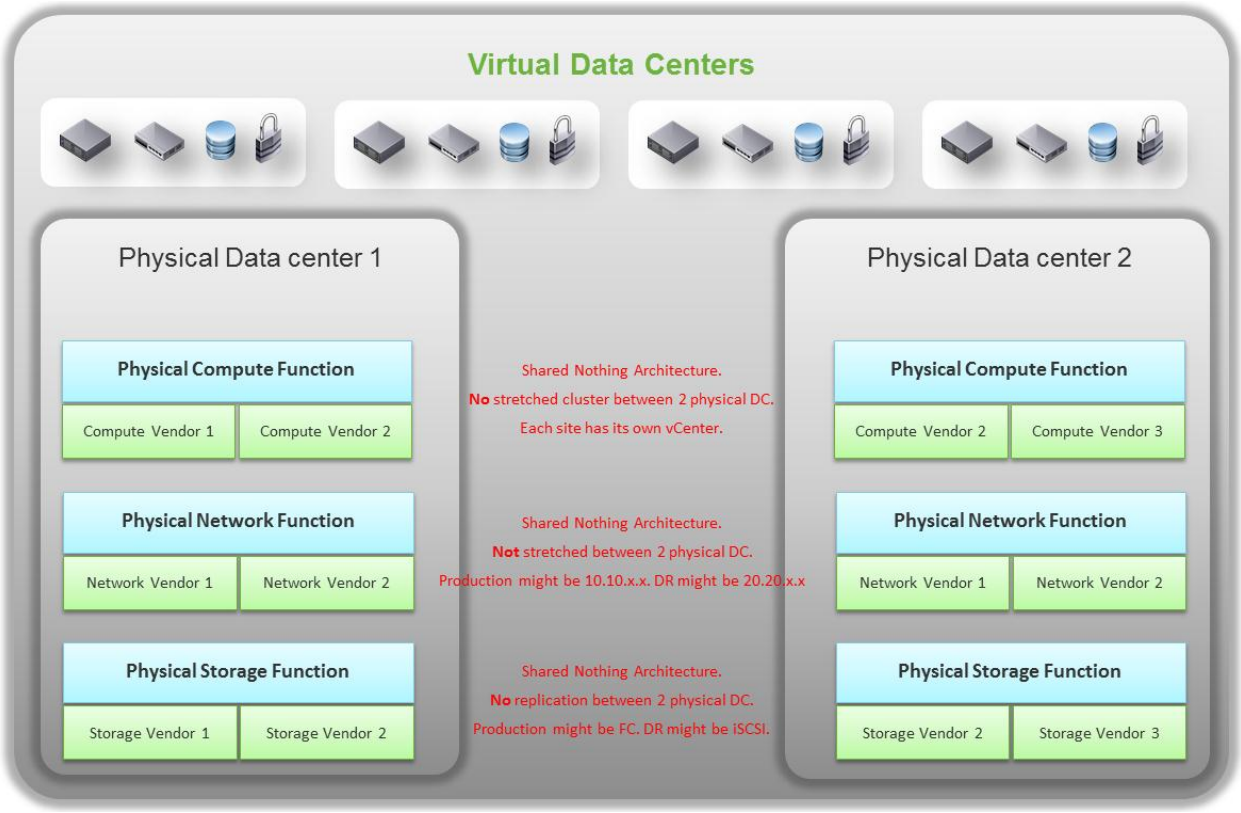
Chapter 1

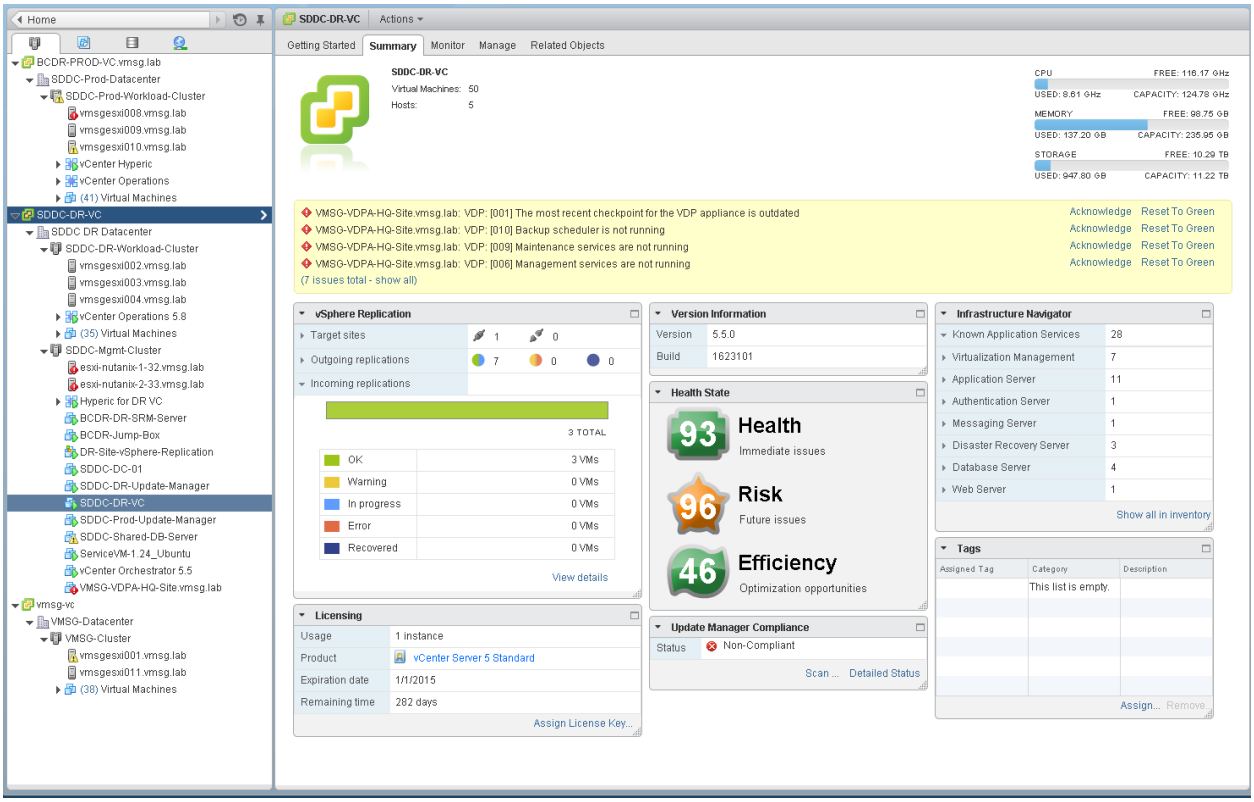

Hardware Partitioning
e.g. LPAR, LDOM, DSD
App
App
OS
OS
HW
OS segregation can be logical or physical
OS Partitioning
e.g. Solaris Zones
App
App
OS
HW
Virtual Machines
e.g. vSphere, Hyper-V
App
App
OS
OS
VMM
VMM
Hypervisor
HW
OS purposes reduced.
A new layer, Virtual Hardware
A new layer, Hypervisor

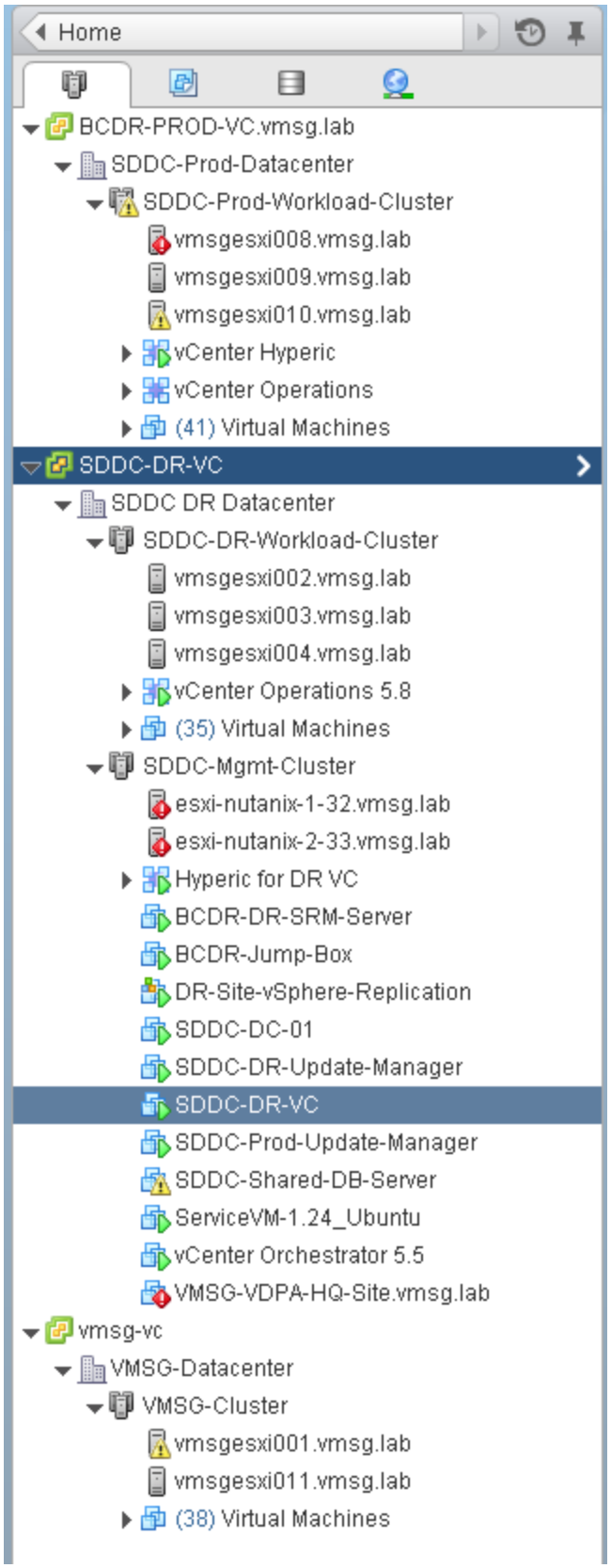

SDDC-Capacity-Planner - Edit Settings
Virtual Hardware
VM Options
SDRS Rules
vApp Options
CPU
1
Memory
2048
MB
Hard disk 1
10
GB
Hard disk 2
40
GB
Network adapter 1
External-VM-Network (SDDC-Pro...
Connect...
CD/DVD drive 1
Client Device
Connect...
Video card
Specify custom settings
VMCI device
Other Devices
New device:
------- Select -------
Add
Compatibility: ESXi 5.5 and later (VM version 10)
OK
Cancel

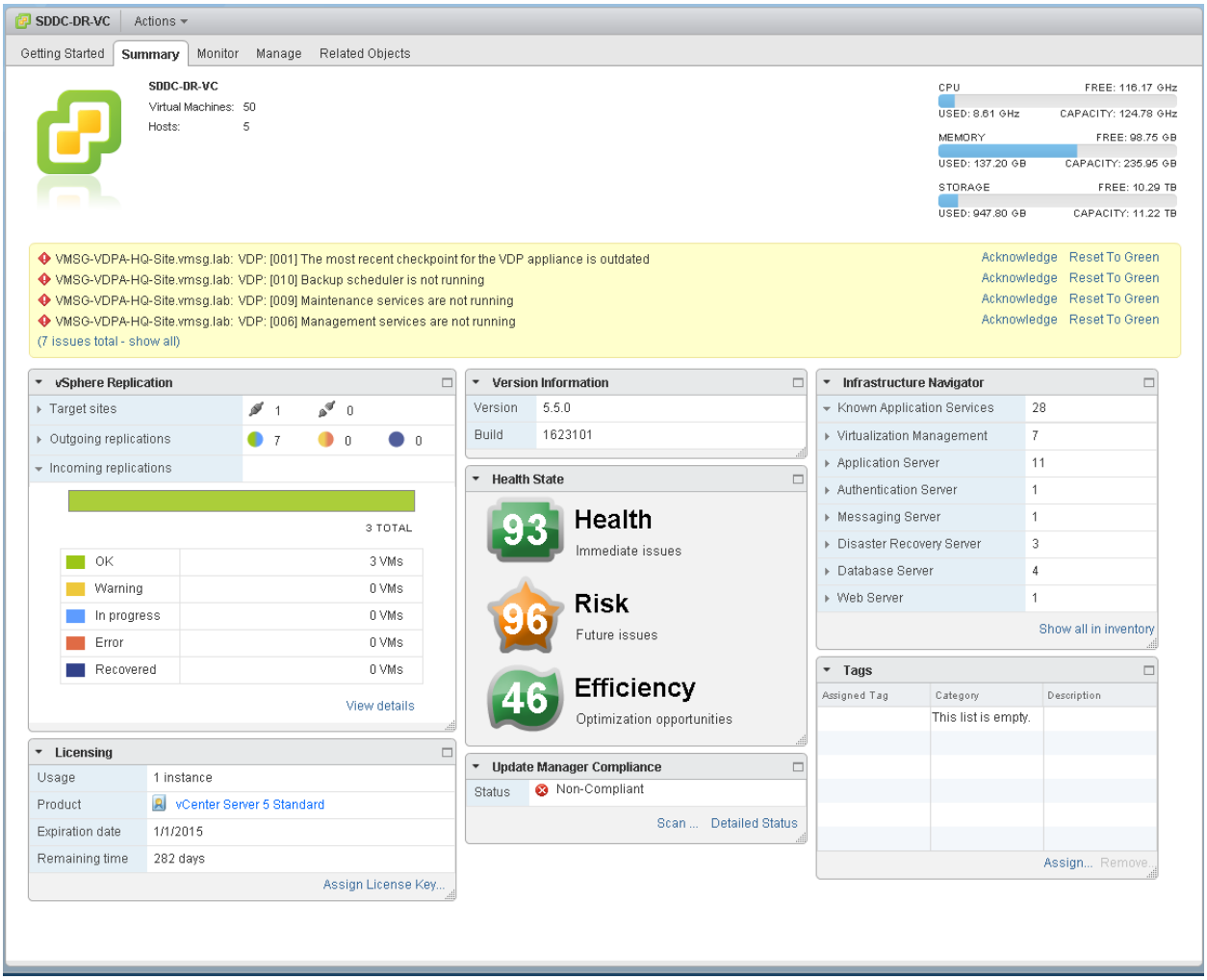

SDDC-Capacity-Planner - Edit Settings
Virtual Hardware
VM Options
SDRS Rules
vApp Options
CPU
1
Cores per Socket
1
Sockets: 1
CPU Hot Plug
Enable CPU Hot Add
Reservation
0
MHz
Limit
Unlimited
MHz
Shares
Normal
1000
CPUID Mask
Expose the NX/XD flag to guest
Advanced...
Hardware virtualization
Expose hardware assisted virtualization to the guest OS
Performance counters
Enable virtualized CPU performance counters
HT Sharing
Any
CPU/MMU Virtualization
Automatic
ESXi can automatically determine if a virtual machine should use hardware support for virtualization based on the processor type and the virtual machine. However, for some workloads, overriding the automatic selection can provide better performance.
Note: If a selected setting is not supported by the host or conflicts with existing virtual machine settings, the setting is ignored and the "Automatic" selection is used.
Memory
2048
MB
Hard disk 1
10
GB
Hard disk 2
40
GB
Network adapter 1
External-VM-Network (SDDC-Pro...
Status
Connect At Power On
Port ID
1399
Adapter Type
VMXNET 3
MAC Address
00:50:56:89:10:88
Automatic
CD/DVD drive 1
Client Device
Connect...
Video card
Specify custom settings
VMCI device
Other Devices
New device:
------- Select -------
Add
Compatibility: ESXi 5.5 and later (VM version 10)
OK
Cancel

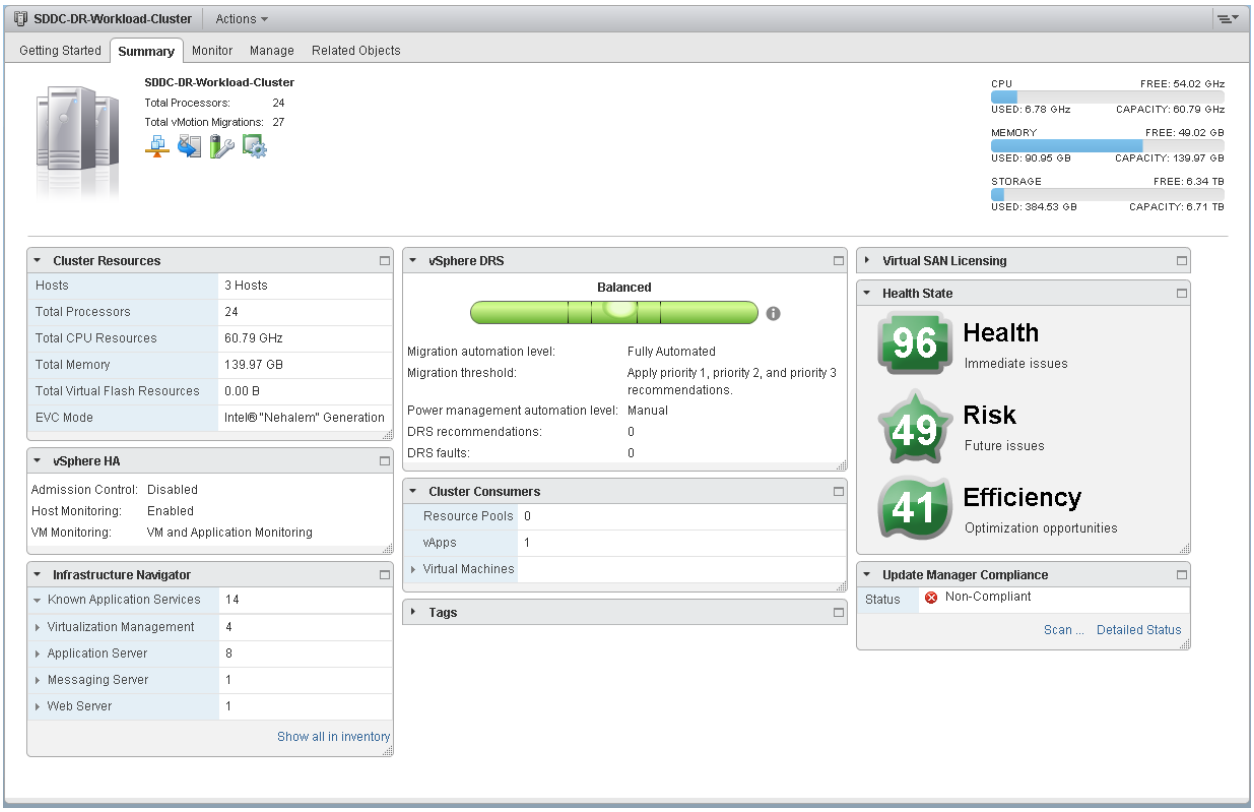

SDDC-Capacity-Planner - Edit Settings
Virtual Hardware
VM Options
SDRS Rules
vApp Options
General Options
VM Name
SDDC-Capacity-Planner
VM Config File
[SDDC-Datastore-03-FC-NetApp61] Mgmt-Demo-WinXP-02/Mgmt-Admin-Client-2.vmx
VM Working Location
[SDDC-Datastore-03-FC-NetApp61] Mgmt-Demo-WinXP-02/
Guest OS
Windows
Guest OS Version
Microsoft Windows XP Professional (32-bit)
VMware Remote Console Options
Lock the guest operating system when the last remote user disconnects
VMware Tools
Expand for VMware Tools settings
Power management
Expand for power management settings
Boot Options
Expand for boot options
Advanced
Settings
Disable acceleration
Enable logging
Debugging and statistics
Run normally
Swap file location
Default
Use the settings of the cluster or host containing the virtual machine.
Virtual machine directory
Store the swap files in the same directory as the virtual machine.
Datastore specified by host
Store the swap files in the datastore specified by the host to be used for swap files. If not possible, store the swap files in the same directory as the virtual machine. Using a datastore that is not visible to both hosts during vMotion might affect the vMotion performance for the affected virtual machines.
Configuration Parameters
Edit Configuration...
Latency Sensitivity
Normal
Fibre Channel NPIV
Fibre Channel Virtual WWNs
Virtual machines running on hosts with Fibre Channel hardware that supports NPIV can be assigned virtual WWNs for advanced features. These WWNs are normally assigned by the host or by vCenter Server.
Temporarily disable NPIV for this virtual machine
No WWNs are currently assigned.
Leave unchanged
Generate new WWNs
Number of WWNNs:
1
Compatibility: ESXi 5.5 and later (VM version 10)
OK
Cancel

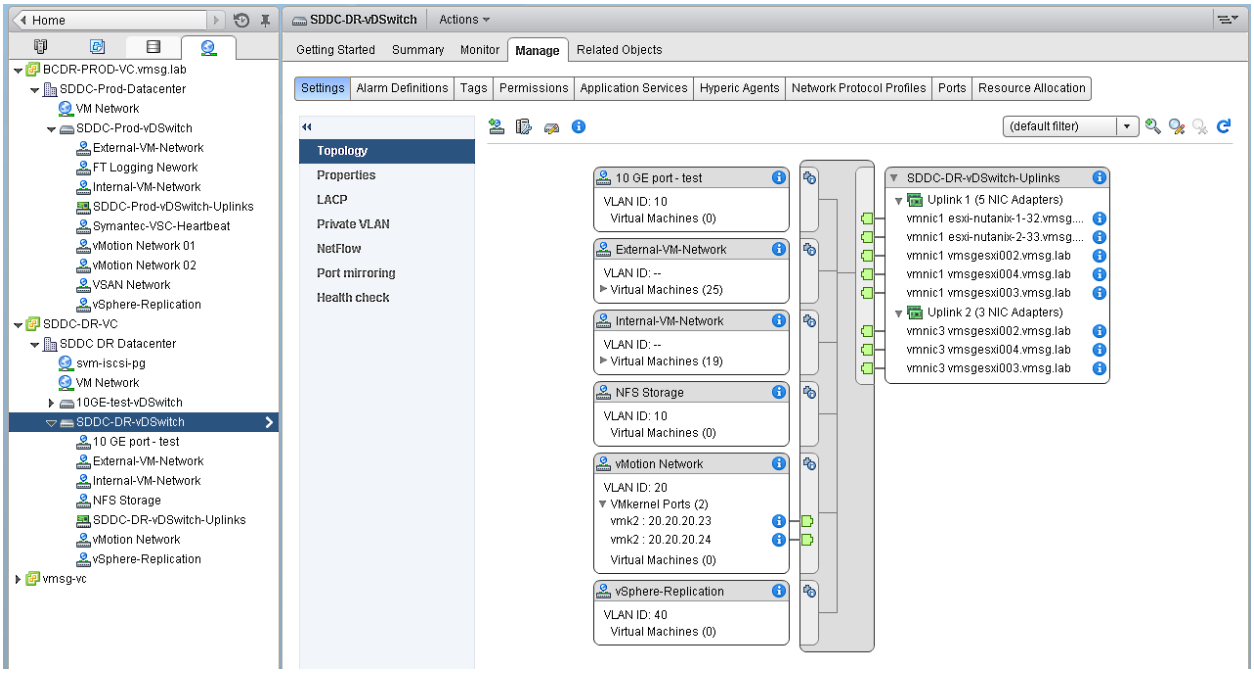

Virtual Data Centers
Physical Data center 1
Physical Compute Function
Compute Vendor 1
Compute Vendor 2
Physical Network Function
Network Vendor 1
Network Vendor 2
Physical Storage Function
Storage Vendor 1
Storage Vendor 2
Shared Nothing Architecture.
No stretched cluster between 2 physical DC.
Each site has its own vCenter.
Shared Nothing Architecture.
Not stretched between 2 physical DC.
Production might be 10.10.x.x. DR might be 20.20.x.x
Shared Nothing Architecture.
No replication between 2 physical DC.
Production might be FC. DR might be iSCSI.
Physical Data center 2
Physical Compute Function
Compute Vendor 2
Compute Vendor 3
Physical Network Function
Network Vendor 1
Network Vendor 2
Physical Storage Function
Storage Vendor 2
Storage Vendor 3

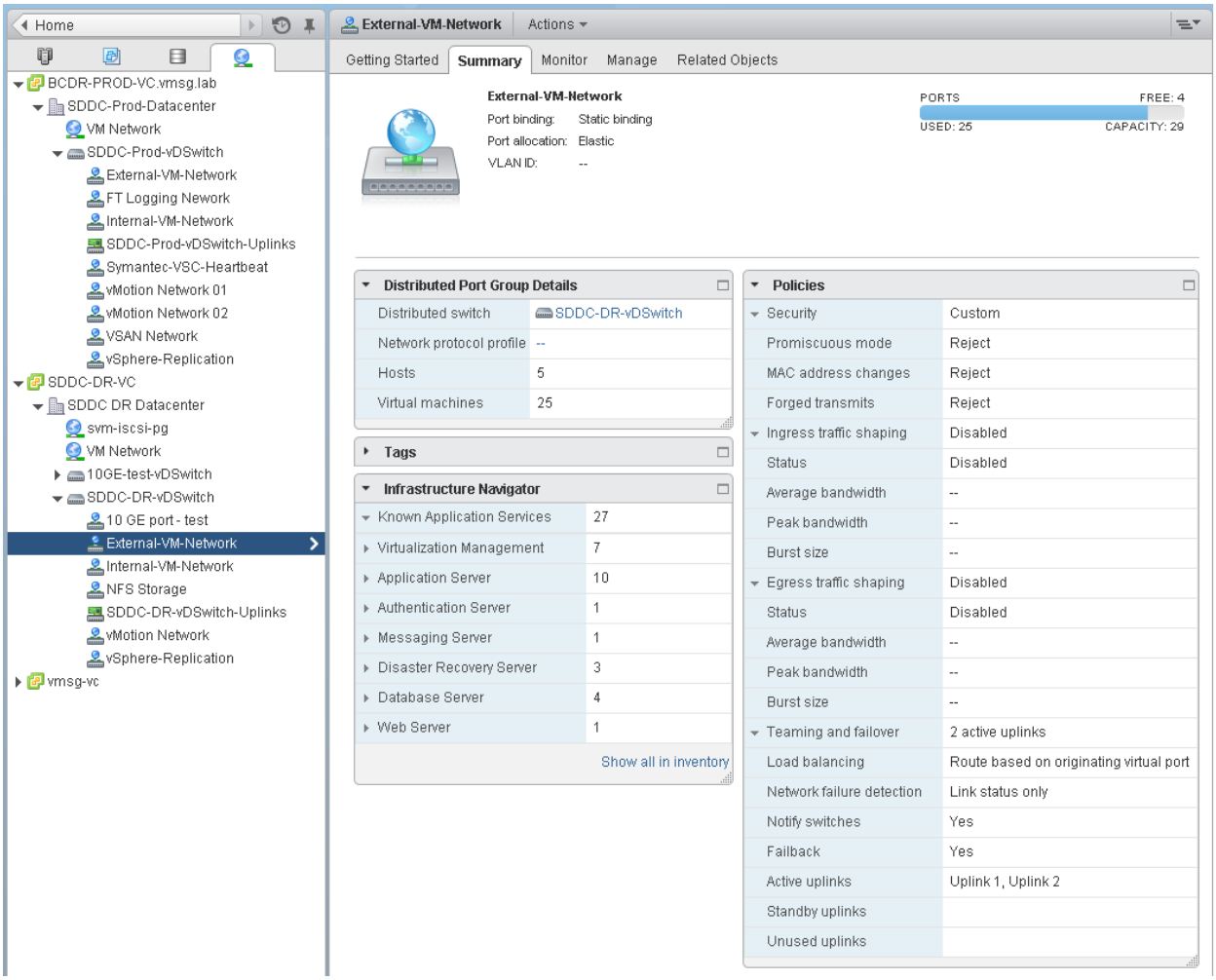

Home
BCDR-PROD-VC.vmsg.lab
SDDC-Prod-Datacenter
SDDC-Prod-Workload-Cluster
vmsgesxi008.vmsg.lab
vmsgesxi009.vmsg.lab
vmsgesxi010.vmsg.lab
vCenter Hyperic
vCenter Operations
(41) Virtual Machines
SDDC-DR-VC
SDDC DR Datacenter
SDDC-DR-Workload-Cluster
vmsgesxi002.vmsg.lab
vmsgesxi003.vmsg.lab
vmsgesxi004.vmsg.lab
vCenter Operations 5.8
(35) Virtual Machines
SDDC-Mgmt-Cluster
esxi-nutanix-1-32.vmsg.lab
esxi-nutanix-2-33.vmsg.lab
Hyperic for DR VC
BCDR-DR-SRM-Server
BCDR-Jump-Box
DR-Site-vSphere-Replication
SDDC-DC-01
SDDC-DR-Update-Manager
SDDC-DR-VC
SDDC-Prod-Update-Manager
SDDC-Shared-DB-Server
ServiceVM-1.24_Ubuntu
vCenter Orchestrator 5.5
VMSG-VDPA-HQ-Site.vmsg.lab
vmsg-vc
VMSG-Datacenter
VMSG-Cluster
vmsgesxi001.vmsg.lab
vmsgesxi011.vmsg.lab
(38) Virtual Machines
SDDC-DR-VC
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
SDDC-DR-VC
Virtual Machines: 50
Hosts: 5
CPU FREE: 116.17 GHz
USED: 8.61 GHz CAPACITY: 124.78 GHz
MEMORY FREE: 98.75 GB
USED: 137.20 GB CAPACITY: 235.95 GB
STORAGE FREE: 10.29 TB
USED: 947.80 GB CAPACITY: 11.22 TB
VMSG-VDPA-HQ-Site.vmsg.lab: VDP: [001] The most recent checkpoint for the VDP appliance is outdated
VMSG-VDPA-HQ-Site.vmsg.lab: VDP: [010] Backup scheduler is not running
VMSG-VDPA-HQ-Site.vmsg.lab: VDP: [009] Maintenance services are not running
VMSG-VDPA-HQ-Site.vmsg.lab: VDP: [006] Management services are not running
Acknowledge Reset To Green
(7 issues total - show all)
vSphere Replication
Target sites 1 0
Outgoing replications 7 0 0
Incoming replications
3 TOTAL
OK 3 VMs
Warning 0 VMs
In progress 0 VMs
Error 0 VMs
Recovered 0 VMs
View details
Version Information
Version 5.5.0
Build 1623101
Health State
93 Health
Immediate issues
96 Risk
Future issues
46 Efficiency
Optimization opportunities
Infrastructure Navigator
Known Application Services 28
Virtualization Management 7
Application Server 11
Authentication Server 1
Messaging Server 1
Disaster Recovery Server 3
Database Server 4
Web Server 1
Show all in inventory
Tags
Assigned Tag
Category
Description
This list is empty.
Assign... Remove
Licensing
Usage 1 instance
Product vCenter Server 5 Standard
Expiration date 1/1/2015
Remaining time 282 days
Assign License Key...
Update Manager Compliance
Status Non-Compliant
Scan ... Detailed Status

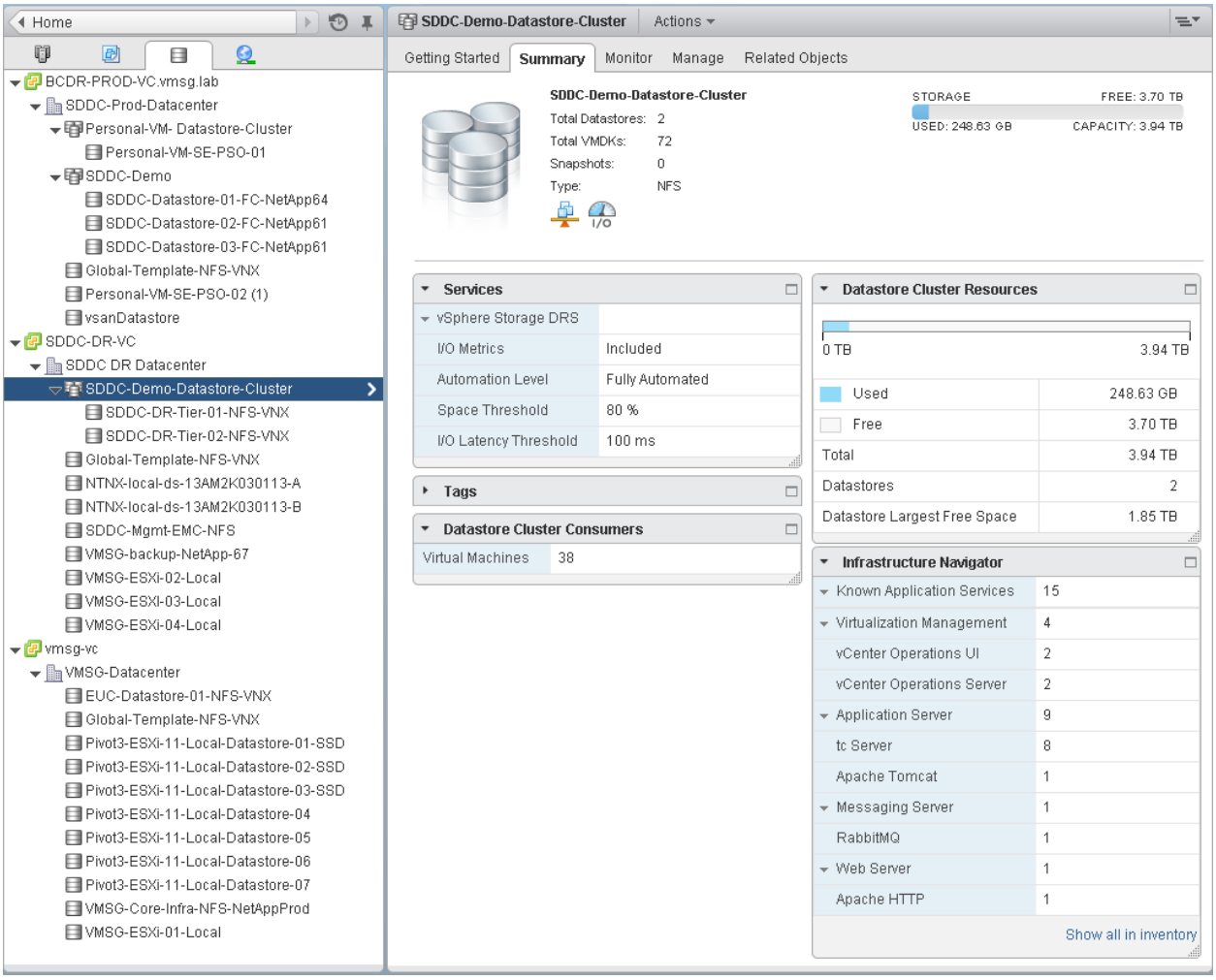

Home
BCDR-PROD-VC.vmsg.lab
SDDC-Prod-Datacenter
SDDC-Prod-Workload-Cluster
vmsgesxi008.vmsg.lab
vmsgesxi009.vmsg.lab
vmsgesxi010.vmsg.lab
vCenter Hyperic
vCenter Operations
(41) Virtual Machines
SDDC-DR-VC
SDDC DR Datacenter
SDDC-DR-Workload-Cluster
vmsgesxi002.vmsg.lab
vmsgesxi003.vmsg.lab
vmsgesxi004.vmsg.lab
vCenter Operations 5.8
(35) Virtual Machines
SDDC-Mgmt-Cluster
esxi-nutanix-1-32.vmsg.lab
esxi-nutanix-2-33.vmsg.lab
Hyperic for DR VC
BCDR-DR-SRM-Server
BCDR-Jump-Box
DR-Site-vSphere-Replication
SDDC-DC-01
SDDC-DR-Update-Manager
SDDC-DR-VC
SDDC-Prod-Update-Manager
SDDC-Shared-DB-Server
ServiceVM-1.24_Ubuntu
vCenter Orchestrator 5.5
VMSG-VDPA-HQ-Site.vmsg.lab
vmsg-vc
VMSG-Datacenter
VMSG-Cluster
vmsgesxi001.vmsg.lab
vmsgesxi011.vmsg.lab
(38) Virtual Machines

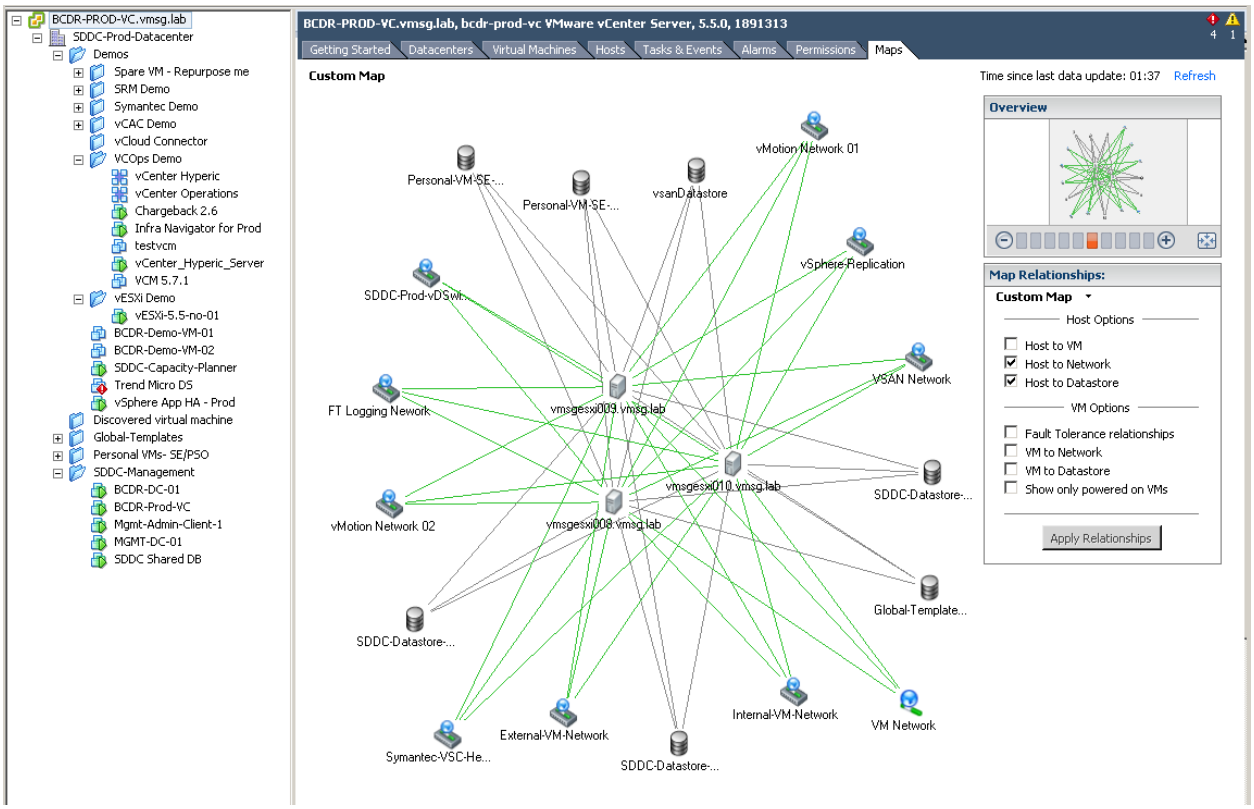

SDDC-DR-VC
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
SDDC-DR-VC
Virtual Machines: 50
Hosts: 5
CPU
FREE: 116.17 GHz
USED: 8.61 GHz
CAPACITY: 124.78 GHz
MEMORY
FREE: 98.75 GB
USED: 137.20 GB
CAPACITY: 235.95 GB
STORAGE
FREE: 10.29 TB
USED: 947.80 GB
CAPACITY: 11.22 TB
VMSG-VDPA-HQ-Site.vmsg.lab: VDP: [001] The most recent checkpoint for the VDP appliance is outdated
VMSG-VDPA-HQ-Site.vmsg.lab: VDP: [010] Backup scheduler is not running
VMSG-VDPA-HQ-Site.vmsg.lab: VDP: [009] Maintenance services are not running
VMSG-VDPA-HQ-Site.vmsg.lab: VDP: [006] Management services are not running
(7 issues total - show all)
Acknowledge
Reset To Green
vSphere Replication
Target sites
Outgoing replications
Incoming replications
3 TOTAL
OK 3 VMs
Warning 0 VMs
In progress 0 VMs
Error 0 VMs
Recovered 0 VMs
View details
Version Information
Version 5.5.0
Build 1623101
Health State
93
Health
Immediate issues
96
Risk
Future issues
46
Efficiency
Optimization opportunities
Infrastructure Navigator
Known Application Services 28
Virtualization Management 7
Application Server 11
Authentication Server 1
Messaging Server 1
Disaster Recovery Server 3
Database Server 4
Web Server 1
Show all in inventory
Tags
Assigned Tag
Category
Description
This list is empty.
Assign...
Remove
Licensing
Usage 1 instance
Product vCenter Server 5 Standard
Expiration date 1/1/2015
Remaining time 282 days
Assign License Key...
Update Manager Compliance
Status Non-Compliant
Scan ...
Detailed Status


SDDC-DR-Workload-Cluster
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
SDDC-DR-Workload-Cluster
Total Processors: 24
Total vMotion Migrations: 27
CPU
FREE: 54.02 GHz
USED: 6.78 GHz
CAPACITY: 60.79 GHz
MEMORY
FREE: 49.02 GB
USED: 90.95 GB
CAPACITY: 139.97 GB
STORAGE
FREE: 6.34 TB
USED: 384.53 GB
CAPACITY: 6.71 TB
Cluster Resources
Hosts 3 Hosts
Total Processors 24
Total CPU Resources 60.79 GHz
Total Memory 139.97 GB
Total Virtual Flash Resources 0.00 B
EVC Mode Intel® "Nehalem" Generation
vSphere HA
Admission Control: Disabled
Host Monitoring: Enabled
VM Monitoring: VM and Application Monitoring
Infrastructure Navigator
Known Application Services 14
Virtualization Management 4
Application Server 8
Messaging Server 1
Web Server 1
Show all in inventory
vSphere DRS
Balanced
Migration automation level: Fully Automated
Migration threshold: Apply priority 1, priority 2, and priority 3 recommendations.
Power management automation level: Manual
DRS recommendations: 0
DRS faults: 0
Cluster Consumers
Resource Pools 0
vApps 1
Virtual Machines
Tags
Virtual SAN Licensing
Health State
96 Health
Immediate issues
49 Risk
Future issues
41 Efficiency
Optimization opportunities
Update Manager Compliance
Status Non-Compliant
Scan ... Detailed Status


Home
BCDR-PROD-VC.vmsg.lab
SDDC-Prod-Datacenter
VM Network
SDDC-Prod-vDSwitch
External-VM-Network
FT Logging Nework
Internal-VM-Network
SDDC-Prod-vDSwitch-Uplinks
Symantec-VSC-Heartbeat
vMotion Network 01
vMotion Network 02
VSAN Network
vSphere-Replication
SDDC-DR-VC
SDDC DR Datacenter
svm-iscsi-pg
VM Network
10GE-test-vDSwitch
SDDC-DR-vDSwitch
10 GE port - test
External-VM-Network
Internal-VM-Network
NFS Storage
SDDC-DR-vDSwitch-Uplinks
vMotion Network
vSphere-Replication
vmsg-vc
SDDC-DR-vDSwitch
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
Settings
Alarm Definitions
Tags
Permissions
Application Services
Hyperic Agents
Network Protocol Profiles
Ports
Resource Allocation
Topology
Properties
LACP
Private VLAN
NetFlow
Port mirroring
Health check
(default filter)
10 GE port - test
VLAN ID: 10
Virtual Machines (0)
External-VM-Network
VLAN ID: --
Virtual Machines (25)
Internal-VM-Network
VLAN ID: --
Virtual Machines (19)
NFS Storage
VLAN ID: 10
Virtual Machines (0)
vMotion Network
VLAN ID: 20
VMkernel Ports (2)
vmk2 : 20.20.20.23
vmk2 : 20.20.20.24
Virtual Machines (0)
vSphere-Replication
VLAN ID: 40
Virtual Machines (0)
SDDC-DR-vDSwitch-Uplinks
Uplink 1 (5 NIC Adapters)
vmnic1 esxi-nutanix-1-32.vmsg....
vmnic1 esxi-nutanix-2-33.vmsg....
vmnic1 vmsgesxi002.vmsg.lab
vmnic1 vmsgesxi004.vmsg.lab
vmnic1 vmsgesxi003.vmsg.lab
Uplink 2 (3 NIC Adapters)
vmnic3 vmsgesxi002.vmsg.lab
vmnic3 vmsgesxi004.vmsg.lab
vmnic3 vmsgesxi003.vmsg.lab


Home
BCDR-PROD-VC.vmsg.lab
SDDC-Prod-Datacenter
VM Network
SDDC-Prod-vDSwitch
External-VM-Network
FT Logging Nework
Internal-VM-Network
SDDC-Prod-vDSwitch-Uplinks
Symantec-VSC-Heartbeat
vMotion Network 01
vMotion Network 02
VSAN Network
vSphere-Replication
SDDC-DR-VC
SDDC DR Datacenter
svm-iscsi-pg
VM Network
10GE-test-vDSwitch
SDDC-DR-vDSwitch
10 GE port - test
External-VM-Network
Internal-VM-Network
NFS Storage
SDDC-DR-vDSwitch-Uplinks
vMotion Network
vSphere-Replication
vmsg-vc
External-VM-Network
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
External-VM-Network
Port binding: Static binding
Port allocation: Elastic
VLAN ID: --
PORTS FREE: 4
USED: 25 CAPACITY: 29
Distributed Port Group Details
Distributed switch SDDC-DR-vDSwitch
Network protocol profile --
Hosts 5
Virtual machines 25
Tags
Infrastructure Navigator
Known Application Services 27
Virtualization Management 7
Application Server 10
Authentication Server 1
Messaging Server 1
Disaster Recovery Server 3
Database Server 4
Web Server 1
Show all in inventory
Policies
Security Custom
Promiscuous mode Reject
MAC address changes Reject
Forged transmits Reject
Ingress traffic shaping Disabled
Status Disabled
Average bandwidth --
Peak bandwidth --
Burst size --
Egress traffic shaping Disabled
Status Disabled
Average bandwidth --
Peak bandwidth --
Burst size --
Teaming and failover 2 active uplinks
Load balancing Route based on originating virtual port
Network failure detection Link status only
Notify switches Yes
Failback Yes
Active uplinks Uplink 1, Uplink 2
Standby uplinks
Unused uplinks


Home
BCDR-PROD-VC.vmsg.lab
SDDC-Prod-Datacenter
Personal-VM- Datastore-Cluster
Personal-VM-SE-PSO-01
SDDC-Demo
SDDC-Datastore-01-FC-NetApp64
SDDC-Datastore-02-FC-NetApp61
SDDC-Datastore-03-FC-NetApp61
Global-Template-NFS-VNX
Personal-VM-SE-PSO-02 (1)
vsanDatastore
SDDC-DR-VC
SDDC DR Datacenter
SDDC-Demo-Datastore-Cluster
SDDC-DR-Tier-01-NFS-VNX
SDDC-DR-Tier-02-NFS-VNX
Global-Template-NFS-VNX
NTNX-local-ds-13AM2K030113-A
NTNX-local-ds-13AM2K030113-B
SDDC-Mgmt-EMC-NFS
VMSG-backup-NetApp-67
VMSG-ESXi-02-Local
VMSG-ESXi-03-Local
VMSG-ESXi-04-Local
vmsg-vc
VMSG-Datacenter
EUC-Datastore-01-NFS-VNX
Global-Template-NFS-VNX
Pivot3-ESXi-11-Local-Datastore-01-SSD
Pivot3-ESXi-11-Local-Datastore-02-SSD
Pivot3-ESXi-11-Local-Datastore-03-SSD
Pivot3-ESXi-11-Local-Datastore-04
Pivot3-ESXi-11-Local-Datastore-05
Pivot3-ESXi-11-Local-Datastore-06
Pivot3-ESXi-11-Local-Datastore-07
VMSG-Core-Infra-NFS-NetAppProd
VMSG-ESXi-01-Local
SDDC-Demo-Datastore-Cluster
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
SDDC-Demo-Datastore-Cluster
Total Datastores: 2
Total VMDKs: 72
Snapshots: 0
Type: NFS
I/O
STORAGE
FREE: 3.70 TB
USED: 248.63 GB
CAPACITY: 3.94 TB
Services
vSphere Storage DRS
I/O Metrics
Included
Automation Level
Fully Automated
Space Threshold
80 %
I/O Latency Threshold
100 ms
Tags
Datastore Cluster Consumers
Virtual Machines
38
Datastore Cluster Resources
0 TB
3.94 TB
Used
248.63 GB
Free
3.70 TB
Total
3.94 TB
Datastores
2
Datastore Largest Free Space
1.85 TB
Infrastructure Navigator
Known Application Services
15
Virtualization Management
4
vCenter Operations UI
2
vCenter Operations Server
2
Application Server
9
tc Server
8
Apache Tomcat
1
Messaging Server
1
RabbitMQ
1
Web Server
1
Apache HTTP
1
Show all in inventory



Object & Relation

- ESXi Host
- Cluster
- Data Center
- Resource Pool
- Folder
- vCenter
- vSwitch
- Distributed vSwitch
- vApp
- vmnic
- Port Group
- Datastore
- Datastore group
- Agent VM
- Devices
- … many others

Events

- vMotion
- DRS
- DPM
- Storage vMotion
- Maintenance mode
- VM Provisioning
- Storage IOC kicks in
- Network IOC kicks in
- Hot Add
- Hot Remove
- Network LBT
- Each object in vCloud Suite triggers many events

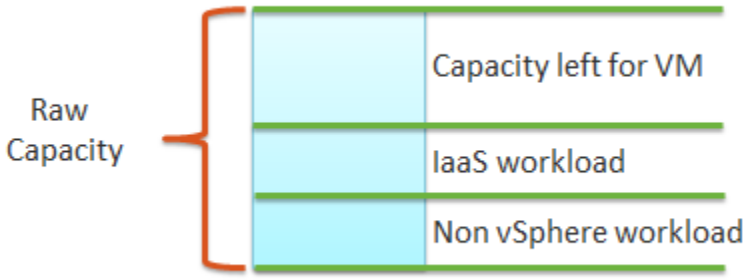
Counters

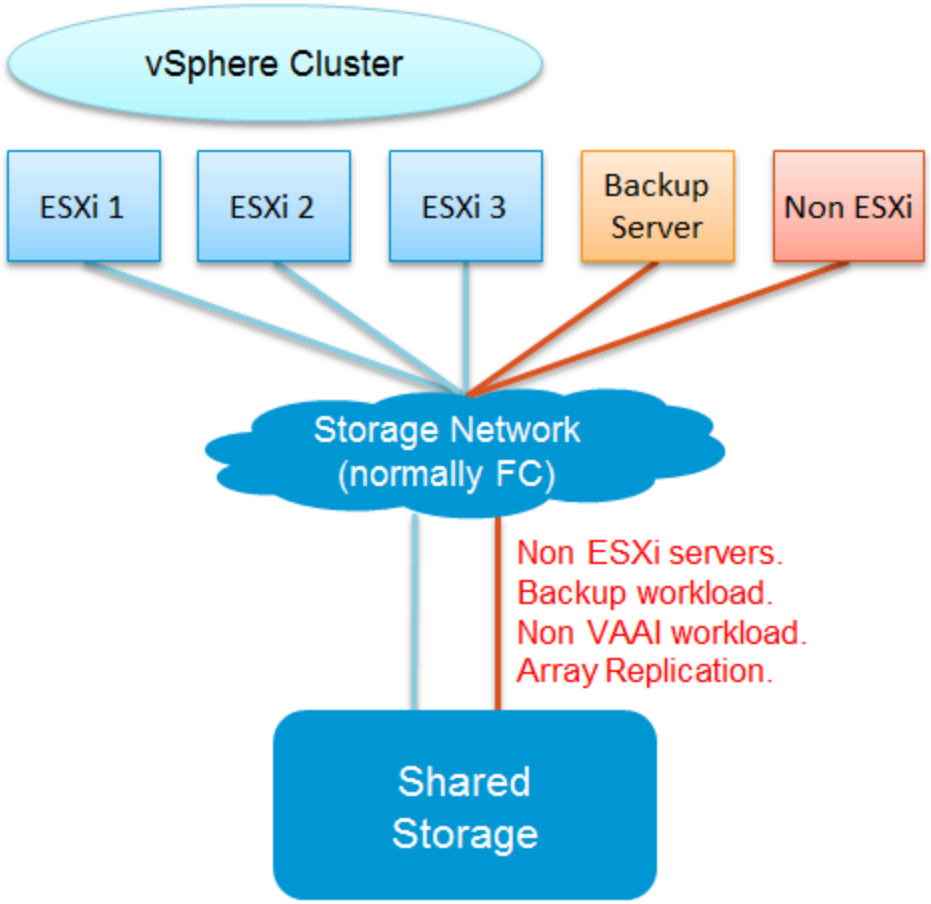
- CPU Ready
- CPU Latency
- Co-Stop
- Ballooning
- KAVG
- Memory compression
- TPS
- vSphere Replication
- >100 counters has no physical equivalent…

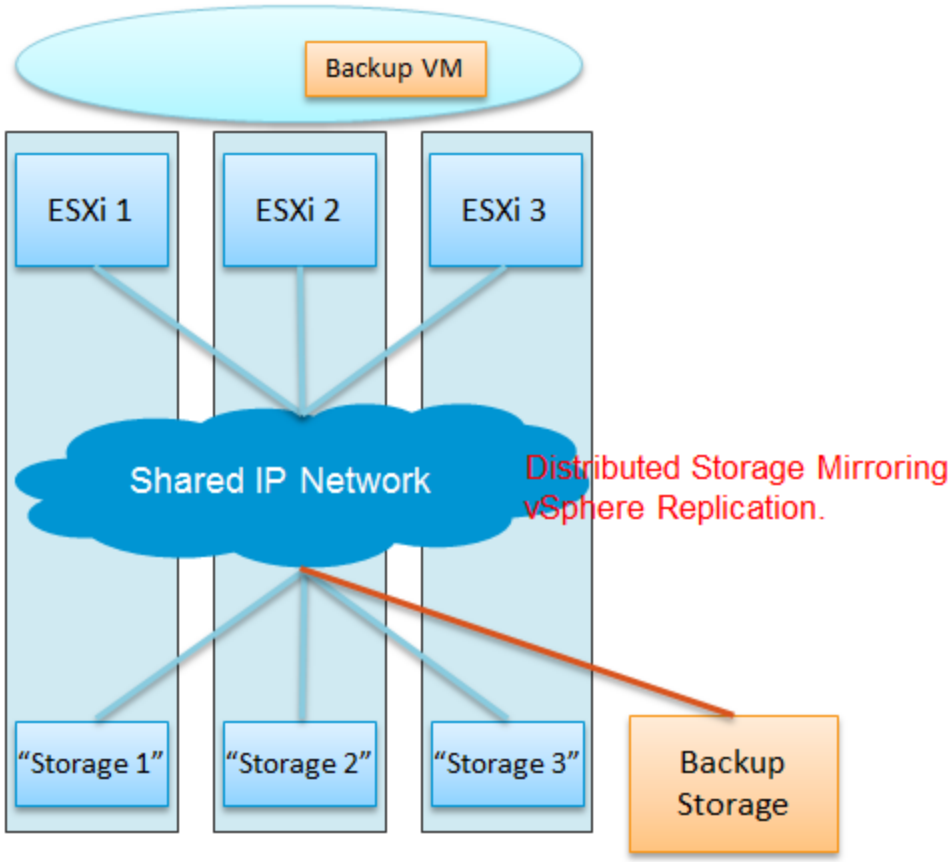
Properties

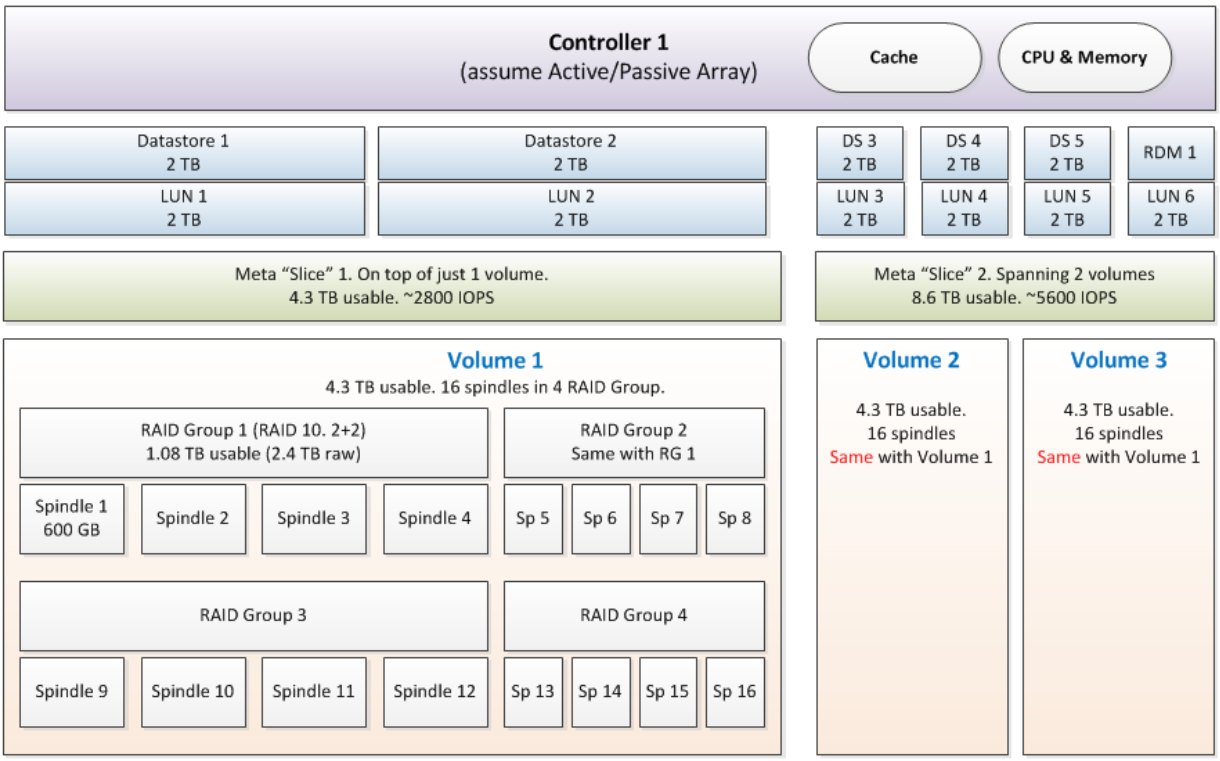
- Share
- Limit
- Reservation
- Fault Tolerant
- HA
- Master
- VM
- Boot order
- Licensing
- vSphere Replication
- Each object in vCloud Suite has many properties

Chapter 2

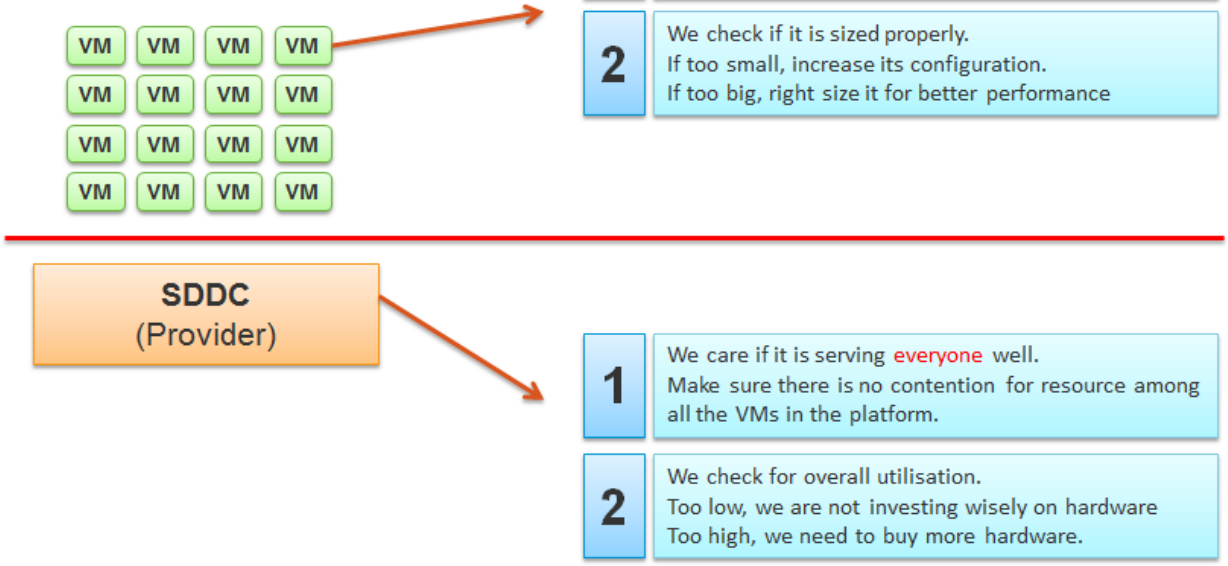

Raw
Capacity
Capacity left for VM
IaaS workload
Non vSphere workload

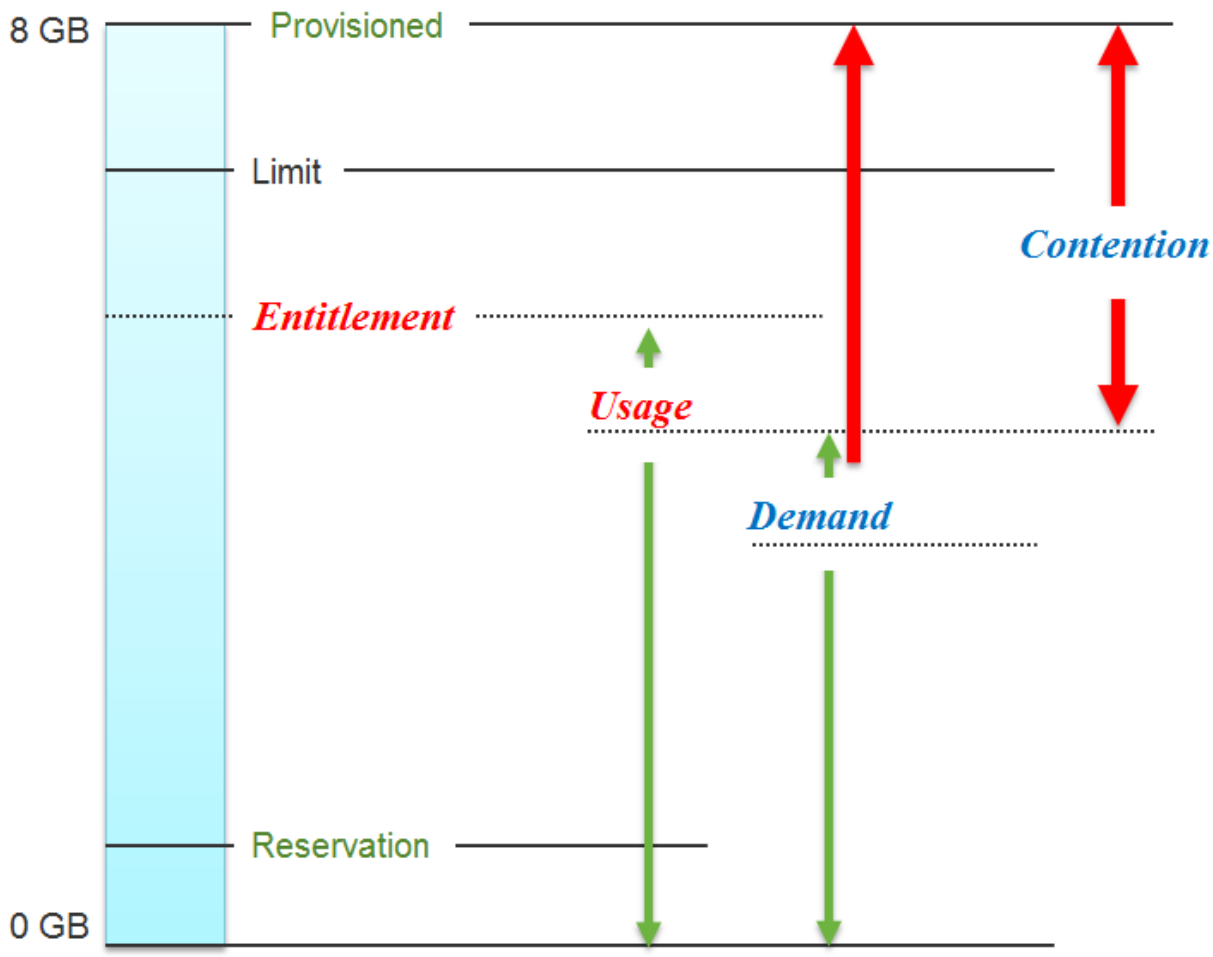

vSphere Cluster
ESXi 1
ESXi 2
ESXi 3
Backup Server
Non ESXi
Storage Network (normally FC)
Non ESXi servers.
Backup workload.
Non VAAI workload.
Array Replication.
Shared Storage

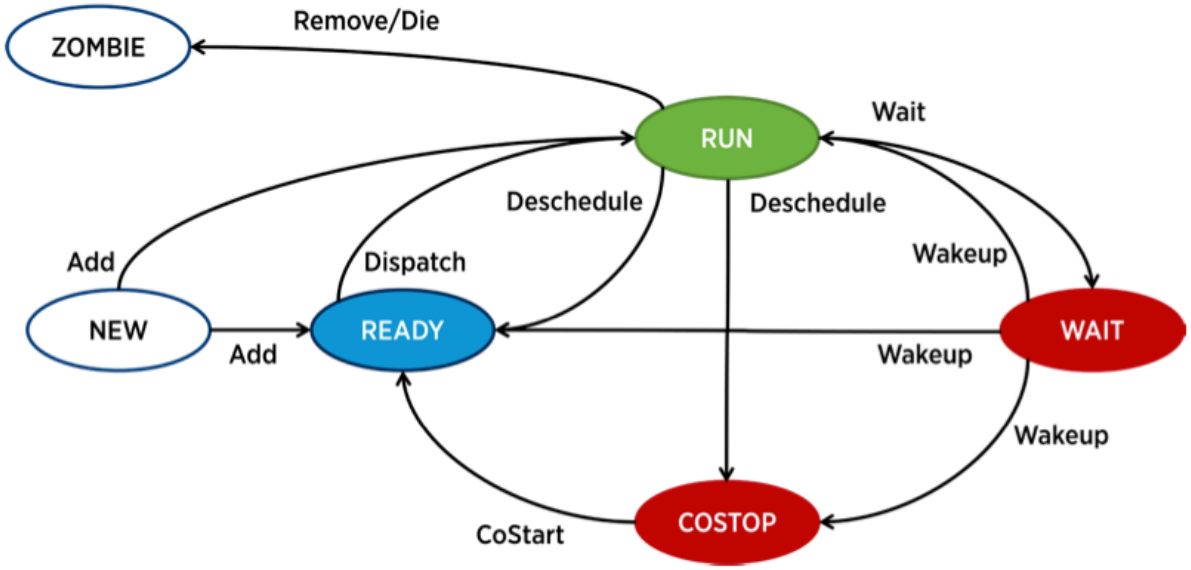

Backup VM
ESXi 1
ESXi 2
ESXi 3
Shared IP Network
Distributed Storage Mirroring
vSphere Replication.
“Storage 1”
“Storage 2”
“Storage 3”
Backup
Storage


Controller 1
(assume Active/Passive Array)
Cache
CPU & Memory
Datastore 1
2 TB
LUN 1
2 TB
Datastore 2
2 TB
LUN 2
2 TB
DS 3
2 TB
LUN 3
2 TB
DS 4
2 TB
LUN 4
2 TB
DS 5
2 TB
LUN 5
2 TB
RDM 1
LUN 6
2 TB
Meta "Slice" 1. On top of just 1 volume.
4.3 TB usable. ~2800 IOPS
Meta "Slice" 2. Spanning 2 volumes
8.6 TB usable. ~5600 IOPS
Volume 1
4.3 TB usable. 16 spindles in 4 RAID Group.
RAID Group 1 (RAID 10. 2+2)
1.08 TB usable (2.4 TB raw)
RAID Group 2
Same with RG 1
Spindle 1
600 GB
Spindle 2
Spindle 3
Spindle 4
Sp 5
Sp 6
Sp 7
Sp 8
RAID Group 3
RAID Group 4
Spindle 9
Spindle 10
Spindle 11
Spindle 12
Sp 13
Sp 14
Sp 15
Sp 16
Volume 2
4.3 TB usable.
16 spindles
Same with Volume 1
Volume 3
4.3 TB usable.
16 spindles
Same with Volume 1

Chapter 3


VM VM VM VM
VM VM VM VM
VM VM VM VM
VM VM VM VM
1
We care if it is being served well by the platform.
Other VM is irrelevant from VM Owner point of view.
Make sure the VM is not contending for resource.
2
We check if it is sized properly.
If too small, increase its configuration.
If too big, right size it for better performance
SDDC
(Provider)
1
We care if it is serving everyone well.
Make sure there is no contention for resource among all the VMs in the platform.
2
We check for overall utilisation.
Too low, we are not investing wisely on hardware
Too high, we need to buy more hardware.


8 GB
Provisioned
Limit
Entitlement
Usage
Demand
Contention
Reservation
0 GB



SDDC-Prod-vDSwitch | Actions

Getting Started | Summary | Monitor | **Manage** | Related Objects

Settings | Alarm Definitions | Tags | Permissions | Application Services | Hyperic Agents | Network Protocol Profiles | Ports | Resource Allocation

Physical network adapters: 6
Bandwidth capacity: 6.000 Gbit/s
Network I/O Control: Enabled

Filter

Network Resource Pool	Limit (Mbps)	Physical Adapter Sha...	Shares Value	QoS Priority Tag
System network resource pools				
Fault Tolerance (FT) Traffic	Unlimited	Normal	50	--
vSphere Replication (VR) Traffic	Unlimited	Normal	50	--
iSCSI Traffic	Unlimited	Normal	50	--
Management Traffic	Unlimited	Normal	50	--
NFS Traffic	Unlimited	Normal	50	--
Virtual Machine Traffic	Unlimited	High	100	--
vMotion Traffic	Unlimited	Normal	50	--
vSphere Storage Area Network Traffic	Unlimited	Normal	50	--
User-defined network resource pools				
VM Network	Unlimited	High	100	--

9 items

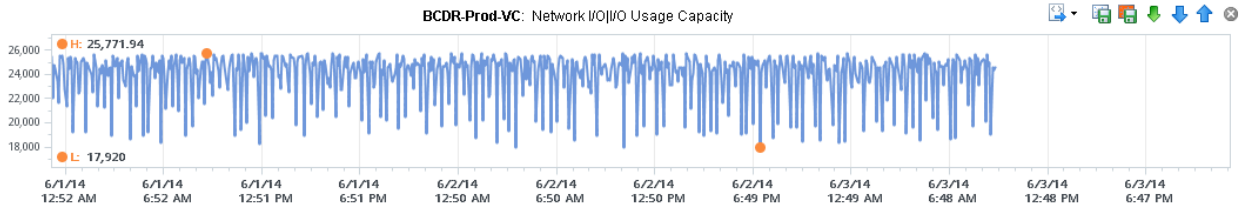
VM Network

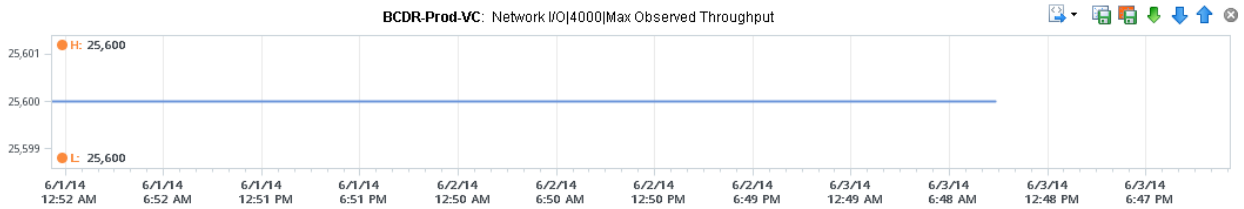
Details | **Distributed Port Groups** | Virtual Machines

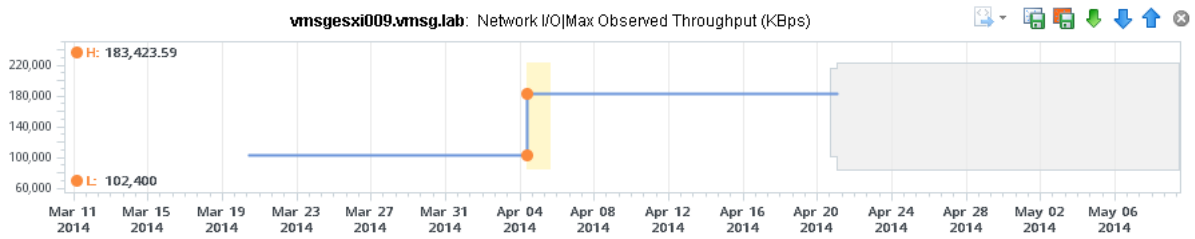
Filter

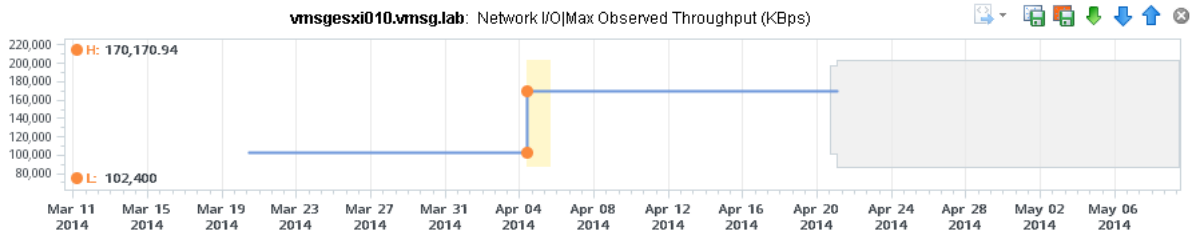
Name	Type	Status	Network Protocol Profile	Port Binding	VLAN ID
Internal-VM-Network	Distributed port group	Normal		Static binding	VLAN access: 111

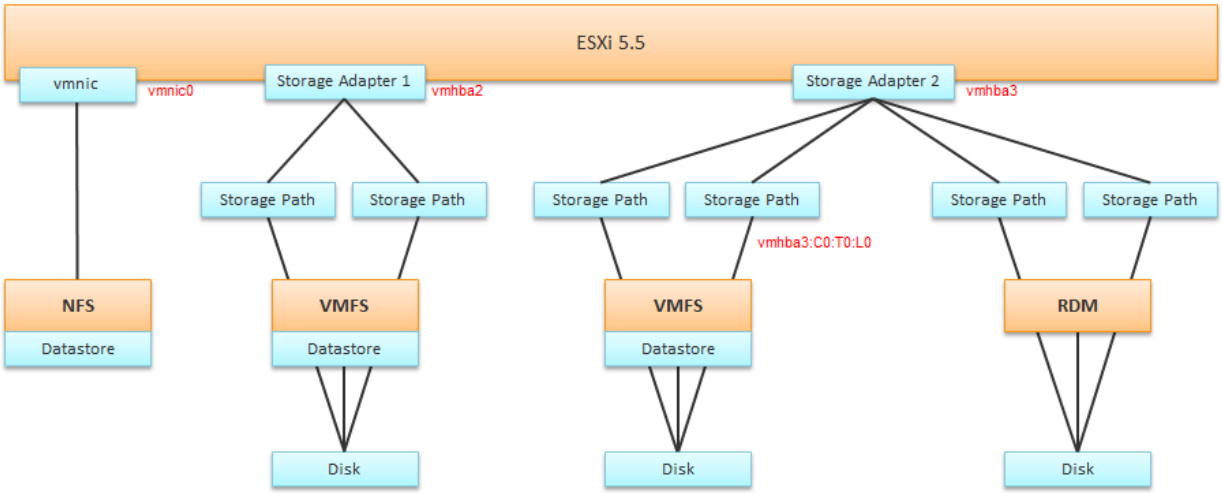
1 items

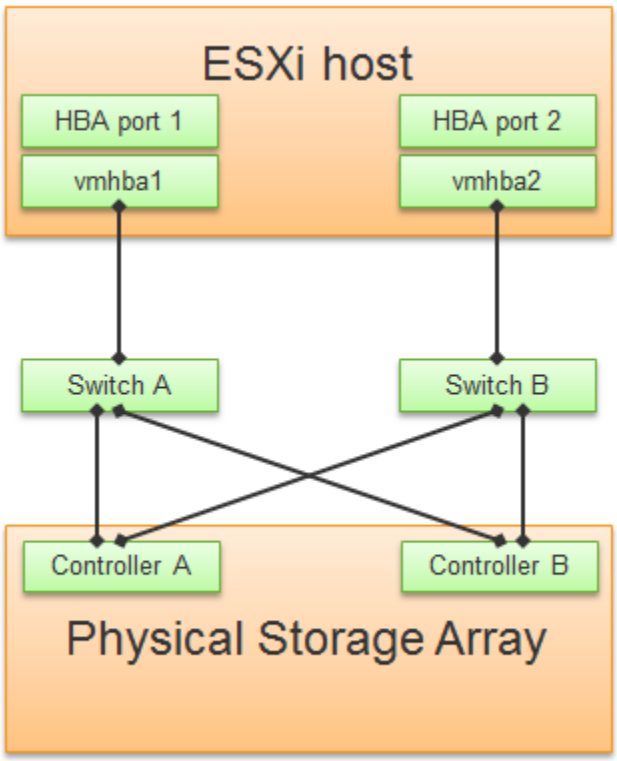

BCDR-Prod-VC: Network I/O|I/O Usage Capacity
H: 25,771.94
L: 17,920
26,000
24,000
22,000
20,000
18,000
6/1/14 12:52 AM
6/1/14 6:52 AM
6/1/14 12:51 PM
6/1/14 6:51 PM
6/2/14 12:50 AM
6/2/14 6:50 AM
6/2/14 12:50 PM
6/2/14 6:49 PM
6/3/14 12:49 AM
6/3/14 6:48 AM
6/3/14 12:48 PM
6/3/14 6:47 PM

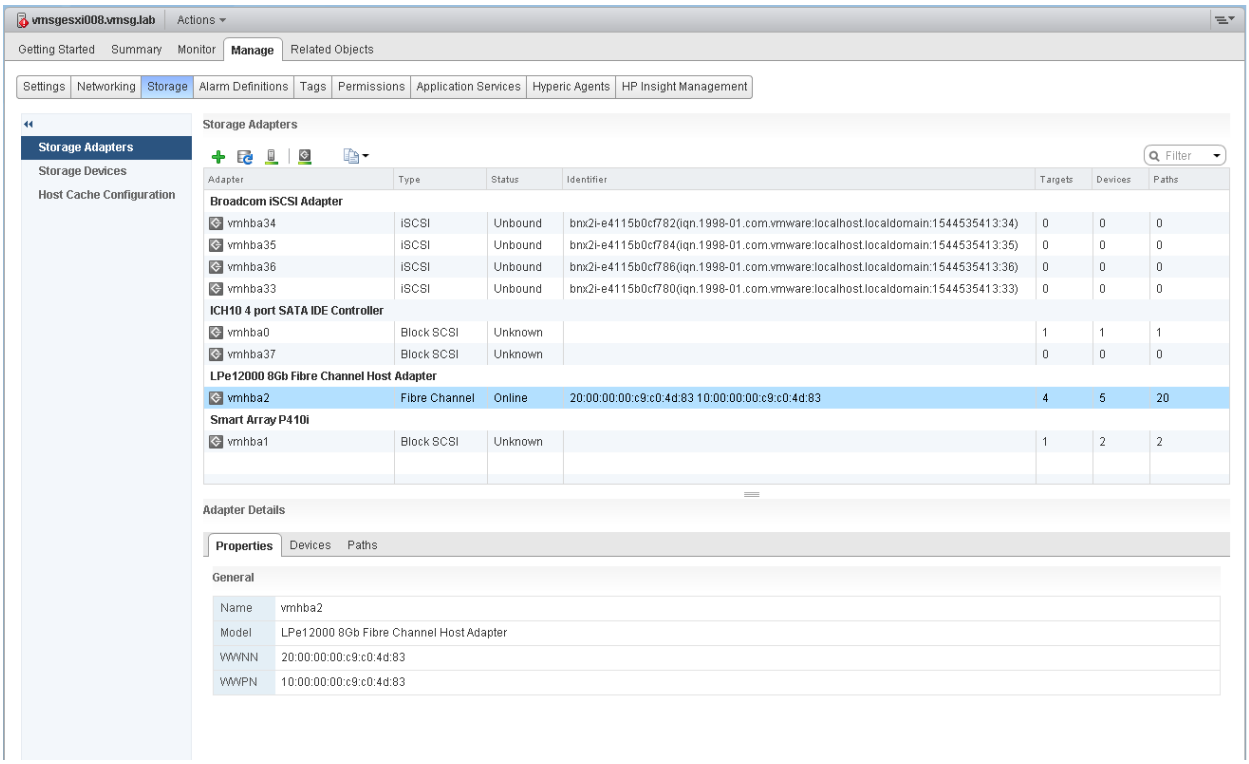

BCDR-Prod-VC: Network I/O|4000|Max Observed Throughput
H: 25,600
L: 25,600
25,601
25,600
25,599
6/1/14 12:52 AM
6/1/14 6:52 AM
6/1/14 12:51 PM
6/1/14 6:51 PM
6/2/14 12:50 AM
6/2/14 6:50 AM
6/2/14 12:50 PM
6/2/14 6:49 PM
6/3/14 12:49 AM
6/3/14 6:48 AM
6/3/14 12:48 PM
6/3/14 6:47 PM

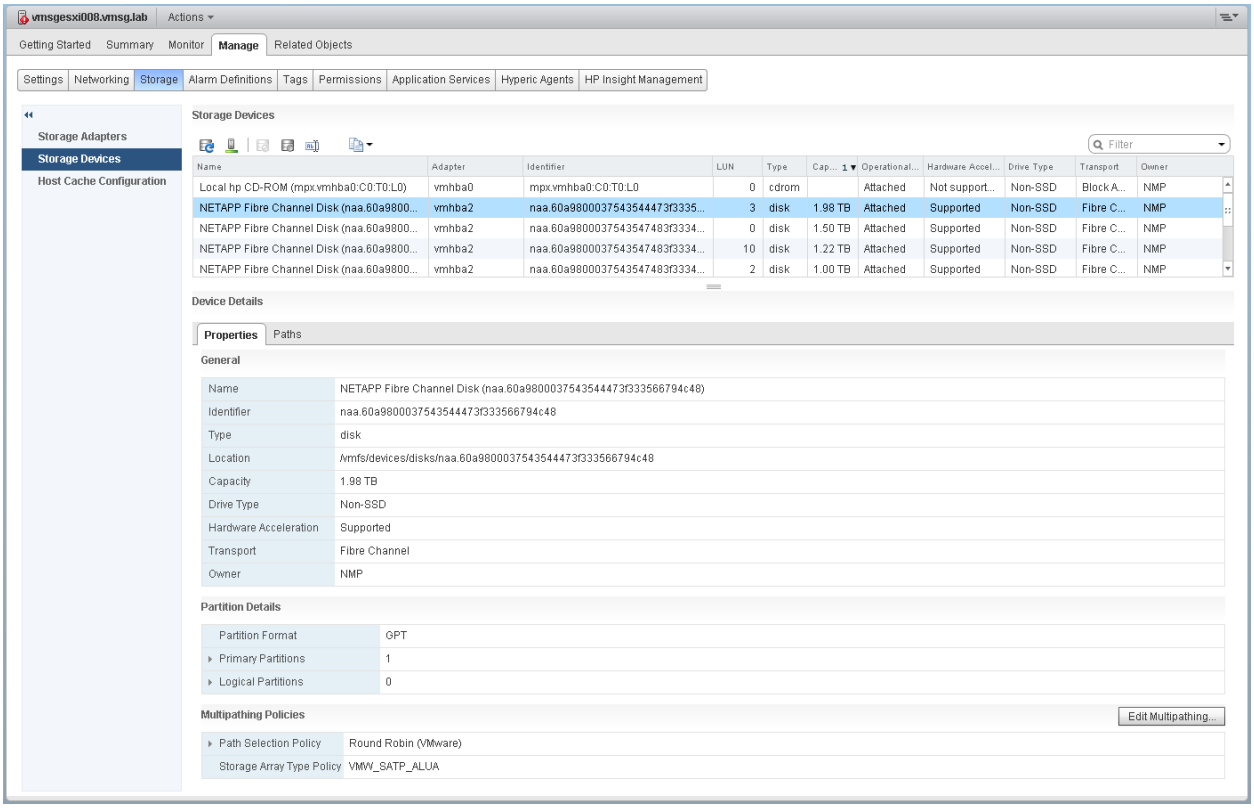

vmsgesxi009.vmsg.lab: Network I/O|Max Observed Throughput (KBps)
H: 183,423.59
L: 102,400
220,000
180,000
140,000
100,000
60,000
Mar 11 2014
Mar 15 2014
Mar 19 2014
Mar 23 2014
Mar 27 2014
Mar 31 2014
Apr 04 2014
Apr 08 2014
Apr 12 2014
Apr 16 2014
Apr 20 2014
Apr 24 2014
Apr 28 2014
May 02 2014
May 06 2014

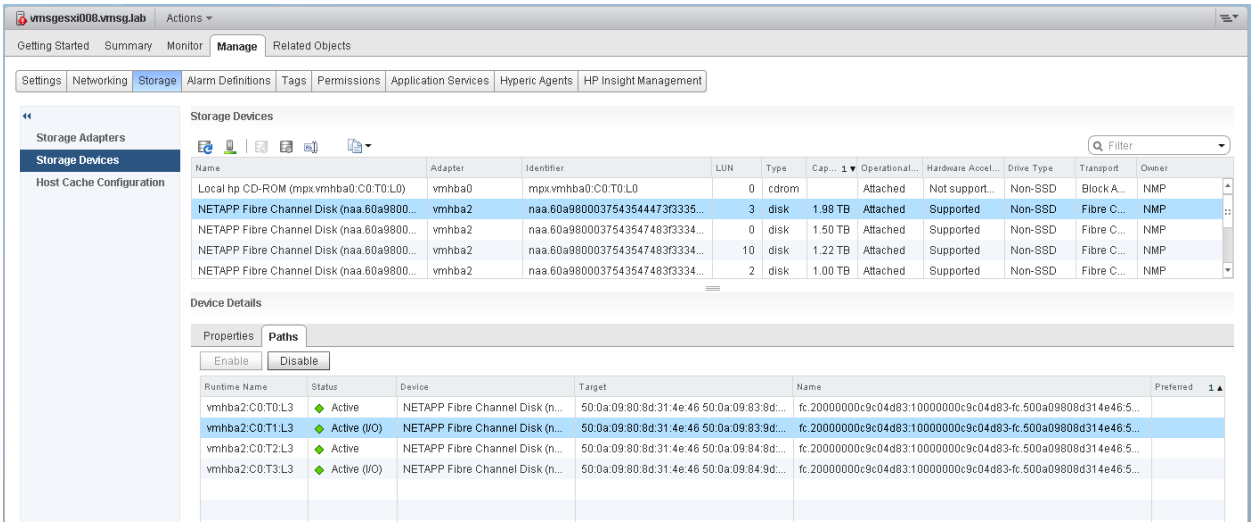

vmsgesxi010.vmsg.lab: Network I/O|Max Observed Throughput (KBps)
H: 170,170.94
L: 102,400
220,000
200,000
180,000
160,000
140,000
120,000
100,000
80,000
Mar 11 2014
Mar 15 2014
Mar 19 2014
Mar 23 2014
Mar 27 2014
Mar 31 2014
Apr 04 2014
Apr 08 2014
Apr 12 2014
Apr 16 2014
Apr 20 2014
Apr 24 2014
Apr 28 2014
May 02 2014
May 06 2014

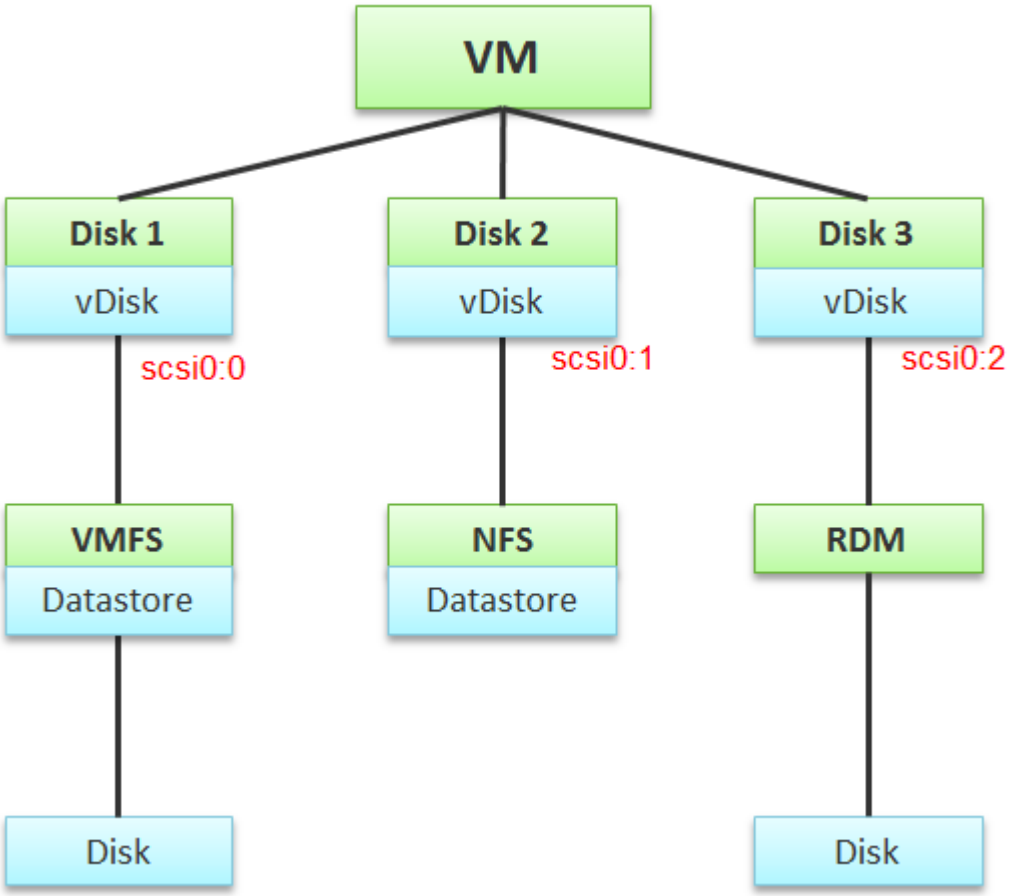

ESXi 5.5
vmnic
vmnic0
Storage Adapter 1
vmhba2
Storage Adapter 2
vmhba3
Storage Path
Storage Path
Storage Path
Storage Path
Storage Path
Storage Path
vmhba3:C0:T0:L0
NFS
Datastore
VMFS
Datastore
VMFS
Datastore
RDM
Disk
Disk
Disk

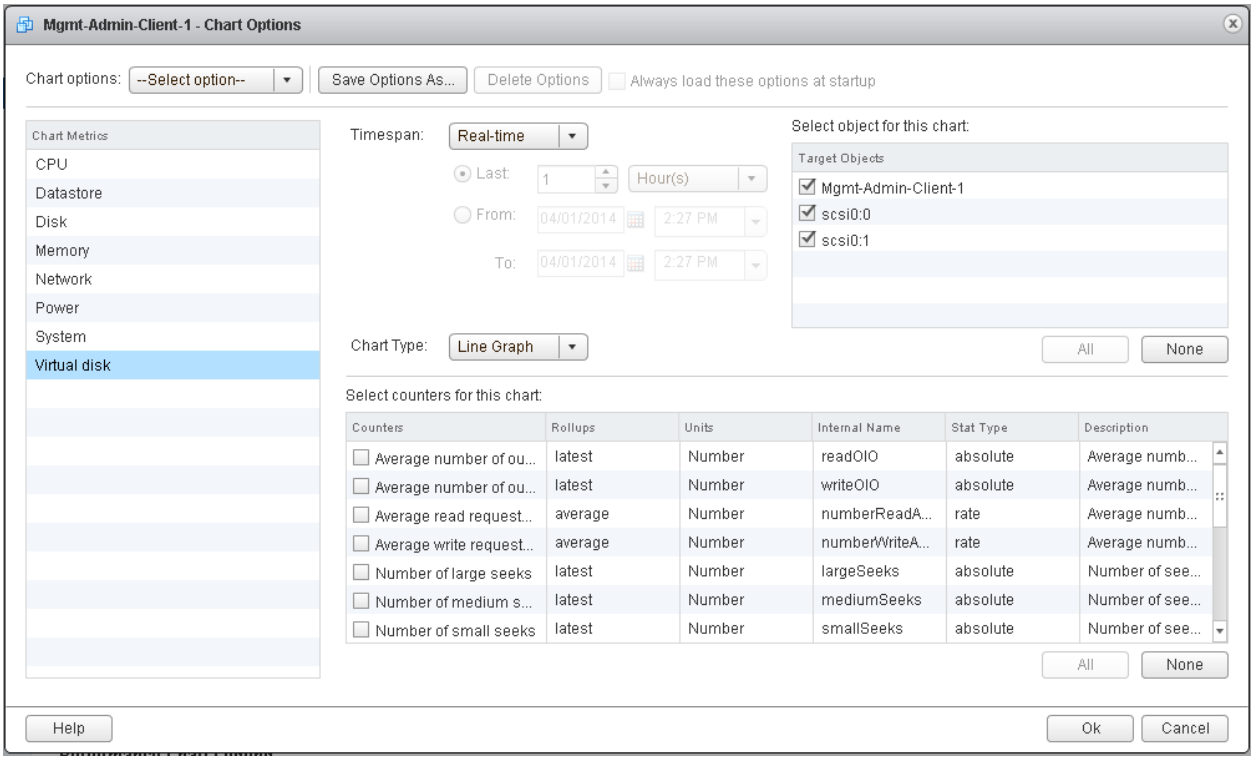

ESXi host
HBA port 1
HBA port 2
vmhba1
vmhba2
Switch A
Switch B
Controller A
Controller B
Physical Storage Array

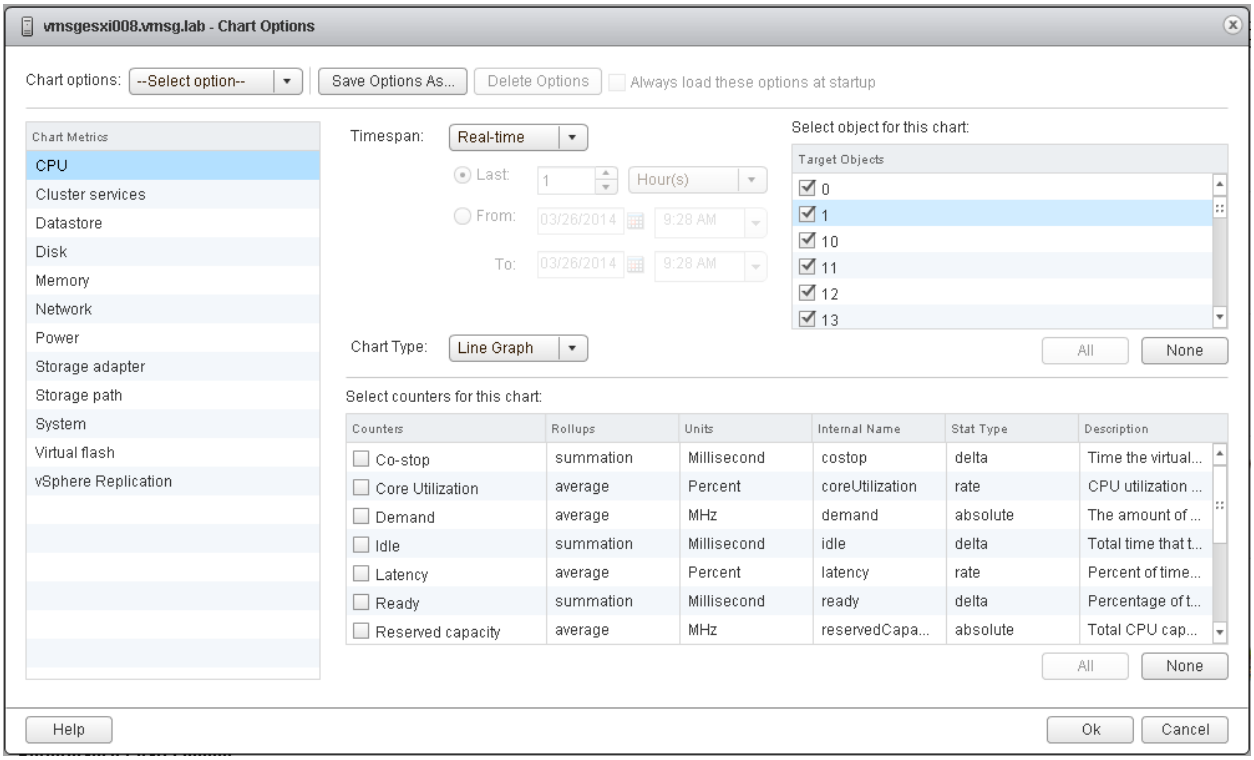

vmsgesxi008.vmsg.lab
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
Settings
Networking
Storage
Alarm Definitions
Tags
Permissions
Application Services
Hyperic Agents
HP Insight Management
Storage Adapters
Storage Devices
Host Cache Configuration
Storage Adapters
Filter
Adapter
Type
Status
Identifier
Targets
Devices
Paths
Broadcom iSCSI Adapter
vmhba34 iSCSI Unbound bnx2i-e4115b0cf782(iqn.1998-01.com.vmware:localhost.localdomain:1544535413:34) 0 0 0
vmhba35 iSCSI Unbound bnx2i-e4115b0cf784(iqn.1998-01.com.vmware:localhost.localdomain:1544535413:35) 0 0 0
vmhba36 iSCSI Unbound bnx2i-e4115b0cf786(iqn.1998-01.com.vmware:localhost.localdomain:1544535413:36) 0 0 0
vmhba33 iSCSI Unbound bnx2i-e4115b0cf780(iqn.1998-01.com.vmware:localhost.localdomain:1544535413:33) 0 0 0
ICH10 4 port SATA IDE Controller
vmhba0 Block SCSI Unknown 1 1 1
vmhba37 Block SCSI Unknown 0 0 0
LPe12000 8Gb Fibre Channel Host Adapter
vmhba2 Fibre Channel Online 20:00:00:00:c9:c0:4d:83 10:00:00:00:c9:c0:4d:83 4 5 20
Smart Array P410i
vmhba1 Block SCSI Unknown 1 2 2
Adapter Details
Properties
Devices
Paths
General
Name vmhba2
Model LPe12000 8Gb Fibre Channel Host Adapter
WWNN 20:00:00:00:c9:c0:4d:83
WWPN 10:00:00:00:c9:c0:4d:83


vmsgesxi008.vmsg.lab
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
Settings
Networking
Storage
Alarm Definitions
Tags
Permissions
Application Services
Hyperic Agents
HP Insight Management
Storage Adapters
Storage Devices
Host Cache Configuration
Storage Devices
Filter
Name
Adapter
Identifier
LUN
Type
Cap...
Operational...
Hardware Accel...
Drive Type
Transport
Owner
Local hp CD-ROM (mpx.vmhba0:C0:T0:L0) vmhba0 mpx.vmhba0:C0:T0:L0 0 cdrom Attached Not support... Non-SSD Block A... NMP
NETAPP Fibre Channel Disk (naa.60a9800... vmhba2 naa.60a98000375435444473f3335... 3 disk 1.98 TB Attached Supported Non-SSD Fibre C... NMP
NETAPP Fibre Channel Disk (naa.60a9800... vmhba2 naa.60a98000375435474483f3334... 0 disk 1.50 TB Attached Supported Non-SSD Fibre C... NMP
NETAPP Fibre Channel Disk (naa.60a9800... vmhba2 naa.60a98000375435474483f3334... 10 disk 1.22 TB Attached Supported Non-SSD Fibre C... NMP
NETAPP Fibre Channel Disk (naa.60a9800... vmhba2 naa.60a98000375435474483f3334... 2 disk 1.00 TB Attached Supported Non-SSD Fibre C... NMP
Device Details
Properties
Paths
General
Name NETAPP Fibre Channel Disk (naa.60a98000375435444473f33566794c48)
Identifier naa.60a98000375435444473f33566794c48
Type disk
Location /vmfs/devices/disks/naa.60a98000375435444473f33566794c48
Capacity 1.98 TB
Drive Type Non-SSD
Hardware Acceleration Supported
Transport Fibre Channel
Owner NMP
Partition Details
Partition Format GPT
Primary Partitions 1
Logical Partitions 0
Multipathing Policies
Edit Multipathing...
Path Selection Policy Round Robin (VMware)
Storage Array Type Policy VMW_SATP_ALUA

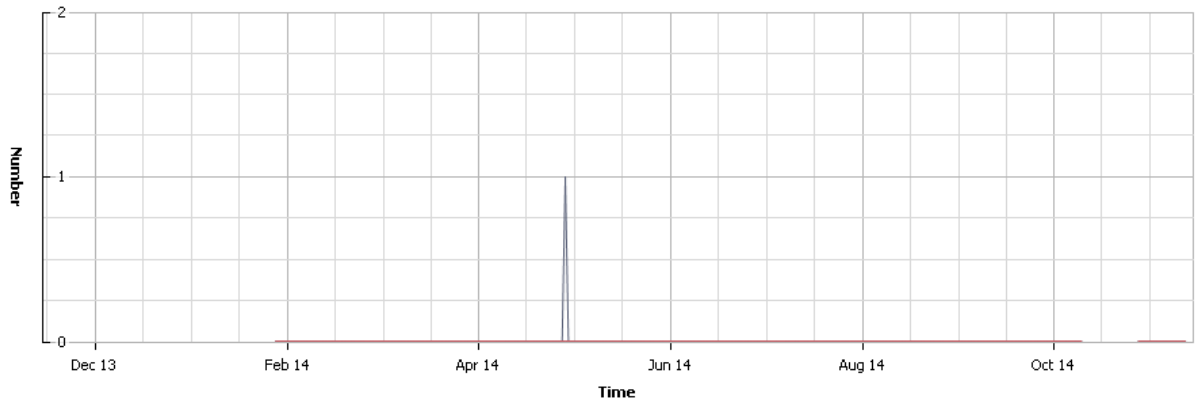

vmsgesxi008.vmsg.lab
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
Settings
Networking
Storage
Alarm Definitions
Tags
Permissions
Application Services
Hyperic Agents
HP Insight Management
Storage Adapters
Storage Devices
Host Cache Configuration
Storage Devices
Filter
Name
Adapter
Identifier
LUN
Type
Cap...
Operational...
Hardware Accel...
Drive Type
Transport
Owner
Local hp CD-ROM (mpx.vmhba0:C0:T0:L0) vmhba0 mpx.vmhba0:C0:T0:L0 0 cdrom Attached Not support... Non-SSD Block A... NMP
NETAPP Fibre Channel Disk (naa.60a9800... vmhba2 naa.60a98000375435444473f3335... 3 disk 1.98 TB Attached Supported Non-SSD Fibre C... NMP
NETAPP Fibre Channel Disk (naa.60a9800... vmhba2 naa.60a98000375435474483f3334... 0 disk 1.50 TB Attached Supported Non-SSD Fibre C... NMP
NETAPP Fibre Channel Disk (naa.60a9800... vmhba2 naa.60a98000375435474483f3334... 10 disk 1.22 TB Attached Supported Non-SSD Fibre C... NMP
NETAPP Fibre Channel Disk (naa.60a9800... vmhba2 naa.60a98000375435474483f3334... 2 disk 1.00 TB Attached Supported Non-SSD Fibre C... NMP
Device Details
Properties
Paths
Enable
Disable
Runtime Name
Status
Device
Target
Name
Preferred
vmhba2:C0:T0:L3 Active NETAPP Fibre Channel Disk (n... 50:0a:09:80:8d:31:4e:46 50:0a:09:83:8d:... fc.20000000c9c04d83:10000000c9c04d83-fc.500a09808d314e46:5...
vmhba2:C0:T1:L3 Active (I/O) NETAPP Fibre Channel Disk (n... 50:0a:09:80:8d:31:4e:46 50:0a:09:83:9d:... fc.20000000c9c04d83:10000000c9c04d83-fc.500a09808d314e46:5...
vmhba2:C0:T2:L3 Active NETAPP Fibre Channel Disk (n... 50:0a:09:80:8d:31:4e:46 50:0a:09:84:8d:... fc.20000000c9c04d83:10000000c9c04d83-fc.500a09808d314e46:5...
vmhba2:C0:T3:L3 Active (I/O) NETAPP Fibre Channel Disk (n... 50:0a:09:80:8d:31:4e:46 50:0a:09:84:9d:... fc.20000000c9c04d83:10000000c9c04d83-fc.500a09808d314e46:5...


VM
Disk 1
vDisk
scsi0:0
Disk 2
vDisk
scsi0:1
Disk 3
vDisk
scsi0:2
VMFS
Datastore
NFS
Datastore
RDM
Disk
Disk


Mgmt-Admin-Client-1 - Chart Options
Chart options: --Select option-- Save Options As... Delete Options Always load these options at startup
Chart Metrics
CPU
Datastore
Disk
Memory
Network
Power
System
Virtual disk
Timespan: Real-time
Last: 1 Hour(s)
From: 04/01/2014 2:27 PM
To: 04/01/2014 2:27 PM
Select object for this chart:
Target Objects
Mgmt-Admin-Client-1
scsi0:0
scsi0:1
Chart Type: Line Graph
All None
Select counters for this chart:
Counters Rollups Units Internal Name Stat Type Description
Average number of ou... latest Number readOIO absolute Average numb...
Average number of ou... latest Number writeOIO absolute Average numb...
Average read request... average Number numberReadA... rate Average numb...
Average write request... average Number numberWriteA... rate Average numb...
Number of large seeks latest Number largeSeeks absolute Number of see...
Number of medium s... latest Number mediumSeeks absolute Number of see...
Number of small seeks latest Number smallSeeks absolute Number of see...
All None
Help Ok Cancel

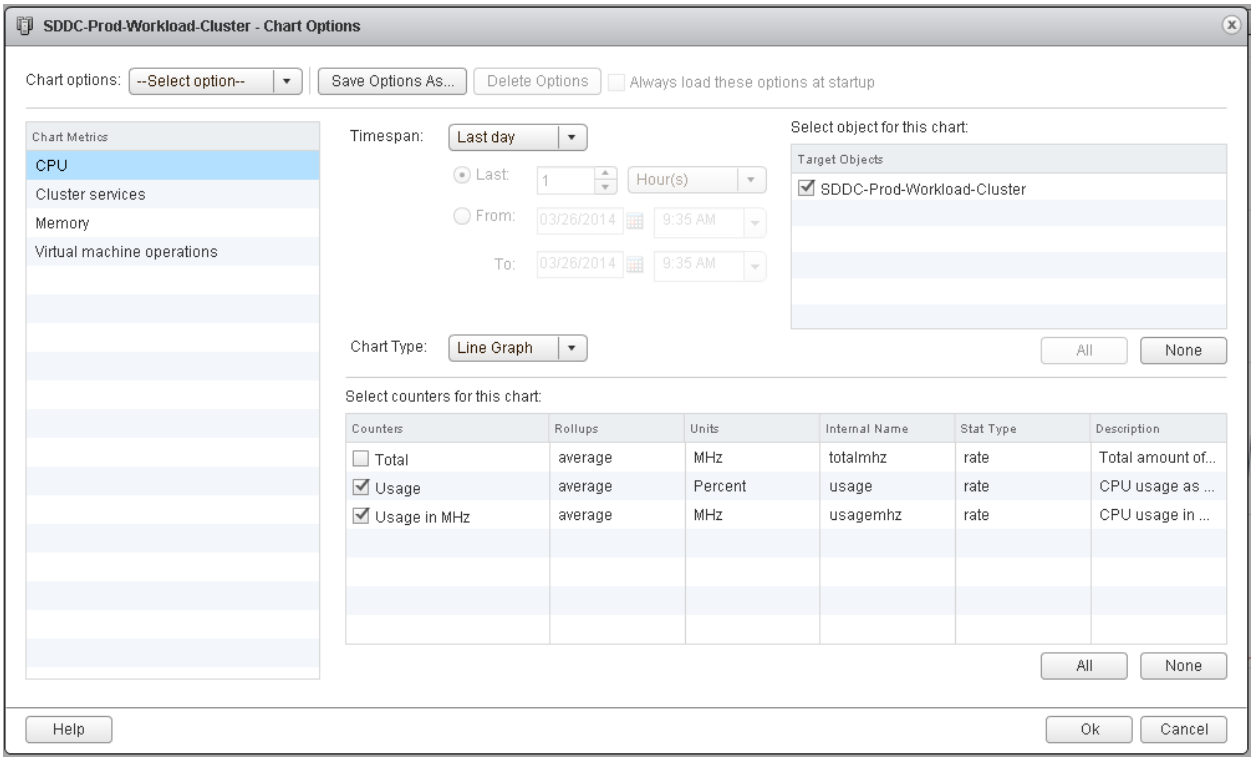

vmsgesxi008.vmsg.lab - Chart Options
Chart options: --Select option-- Save Options As... Delete Options Always load these options at startup
Chart Metrics
CPU
Cluster services
Datastore
Disk
Memory
Network
Power
Storage adapter
Storage path
System
Virtual flash
vSphere Replication
Timespan: Real-time
Last: 1 Hour(s)
From: 03/26/2014 9:28 AM
To: 03/26/2014 9:28 AM
Select object for this chart:
Target Objects
0
1
10
11
12
13
Chart Type: Line Graph
All None
Select counters for this chart:
Counters Rollups Units Internal Name Stat Type Description
Co-stop summation Millisecond costop delta Time the virtual...
Core Utilization average Percent coreUtilization rate CPU utilization ...
Demand average MHz demand absolute The amount of ...
Idle summation Millisecond idle delta Total time that t...
Latency average Percent latency rate Percent of time...
Ready summation Millisecond ready delta Percentage of t...
Reserved capacity average MHz reservedCapa... absolute Total CPU cap...
All None
Help Ok Cancel

Cluster services/Past year, 11/15/2013 9:37:11 AM - 11/15/2014 9:37:11 AM Chart Options... Switch to: Default

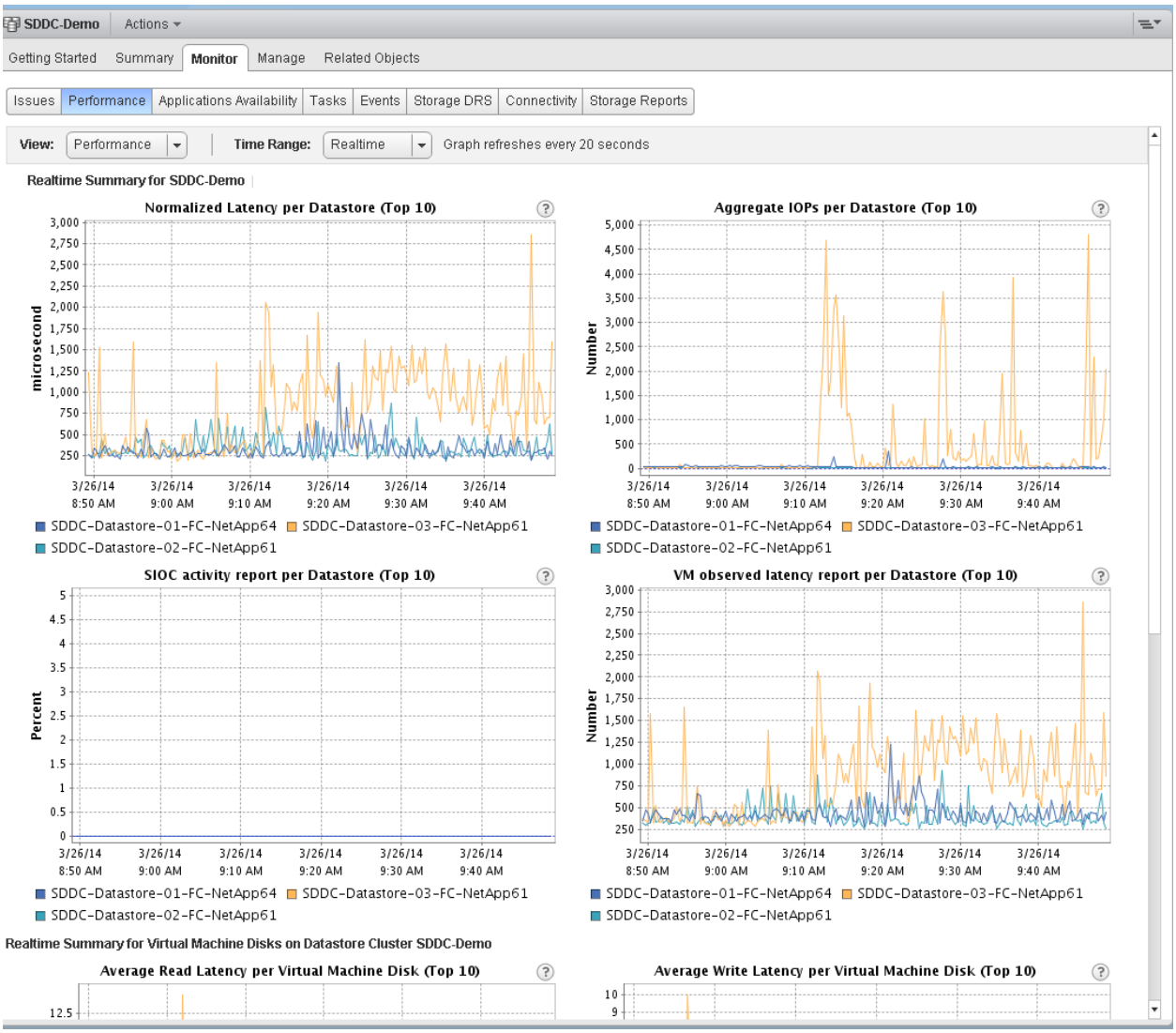


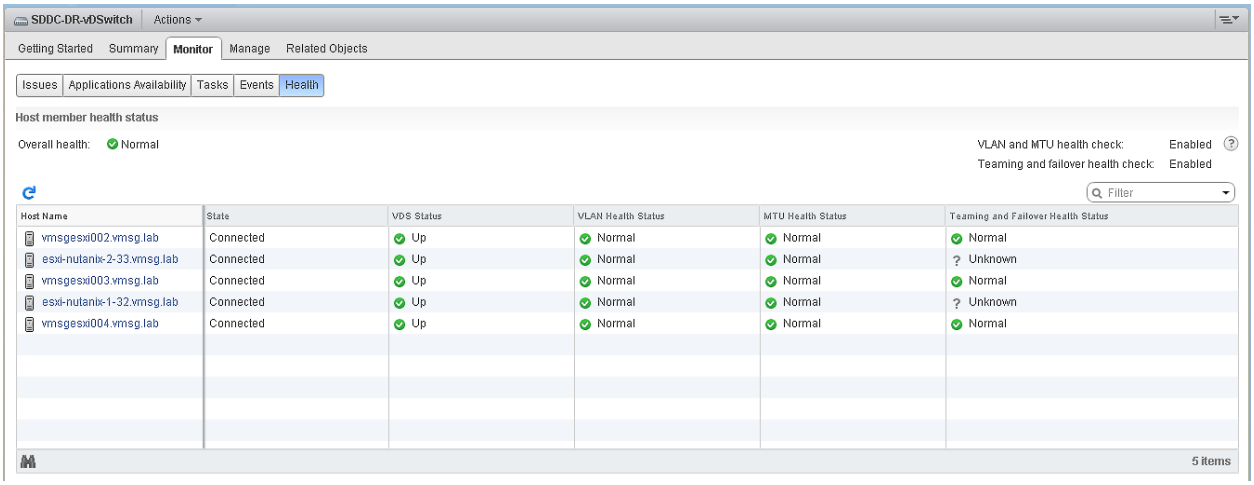
Performance Chart Legend

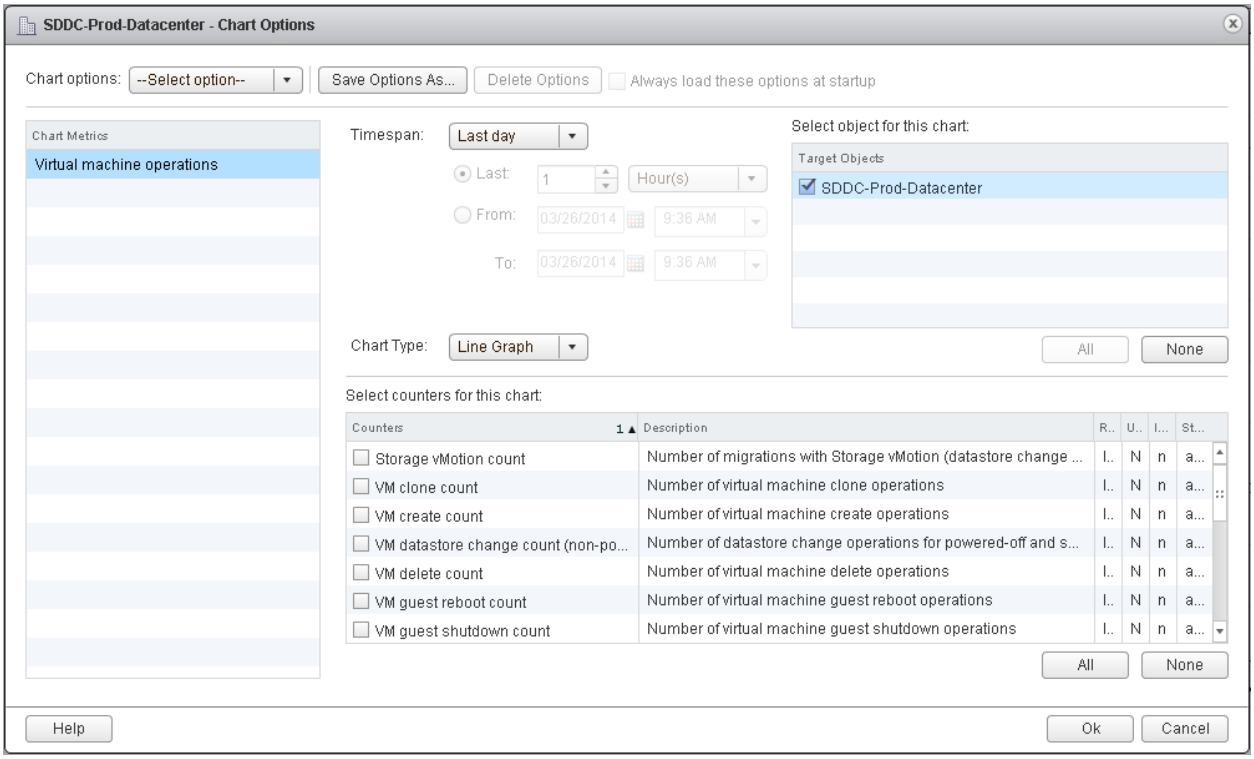
Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	vmsgesxi002.vmsg.lab	CPU fairness	Latest	Number	0	1	0	0.004
	vmsgesxi002.vmsg.lab	Memory fairness	Latest	Number	0	0	0	0

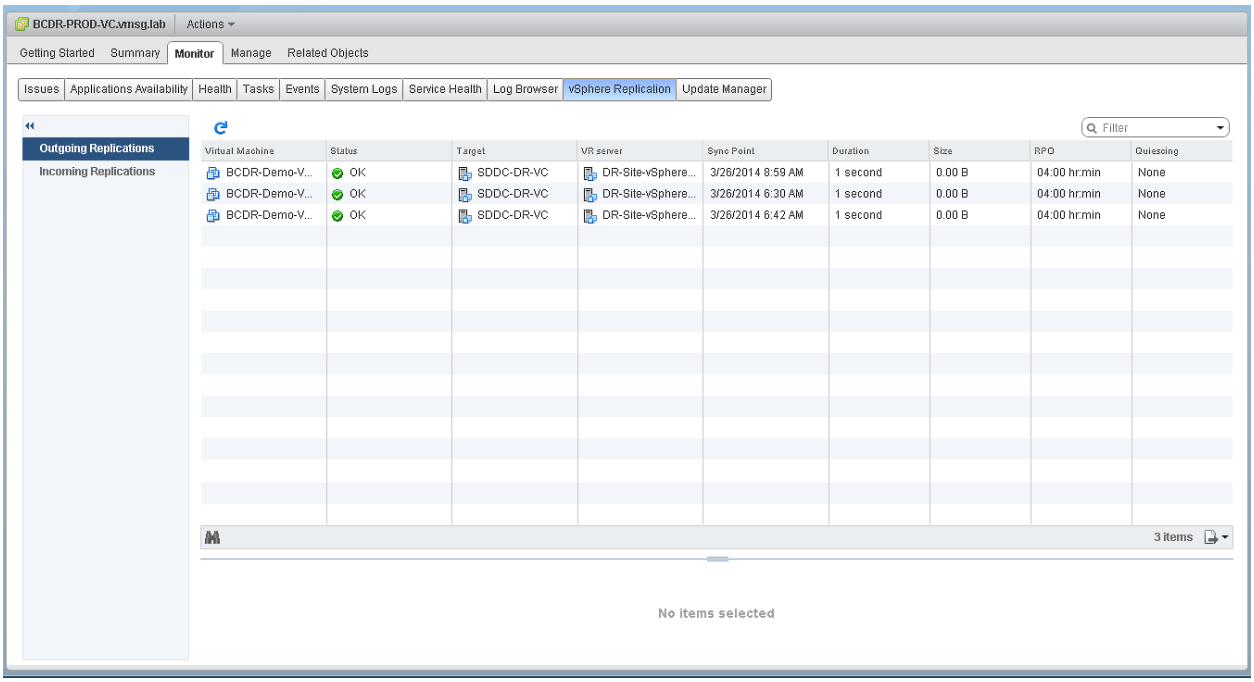


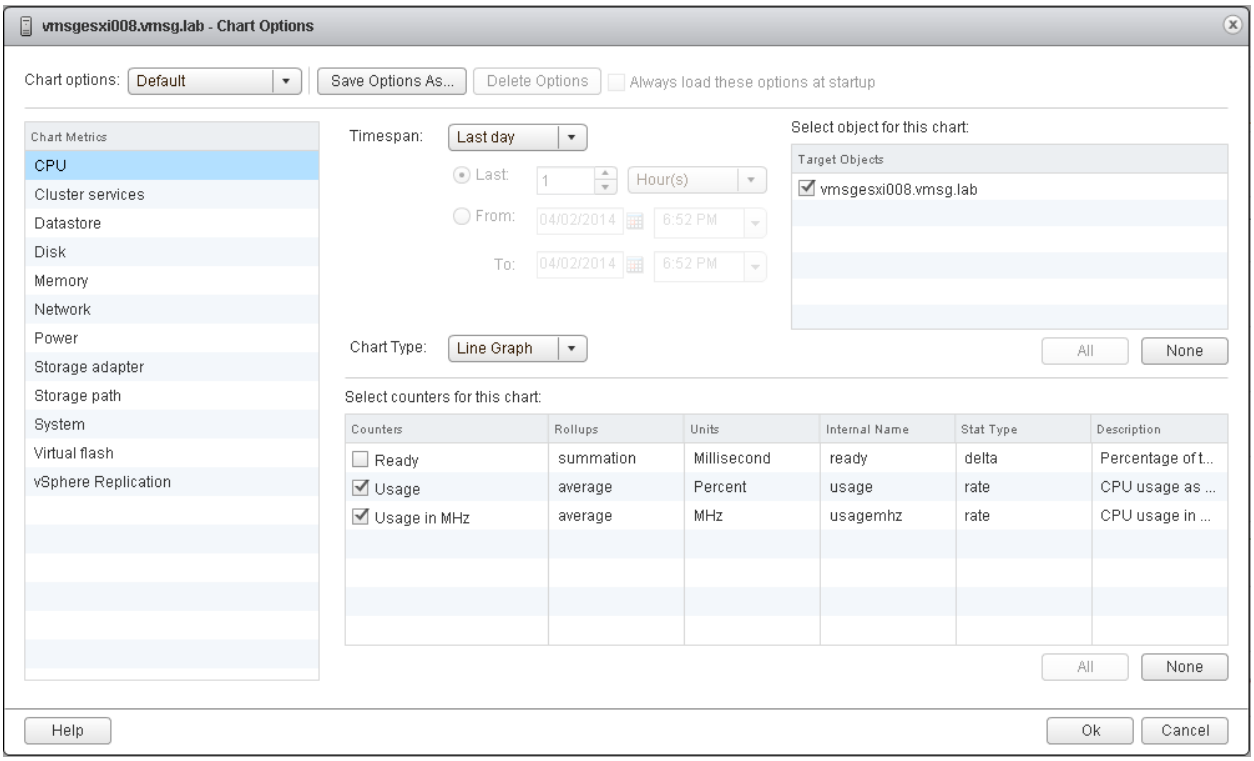

SDDC-Datastore-01-FC-NetApp64
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
Issues
Performance
Applications Availability
Health
Tasks
Events
Storage Reports
View:
Performance
Time Range:
Realtime
Graph refreshes every 20 seconds
Realtime Summary for SDDC-Datastore-01-FC-NetApp64
Storage I/O Control Normalized Latency
microsecond
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
26/03/14 10:10
26/03/14 10:20
26/03/14 10:30
26/03/14 10:40
26/03/14 10:50
26/03/14 11:00
SDDC-Datastore-01-FC-NetApp64
Storage I/O Control Aggregate IOPs
Number
225
200
175
150
125
100
75
50
25
0
26/03/14 10:10
26/03/14 10:20
26/03/14 10:30
26/03/14 10:40
26/03/14 10:50
26/03/14 11:00
SDDC-Datastore-01-FC-NetApp64
Average Device Latency per Host (Top 10)
Millisecond
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
26/03/14 10:10
26/03/14 10:20
26/03/14 10:30
26/03/14 10:40
26/03/14 10:50
26/03/14 11:00
vmsgesxi009.vmsg.lab
vmsgesxi008.vmsg.lab
vmsgesxi010.vmsg.lab
Max Queue Depth per Host (Top 10)
Number
32.5
32
31.5
31
30.5
30
29.5
29
28.5
28
27.5
26/03/14 10:10
26/03/14 10:20
26/03/14 10:30
26/03/14 10:40
26/03/14 10:50
26/03/14 11:00
vmsgesxi009.vmsg.lab
vmsgesxi008.vmsg.lab
vmsgesxi010.vmsg.lab
Read IOPs per Host (Top 10)
100
Write IOPs per Host (Top 10)
32.5

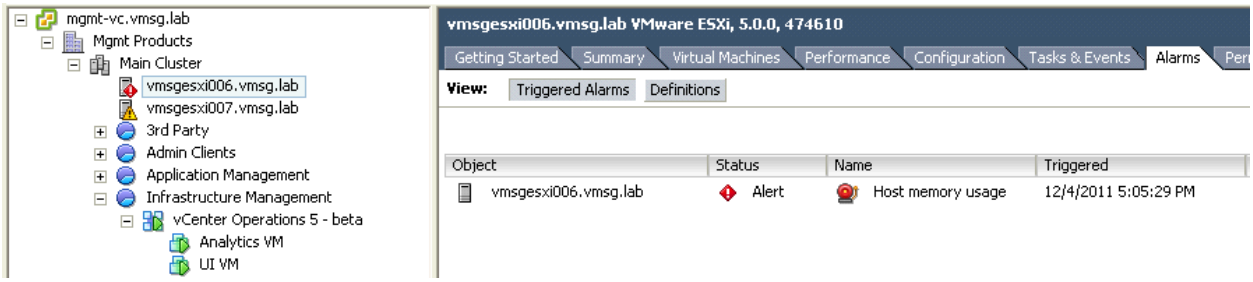

SDDC-Demo
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
Issues
Performance
Applications Availability
Tasks
Events
Storage DRS
Connectivity
Storage Reports
View:
Performance
Time Range:
Realtime
Graph refreshes every 20 seconds
Realtime Summary for SDDC-Demo
Normalized Latency per Datastore (Top 10)
microsecond
Aggregate IOPs per Datastore (Top 10)
Number
SIOC activity report per Datastore (Top 10)
Percent
VM observed latency report per Datastore (Top 10)
Number
SDDC-Datastore-01-FC-NetApp64
SDDC-Datastore-03-FC-NetApp61
SDDC-Datastore-02-FC-NetApp61
Realtime Summary for Virtual Machine Disks on Datastore Cluster SDDC-Demo
Average Read Latency per Virtual Machine Disk (Top 10)
Average Write Latency per Virtual Machine Disk (Top 10)

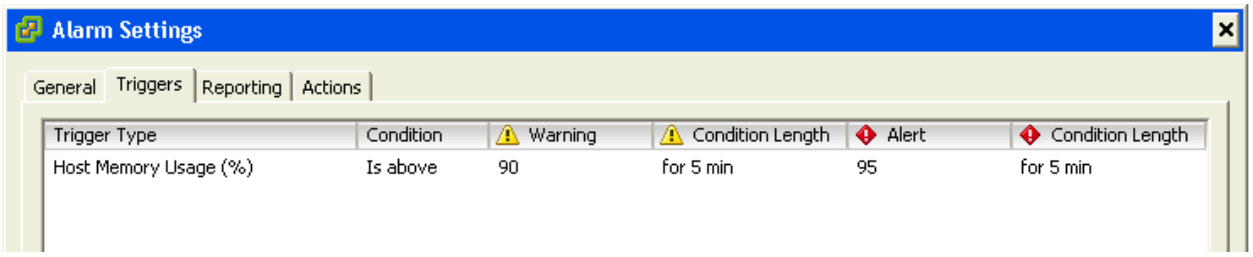

SDDC-DR-vDSwitch
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
Issues
Applications Availability
Tasks
Events
Health
Host member health status
Overall health:
Normal
VLAN and MTU health check:
Enabled
Teaming and failover health check:
Enabled
Filter
Host Name
State
VDS Status
VLAN Health Status
MTU Health Status
Teaming and Failover Health Status
vmsgesxi002.vmsg.lab
Connected
Up
Normal
Normal
Normal
esxi-nutanix-2-33.vmsg.lab
Connected
Up
Normal
Normal
Unknown
vmsgesxi003.vmsg.lab
Connected
Up
Normal
Normal
Normal
esxi-nutanix-1-32.vmsg.lab
Connected
Up
Normal
Normal
Unknown
vmsgesxi004.vmsg.lab
Connected
Up
Normal
Normal
Normal
5 items

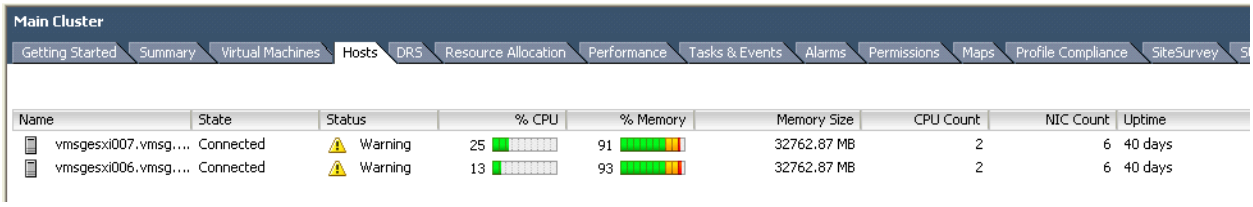

SDDC-Prod-Datacenter - Chart Options
Chart options:
--Select option--
Save Options As...
Delete Options
Always load these options at startup
Chart Metrics
Virtual machine operations
Timespan:
Last day
Last:
1
Hour(s)
From:
03/26/2014
9:36 AM
To:
03/26/2014
9:36 AM
Select object for this chart:
Target Objects
SDDC-Prod-Datacenter
Chart Type:
Line Graph
All
None
Select counters for this chart:
Counters
Description
Storage vMotion count
Number of migrations with Storage vMotion (datastore change ...
VM clone count
Number of virtual machine clone operations
VM create count
Number of virtual machine create operations
VM datastore change count (non-po...
Number of datastore change operations for powered-off and s...
VM delete count
Number of virtual machine delete operations
VM guest reboot count
Number of virtual machine guest reboot operations
VM guest shutdown count
Number of virtual machine guest shutdown operations
All
None
Help
Ok
Cancel

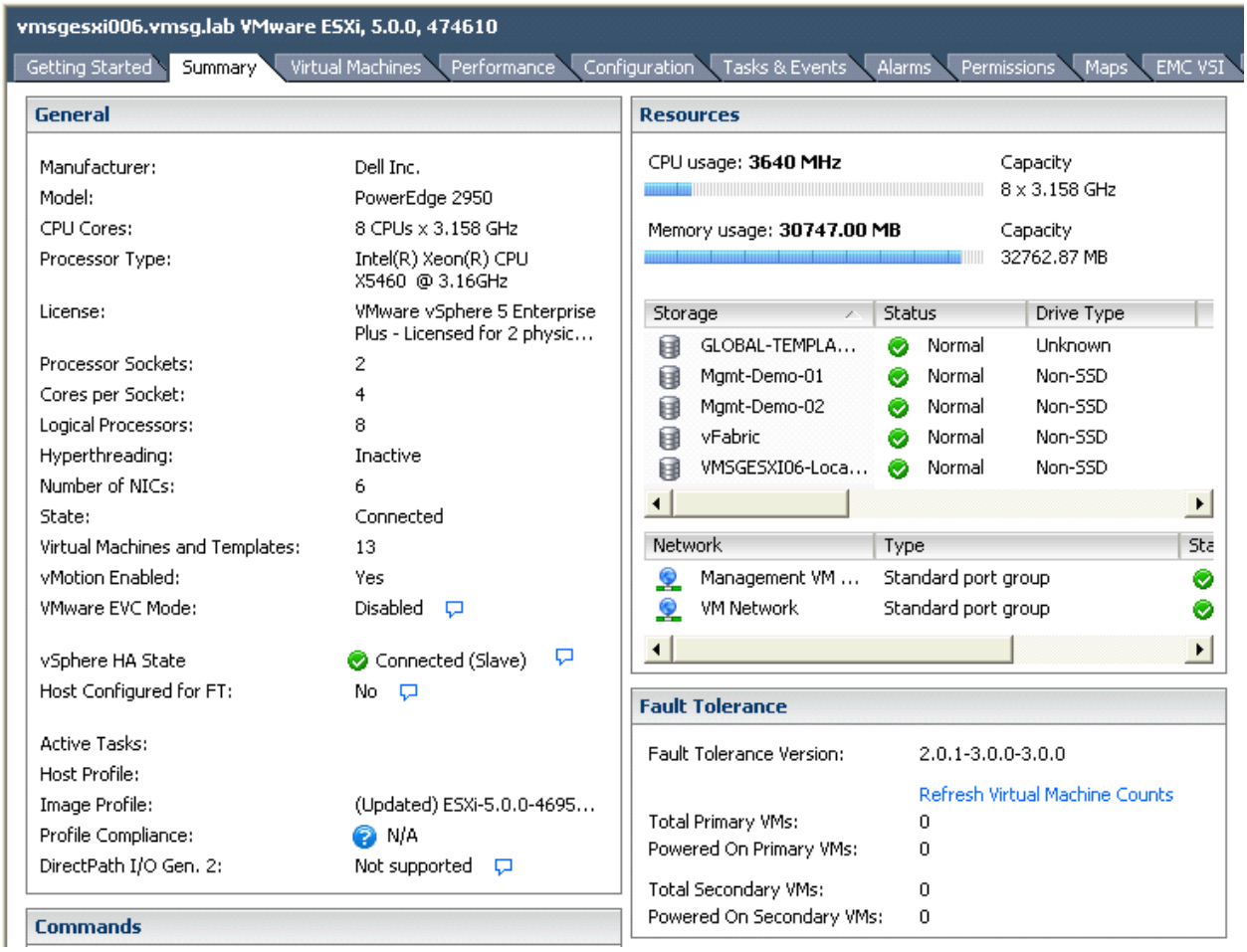

BCDR-PROD-VC.vmsg.lab
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
Issues
Applications Availability
Health
Tasks
Events
System Logs
Service Health
Log Browser
vSphere Replication
Update Manager
Outgoing Replications
Incoming Replications
Filter
Virtual Machine
Status
Target
VR server
Sync Point
Duration
Size
RPO
Quiescing
BCDR-Demo-V...
OK
SDDC-DR-VC
DR-Site-vSphere...
3/26/2014 8:59 AM
3/26/2014 6:30 AM
3/26/2014 6:42 AM
1 second
0.00 B
04:00 hr:min
None
3 items
No items selected

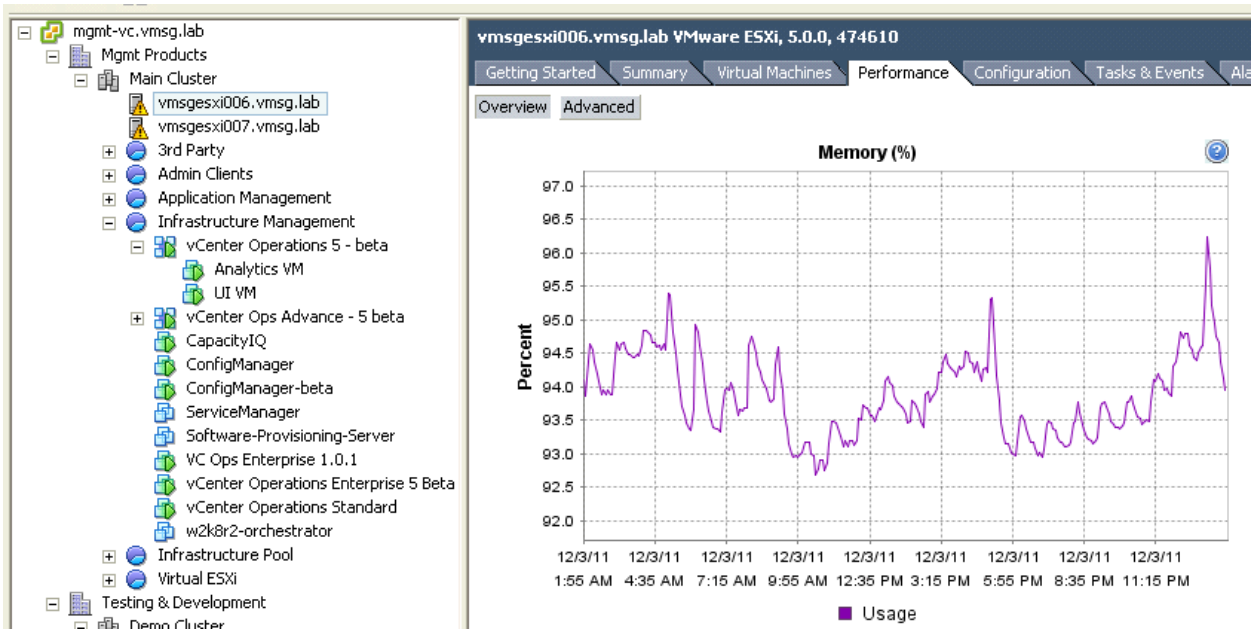

vmsgesxi008.vmsg.lab - Chart Options
Chart options:
Default
Save Options As...
Delete Options
Always load these options at startup
Chart Metrics
CPU
Cluster services
Datastore
Disk
Memory
Network
Power
Storage adapter
Storage path
System
Virtual flash
vSphere Replication
Timespan:
Last day
Last:
1
Hour(s)
From:
04/02/2014
6:52 PM
To:
04/02/2014
6:52 PM
Select object for this chart:
Target Objects
vmsgesxi008.vmsg.lab
Chart Type:
Line Graph
All
None
Select counters for this chart:
Counters
Rollups
Units
Internal Name
Stat Type
Description
Ready
summation
Millisecond
ready
delta
Percentage of t...
Usage
average
Percent
usage
rate
CPU usage as ...
Usage in MHz
average
MHz
usagemhz
rate
CPU usage in ...
All
None
Help
Ok
Cancel

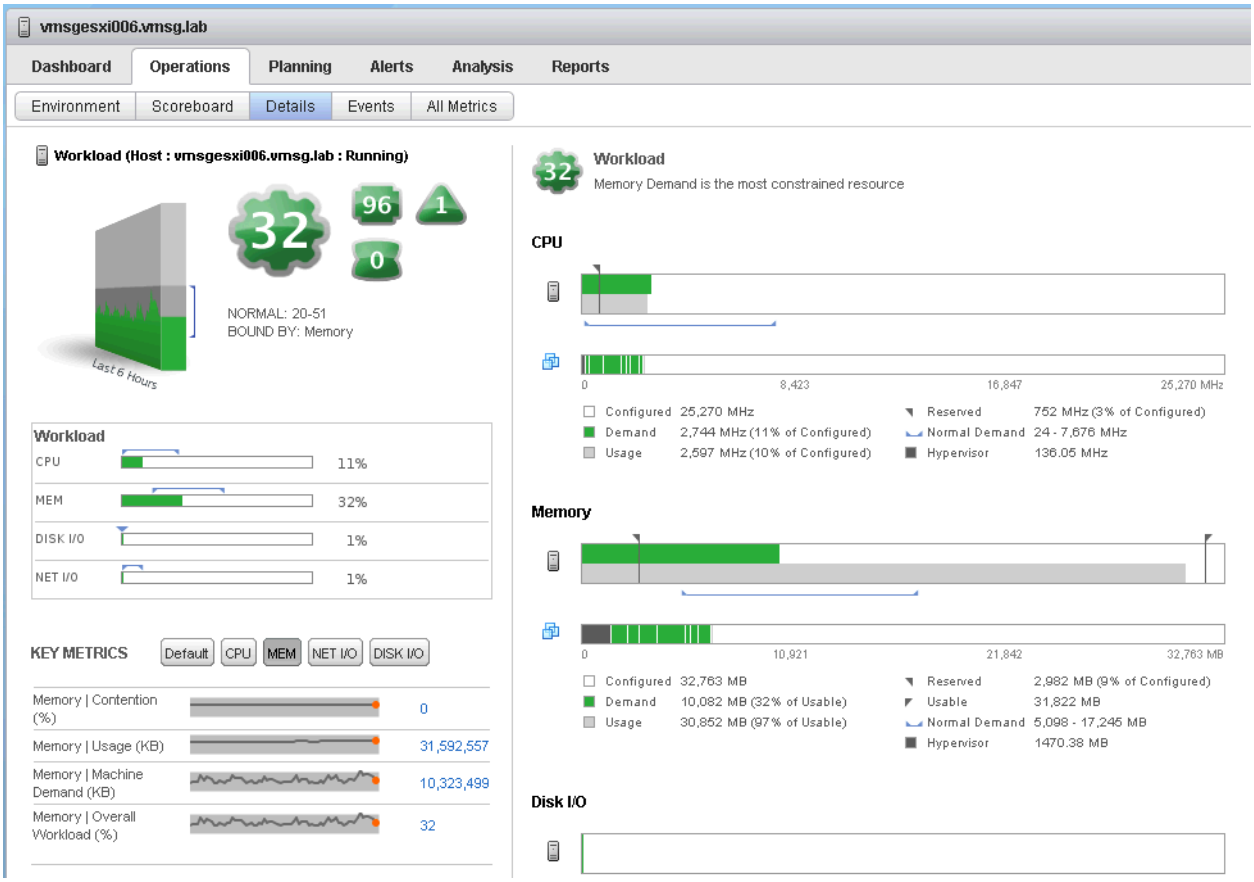

mgmt-vc.vmsg.lab
Mgmt Products
Main Cluster
vmsgesxi006.vmsg.lab
vmsgesxi007.vmsg.lab
3rd Party
Admin Clients
Application Management
Infrastructure Management
vCenter Operations 5 - beta
Analytics VM
UI VM
vmsgesxi006.vmsg.lab VMware ESXi, 5.0.0, 474610
Getting Started
Summary
Virtual Machines
Performance
Configuration
Tasks & Events
Alarms
View:
Triggered Alarms
Definitions
Object
Status
Name
Triggered
vmsgesxi006.vmsg.lab
Alert
Host memory usage
12/4/2011 5:05:29 PM

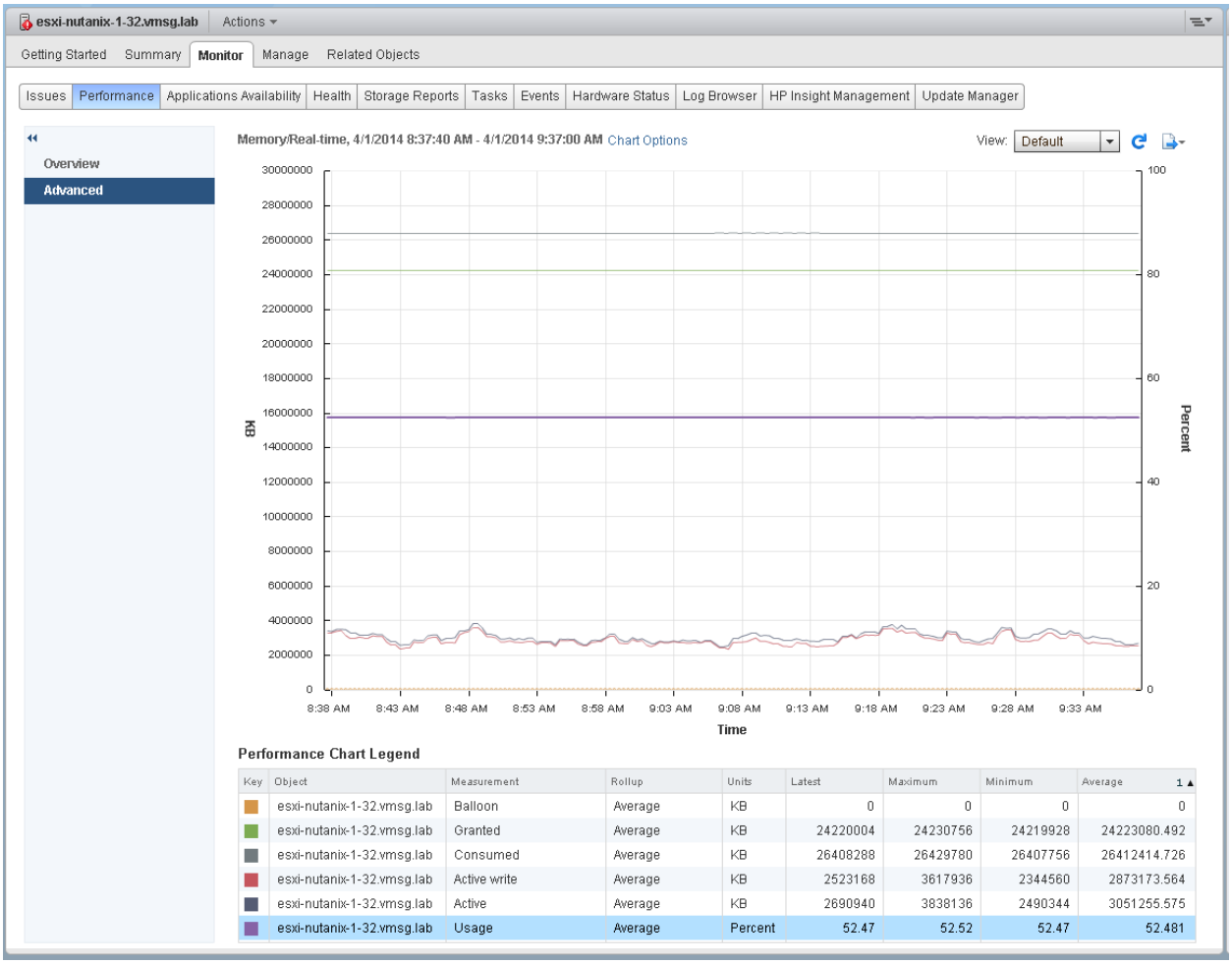

Alarm Settings
General
Triggers
Reporting
Actions
Trigger Type
Condition
Warning
Condition Length
Alert
Condition Length
Host Memory Usage (%)
Is above
90
for 5 min
95
for 5 min


Main Cluster
Getting Started
Summary
Virtual Machines
Hosts
DRS
Resource Allocation
Performance
Tasks & Events
Alarms
Permissions
Maps
Profile Compliance
SiteSurvey
Name
State
Status
% CPU
% Memory
Memory Size
CPU Count
NIC Count
Uptime
vmsgesxi007.vmsg....
Connected
Warning
25
91
32762.87 MB
2
6
40 days
vmsgesxi006.vmsg....
Connected
Warning
13
93
32762.87 MB
2
6
40 days


vmsgesxi006.vmsg.lab VMware ESXi, 5.0.0, 474610
Getting Started
Summary
Virtual Machines
Performance
Configuration
Tasks & Events
Alarms
Permissions
Maps
EMC VSI
General
Manufacturer: Dell Inc.
Model: PowerEdge 2950
CPU Cores: 8 CPUs x 3.158 GHz
Processor Type: Intel(R) Xeon(R) CPU X5460 @ 3.16GHz
License: VMware vSphere 5 Enterprise Plus - Licensed for 2 physic...
Processor Sockets: 2
Cores per Socket: 4
Logical Processors: 8
Hyperthreading: Inactive
Number of NICs: 6
State: Connected
Virtual Machines and Templates: 13
vMotion Enabled: Yes
VMware EVC Mode: Disabled
vSphere HA State: Connected (Slave)
Host Configured for FT: No
Active Tasks:
Host Profile:
Image Profile: (Updated) ESXi-5.0.0-4695...
Profile Compliance: N/A
DirectPath I/O Gen. 2: Not supported
Commands
Resources
CPU usage: 3640 MHz
Capacity
8 x 3.158 GHz
Memory usage: 30747.00 MB
Capacity
32762.87 MB
Storage
Status
Drive Type
GLOBAL-TEMPLA... Normal Unknown
Mgmt-Demo-01 Normal Non-SSD
Mgmt-Demo-02 Normal Non-SSD
vFabric Normal Non-SSD
VMSGESXI06-Loca... Normal Non-SSD
Network
Type
Sta
Management VM ... Standard port group
VM Network Standard port group
Fault Tolerance
Fault Tolerance Version: 2.0.1-3.0.0-3.0.0
Refresh Virtual Machine Counts
Total Primary VMs: 0
Powered On Primary VMs: 0
Total Secondary VMs: 0
Powered On Secondary VMs: 0


mgmt-vc.vmsg.lab
Mgmt Products
Main Cluster
vmsgesxi006.vmsg.lab
vmsgesxi007.vmsg.lab
3rd Party
Admin Clients
Application Management
Infrastructure Management
vCenter Operations 5 - beta
Analytics VM
UI VM
vCenter Ops Advance - 5 beta
CapacityIQ
ConfigManager
ConfigManager-beta
ServiceManager
Software-Provisioning-Server
VC Ops Enterprise 1.0.1
vCenter Operations Enterprise 5 Beta
vCenter Operations Standard
w2k8r2-orchestrator
Infrastructure Pool
Virtual ESXi
Testing & Development
vmsgesxi006.vmsg.lab VMware ESXi, 5.0.0, 474610
Getting Started
Summary
Virtual Machines
Performance
Configuration
Tasks & Events
Overview
Advanced
Memory (%)
Percent
97.0
96.5
96.0
95.5
95.0
94.5
94.0
93.5
93.0
92.5
92.0
12/3/11 1:55 AM
12/3/11 4:35 AM
12/3/11 7:15 AM
12/3/11 9:55 AM
12/3/11 12:35 PM
12/3/11 3:15 PM
12/3/11 5:55 PM
12/3/11 8:35 PM
12/3/11 11:15 PM
Usage

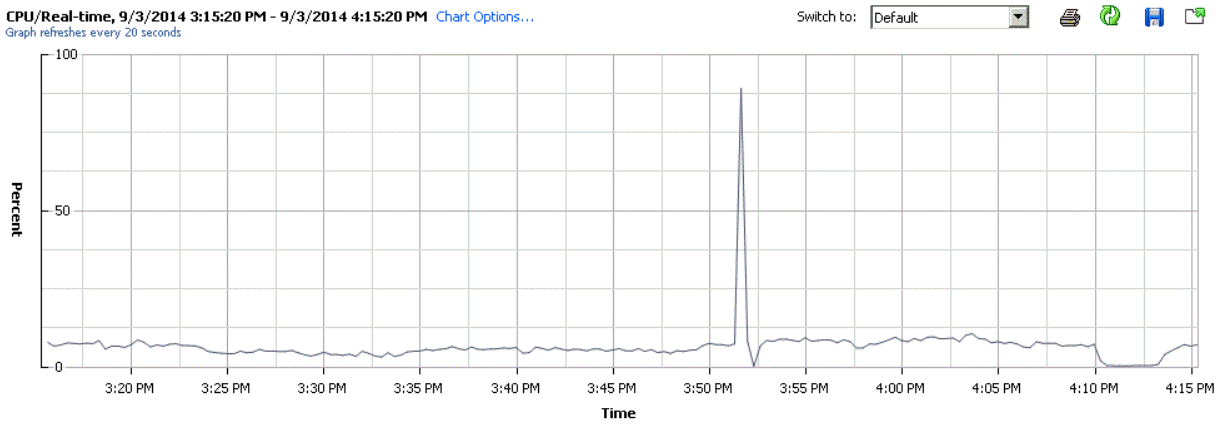

vmsgesxi006.vmsg.lab
Dashboard
Operations
Planning
Alerts
Analysis
Reports
Environment
Scoreboard
Details
Events
All Metrics
Workload (Host : vmsgesxi006.vmsg.lab : Running)
32
96
1
0
NORMAL: 20-51
BOUND BY: Memory
Last 6 Hours
Workload
CPU 11%
MEM 32%
DISK I/O 1%
NET I/O 1%
KEY METRICS
Default
CPU
MEM
NET I/O
DISK I/O
Memory | Contention (%) 0
Memory | Usage (KB) 31,592,557
Memory | Machine Demand (KB) 10,323,499
Memory | Overall Workload (%) 32
32
Workload
Memory Demand is the most constrained resource
CPU
0
8,423
16,847
25,270 MHz
Configured 25,270 MHz
Demand 2,744 MHz (11% of Configured)
Usage 2,597 MHz (10% of Configured)
Reserved 752 MHz (3% of Configured)
Normal Demand 24 - 7,676 MHz
Hypervisor 136.05 MHz
Memory
0
10,921
21,842
32,763 MB
Configured 32,763 MB
Demand 10,082 MB (32% of Usable)
Usage 30,852 MB (97% of Usable)
Reserved 2,982 MB (9% of Configured)
Usable 31,822 MB
Normal Demand 5,098 - 17,245 MB
Hypervisor 1470.38 MB
Disk I/O



Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	esxi-nutanix-1-32.vmsg.lab	Balloon	Average	KB	0	0	0	0
	esxi-nutanix-1-32.vmsg.lab	Granted	Average	KB	24220004	24230756	24219928	24223080.492
	esxi-nutanix-1-32.vmsg.lab	Consumed	Average	KB	26408288	26429780	26407756	26412414.726
	esxi-nutanix-1-32.vmsg.lab	Active write	Average	KB	2523168	3617936	2344560	2873173.564
	esxi-nutanix-1-32.vmsg.lab	Active	Average	KB	2690940	3838136	2490344	3051255.575
	esxi-nutanix-1-32.vmsg.lab	Usage	Average	Percent	52.47	52.52	52.47	52.481

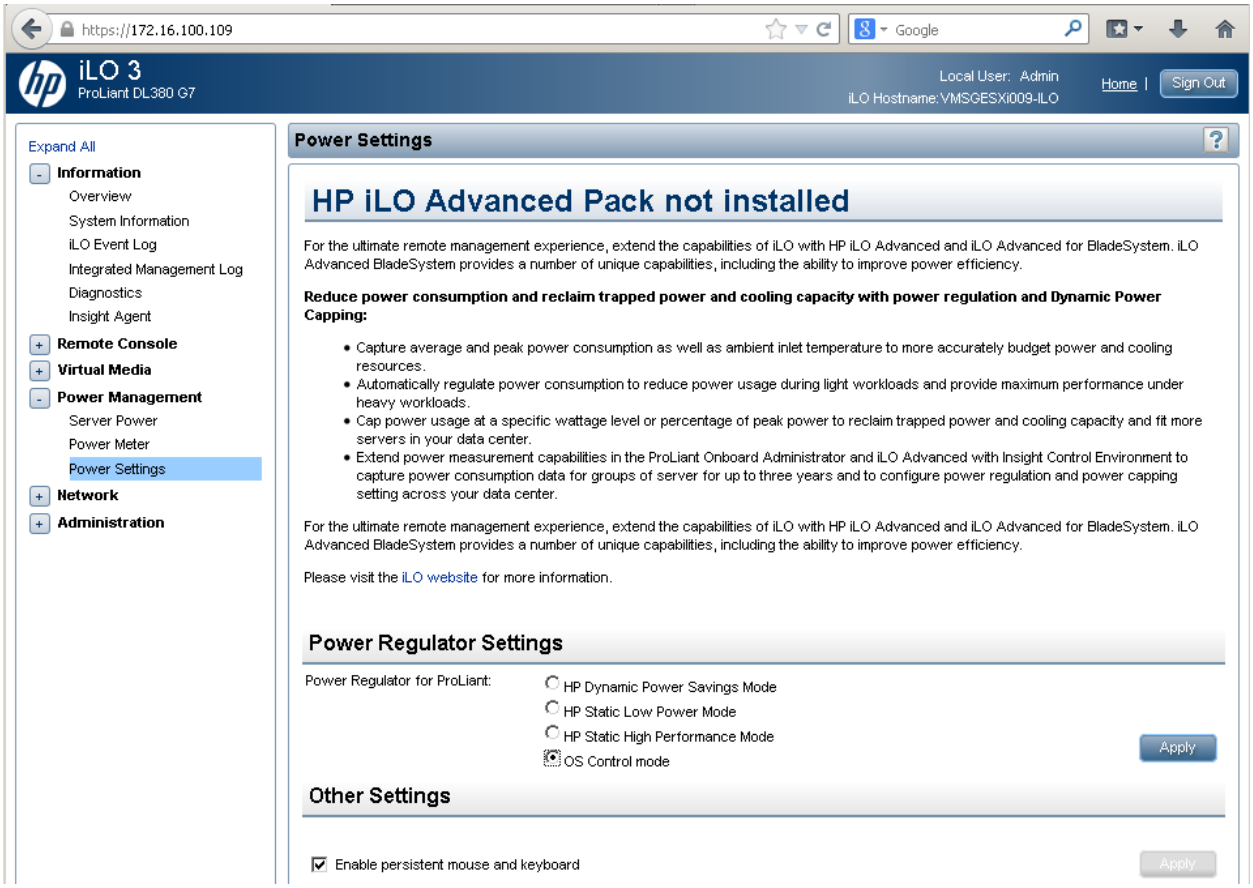
Chapter 4

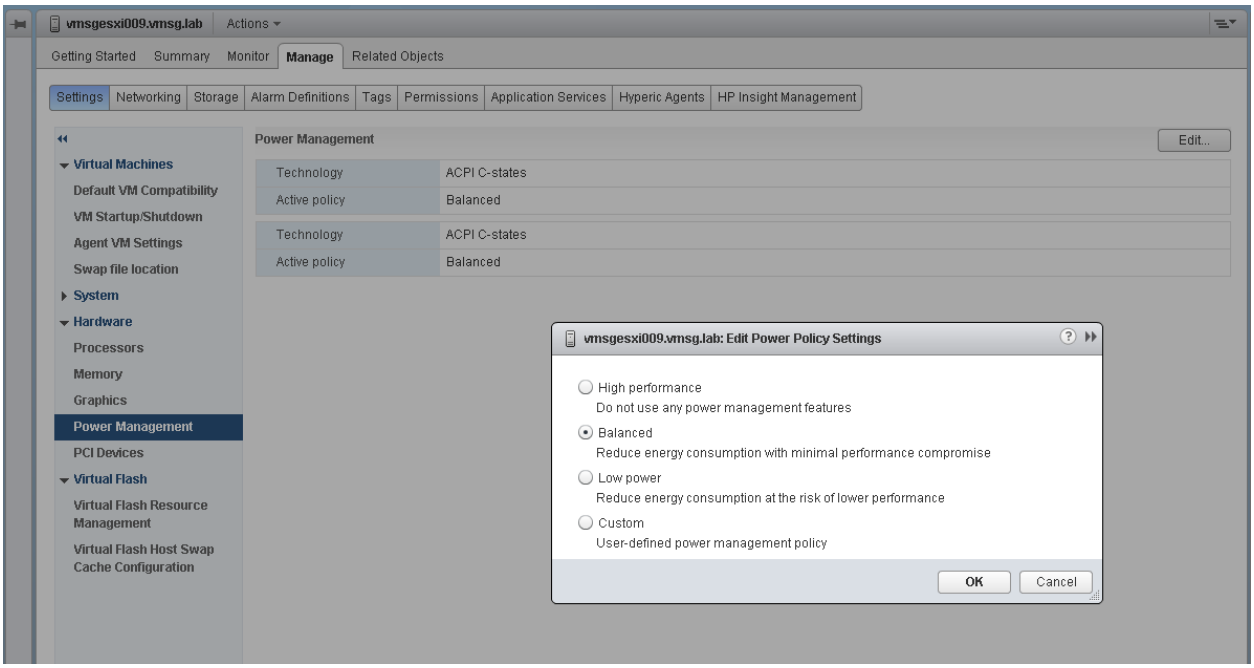
Description	Rollup	Units	Internal Name	Collection Level
☑ Usage	Average	Percent	usage	1
☐ Ready	Summation	Millisecond	ready	1
☐ System	Summation	Millisecond	system	3
☐ Co-stop	Summation	Millisecond	costop	2
☐ Max limited	Summation	Millisecond	maxlimited	2
☐ Idle	Summation	Millisecond	idle	2
☐ Overlap	Summation	Millisecond	overlap	3
☐ Run	Summation	Millisecond	run	2
☐ Entitlement	Latest	MHz	entitlement	2
☐ Latency	Average	Percent	latency	2
☐ Demand-to-entitlement ratio	Latest	Percent	demandEntitlemen...	4
☐ Wait	Summation	Millisecond	wait	3
☐ Demand	Average	MHz	demand	2
☐ Used	Summation	Millisecond	used	3
☐ Swap wait	Summation	Millisecond	swapwait	3
☑ Usage in MHz	Average	MHz	usagemhz	1



Performance Chart Legend

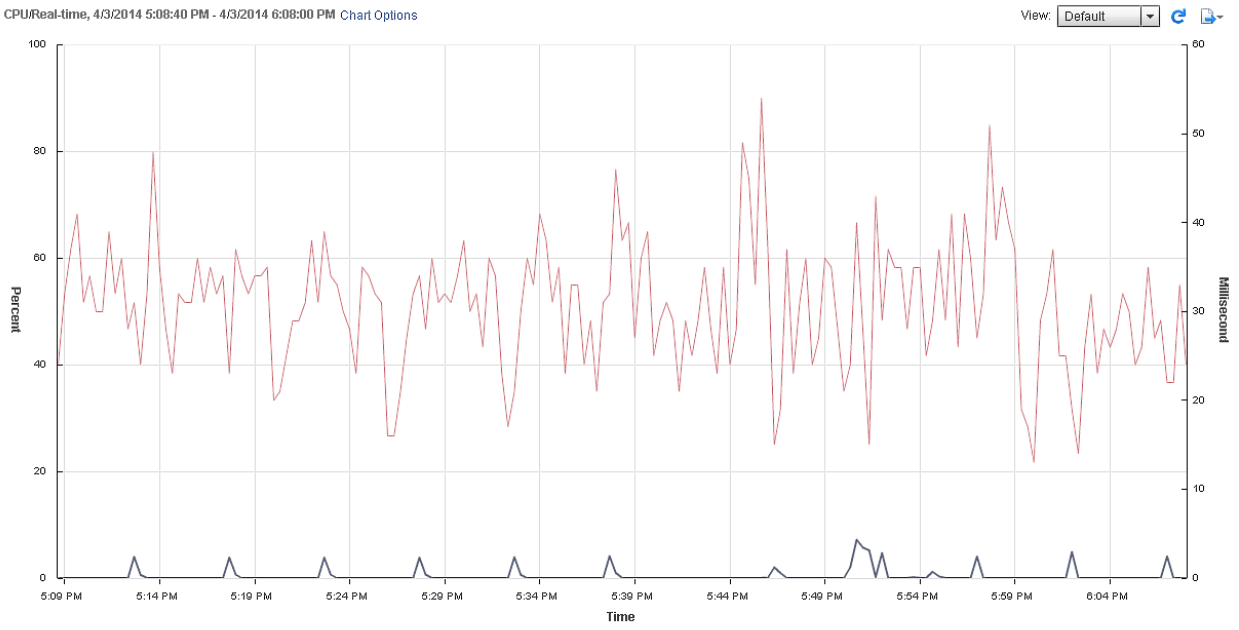
Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
■	[redacted]	Latency	Average	Percent	6.93	89.23	0	6.409





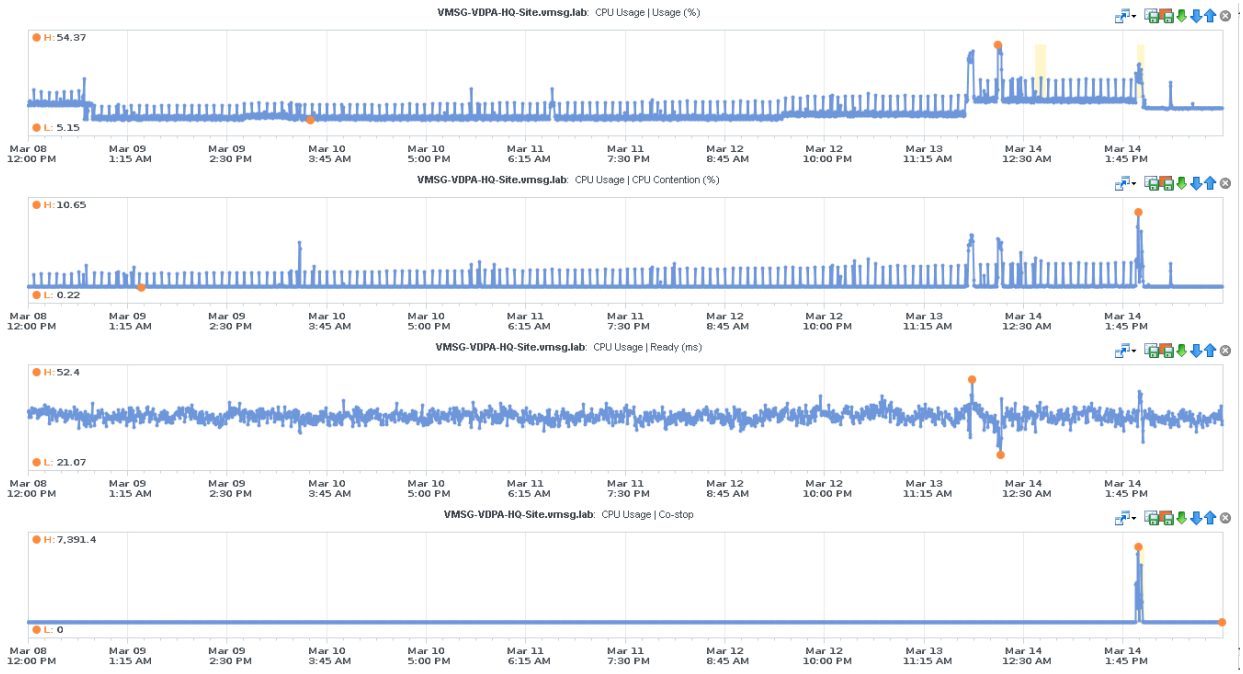
Performance Chart Legend

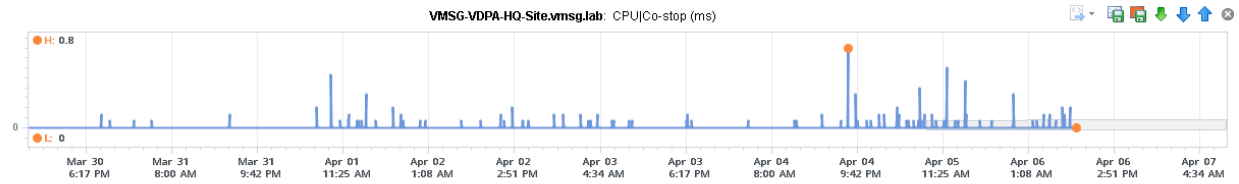
Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	vmsgesxi008.vmsg.lab	Cap	Average	Watts	0	0	0	0
	vmsgesxi008.vmsg.lab	Energy usage	Summation	Joule	2859	3851	2531	2933.006
	vmsgesxi008.vmsg.lab	Usage	Average	Watts	142	192	126	146.239

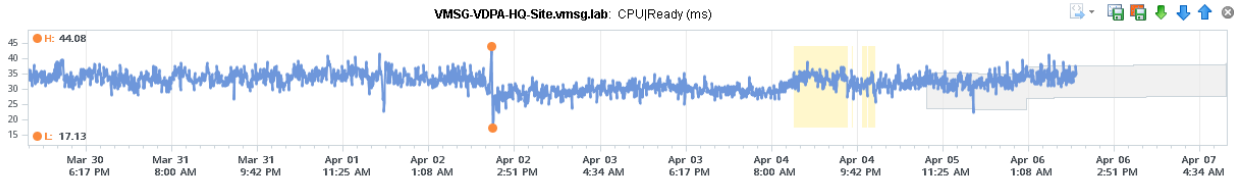


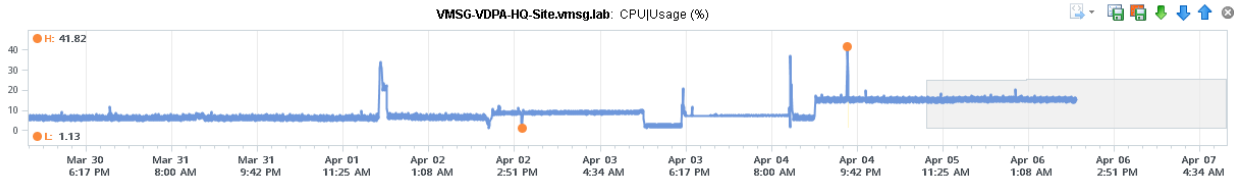
Performance Chart Legend

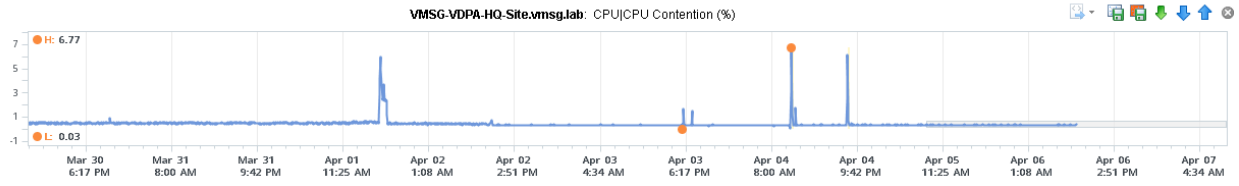
Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	VMSG-VDPA-HQ-Site.vmsg.lab	Latency	Average	Percent	0.02	7.23	0.01	0.418
	VMSG-VDPA-HQ-Site.vmsg.lab	Ready	Summation	Millisecond	24	54	13	30.698

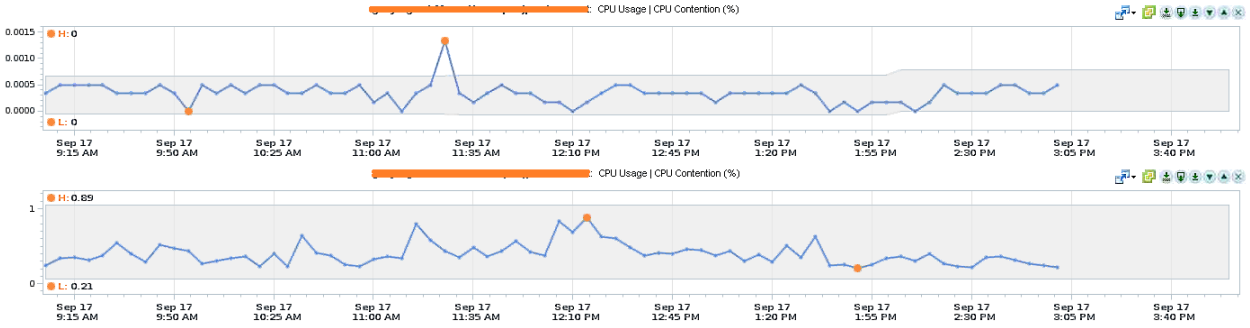


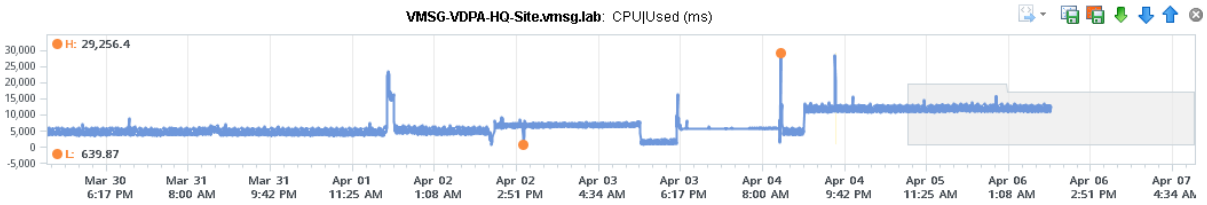

VMSG-VDPA-HQ-Site.vmsg.lab: CPU|Co-stop (ms)
H: 0.8
L: 0
0
Mar 30 6:17 PM
Mar 31 8:00 AM
Mar 31 9:42 PM
Apr 01 11:25 AM
Apr 02 1:08 AM
Apr 02 2:51 PM
Apr 03 4:34 AM
Apr 03 6:17 PM
Apr 04 8:00 AM
Apr 04 9:42 PM
Apr 05 11:25 AM
Apr 06 1:08 AM
Apr 06 2:51 PM
Apr 07 4:34 AM

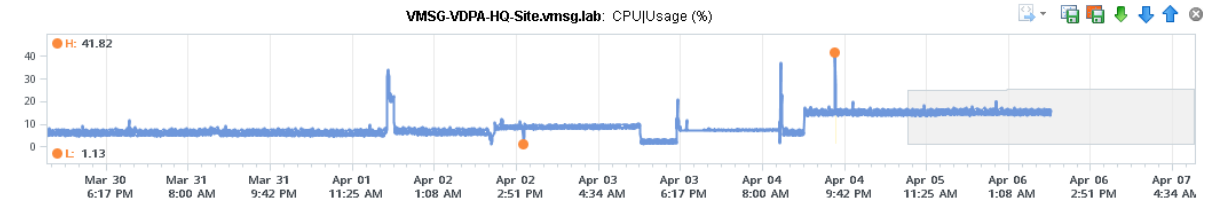

VMSG-VDPA-HQ-Site.vmsg.lab: CPU|Ready (ms)
H: 44.08
L: 17.13
45
40
35
30
25
20
15
Mar 30 6:17 PM
Mar 31 8:00 AM
Mar 31 9:42 PM
Apr 01 11:25 AM
Apr 02 1:08 AM
Apr 02 2:51 PM
Apr 03 4:34 AM
Apr 03 6:17 PM
Apr 04 8:00 AM
Apr 04 9:42 PM
Apr 05 11:25 AM
Apr 06 1:08 AM
Apr 06 2:51 PM
Apr 07 4:34 AM

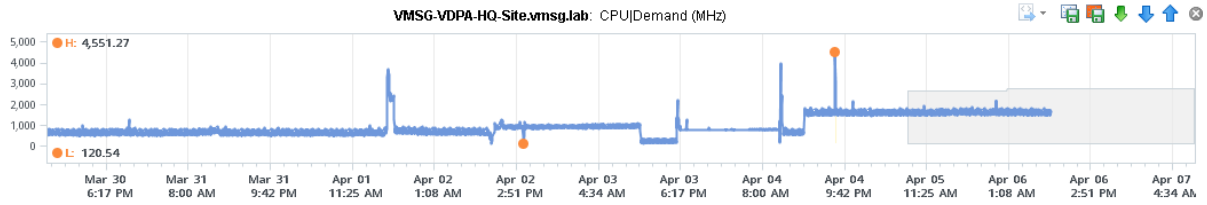

VMSG-VDPA-HQ-Site.vmsg.lab: CPU|Usage (%)
H: 41.82
L: 1.13
40
30
20
10
0
Mar 30 6:17 PM
Mar 31 8:00 AM
Mar 31 9:42 PM
Apr 01 11:25 AM
Apr 02 1:08 AM
Apr 02 2:51 PM
Apr 03 4:34 AM
Apr 03 6:17 PM
Apr 04 8:00 AM
Apr 04 9:42 PM
Apr 05 11:25 AM
Apr 06 1:08 AM
Apr 06 2:51 PM
Apr 07 4:34 AM

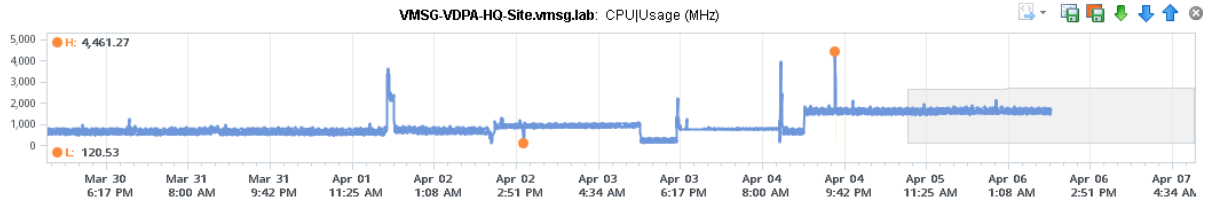

VMSG-VDPA-HQ-Site.vmsg.lab: CPU|CPU Contention (%)
H: 6.77
L: 0.03
7
5
3
1
-1
Mar 30 6:17 PM
Mar 31 8:00 AM
Mar 31 9:42 PM
Apr 01 11:25 AM
Apr 02 1:08 AM
Apr 02 2:51 PM
Apr 03 4:34 AM
Apr 03 6:17 PM
Apr 04 8:00 AM
Apr 04 9:42 PM
Apr 05 11:25 AM
Apr 06 1:08 AM
Apr 06 2:51 PM
Apr 07 4:34 AM

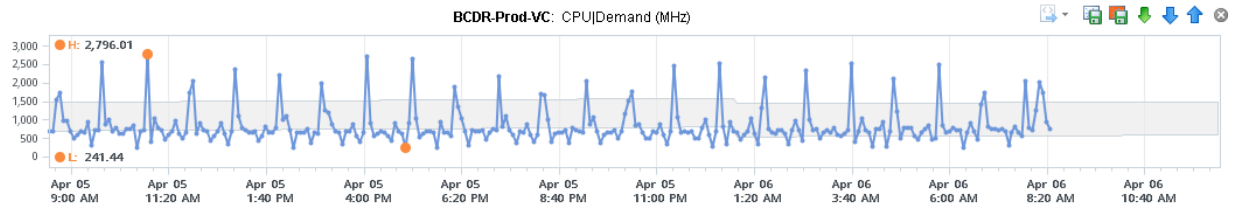

: CPU Usage | CPU Contention (%)
H: 0
L: 0
0.0015
0.0010
0.0005
0.0000
Sep 17 9:15 AM
Sep 17 9:50 AM
Sep 17 10:25 AM
Sep 17 11:00 AM
Sep 17 11:35 AM
Sep 17 12:10 PM
Sep 17 12:45 PM
Sep 17 1:20 PM
Sep 17 1:55 PM
Sep 17 2:30 PM
Sep 17 3:05 PM
Sep 17 3:40 PM
: CPU Usage | CPU Contention (%)
H: 0.89
L: 0.21
1
0
Sep 17 9:15 AM
Sep 17 9:50 AM
Sep 17 10:25 AM
Sep 17 11:00 AM
Sep 17 11:35 AM
Sep 17 12:10 PM
Sep 17 12:45 PM
Sep 17 1:20 PM
Sep 17 1:55 PM
Sep 17 2:30 PM
Sep 17 3:05 PM
Sep 17 3:40 PM

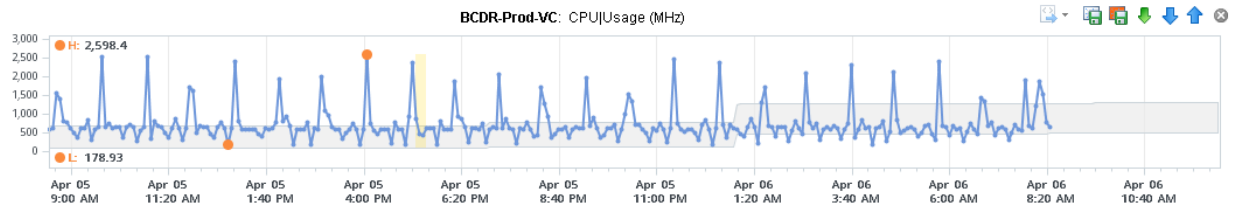

VMSG-VDPA-HQ-Site.vmsg.lab: CPU|Used (ms)
H: 29,256.4
L: 639.87
30,000
25,000
20,000
15,000
10,000
5,000
0
-5,000
Mar 30 6:17 PM
Mar 31 8:00 AM
Mar 31 9:42 PM
Apr 01 11:25 AM
Apr 02 1:08 AM
Apr 02 2:51 PM
Apr 03 4:34 AM
Apr 03 6:17 PM
Apr 04 8:00 AM
Apr 04 9:42 PM
Apr 05 11:25 AM
Apr 06 1:08 AM
Apr 06 2:51 PM
Apr 07 4:34 AM

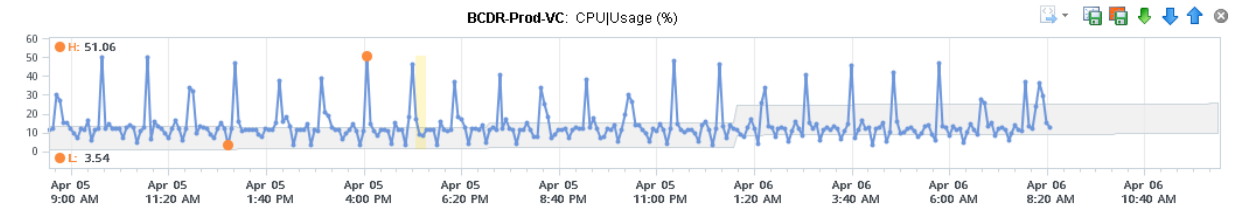

VMSG-VDPA-HQ-Site.vmsg.lab: CPU|Usage (%)
H: 41.82
L: 1.13
40
30
20
10
0
Mar 30 6:17 PM
Mar 31 8:00 AM
Mar 31 9:42 PM
Apr 01 11:25 AM
Apr 02 1:08 AM
Apr 02 2:51 PM
Apr 03 4:34 AM
Apr 03 6:17 PM
Apr 04 8:00 AM
Apr 04 9:42 PM
Apr 05 11:25 AM
Apr 06 1:08 AM
Apr 06 2:51 PM
Apr 07 4:34 AM

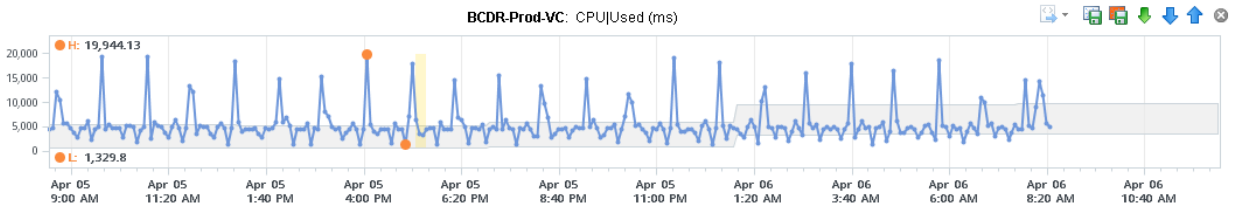

VMSG-VDPA-HQ-Site.vmsg.lab: CPU|Demand (MHz)
H: 4,551.27
L: 120.54
5,000
4,000
3,000
2,000
1,000
0
Mar 30 6:17 PM
Mar 31 8:00 AM
Mar 31 9:42 PM
Apr 01 11:25 AM
Apr 02 1:08 AM
Apr 02 2:51 PM
Apr 03 4:34 AM
Apr 03 6:17 PM
Apr 04 8:00 AM
Apr 04 9:42 PM
Apr 05 11:25 AM
Apr 06 1:08 AM
Apr 06 2:51 PM
Apr 07 4:34 AM

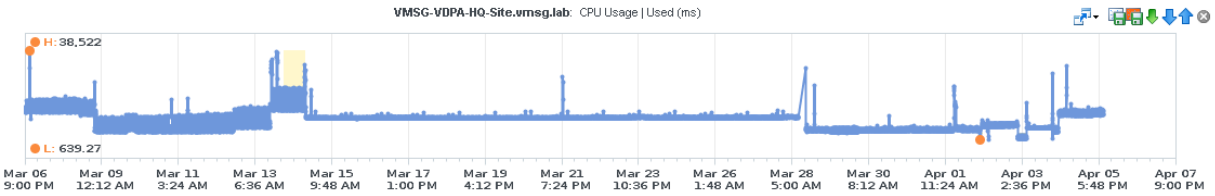

VMSG-VDPA-HQ-Site.vmsg.lab: CPU|Usage (MHz)
H: 4,461.27
L: 120.53
5,000
4,000
3,000
2,000
1,000
0
Mar 30 6:17 PM
Mar 31 8:00 AM
Mar 31 9:42 PM
Apr 01 11:25 AM
Apr 02 1:08 AM
Apr 02 2:51 PM
Apr 03 4:34 AM
Apr 03 6:17 PM
Apr 04 8:00 AM
Apr 04 9:42 PM
Apr 05 11:25 AM
Apr 06 1:08 AM
Apr 06 2:51 PM
Apr 07 4:34 AM

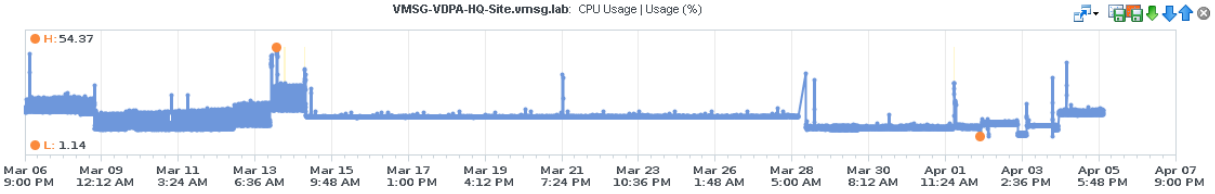

BCDR-Prod-VC: CPU|Demand (MHz)
H: 2,796.01
L: 241.44
3,000
2,500
2,000
1,500
1,000
500
0
Apr 05 9:00 AM
Apr 05 11:20 AM
Apr 05 1:40 PM
Apr 05 4:00 PM
Apr 05 6:20 PM
Apr 05 8:40 PM
Apr 05 11:00 PM
Apr 06 1:20 AM
Apr 06 3:40 AM
Apr 06 6:00 AM
Apr 06 8:20 AM
Apr 06 10:40 AM


BCDR-Prod-VC: CPU|Usage (MHz)
H: 2,598.4
L: 178.93
3,000
2,500
2,000
1,500
1,000
500
0
Apr 05 9:00 AM
Apr 05 11:20 AM
Apr 05 1:40 PM
Apr 05 4:00 PM
Apr 05 6:20 PM
Apr 05 8:40 PM
Apr 05 11:00 PM
Apr 06 1:20 AM
Apr 06 3:40 AM
Apr 06 6:00 AM
Apr 06 8:20 AM
Apr 06 10:40 AM


BCDR-Prod-VC: CPU|Usage (%)
H: 51.06
L: 3.54
60
50
40
30
20
10
0
Apr 05 9:00 AM
Apr 05 11:20 AM
Apr 05 1:40 PM
Apr 05 4:00 PM
Apr 05 6:20 PM
Apr 05 8:40 PM
Apr 05 11:00 PM
Apr 06 1:20 AM
Apr 06 3:40 AM
Apr 06 6:00 AM
Apr 06 8:20 AM
Apr 06 10:40 AM

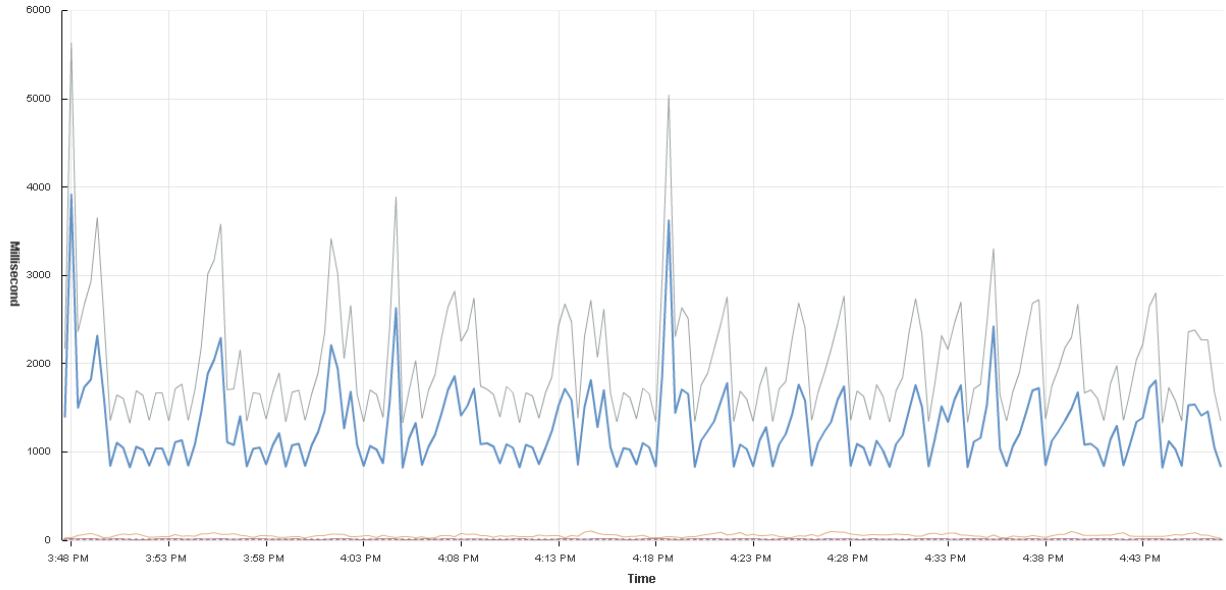

BCDR-Prod-VC: CPU|Used (ms)
H: 19,944.13
L: 1,329.8
20,000
15,000
10,000
5,000
0
Apr 05 9:00 AM
Apr 05 11:20 AM
Apr 05 1:40 PM
Apr 05 4:00 PM
Apr 05 6:20 PM
Apr 05 8:40 PM
Apr 05 11:00 PM
Apr 06 1:20 AM
Apr 06 3:40 AM
Apr 06 6:00 AM
Apr 06 8:20 AM
Apr 06 10:40 AM


VMSG-VDPA-HQ-Site.vmsg.lab: CPU Usage | Used (ms)
H: 38,522
L: 639.27
Mar 06 9:00 PM
Mar 09 12:12 AM
Mar 11 3:24 AM
Mar 13 6:36 AM
Mar 15 9:48 AM
Mar 17 1:00 PM
Mar 19 4:12 PM
Mar 21 7:24 PM
Mar 23 10:36 PM
Mar 26 1:48 AM
Mar 28 5:00 AM
Mar 30 8:12 AM
Apr 01 11:24 AM
Apr 03 2:36 PM
Apr 05 5:48 PM
Apr 07 9:00 PM


VMSG-VDPA-HQ-Site.vmsg.lab: CPU Usage | Usage (%)
H: 54.37
L: 1.14
Mar 06 9:00 PM
Mar 09 12:12 AM
Mar 11 3:24 AM
Mar 13 6:36 AM
Mar 15 9:48 AM
Mar 17 1:00 PM
Mar 19 4:12 PM
Mar 21 7:24 PM
Mar 23 10:36 PM
Mar 26 1:48 AM
Mar 28 5:00 AM
Mar 30 8:12 AM
Apr 01 11:24 AM
Apr 03 2:36 PM
Apr 05 5:48 PM
Apr 07 9:00 PM

CPU/Real-time, 4/3/2014 3:47:40 PM - 4/3/2014 4:47:00 PM Chart Options

View: Default

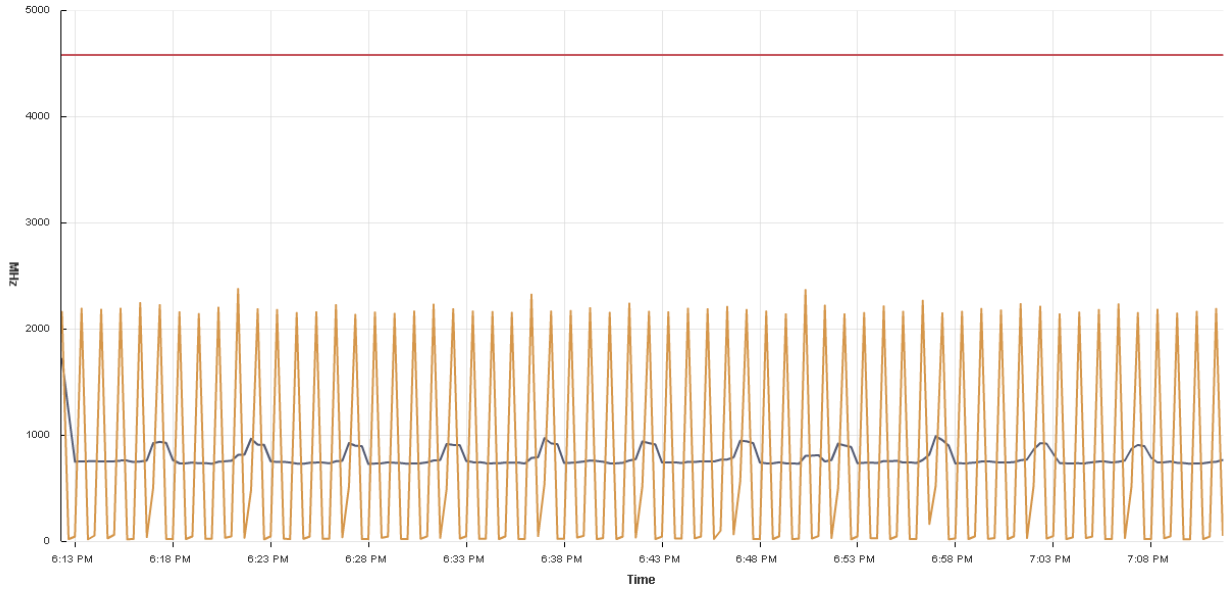


Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum 1	Minimum	Average
	Chargeback 2.6	Run	Summation	Millisecond	1351	5636	1325	2004.017
	Chargeback 2.6	Used	Summation	Millisecond	837	3916	823	1284.777
	Chargeback 2.6	Overlap	Summation	Millisecond	10	19	10	13.184
	Chargeback 2.6	Ready	Summation	Millisecond	24	106	24	54.782
	Chargeback 2.6	Co-stop	Summation	Millisecond	0	0	0	0
	Chargeback 2.6	System	Summation	Millisecond	0	0	0	0

CPU/Real-time, 4/3/2014 6:12:20 PM - 4/3/2014 7:11:40 PM Chart Options

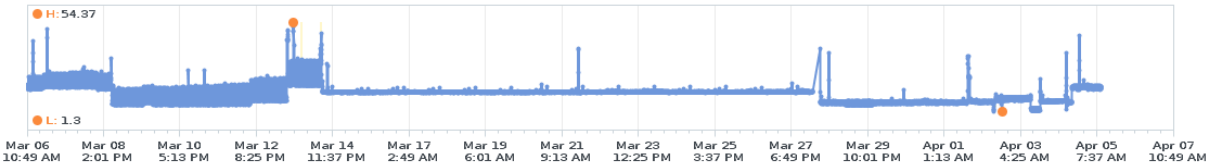
View: Default



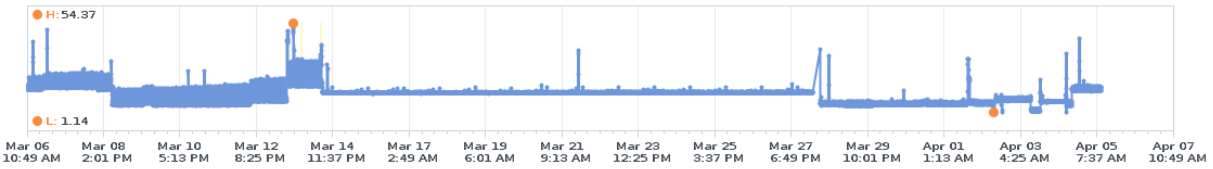
Performance Chart Legend

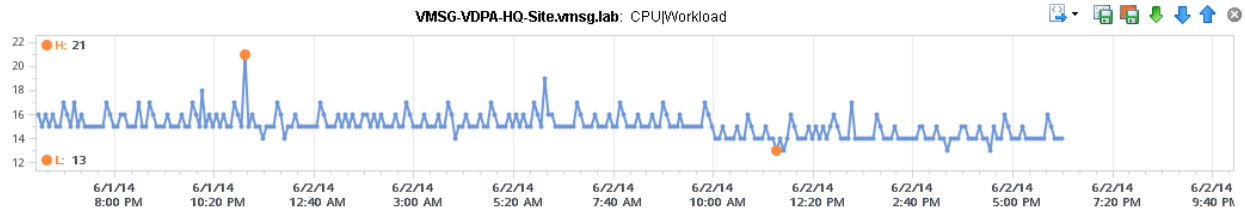
Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	VMSG-VDPA-HQ-Site.vmsg.lab	Demand	Average	MHz	764	1719	727	788.581
	VMSG-VDPA-HQ-Site.vmsg.lab	Entitlement	Latest	MHz	4584	4584	4584	4584
	VMSG-VDPA-HQ-Site.vmsg.lab	Usage in MHz	Average	MHz	57	2378	17	784.257

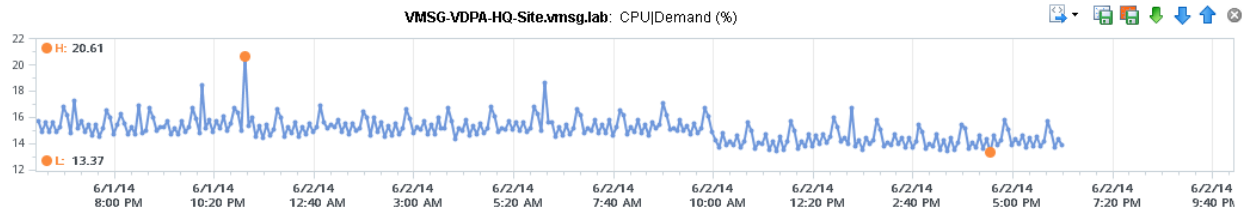
VMSG-VDPA-HQ-Site.vmsg.lab: CPU Usage | Demand (%)

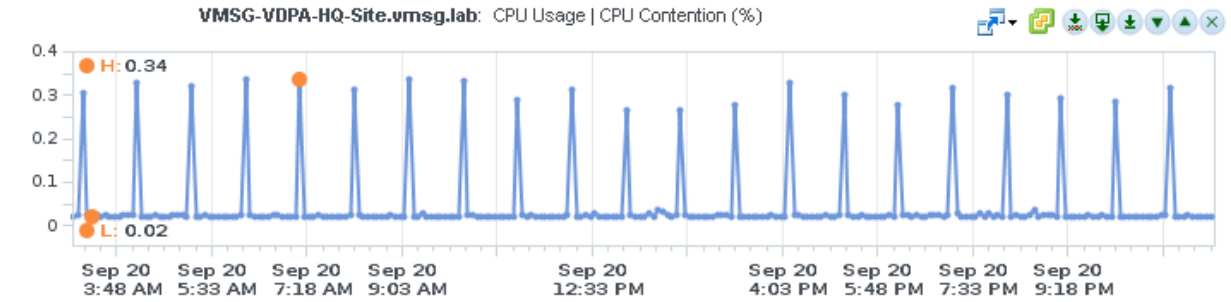


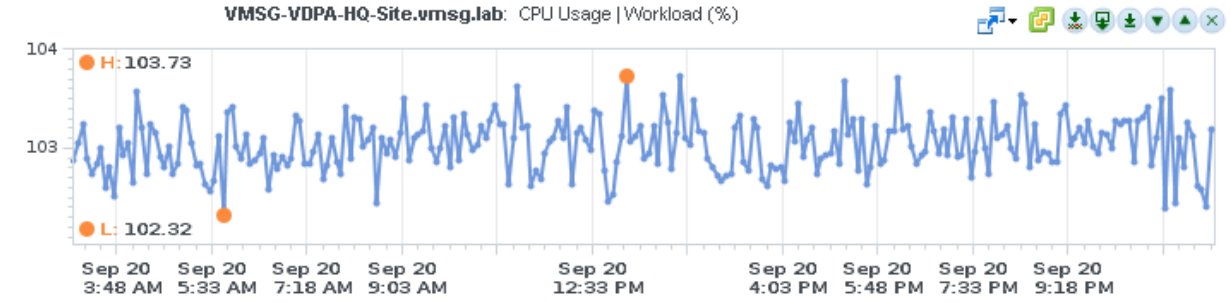
VMSG-VDPA-HQ-Site.vmsg.lab: CPU Usage | Usage (%)

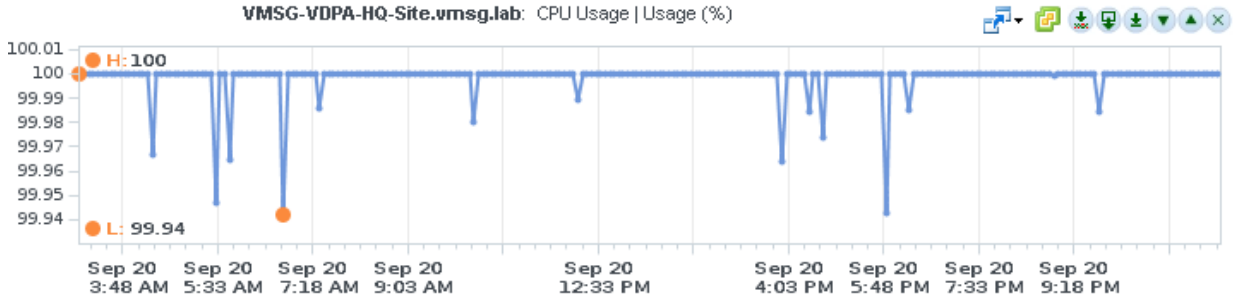



VMSG-VDPA-HQ-Site.vmsg.lab: CPU|Workload
H: 21
L: 13
22
20
18
16
14
12
6/1/14 8:00 PM
6/1/14 10:20 PM
6/2/14 12:40 AM
6/2/14 3:00 AM
6/2/14 5:20 AM
6/2/14 7:40 AM
6/2/14 10:00 AM
6/2/14 12:20 PM
6/2/14 2:40 PM
6/2/14 5:00 PM
6/2/14 7:20 PM
6/2/14 9:40 PM


VMSG-VDPA-HQ-Site.vmsg.lab: CPU|Demand (%)
H: 20.61
L: 13.37
22
20
18
16
14
12
6/1/14 8:00 PM
6/1/14 10:20 PM
6/2/14 12:40 AM
6/2/14 3:00 AM
6/2/14 5:20 AM
6/2/14 7:40 AM
6/2/14 10:00 AM
6/2/14 12:20 PM
6/2/14 2:40 PM
6/2/14 5:00 PM
6/2/14 7:20 PM
6/2/14 9:40 PM

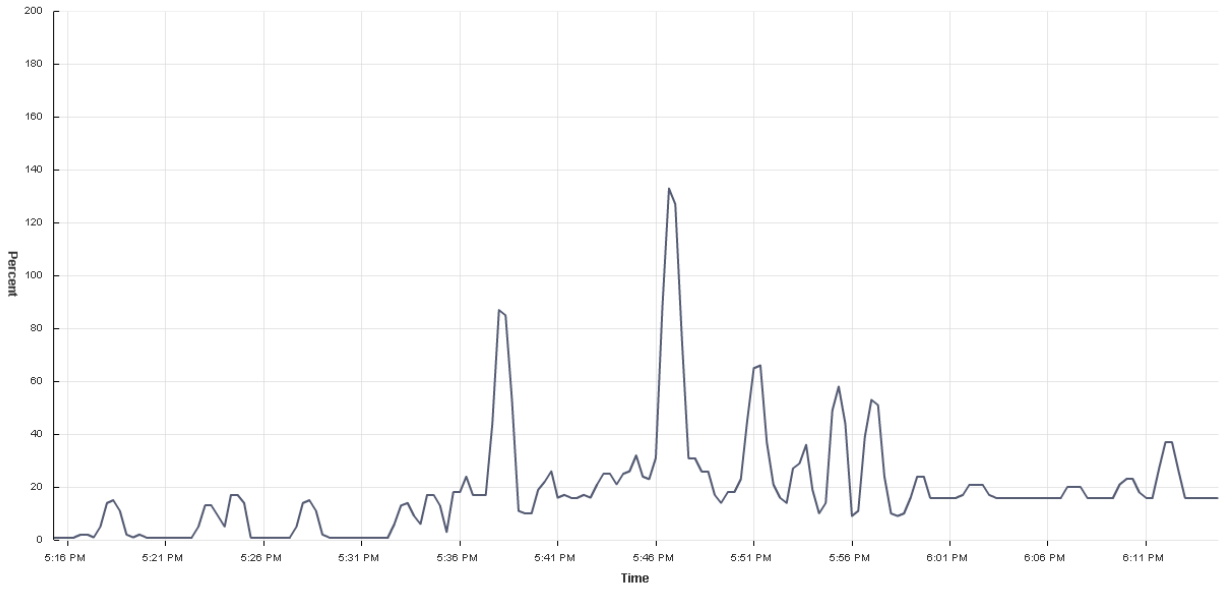

VMSG-VDPA-HQ-Site.vmsg.lab: CPU Usage | CPU Contention (%)
H: 0.34
L: 0.02
0.4
0.3
0.2
0.1
0
Sep 20 3:48 AM
Sep 20 5:33 AM
Sep 20 7:18 AM
Sep 20 9:03 AM
Sep 20 12:33 PM
Sep 20 4:03 PM
Sep 20 5:48 PM
Sep 20 7:33 PM
Sep 20 9:18 PM


VMSG-VDPA-HQ-Site.vmsg.lab: CPU Usage | Workload (%)
H: 103.73
L: 102.32
104
103
Sep 20 3:48 AM
Sep 20 5:33 AM
Sep 20 7:18 AM
Sep 20 9:03 AM
Sep 20 12:33 PM
Sep 20 4:03 PM
Sep 20 5:48 PM
Sep 20 7:33 PM
Sep 20 9:18 PM


VMSG-VDPA-HQ-Site.vmsg.lab: CPU Usage | Usage (%)
H: 100
L: 99.94
100.01
100
99.99
99.98
99.97
99.96
99.95
99.94
Sep 20 3:48 AM
Sep 20 5:33 AM
Sep 20 7:18 AM
Sep 20 9:03 AM
Sep 20 12:33 PM
Sep 20 4:03 PM
Sep 20 5:48 PM
Sep 20 7:33 PM
Sep 20 9:18 PM

CPU/Real-time, 4/3/2014 5:15:20 PM - 4/3/2014 6:14:40 PM Chart Options

View: Default

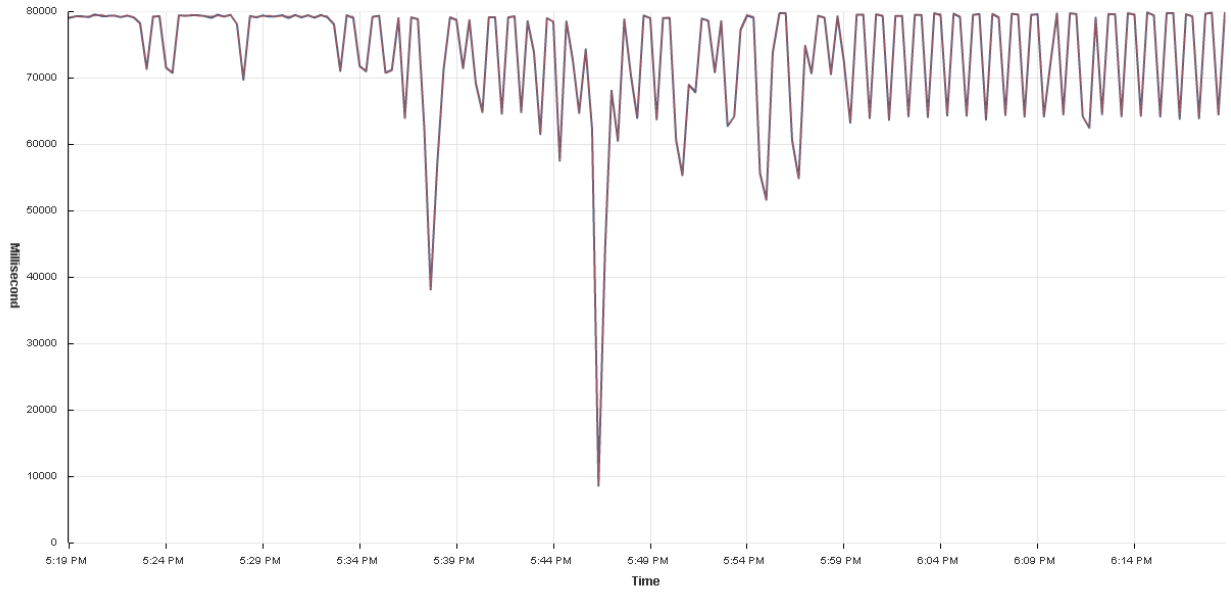


Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
■	VMSG-VDPA-HQ-Site.vmsg.lab	Demand-to-entitlement ratio	Latest	Percent	16	133	1	19.229

CPU/Real-time, 4/3/2014 5:19:00 PM - 4/3/2014 6:18:40 PM Chart Options

View: Default



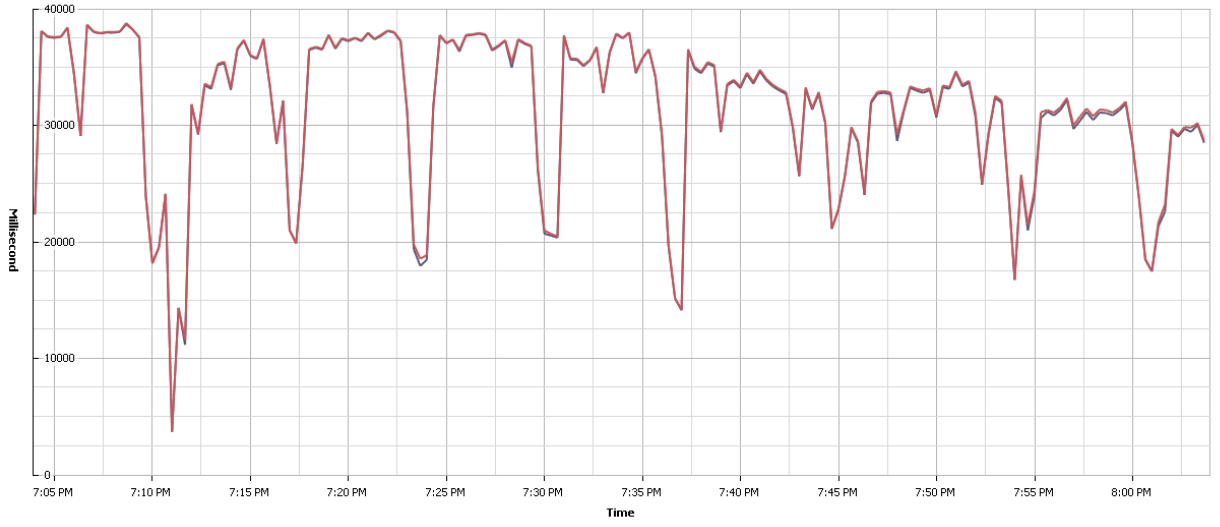
Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	VMSG-VDPA-HQ-Site.vmsg.lab	Idle	Summation	Millisecond	79793	79872	8588	73395.911
	VMSG-VDPA-HQ-Site.vmsg.lab	Wait	Summation	Millisecond	79766	79807	8607	73418.983

CPU/Real-time, 4/12/2014 7:03:54 PM - 4/12/2014 8:03:54 PM Chart Options...

Graph refreshes every 20 seconds

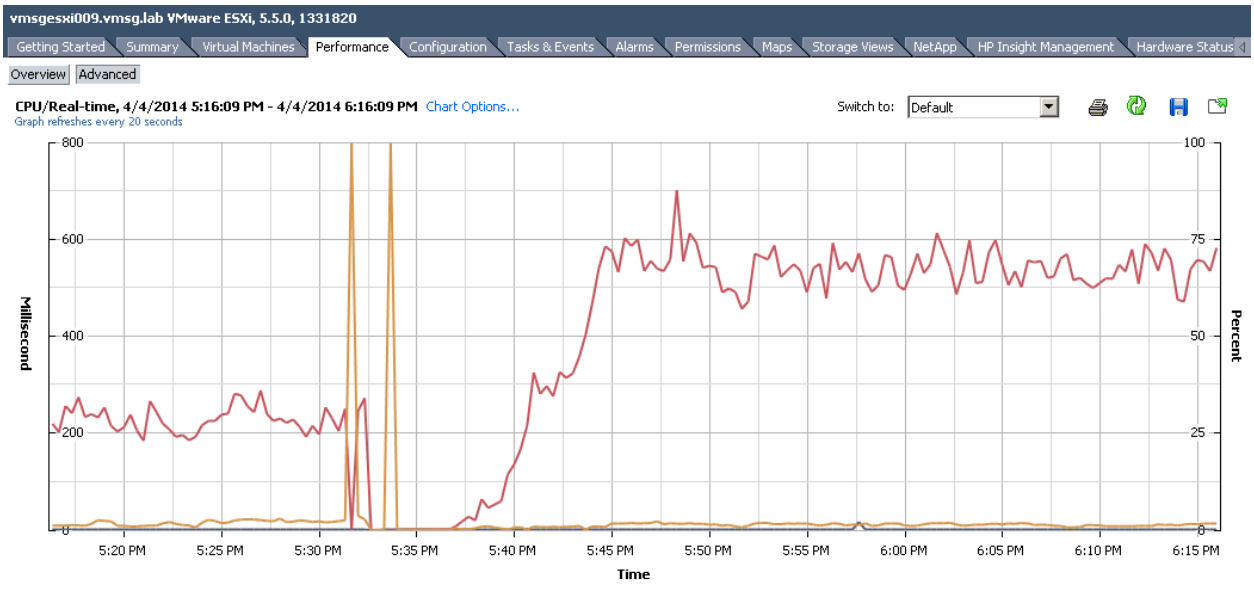
Switch to: Default



Performance Chart Legend

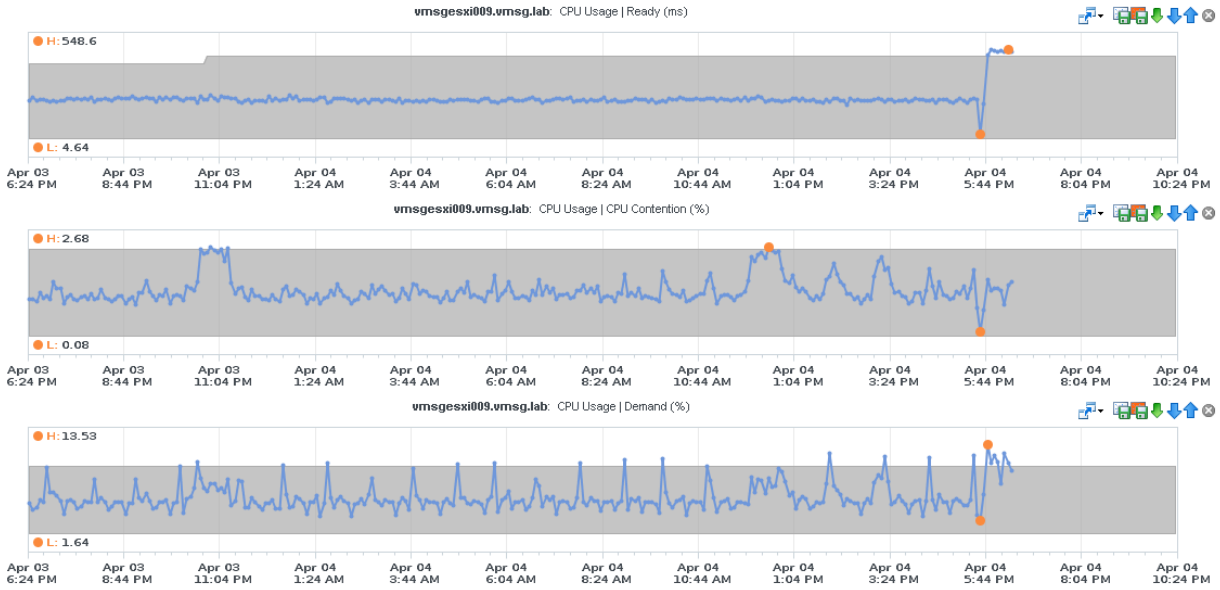
Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	BCDR-Prod-VC	Idle	Summation	Millisecond	28533	38737	3683	31403.506
	BCDR-Prod-VC	Wait	Summation	Millisecond	28721	38836	3689	31537.689

Description	Rollup	Units	Internal Name	Collection Level
Idle	Summation	Millisecond	idle	2
Usage in MHz	Average	MHz	usagemhz	1
Total capacity	Average	MHz	totalCapacity	2
Core Utilization	Average	Percent	coreUtilization	2
Utilization	Average	Percent	utilization	2
Wait	Summation	Millisecond	wait	3
Usage	Average	Percent	usage	1
Demand	Average	MHz	demand	2
Ready	Summation	Millisecond	ready	1
Used	Summation	Millisecond	used	3
Reserved capacity	Average	MHz	reservedCapacity	2
Latency	Average	Percent	latency	2
Swap wait	Summation	Millisecond	swapwait	3
Co-stop	Summation	Millisecond	costop	2

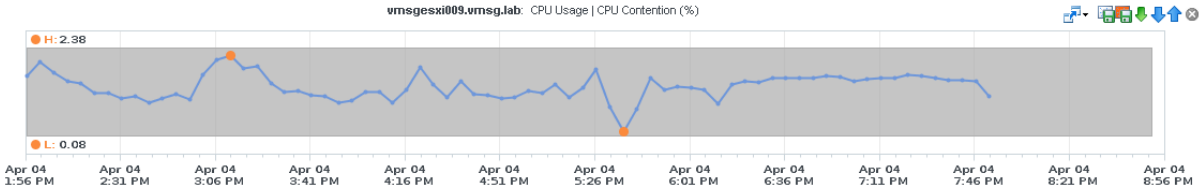


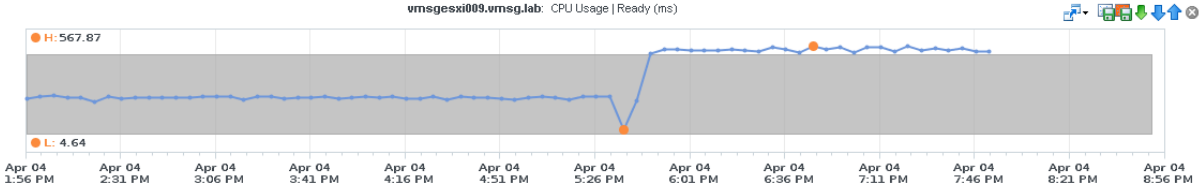
Performance Chart Legend

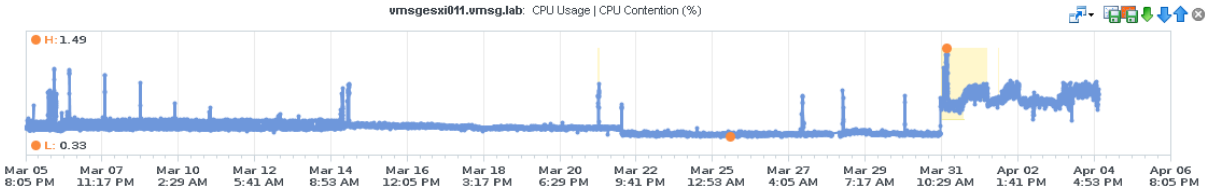
Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	vmsgesxi009.vm...	Co-stop	Summation	Millisecond	0	16	0	0.101
	vmsgesxi009.vm...	Ready	Summation	Millisecond	583	702	0	387.793
	vmsgesxi009.vm...	Latency	Average	Percent	1.61	100	0	2.46

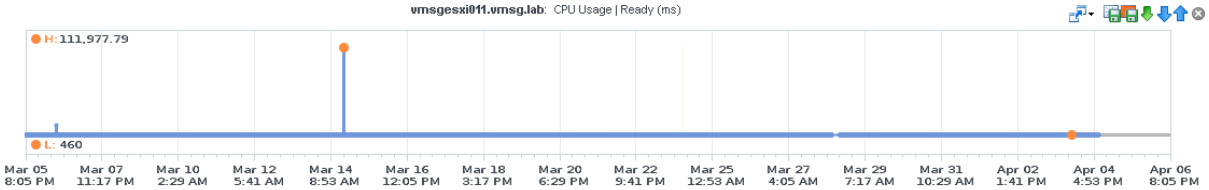

vmsgesxi009.vmsg.lab: CPU Usage | Ready (ms)
H: 548.6
L: 4.64
Apr 03 6:24 PM
Apr 03 8:44 PM
Apr 03 11:04 PM
Apr 04 1:24 AM
Apr 04 3:44 AM
Apr 04 6:04 AM
Apr 04 8:24 AM
Apr 04 10:44 AM
Apr 04 1:04 PM
Apr 04 3:24 PM
Apr 04 5:44 PM
Apr 04 8:04 PM
Apr 04 10:24 PM
vmsgesxi009.vmsg.lab: CPU Usage | CPU Contention (%)
H: 2.68
L: 0.08
Apr 03 6:24 PM
Apr 03 8:44 PM
Apr 03 11:04 PM
Apr 04 1:24 AM
Apr 04 3:44 AM
Apr 04 6:04 AM
Apr 04 8:24 AM
Apr 04 10:44 AM
Apr 04 1:04 PM
Apr 04 3:24 PM
Apr 04 5:44 PM
Apr 04 8:04 PM
Apr 04 10:24 PM
vmsgesxi009.vmsg.lab: CPU Usage | Demand (%)
H: 13.53
L: 1.64
Apr 03 6:24 PM
Apr 03 8:44 PM
Apr 03 11:04 PM
Apr 04 1:24 AM
Apr 04 3:44 AM
Apr 04 6:04 AM
Apr 04 8:24 AM
Apr 04 10:44 AM
Apr 04 1:04 PM
Apr 04 3:24 PM
Apr 04 5:44 PM
Apr 04 8:04 PM
Apr 04 10:24 PM

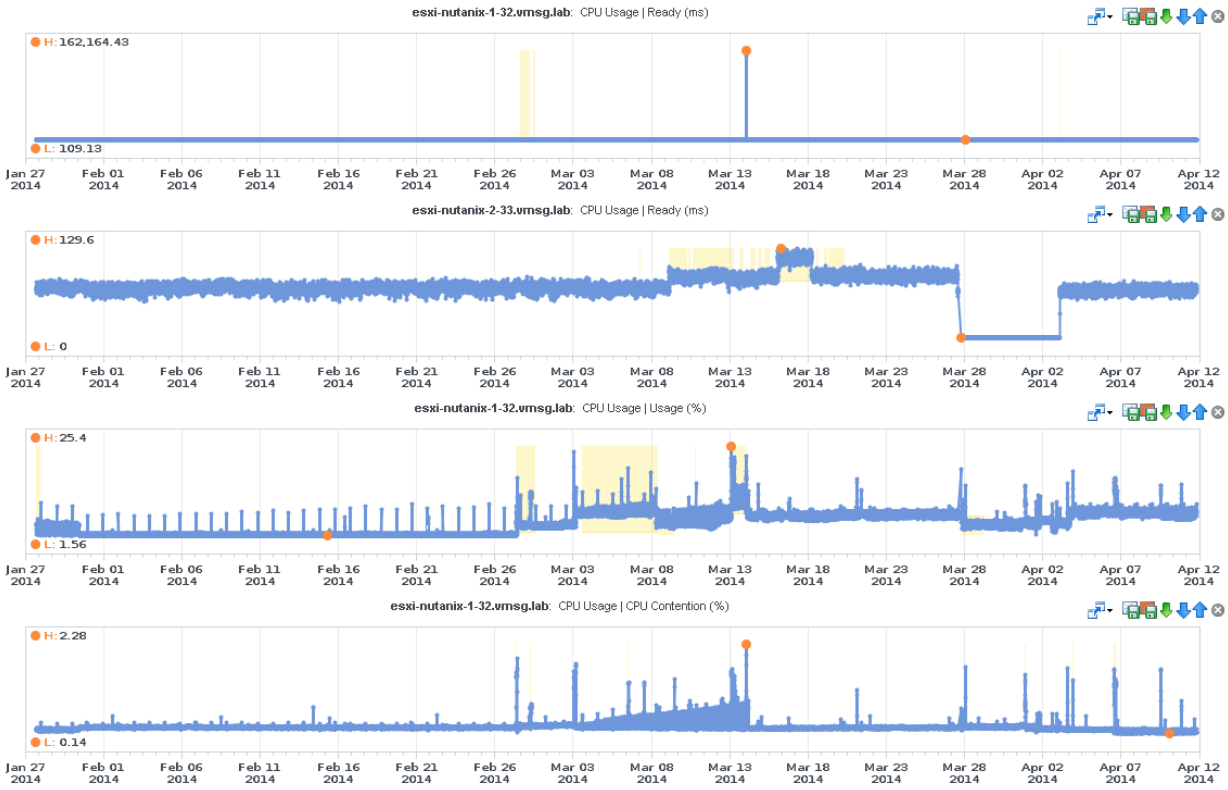

vmsgesxi002.vmsg.lab: CPU Usage | CPU Contention (%)
H: 12.05
L: 0.47
Mar 16 3:00 AM
Mar 16 9:15 AM
Mar 16 3:30 PM
Mar 16 9:45 PM
Mar 17 4:00 AM
Mar 17 10:15 AM
Mar 17 4:30 PM
Mar 17 10:45 PM
Mar 18 5:00 AM
Mar 18 11:15 AM
Mar 18 5:30 PM
Mar 18 11:45 PM
vmsgesxi002.vmsg.lab: CPU Usage | Ready (ms)
H: 68.27
L: 5.07
Mar 16 3:00 AM
Mar 16 9:15 AM
Mar 16 3:30 PM
Mar 16 9:45 PM
Mar 17 4:00 AM
Mar 17 10:15 AM
Mar 17 4:30 PM
Mar 17 10:45 PM
Mar 18 5:00 AM
Mar 18 11:15 AM
Mar 18 5:30 PM
Mar 18 11:45 PM
vmsgesxi002.vmsg.lab: CPU Usage | Demand (%)
H: 30.02
L: 5.53
Mar 16 3:00 AM
Mar 16 9:15 AM
Mar 16 3:30 PM
Mar 16 9:45 PM
Mar 17 4:00 AM
Mar 17 10:15 AM
Mar 17 4:30 PM
Mar 17 10:45 PM
Mar 18 5:00 AM
Mar 18 11:15 AM
Mar 18 5:30 PM
Mar 18 11:45 PM

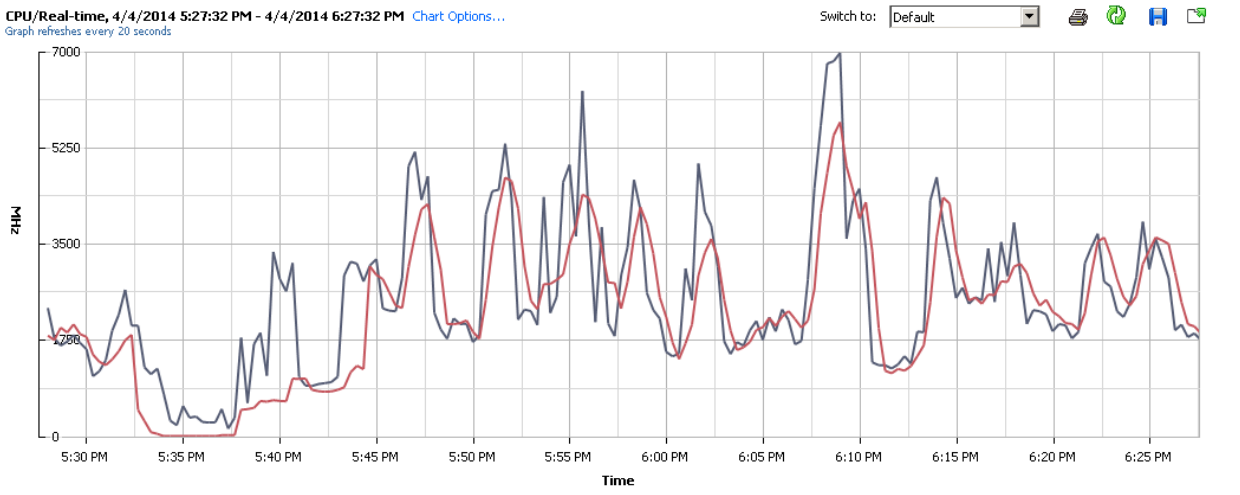

vmsgesxi009.vmsg.lab: CPU Usage | CPU Contention (%)
H: 2.38
L: 0.08
Apr 04 1:56 PM
Apr 04 2:31 PM
Apr 04 3:06 PM
Apr 04 3:41 PM
Apr 04 4:16 PM
Apr 04 4:51 PM
Apr 04 5:26 PM
Apr 04 6:01 PM
Apr 04 6:36 PM
Apr 04 7:11 PM
Apr 04 7:46 PM
Apr 04 8:21 PM
Apr 04 8:56 PM


vmsgesxi009.vmsg.lab: CPU Usage | Ready (ms)
H: 567.87
L: 4.64
Apr 04 1:56 PM
Apr 04 2:31 PM
Apr 04 3:06 PM
Apr 04 3:41 PM
Apr 04 4:16 PM
Apr 04 4:51 PM
Apr 04 5:26 PM
Apr 04 6:01 PM
Apr 04 6:36 PM
Apr 04 7:11 PM
Apr 04 7:46 PM
Apr 04 8:21 PM
Apr 04 8:56 PM


vmsgesxi011.vmsg.lab: CPU Usage | CPU Contention (%)
H: 1.49
L: 0.33
Mar 05 8:05 PM
Mar 07 11:17 PM
Mar 10 2:29 AM
Mar 12 5:41 AM
Mar 14 8:53 AM
Mar 16 12:05 PM
Mar 18 3:17 PM
Mar 20 6:29 PM
Mar 22 9:41 PM
Mar 25 12:53 AM
Mar 27 4:05 AM
Mar 29 7:17 AM
Mar 31 10:29 AM
Apr 02 1:41 PM
Apr 04 4:53 PM
Apr 06 8:05 PM

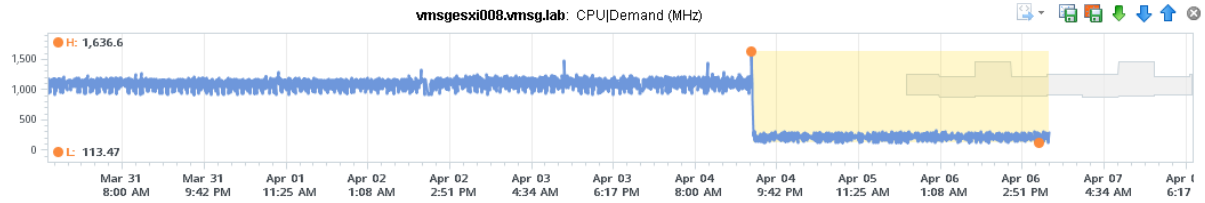

vmsgesxi011.vmsg.lab: CPU Usage | Ready (ms)
H: 111,977.79
L: 460
Mar 05 8:05 PM
Mar 07 11:17 PM
Mar 10 2:29 AM
Mar 12 5:41 AM
Mar 14 8:53 AM
Mar 16 12:05 PM
Mar 18 3:17 PM
Mar 20 6:29 PM
Mar 22 9:41 PM
Mar 25 12:53 AM
Mar 27 4:05 AM
Mar 29 7:17 AM
Mar 31 10:29 AM
Apr 02 1:41 PM
Apr 04 4:53 PM
Apr 06 8:05 PM

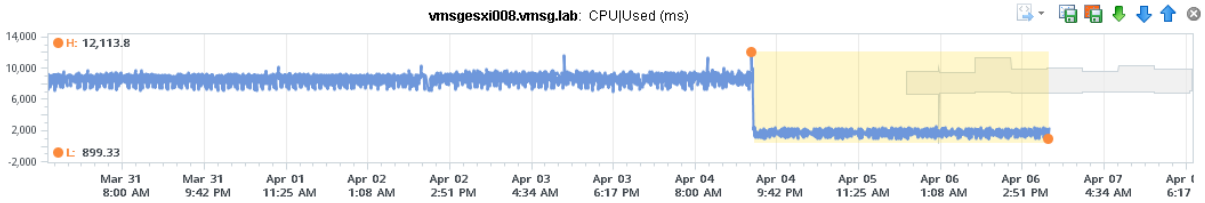


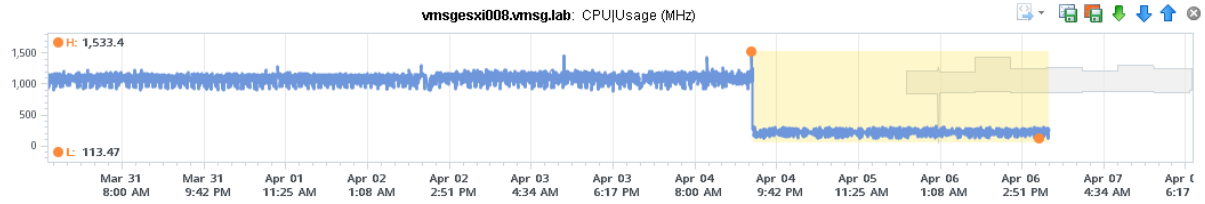


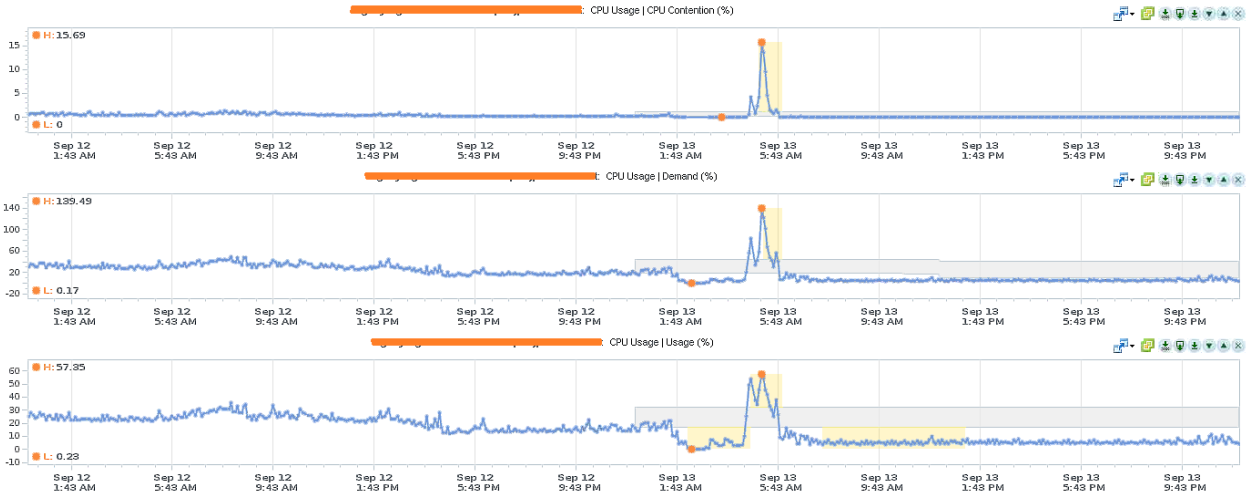
Performance Chart Legend

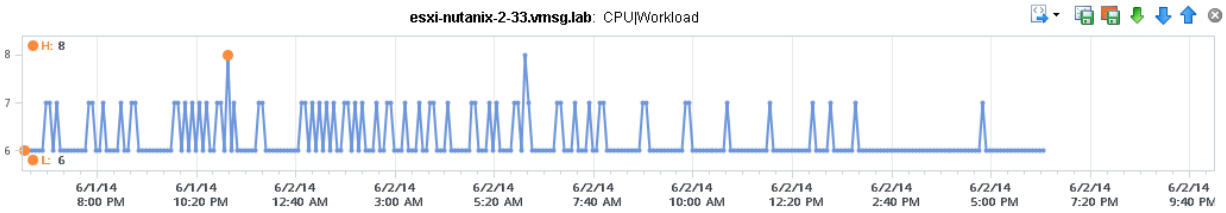
Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	vmsgesxi009.vm...	Usage in MHz	Average	MHz	1756	6992	139	2507.439
	vmsgesxi009.vm...	Demand	Average	MHz	1877	5728	0	2289.5

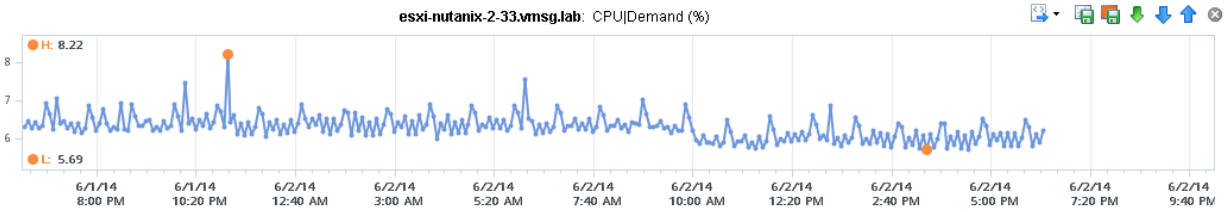

vmsgesxi008.vmsg.lab: CPU|Demand (MHz)
H: 1,636.6
L: 113.47
1,500
1,000
500
0
Mar 31 8:00 AM
Mar 31 9:42 PM
Apr 01 11:25 AM
Apr 02 1:08 AM
Apr 02 2:51 PM
Apr 03 4:34 AM
Apr 03 6:17 PM
Apr 04 8:00 AM
Apr 04 9:42 PM
Apr 05 11:25 AM
Apr 06 1:08 AM
Apr 06 2:51 PM
Apr 07 4:34 AM

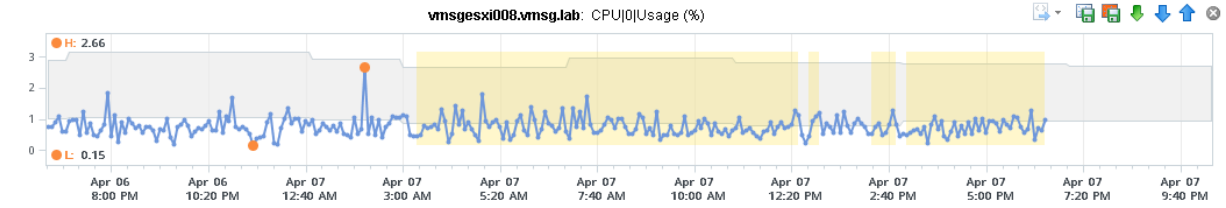

vmsgesxi008.vmsg.lab: CPU|Used (ms)
H: 12,113.8
L: 899.33
14,000
10,000
6,000
2,000
-2,000
Mar 31 8:00 AM
Mar 31 9:42 PM
Apr 01 11:25 AM
Apr 02 1:08 AM
Apr 02 2:51 PM
Apr 03 4:34 AM
Apr 03 6:17 PM
Apr 04 8:00 AM
Apr 04 9:42 PM
Apr 05 11:25 AM
Apr 06 1:08 AM
Apr 06 2:51 PM
Apr 07 4:34 AM

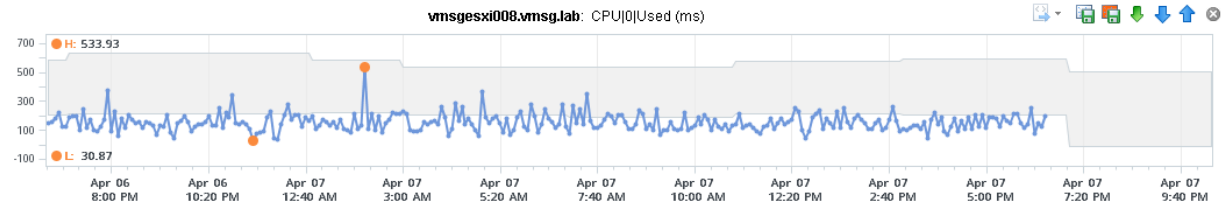

vmsgesxi008.vmsg.lab: CPU|Usage (MHz)
H: 1,533.4
L: 113.47
1,500
1,000
500
0
Mar 31 8:00 AM
Mar 31 9:42 PM
Apr 01 11:25 AM
Apr 02 1:08 AM
Apr 02 2:51 PM
Apr 03 4:34 AM
Apr 03 6:17 PM
Apr 04 8:00 AM
Apr 04 9:42 PM
Apr 05 11:25 AM
Apr 06 1:08 AM
Apr 06 2:51 PM
Apr 07 4:34 AM

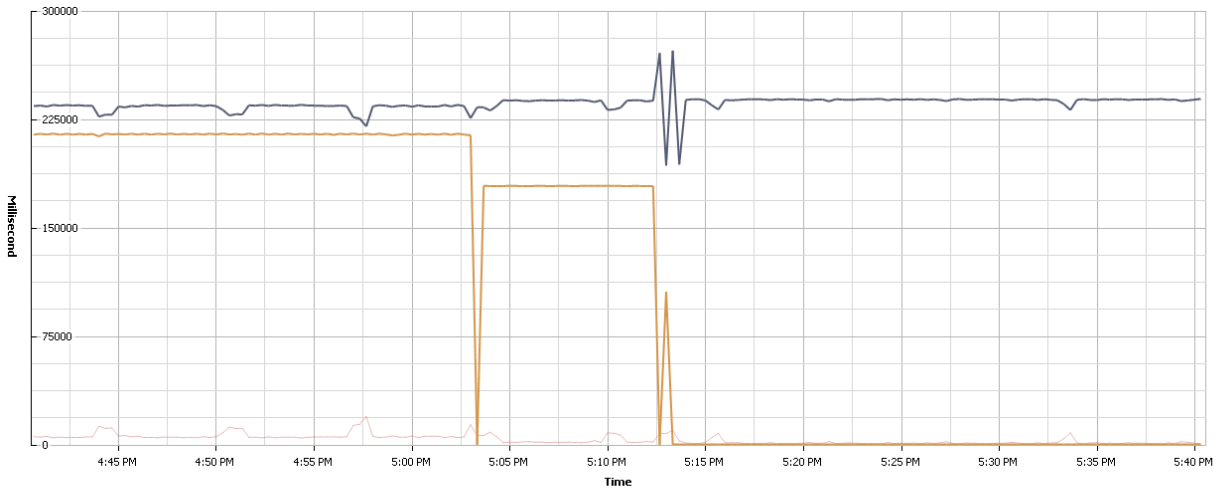

CPU Usage | CPU Contention (%)
H: 15.69
L: 0
CPU Usage | Demand (%)
H: 139.49
L: 0.17
CPU Usage | Usage (%)
H: 57.35
L: 0.23
Sep 12 1:43 AM
Sep 12 5:43 AM
Sep 12 9:43 AM
Sep 12 1:43 PM
Sep 12 5:43 PM
Sep 12 9:43 PM
Sep 13 1:43 AM
Sep 13 5:43 AM
Sep 13 9:43 AM
Sep 13 1:43 PM
Sep 13 5:43 PM
Sep 13 9:43 PM


esxi-nutanix-2-33.vmsg.lab: CPU|Workload
H: 8
L: 6
8
7
6
6/1/14 8:00 PM
6/1/14 10:20 PM
6/2/14 12:40 AM
6/2/14 3:00 AM
6/2/14 5:20 AM
6/2/14 7:40 AM
6/2/14 10:00 AM
6/2/14 12:20 PM
6/2/14 2:40 PM
6/2/14 5:00 PM
6/2/14 7:20 PM
6/2/14 9:40 PM


esxi-nutanix-2-33.vmsg.lab: CPU|Demand (%)
H: 8.22
L: 5.69
8
7
6
6/1/14 8:00 PM
6/1/14 10:20 PM
6/2/14 12:40 AM
6/2/14 3:00 AM
6/2/14 5:20 AM
6/2/14 7:40 AM
6/2/14 10:00 AM
6/2/14 12:20 PM
6/2/14 2:40 PM
6/2/14 5:00 PM
6/2/14 7:20 PM
6/2/14 9:40 PM


vmsgesxi008.vmsg.lab: CPU|0|Usage (%)
H: 2.66
L: 0.15
3
2
1
0
Apr 06 8:00 PM
Apr 06 10:20 PM
Apr 07 12:40 AM
Apr 07 3:00 AM
Apr 07 5:20 AM
Apr 07 7:40 AM
Apr 07 10:00 AM
Apr 07 12:20 PM
Apr 07 2:40 PM
Apr 07 5:00 PM
Apr 07 7:20 PM
Apr 07 9:40 PM


vmsgesxi008.vmsg.lab: CPU|0|Used (ms)
H: 533.93
L: 30.87
700
500
300
100
-100
Apr 06 8:00 PM
Apr 06 10:20 PM
Apr 07 12:40 AM
Apr 07 3:00 AM
Apr 07 5:20 AM
Apr 07 7:40 AM
Apr 07 10:00 AM
Apr 07 12:20 PM
Apr 07 2:40 PM
Apr 07 5:00 PM
Apr 07 7:20 PM
Apr 07 9:40 PM



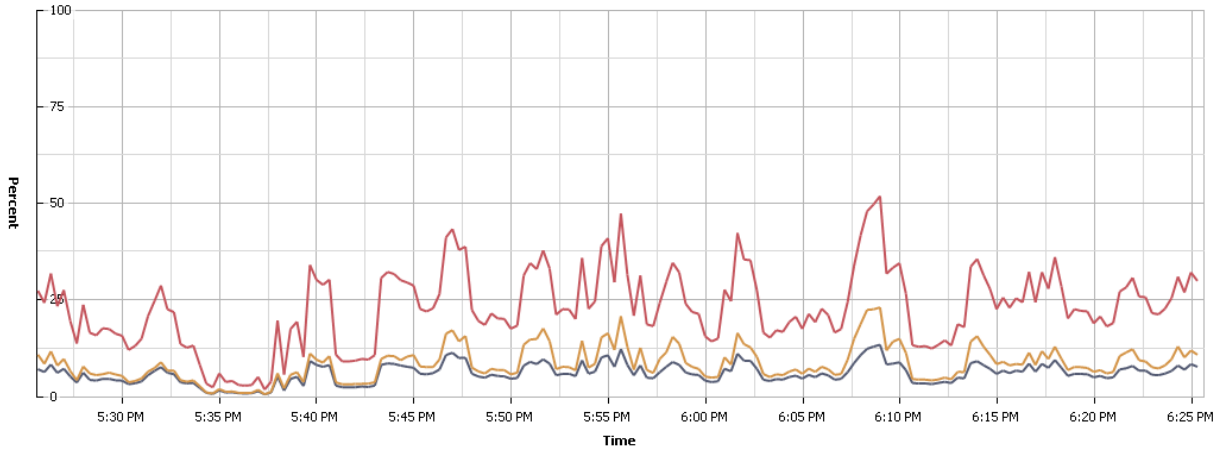
Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	vmsgesxi008.vmsg.lab	Idle	Summation	Millisecond	239491	272963	193363	236386.13
	vmsgesxi008.vmsg.lab	Used	Summation	Millisecond	515	19504	515	3605.439
	vmsgesxi008.vmsg.lab	Wait	Summation	Millisecond	0	215551	0	110535.71

CPU/Real-time, 4/4/2014 5:25:36 PM - 4/4/2014 6:25:36 PM Chart Options...

Graph refreshes every 20 seconds

Switch to: Default



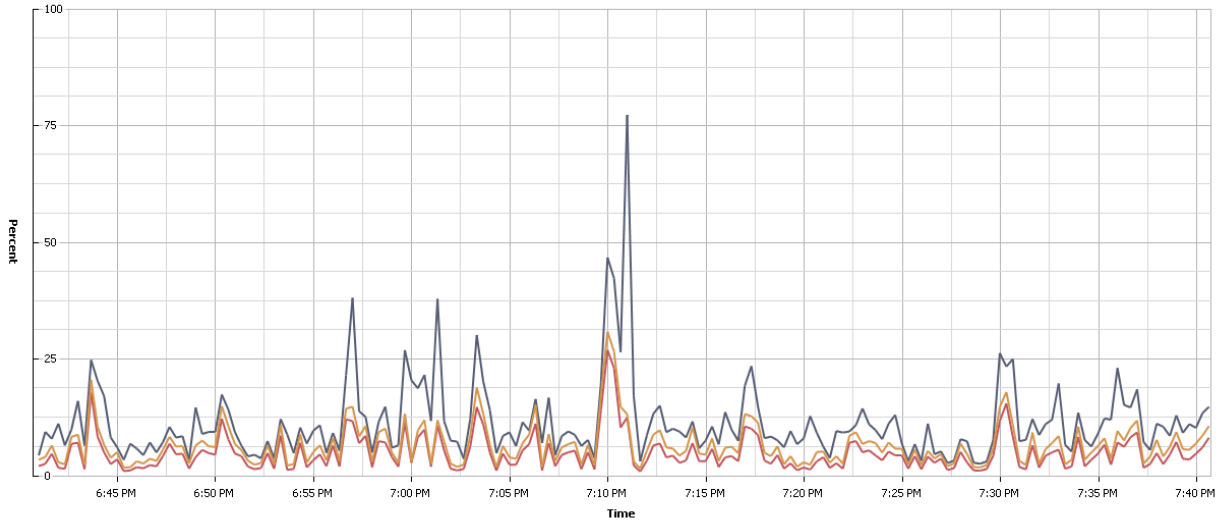
Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	vmsgesxi009.vm...	Utilization	Average	Percent	7.6	13.32	0.43	5.894
	vmsgesxi009.vm...	Core Utilization	Average	Percent	29.88	51.86	1.69	22.88
	vmsgesxi009.vm...	Usage	Average	Percent	10.72	23	0.45	8.313

CPU/Real-time, 4/12/2014 6:40:43 PM - 4/12/2014 7:40:43 PM Chart Options...

Graph refreshes every 20 seconds

Switch to: Default



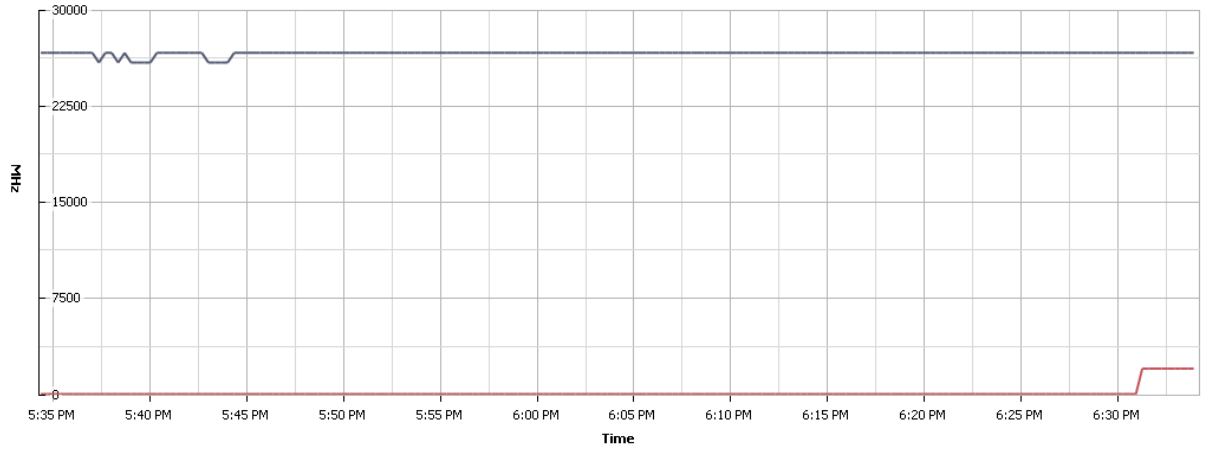
Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	0	Core Utilization	Average	Percent	14.72	77.41	2.5	11.32
	0	Usage	Average	Percent	8.07	26.91	0.82	4.838
	0	Utilization	Average	Percent	10.56	30.84	1.46	6.526

CPU/Real-time, 4/4/2014 5:34:14 PM - 4/4/2014 6:34:14 PM Chart Options...

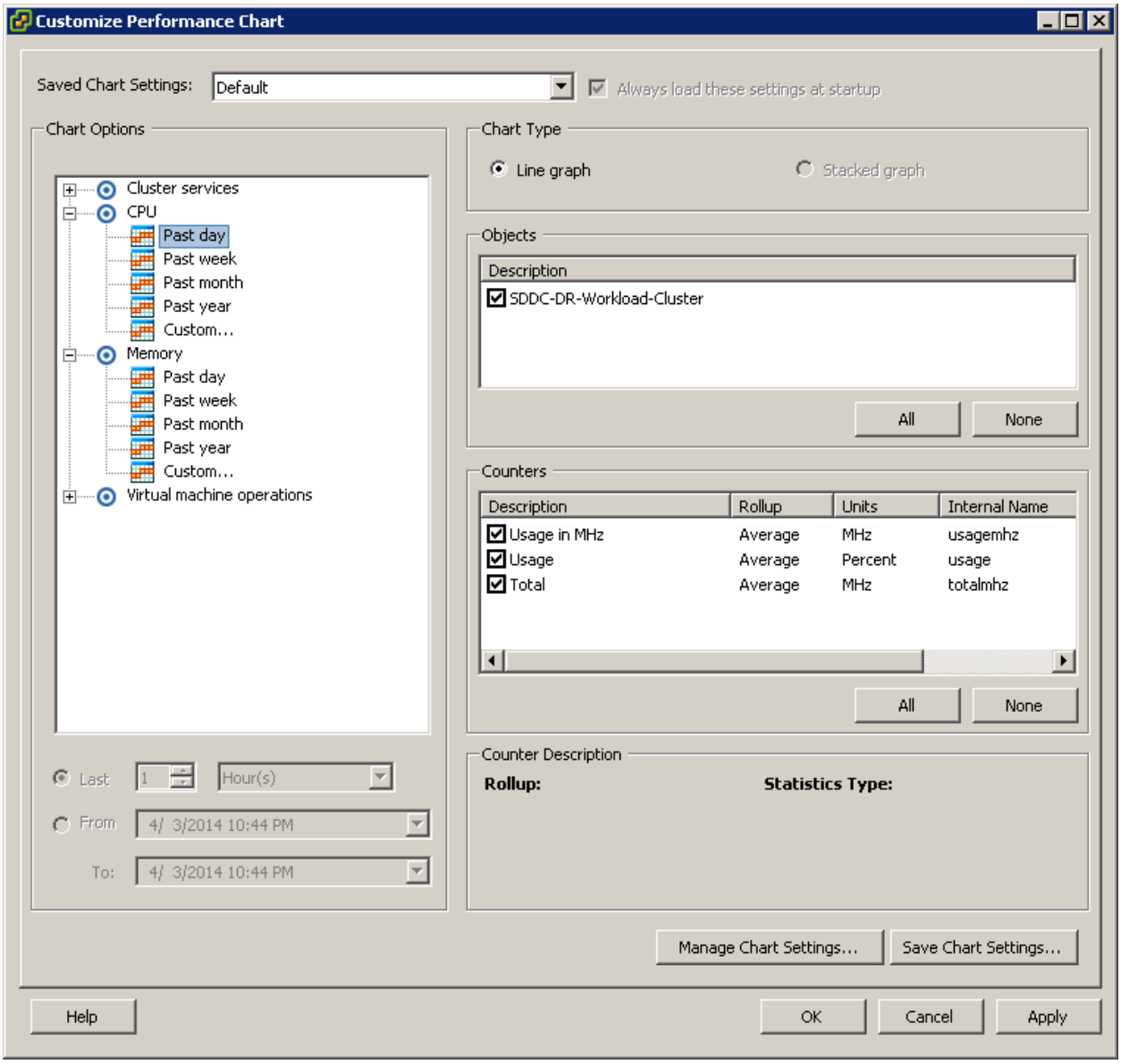
Graph refreshes every 20 seconds

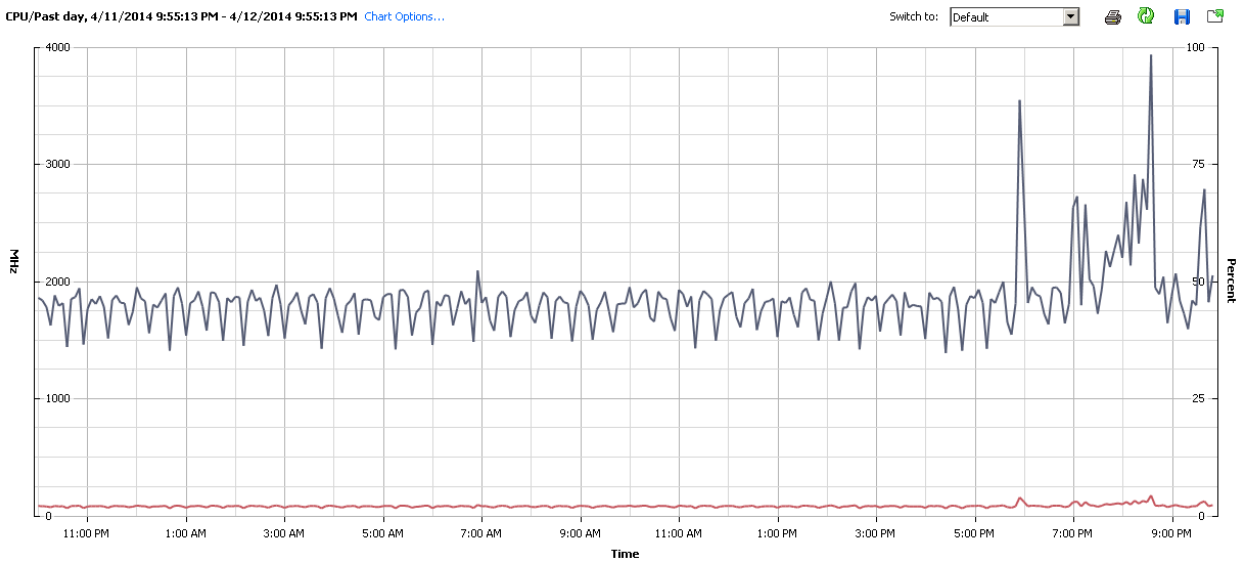
Switch to: Default



Performance Chart Legend

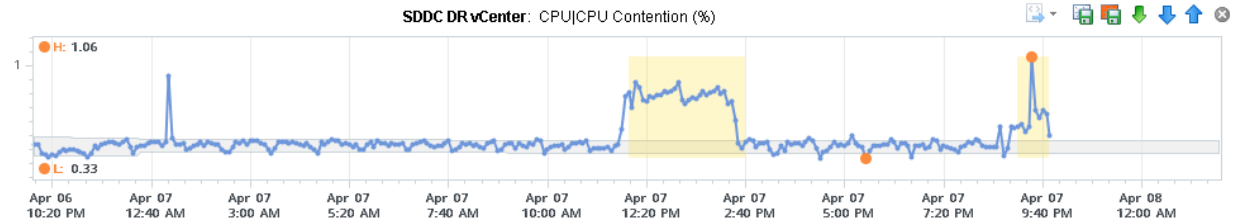
Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	vmsgesxi009.vm...	Total capacity	Average	MHz	26699	26699	25939	26656.778
	vmsgesxi009.vm...	Reserved capacity	Average	MHz	2000	2000	0	100

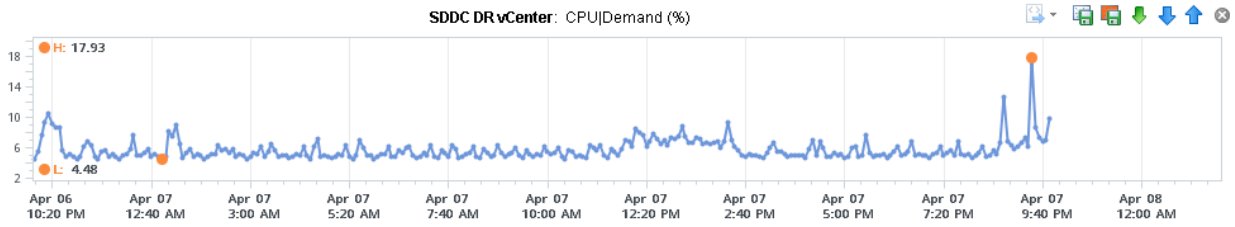

Customize Performance Chart
Saved Chart Settings:
Default
Always load these settings at startup
Chart Options
Cluster services
CPU
Past day
Past week
Past month
Past year
Custom...
Memory
Past day
Past week
Past month
Past year
Custom...
Virtual machine operations
Last
1
Hour(s)
From
4/ 3/2014 10:44 PM
To:
4/ 3/2014 10:44 PM
Chart Type
Line graph
Stacked graph
Objects
Description
SDDC-DR-Workload-Cluster
All
None
Counters
Description
Rollup
Units
Internal Name
Usage in MHz
Average
MHz
usagemhz
Usage
Average
Percent
usage
Total
Average
MHz
totalmhz
All
None
Counter Description
Rollup:
Statistics Type:
Manage Chart Settings...
Save Chart Settings...
Help
OK
Cancel
Apply



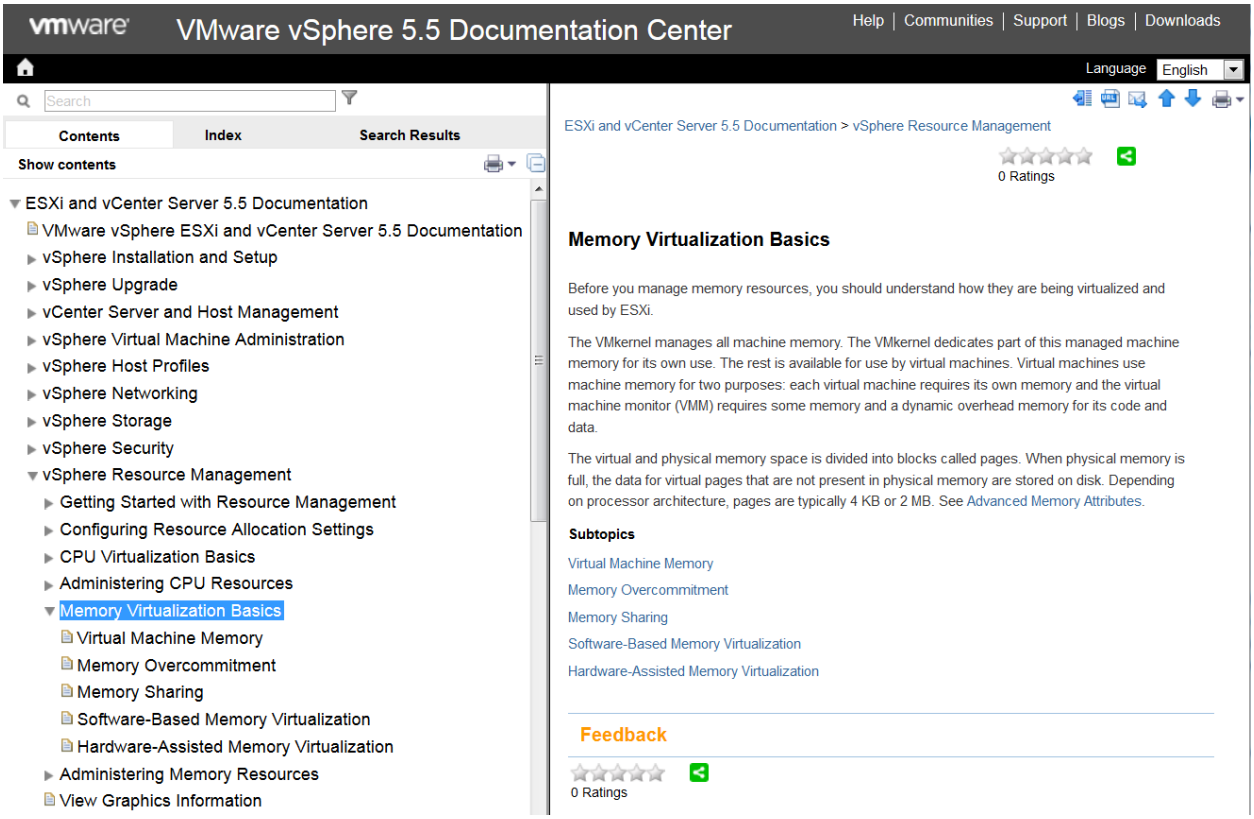
Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	SDDC-Prod-Workload-Cluster	Usage in MHz	Average	MHz	2054	3939	1390	1846.157
	SDDC-Prod-Workload-Cluster	Usage	Average	Percent	2.25	4.32	1.52	2.02





Chapter 5


VMware vSphere 5.5 Documentation Center
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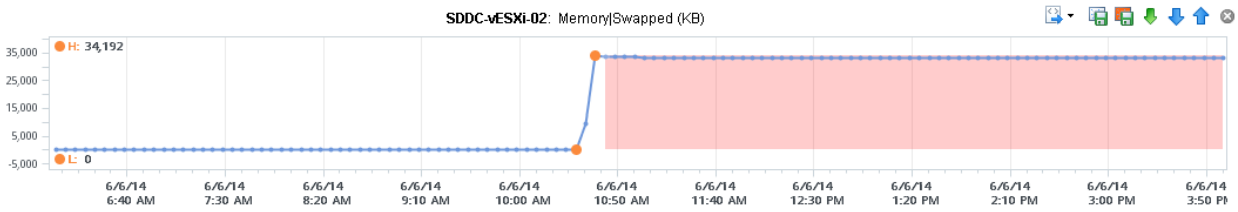
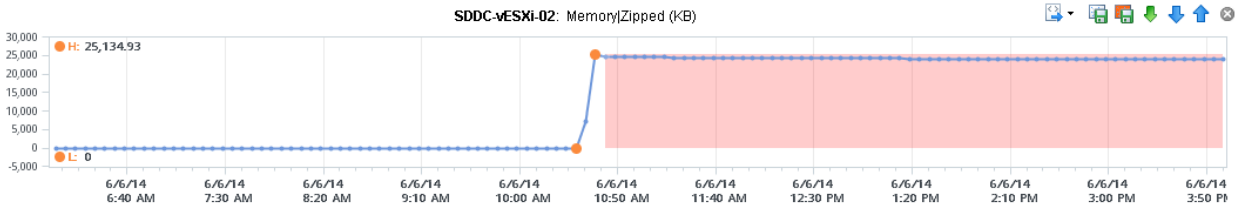
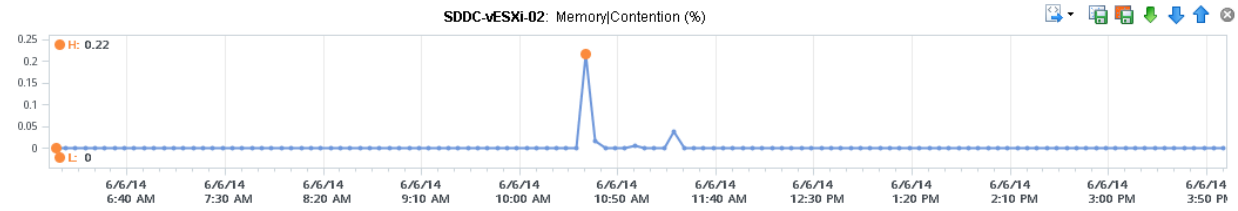
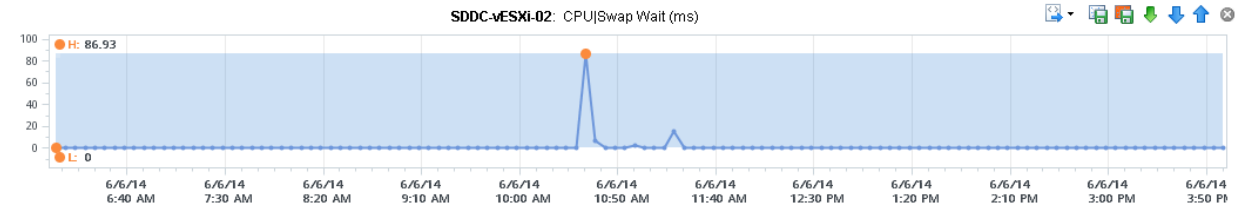
vSphere Virtual Machine Administration
vSphere Host Profiles
vSphere Networking
vSphere Storage
vSphere Security
vSphere Resource Management
Getting Started with Resource Management
Configuring Resource Allocation Settings
CPU Virtualization Basics
Administering CPU Resources
Memory Virtualization Basics
Virtual Machine Memory
Memory Overcommitment
Memory Sharing
Software-Based Memory Virtualization
Hardware-Assisted Memory Virtualization
Administering Memory Resources
View Graphics Information
ESXi and vCenter Server 5.5 Documentation > vSphere Resource Management
0 Ratings
Memory Virtualization Basics
Before you manage memory resources, you should understand how they are being virtualized and used by ESXi.
The VMkernel manages all machine memory. The VMkernel dedicates part of this managed machine memory for its own use. The rest is available for use by virtual machines. Virtual machines use machine memory for two purposes: each virtual machine requires its own memory and the virtual machine monitor (VMM) requires some memory and a dynamic overhead memory for its code and data.
The virtual and physical memory space is divided into blocks called pages. When physical memory is full, the data for virtual pages that are not present in physical memory are stored on disk. Depending on processor architecture, pages are typically 4 KB or 2 MB. See Advanced Memory Attributes.
Subtopics
Virtual Machine Memory
Memory Overcommitment
Memory Sharing
Software-Based Memory Virtualization
Hardware-Assisted Memory Virtualization
Feedback
0 Ratings

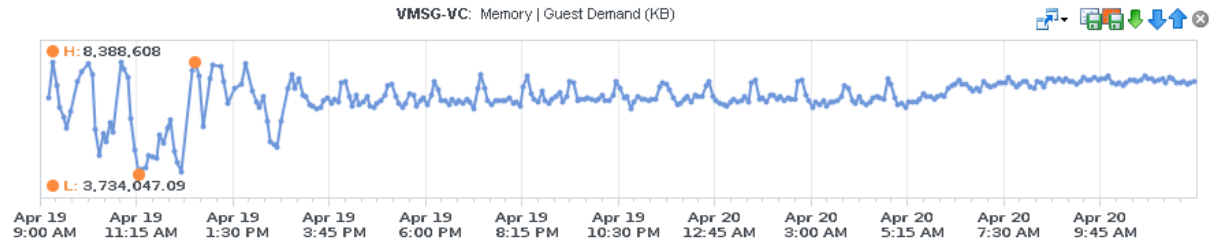
Description	Rollup	Units	Internal Name	Collection Level
☐ Memory saved by zipping	Latest	Kilobytes	zipSaved	2
☐ Decompression rate	Average	KBps	decompressionRate	2
☐ Swapped	Average	Kilobytes	swapped	2
☐ Overhead touched	Average	Kilobytes	overheadTouched	4
☑ Balloon	Average	Kilobytes	vmmemctl	1
☑ Active	Average	Kilobytes	active	2
☐ Shared	Average	Kilobytes	shared	2
☐ Entitlement	Average	Kilobytes	entitlement	2
☐ Host cache used for swapping	Average	Kilobytes	llSwapUsed	4
☐ Active write	Average	Kilobytes	activewrite	2
☐ Reserved overhead	Average	Kilobytes	overheadMax	2
☐ Zipped memory	Latest	Kilobytes	zipped	2
☐ Swap out	Average	Kilobytes	swapout	2
☐ Compressed	Average	Kilobytes	compressed	2
☐ Balloon target	Average	Kilobytes	vmmemctltarget	2
☐ Latency	Average	Percent	latency	2
☐ Swap in rate	Average	KBps	swapinRate	1
☐ Swap in rate from host cache	Average	KBps	llSwapInRate	2
☐ Overhead	Average	Kilobytes	overhead	1
☑ Consumed	Average	Kilobytes	consumed	1
☐ Zero	Average	Kilobytes	zero	2
☐ Swap in	Average	Kilobytes	swapin	2
☐ Compression rate	Average	KBps	compressionRate	2
☐ Swap target	Average	Kilobytes	swaptarget	2
☐ Swap out rate to host cache	Average	KBps	llSwapOutRate	2
☐ Swap out rate	Average	KBps	swapoutRate	1
☑ Granted	Average	Kilobytes	granted	2
☐ Usage	Average	Percent	usage	1

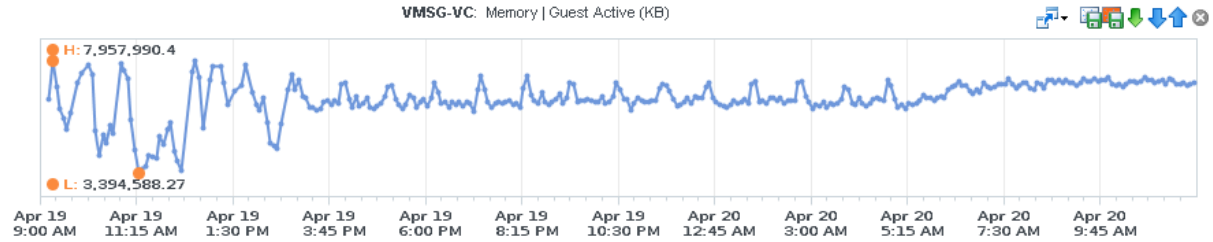

SDDC-vESXi-02: Memory|Swapped (KB)
H: 34,192
L: 0
35,000
25,000
15,000
5,000
-5,000
6/6/14 6:40 AM
6/6/14 7:30 AM
6/6/14 8:20 AM
6/6/14 9:10 AM
6/6/14 10:00 AM
6/6/14 10:50 AM
6/6/14 11:40 AM
6/6/14 12:30 PM
6/6/14 1:20 PM
6/6/14 2:10 PM
6/6/14 3:00 PM
6/6/14 3:50 PM

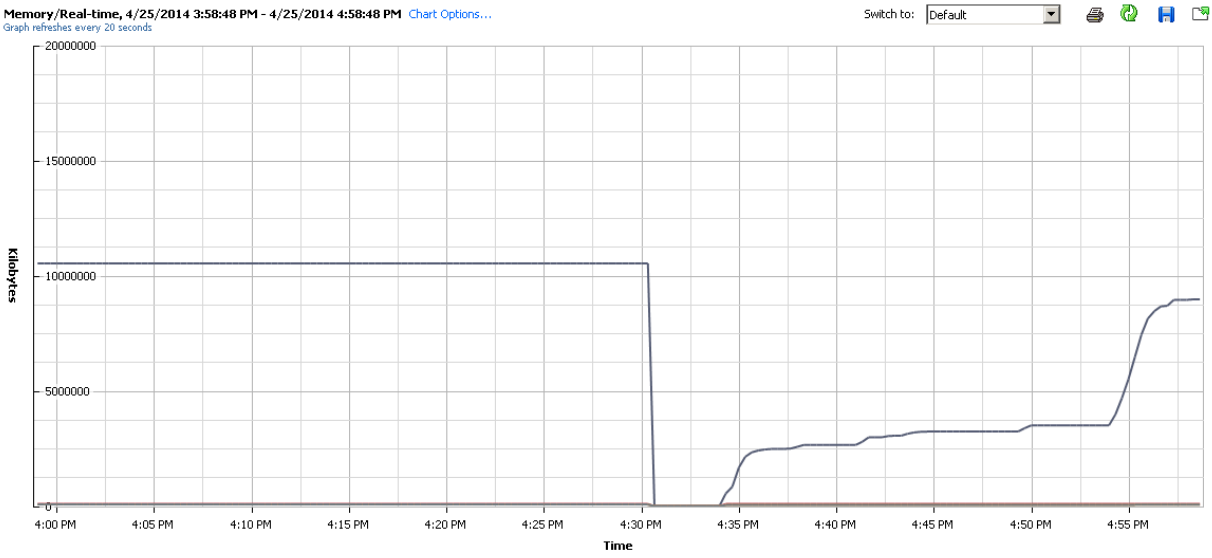

SDDC-vESXi-02: Memory|Zipped (KB)
H: 25,134.93
L: 0
30,000
25,000
20,000
15,000
10,000
5,000
0
-5,000
6/6/14 6:40 AM
6/6/14 7:30 AM
6/6/14 8:20 AM
6/6/14 9:10 AM
6/6/14 10:00 AM
6/6/14 10:50 AM
6/6/14 11:40 AM
6/6/14 12:30 PM
6/6/14 1:20 PM
6/6/14 2:10 PM
6/6/14 3:00 PM
6/6/14 3:50 PM


SDDC-vESXi-02: Memory|Contention (%)
H: 0.22
L: 0
0.25
0.2
0.15
0.1
0.05
0
6/6/14 6:40 AM
6/6/14 7:30 AM
6/6/14 8:20 AM
6/6/14 9:10 AM
6/6/14 10:00 AM
6/6/14 10:50 AM
6/6/14 11:40 AM
6/6/14 12:30 PM
6/6/14 1:20 PM
6/6/14 2:10 PM
6/6/14 3:00 PM
6/6/14 3:50 PM


SDDC-vESXi-02: CPU|Swap Wait (ms)
H: 86.93
L: 0
100
80
60
40
20
0
6/6/14 6:40 AM
6/6/14 7:30 AM
6/6/14 8:20 AM
6/6/14 9:10 AM
6/6/14 10:00 AM
6/6/14 10:50 AM
6/6/14 11:40 AM
6/6/14 12:30 PM
6/6/14 1:20 PM
6/6/14 2:10 PM
6/6/14 3:00 PM
6/6/14 3:50 PM







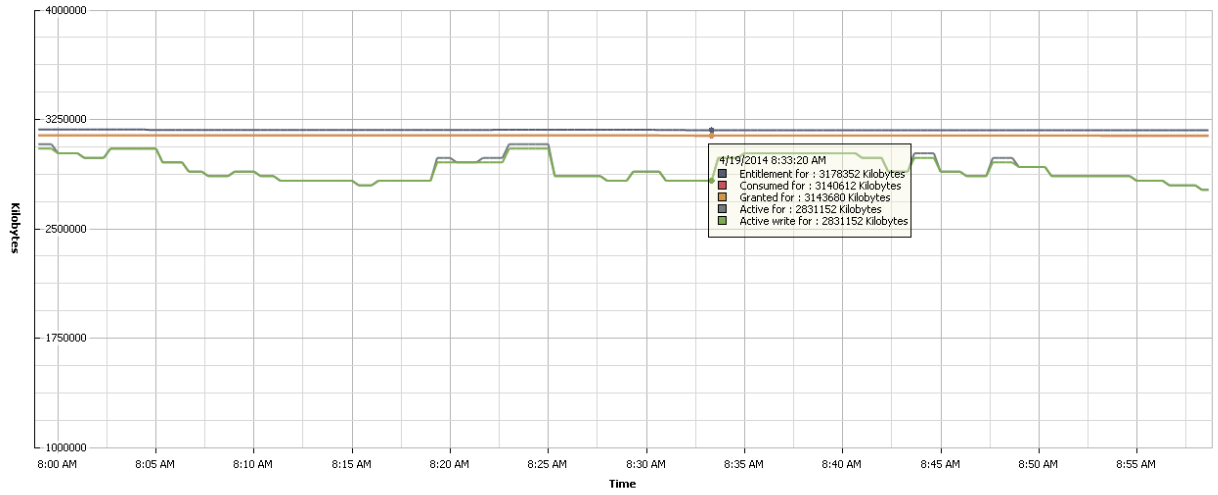
Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	Log Insight 1.5	Entitlement	Average	Kilobytes	8996204	10557620	0	7616549.9
	Log Insight 1.5	Reserved overhead	Average	Kilobytes	92604	92604	0	92604
	Log Insight 1.5	Overhead touched	Average	Kilobytes	63796	70152	0	62887.077
	Log Insight 1.5	Overhead	Average	Kilobytes	63796	70152	0	62887.077

Memory/Real-time, 4/19/2014 7:58:48 AM - 4/19/2014 8:58:48 AM Chart Options...

Graph refreshes every 20 seconds

Switch to: Default



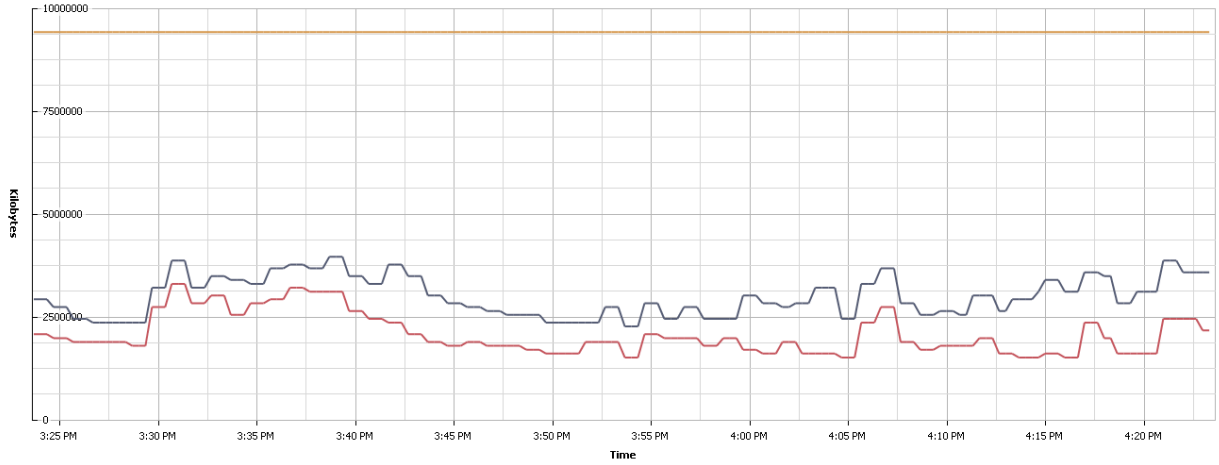
Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	VMSG-VC	Entitlement	Average	Kilobytes	3178440	3184072	3177640	3180151.9
	VMSG-VC	Consumed	Average	Kilobytes	3140396	3143680	3139836	3142351.4
	VMSG-VC	Granted	Average	Kilobytes	3143680	3143680	3143680	3143680
	VMSG-VC	Active	Average	Kilobytes	2768240	3082812	2768240	2920981.3
	VMSG-VC	Active write	Average	Kilobytes	2768240	3051356	2768240	2916612.4

Memory/Real-time, 4/25/2014 3:23:35 PM - 4/25/2014 4:23:35 PM Chart Options...

Graph refreshes every 20 seconds

Switch to:



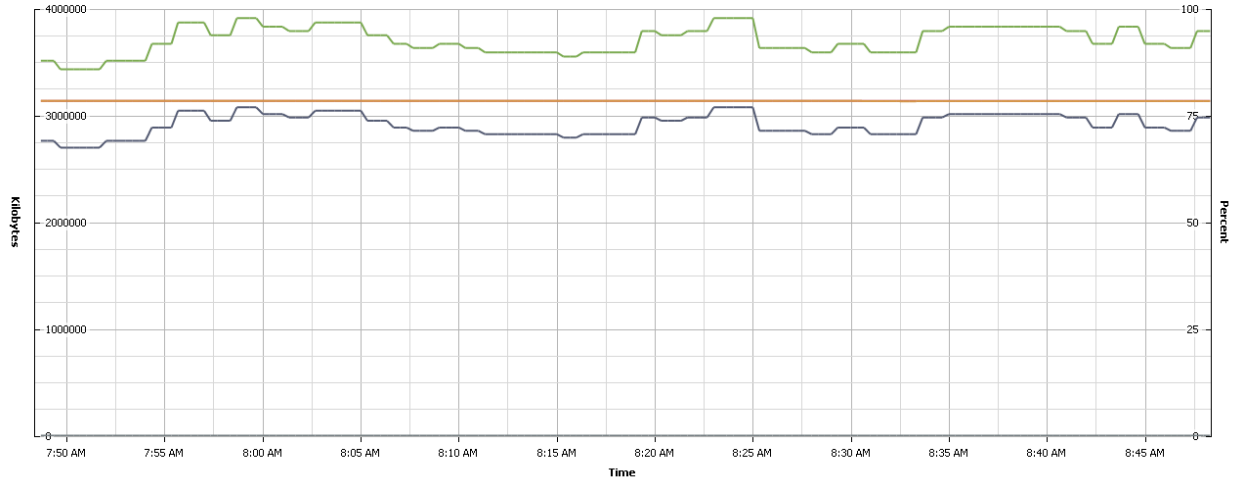
Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	Analytics VM	Active	Average	Kilobytes	3586128	3963616	2264924	3001546.3
	Analytics VM	Active write	Average	Kilobytes	2170552	3303012	1509948	2075130.4
	Analytics VM	Consumed	Average	Kilobytes	9431040	9431040	9431040	9431040

Memory/Real-time, 4/19/2014 7:48:21 AM - 4/19/2014 8:48:21 AM Chart Options...

Graph refreshes every 20 seconds

Switch to: Default



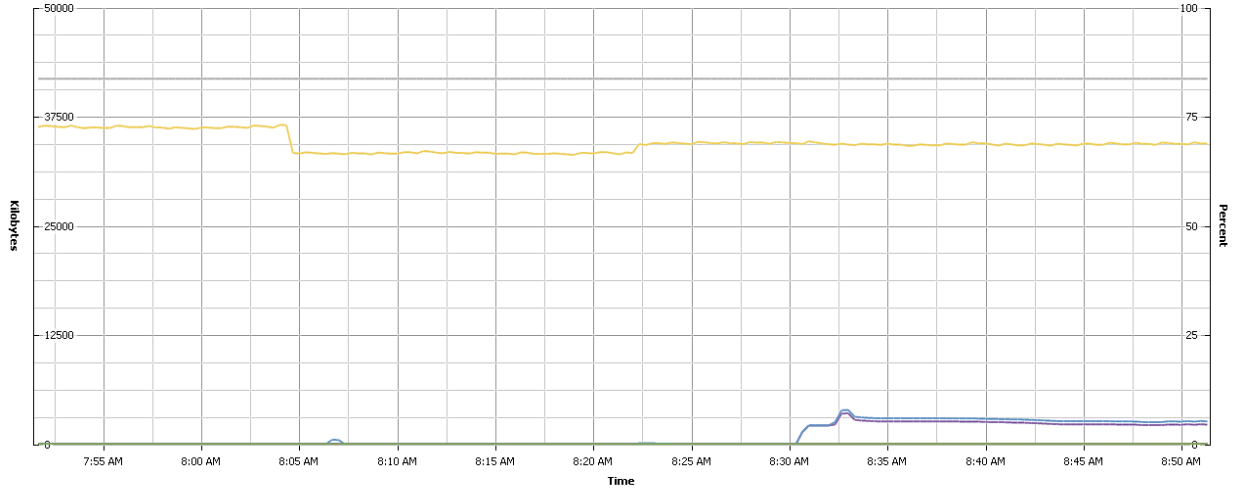
Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	VMSG-VC	Active	Average	Kilobytes	2988440	3082812	2705324	2920107.6
	VMSG-VC	Granted	Average	Kilobytes	3143680	3143680	3143680	3143680
	VMSG-VC	Consumed	Average	Kilobytes	3141224	3143680	3139836	3142858.7
	VMSG-VC	Balloon	Average	Kilobytes	0	0	0	0
	VMSG-VC	Usage	Average	Percent	94.99	97.99	85.99	92.818

Memory/Real-time, 4/19/2014 7:51:26 AM - 4/19/2014 8:51:26 AM Chart Options...

Graph refreshes every 20 seconds

Switch to: Default



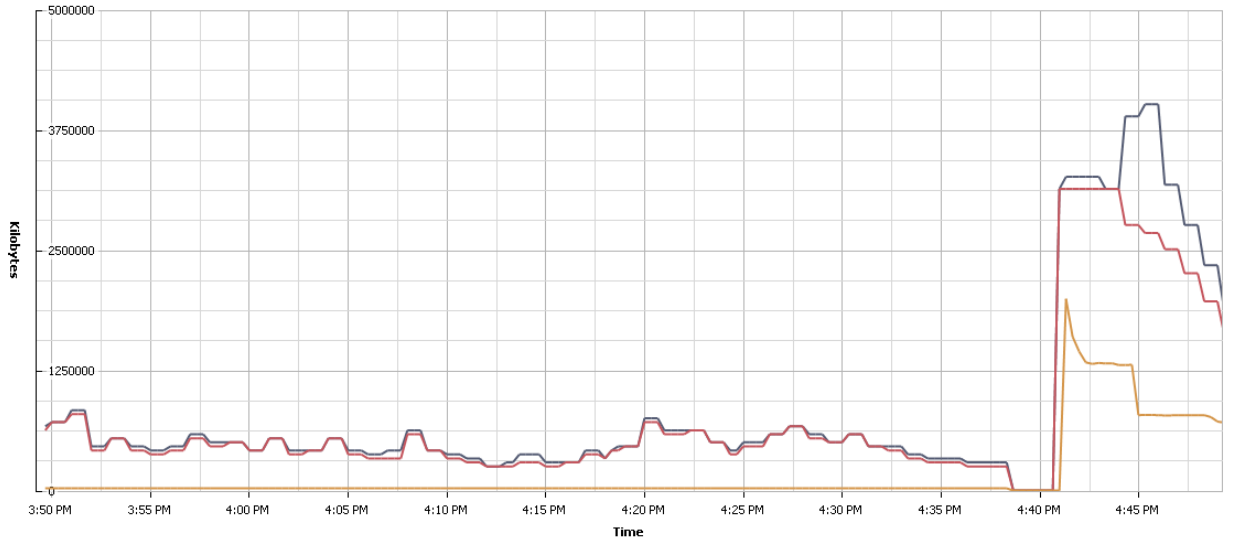
Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	VMSG-VC	Swapped	Average	Kilobytes	0	0	0	0
	VMSG-VC	Balloon	Average	Kilobytes	0	0	0	0
	VMSG-VC	Zipped memory	Latest	Kilobytes	0	0	0	0
	VMSG-VC	Compressed	Average	Kilobytes	0	0	0	0
	VMSG-VC	Latency	Average	Percent	0	0	0	0
	VMSG-VC	Zero	Average	Kilobytes	2260	3560	0	858.089
	VMSG-VC	Shared	Average	Kilobytes	2628	3940	0	978.889
	VMSG-VC	Overhead	Average	Kilobytes	34508	36672	33212	34585.222
	VMSG-VC	Reserved overhead	Average	Kilobytes	41960	41960	41960	41960

Memory/Real-time, 4/25/2014 3:49:12 PM - 4/25/2014 4:49:12 PM Chart Options...

Graph refreshes every 20 seconds

Switch to: Default



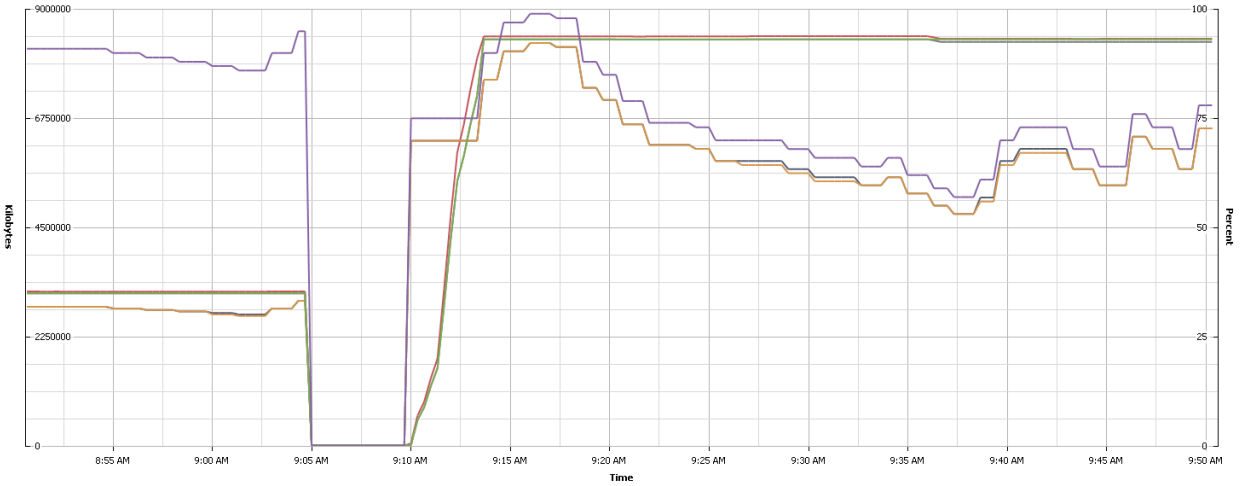
Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	Chargeback 2.6	Active	Average	Kilobytes	1887436	4026528	0	879832.20
	Chargeback 2.6	Active write	Average	Kilobytes	1635776	3145728	0	780429.54
	Chargeback 2.6	Zero	Average	Kilobytes	709140	2000076	0	173843.86

Memory/Real-time, 4/19/2014 8:50:36 AM - 4/19/2014 9:50:36 AM Chart Options...

Graph refreshes every 20 seconds

Switch to:



Performance Chart Legend

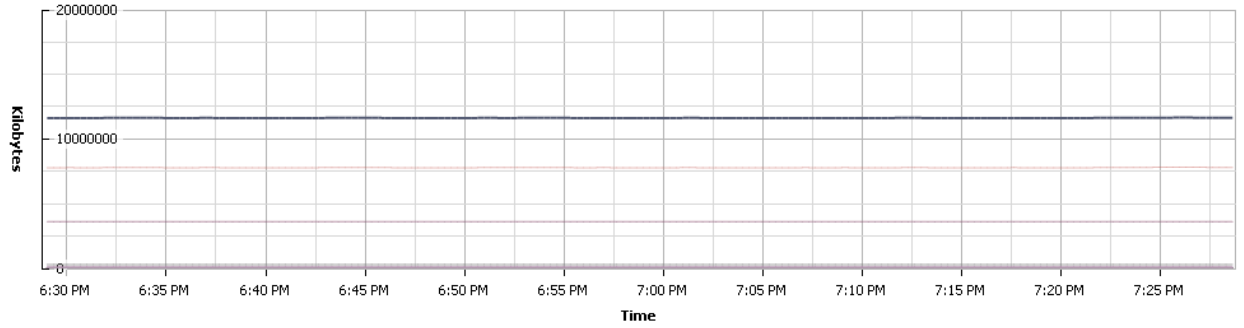
Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	VMSG-VC	Active	Average	Kilobytes	6543112	8304720	0	5299183.5
	VMSG-VC	Entitlement	Average	Kilobytes	8392616	8446440	0	6742643.0
	VMSG-VC	Active write	Average	Kilobytes	6543112	8304720	0	5281198.8
	VMSG-VC	Consumed	Average	Kilobytes	8329072	8382312	0	6664725.1
	VMSG-VC	Granted	Average	Kilobytes	8382464	8382464	0	6680093.2
	VMSG-VC	Usage	Average	Percent	77.99	98.99	0	77.73

Description	Rollup	Units	Internal Name	Collection Level
☑ Swap used	Average	Kilobytes	swapused	2
☐ Host cache used for swapping	Average	Kilobytes	llSwapUsed	4
☐ Heap	Average	Kilobytes	heap	4
☐ Usage	Average	Percent	usage	1
☐ Swap in	Average	Kilobytes	swapin	2
☐ Swap out rate to host cache	Average	KBps	llSwapOutRate	2
☐ Low free threshold	Average	Kilobytes	lowfreethreshold	2
☐ Swap in rate	Average	KBps	swapinRate	1
☐ Zero	Average	Kilobytes	zero	2
☐ Swap out	Average	Kilobytes	swapout	2
☐ Shared	Average	Kilobytes	shared	2
☑ Granted	Average	Kilobytes	granted	2
☐ Compression rate	Average	KBps	compressionRate	2
☑ Consumed	Average	Kilobytes	consumed	1
☐ Decompression rate	Average	KBps	decompressionRate	2
☐ Used by VMkernel	Average	Kilobytes	sysUsage	2
☑ Active	Average	Kilobytes	active	2
☐ Swap in rate from host cache	Average	KBps	llSwapInRate	2
☐ Compressed	Average	Kilobytes	compressed	2
☑ Balloon	Average	Kilobytes	vmmemctl	1
☐ Reserved capacity	Average	Megabytes	reservedCapacity	2
☐ Overhead	Average	Kilobytes	overhead	1
☐ Latency	Average	Percent	latency	2
☐ Swap in from host cache	Average	Kilobytes	llSwapIn	4
☐ Active write	Average	Kilobytes	activewrite	2
☑ Shared common	Average	Kilobytes	sharedcommon	2
☐ Unreserved	Average	Kilobytes	unreserved	2
☐ Total capacity	Average	Megabytes	totalCapacity	2
☐ Swap out rate	Average	KBps	swapoutRate	1
☐ State	Latest	Number	state	2
☐ Swap out to host cache	Average	Kilobytes	llSwapOut	4
☐ Heap free	Average	Kilobytes	heapfree	4

System/Real-time, 4/26/2014 6:28:45 PM - 4/26/2014 7:28:45 PM Chart Options...

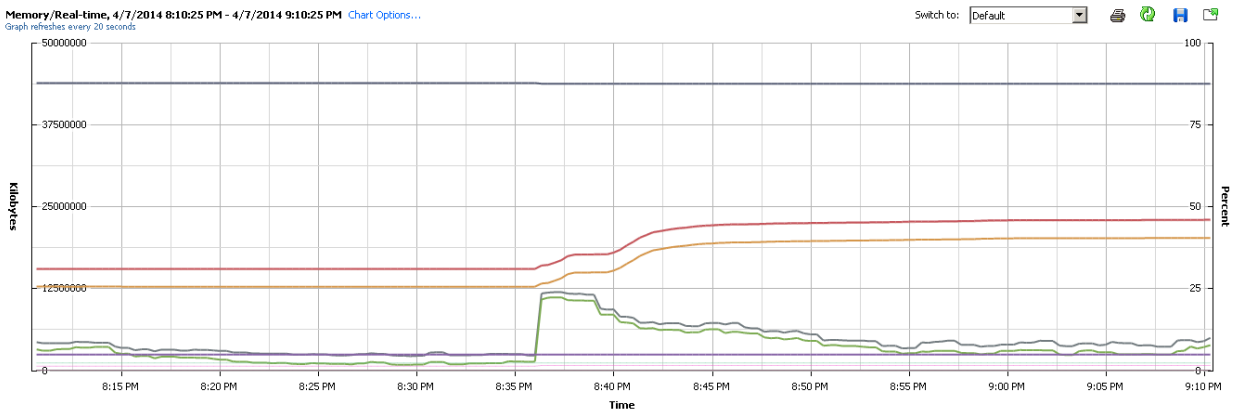
Switch to: Default

Graph refreshes every 20 seconds



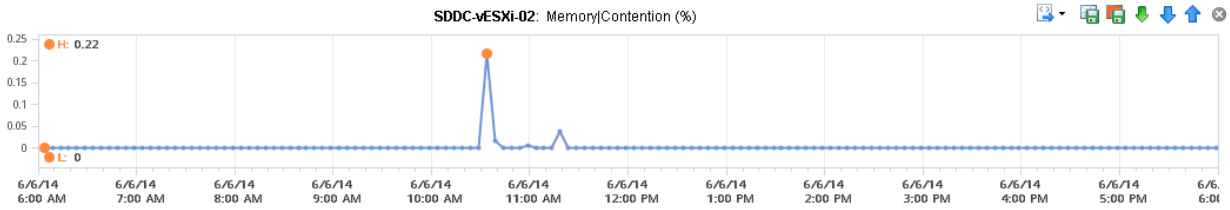
Performance Chart Legend

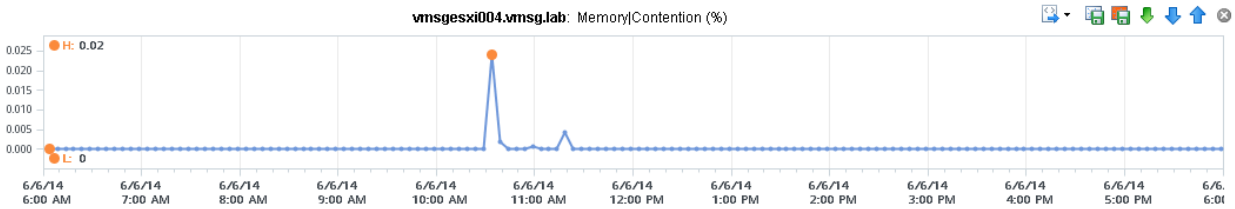
Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	host	Resource memory consumed	Latest	Kilobytes	11670656	11689076	11648304	11658111.
	host/user	Resource memory consumed	Latest	Kilobytes	7813988	7831628	7791112	7799836.7
	host/system/kernel	Resource memory consumed	Latest	Kilobytes	3589260	3598184	3589260	3590518.4
	host/system	Resource memory consumed	Latest	Kilobytes	3589260	3598184	3589260	3590518.4
	host/vim	Resource memory consumed	Latest	Kilobytes	267408	270700	267272	267756.66
	host/vim/vmvisor	Resource memory consumed	Latest	Kilobytes	267324	270616	267188	267661.28
	host/vim/vmvisor/plugins	Resource memory consumed	Latest	Kilobytes	92692	93372	92556	92776.444
	host/vim/vmvisor/hostd	Resource memory consumed	Latest	Kilobytes	85400	88472	85400	85554.178
	host/vim/vmvisor/plugins/smx	Resource memory consumed	Latest	Kilobytes	56424	56664	56424	56426.667
	host/vim/vmvisor/vpxa	Resource memory consumed	Latest	Kilobytes	26312	26312	26312	26312
	host/vim/vmvisor/plugins/pycim	Resource memory consumed	Latest	Kilobytes	17716	17716	17716	17716
	host/vim/vmvisor/aam	Resource memory consumed	Latest	Kilobytes	12944	12944	12944	12944
	host/vim/vmvisor/logging	Resource memory consumed	Latest	Kilobytes	10540	10540	10540	10540
	host/vim/vmvisor/plugins/vmware_base	Resource memory consumed	Latest	Kilobytes	8172	8172	8172	8172
	host/vim/vmvisor/init	Resource memory consumed	Latest	Kilobytes	5592	7572	5516	5603.267
	host/vim/vmvisor/osfsd	Resource memory consumed	Latest	Kilobytes	4896	4896	4896	4896
	host/vim/vmvisor/sioc	Resource memory consumed	Latest	Kilobytes	3856	3856	3856	3856
	host/vim/vmvisor/plugins/vmware_aux	Resource memory consumed	Latest	Kilobytes	2632	3072	2496	2713.778
	host/vim/vmvisor/sfcb	Resource memory consumed	Latest	Kilobytes	2524	2524	2524	2524
	host/vim/vmvisor/plugins/vmware_int	Resource memory consumed	Latest	Kilobytes	2388	2388	2388	2388
	host/vim/vmvisor/smartd	Resource memory consumed	Latest	Kilobytes	2360	2360	2360	2360
	host/vim/vmvisor/vmkdevmgr	Resource memory consumed	Latest	Kilobytes	2344	2344	2344	2344
	host/vim/vmvisor/plugins/hhrc	Resource memory consumed	Latest	Kilobytes	2332	2332	2332	2332
	host/vim/vmvisor/vmkeventd	Resource memory consumed	Latest	Kilobytes	2228	2228	2228	2228
	host/vim/vmvisor/vsantraced	Resource memory consumed	Latest	Kilobytes	2028	2028	2028	2028
	host/vim/vmci	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/system/ft	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/vim/vmvisor/dhclientrelease	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/vim/vmvisor/plugins/_orphan_	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/vim/vmvisor/plugins/iodm_group	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/vim/vmvisor/memScrubber	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/vim/vmvisorswap	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/vim/vmvisor/vprobed	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/vim/vmvisor/dhclient	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/vim/tmp	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/vim/vimuser/terminal/ssh	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/vim/vmvisor/hostd-probe	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/vim/vmvisor/uwdaemons	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/system/vmotion	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/vim/vmvisor/plugins/likewise	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/system/drivers	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/system/vmkapimod	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/vim/vmvisor/netcpa	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/system/helper	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/vim/vmvisor/vobd	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/vim/vmvisor/llcolord	Resource memory consumed	Latest	Kilobytes	0	0	0	0
	host/system/svmotion	Resource memory consumed	Latest	Kilobytes	0	0	0	0

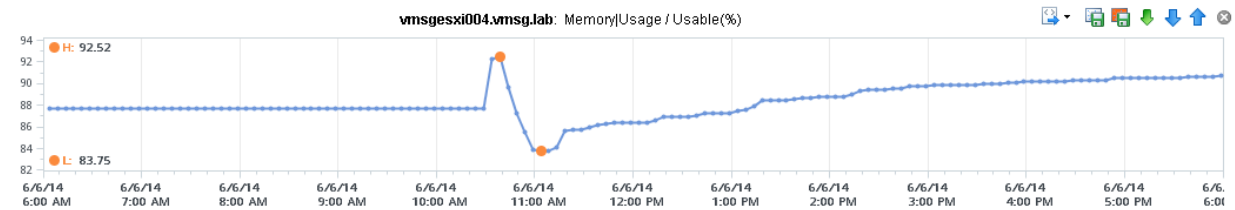


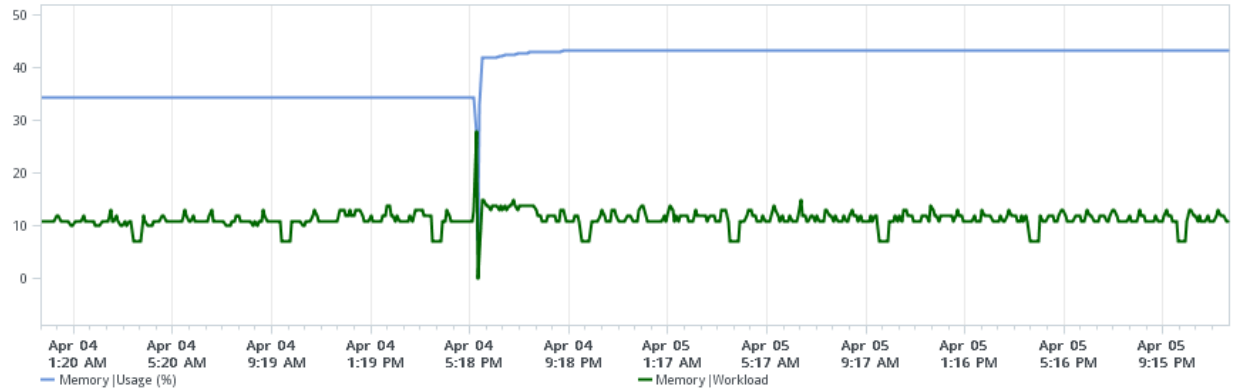
Performance Chart Legend

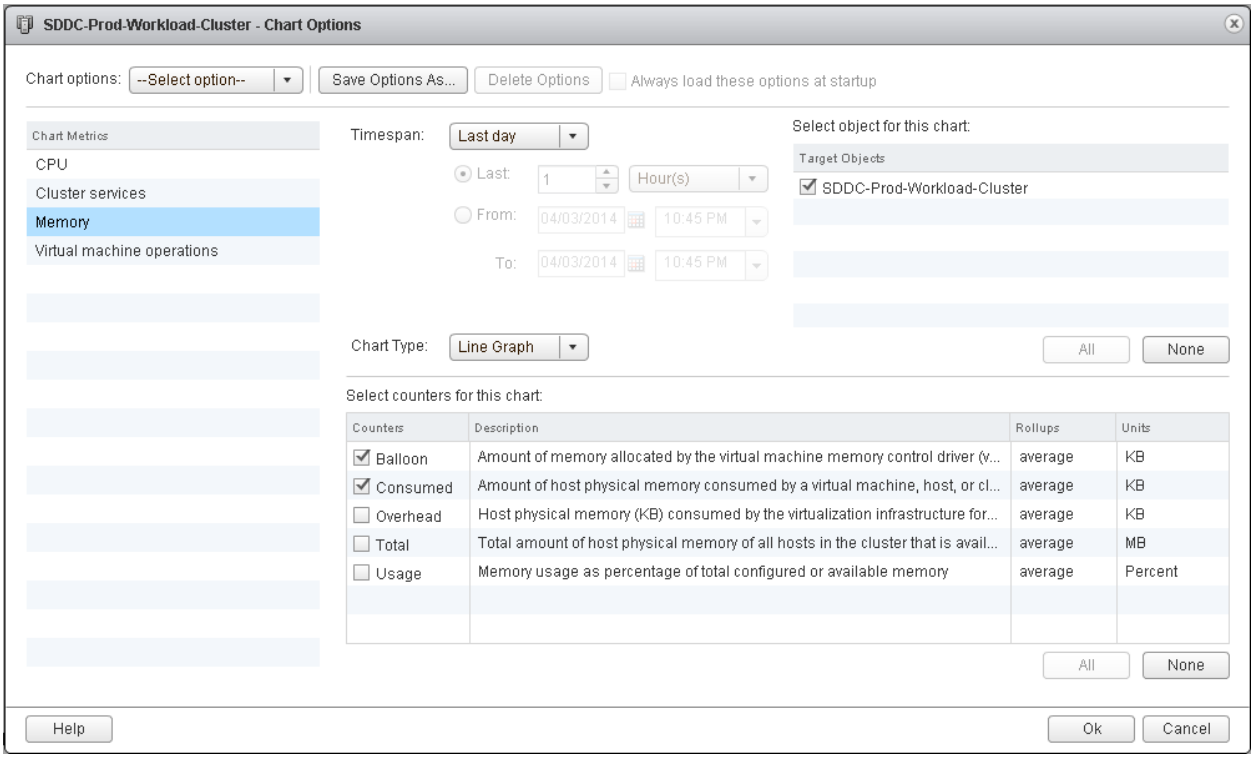
Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	vmsgesxi003.vmsg.lab	Unreserved	Average	Kilobytes	43812616	43920100	43810000	43857795.
	vmsgesxi003.vmsg.lab	Consumed	Average	Kilobytes	23018372	23018372	15504752	19147503.
	vmsgesxi003.vmsg.lab	Granted	Average	Kilobytes	20242240	20242240	12781472	16394229.
	vmsgesxi003.vmsg.lab	Active	Average	Kilobytes	4959112	11954088	2162440	4511757.1
	vmsgesxi003.vmsg.lab	Active write	Average	Kilobytes	3837136	11157172	840632	3369740.6
	vmsgesxi003.vmsg.lab	Used by VMkernel	Average	Kilobytes	2390668	2393368	2385972	2389435.2
	vmsgesxi003.vmsg.lab	Low free threshold	Average	Kilobytes	1129892	1129892	1129892	1129892
	vmsgesxi003.vmsg.lab	Overhead	Average	Kilobytes	729896	735232	631360	689947.6
	vmsgesxi003.vmsg.lab	Heap free	Average	Kilobytes	29605	29605	29604	29604.994
	vmsgesxi003.vmsg.lab	Heap	Average	Kilobytes	14336	14336	14336	14336
	vmsgesxi003.vmsg.lab	Shared	Average	Kilobytes	2588	2588	1612	1734.067
	vmsgesxi003.vmsg.lab	Zero	Average	Kilobytes	1832	1832	1540	1588.4
	vmsgesxi003.vmsg.lab	Shared common	Average	Kilobytes	1568	1568	884	969.489
	vmsgesxi003.vmsg.lab	Usage	Average	Percent	45.74	45.74	30.81	38.045
	vmsgesxi003.vmsg.lab	Balloon	Average	Kilobytes	0	0	0	0
	vmsgesxi003.vmsg.lab	Latency	Average	Percent	0	0	0	0

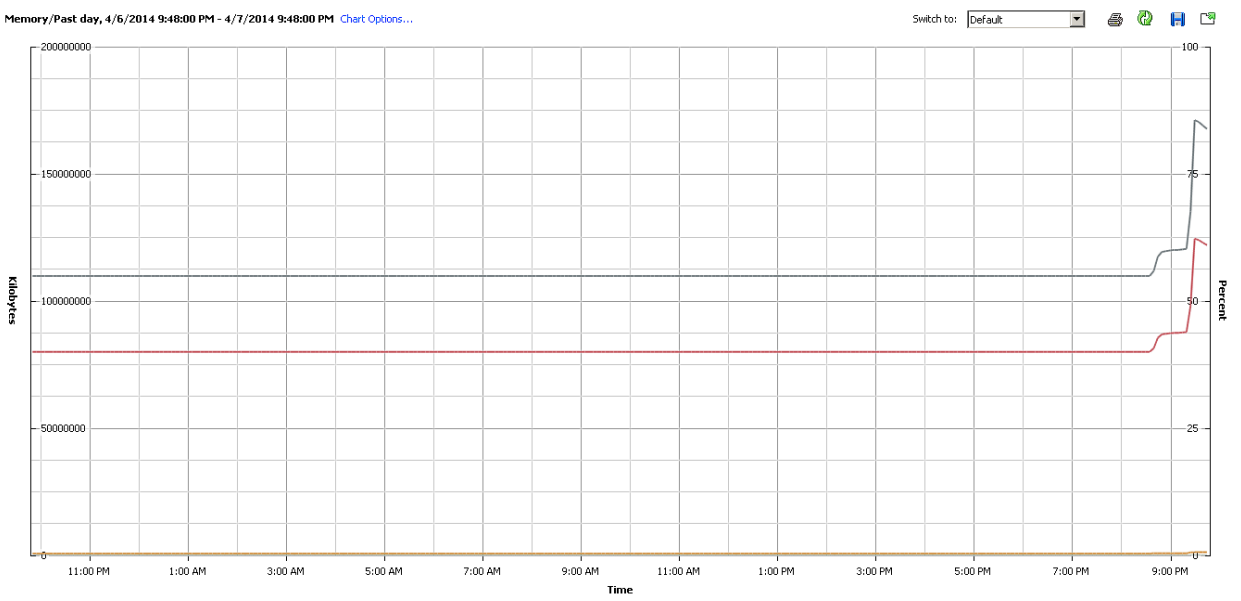






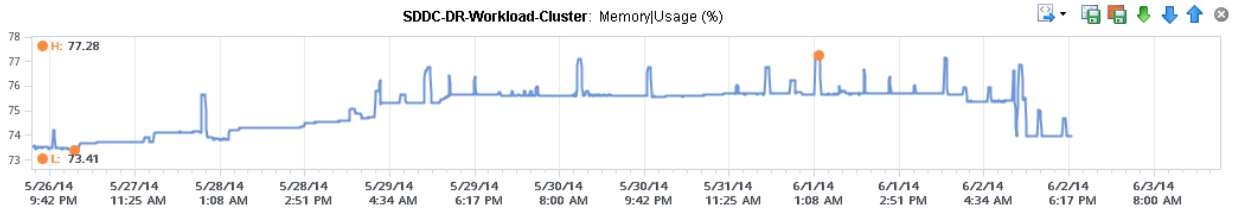

50
40
30
20
10
0
Apr 04 1:20 AM
Apr 04 5:20 AM
Apr 04 9:19 AM
Apr 04 1:19 PM
Apr 04 5:18 PM
Apr 04 9:18 PM
Apr 05 1:17 AM
Apr 05 5:17 AM
Apr 05 9:17 AM
Apr 05 1:16 PM
Apr 05 5:16 PM
Apr 05 9:15 PM
Memory | Usage (%)
Memory | Workload

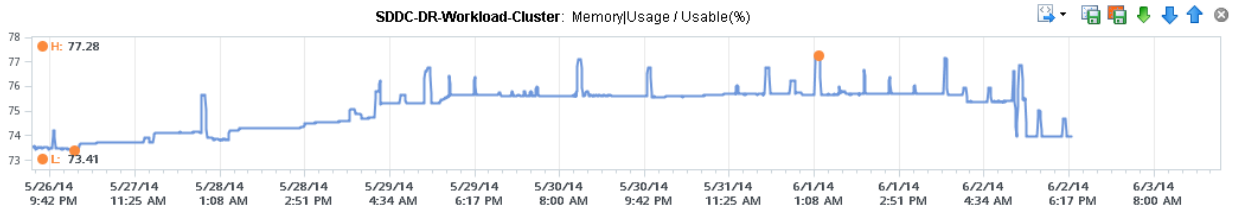

SDDC-Prod-Workload-Cluster - Chart Options
Chart options: --Select option--
Save Options As...
Delete Options
Always load these options at startup
Chart Metrics
CPU
Cluster services
Memory
Virtual machine operations
Timespan: Last day
Last: 1 Hour(s)
From: 04/03/2014 10:45 PM
To: 04/03/2014 10:45 PM
Select object for this chart:
Target Objects
SDDC-Prod-Workload-Cluster
Chart Type: Line Graph
All
None
Select counters for this chart:
Counters
Description
Rollups
Units
Balloon
Amount of memory allocated by the virtual machine memory control driver (v...
average
KB
Consumed
Amount of host physical memory consumed by a virtual machine, host, or cl...
average
KB
Overhead
Host physical memory (KB) consumed by the virtualization infrastructure for...
average
KB
Total
Total amount of host physical memory of all hosts in the cluster that is avail...
average
MB
Usage
Memory usage as percentage of total configured or available memory
average
Percent
All
None
Help
Ok
Cancel



Performance Chart Legend

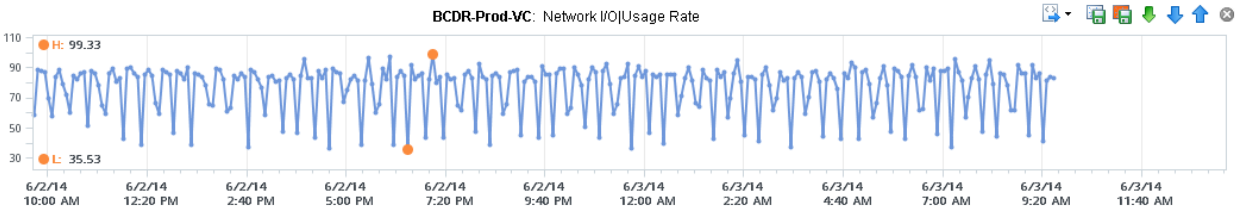
Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	SDDC-DR-Workl...	Consumed	Average	Kilobytes	122085127	124635239	80052455	80930698.
	SDDC-DR-Workl...	Overhead	Average	Kilobytes	1108708	1108708	616136	627676.78
	SDDC-DR-Workl...	Usage	Average	Percent	83.93	85.67	54.96	55.564
	SDDC-DR-Workl...	Balloon	Average	Kilobytes	0	33712	0	117.056

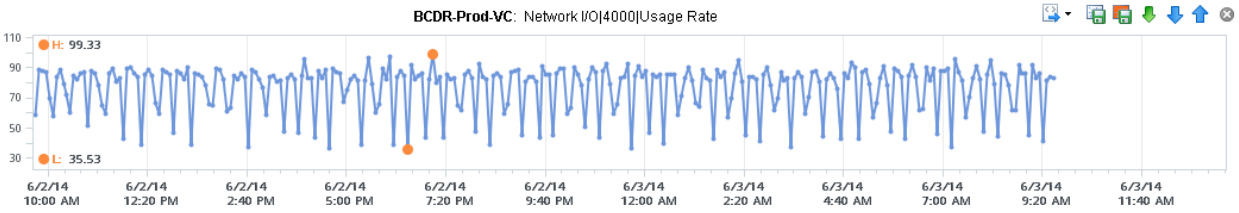


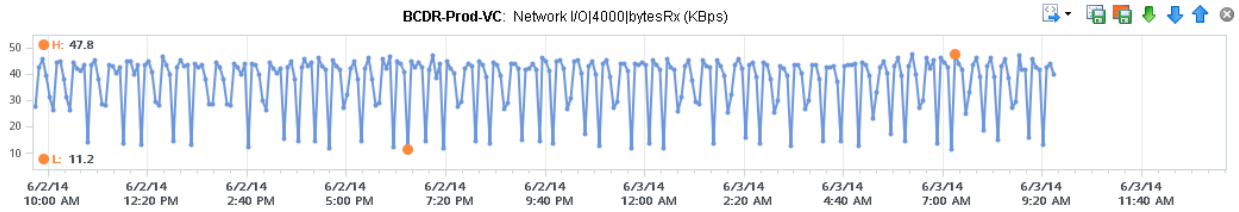


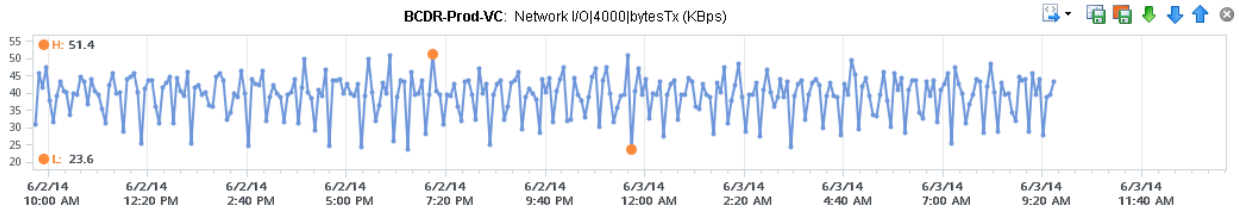
Chapter 6

Description	Rollup	Units	Internal Name	Collection Level
Data receive rate	Average	KBps	bytesRx	2
Broadcast receives	Summation	Number	broadcastRx	2
Data transmit rate	Average	KBps	transmitted	2
Multicast transmits	Summation	Number	multicastTx	2
Packets transmitted	Summation	Number	packetsTx	2
Data receive rate	Average	KBps	received	2
Transmit packets dropped	Summation	Number	droppedTx	2
Data transmit rate	Average	KBps	bytesTx	2
Packets received	Summation	Number	packetsRx	2
Multicast receives	Summation	Number	multicastRx	2
Usage	Average	KBps	usage	1
Broadcast transmits	Summation	Number	broadcastTx	2
Receive packets dropped	Summation	Number	droppedRx	2





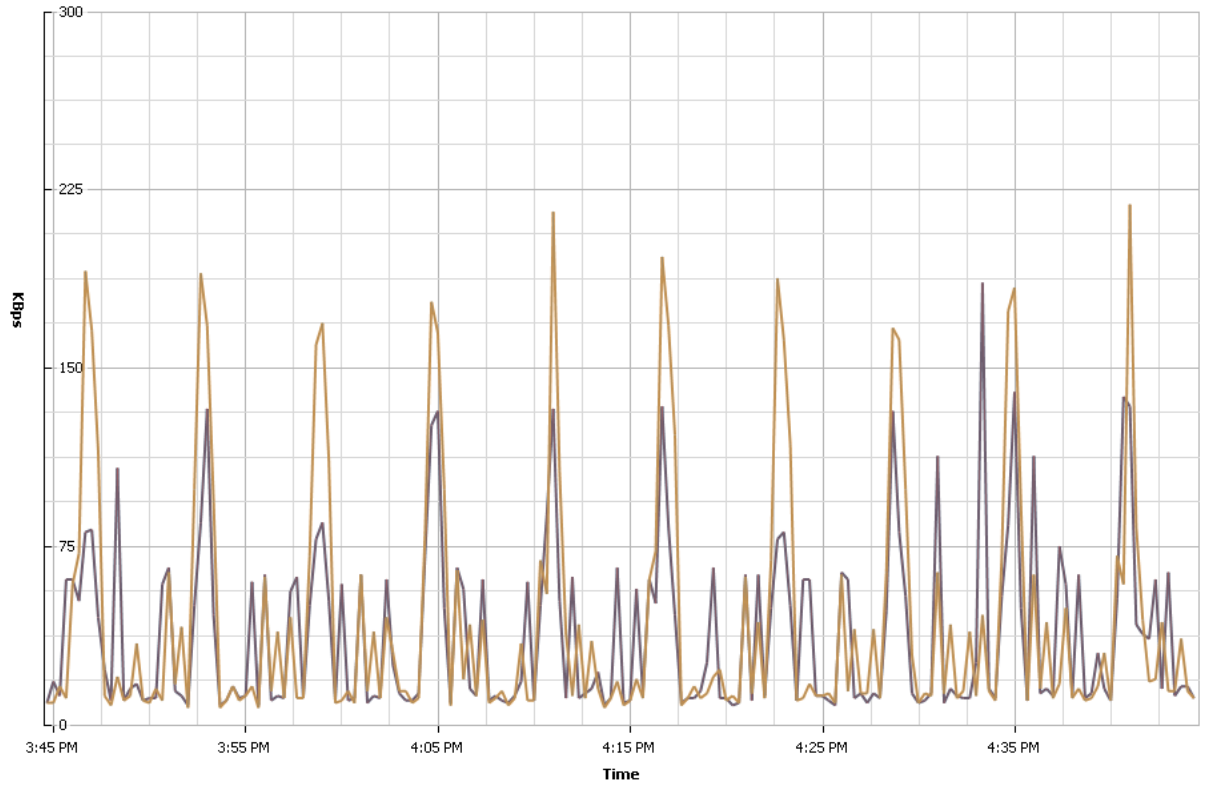




Network/Real-time, 5/8/2014 3:44:31 PM - 5/8/2014 4:44:31 PM Chart Options...

Switch to: Default

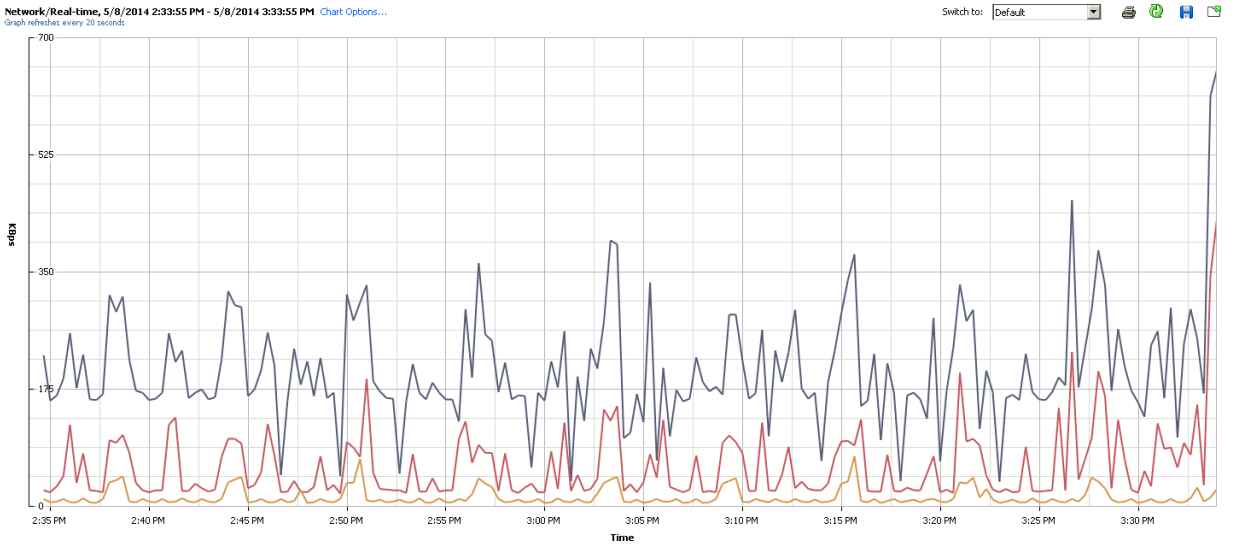
Graph refreshes every 20 seconds



Performance Chart Legend

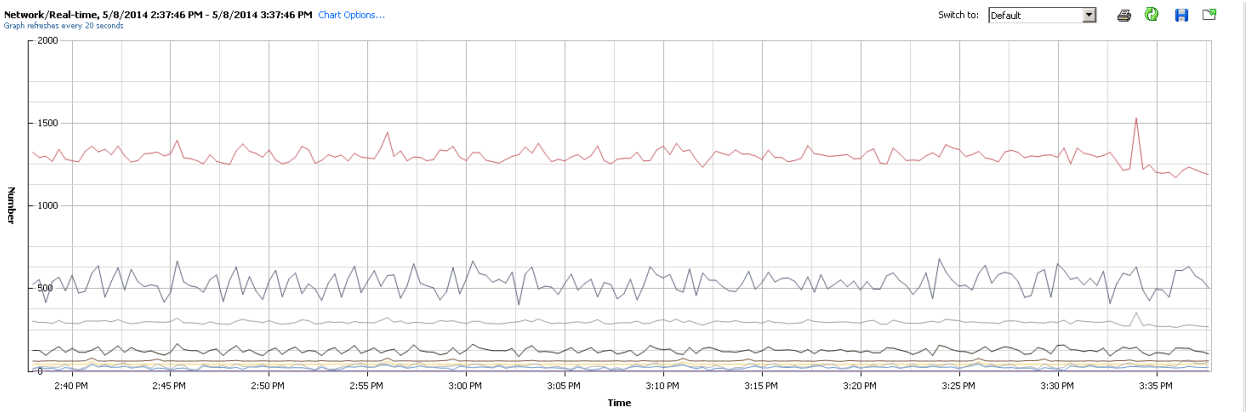
Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	BCDR-Prod-VC	Data transmit rate	Average	KBps	11	186	8	38.372
	BCDR-Prod-VC	Data transmit rate	Average	KBps	11	186	8	38.372
	BCDR-Prod-VC	Data receive rate	Average	KBps	11	219	7	44.661
	BCDR-Prod-VC	Data receive rate	Average	KBps	11	219	7	44.661

Description	Rollup	Units	Internal Name	Collection Level
Multicast receives	Summation	Number	multicastRx	2
Usage	Average	KBps	usage	1
Data receive rate	Average	KBps	bytesRx	2
Multicast transmits	Summation	Number	multicastTx	2
Unknown protocol frames	Summation	Number	unknownProtos	2
Data transmit rate	Average	KBps	transmitted	2
Packet receive errors	Summation	Number	errorsRx	2
Packet transmit errors	Summation	Number	errorsTx	2
Packets transmitted	Summation	Number	packetsTx	2
Data receive rate	Average	KBps	received	2
Transmit packets dropped	Summation	Number	droppedTx	2
Receive packets dropped	Summation	Number	droppedRx	2
Packets received	Summation	Number	packetsRx	2
Broadcast receives	Summation	Number	broadcastRx	2
Data transmit rate	Average	KBps	bytesTx	2
Broadcast transmits	Summation	Number	broadcastTx	2



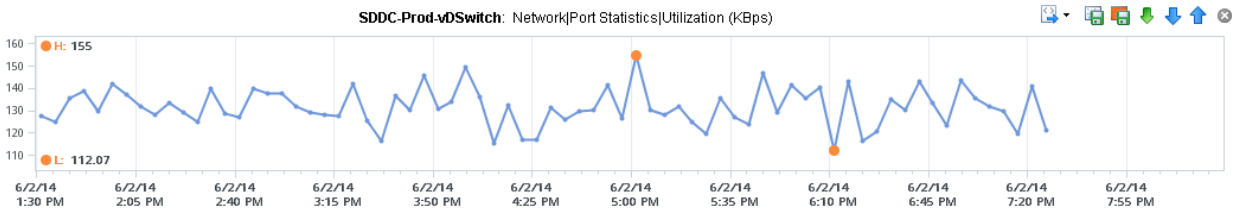
Performance Chart Legend

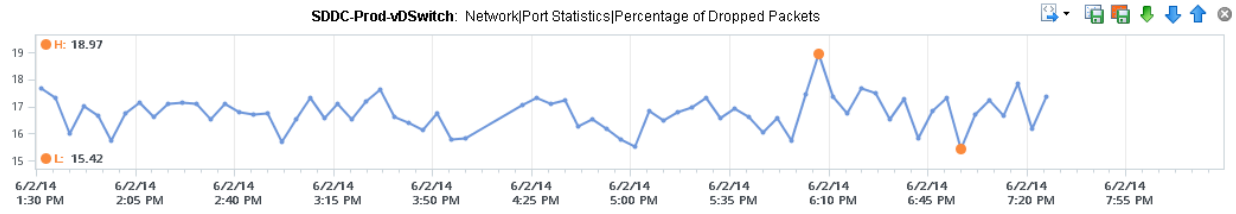
Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	vmsgesxi009.vmsg.lab	Usage	Average	KBps	653	653	36	204.33
	vmnic3	Usage	Average	KBps	430	430	18	59.872
	vmnic0	Usage	Average	KBps	25	74	4	12.413

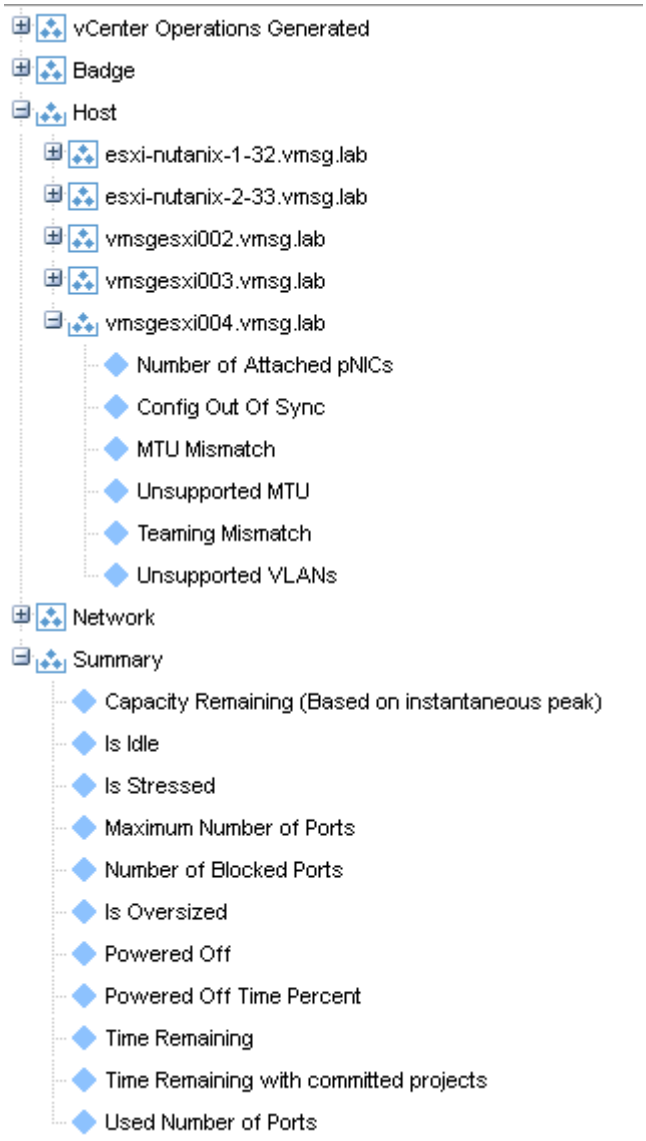


Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	vmnic1	Receive packets dropped	Summation	Number	0	0	0	0
	vmnic1	Unknown protocol frames	Summation	Number	0	0	0	0
	vmnic1	Transmit packets dropped	Summation	Number	0	0	0	0
	vmsgesxi009.vmsg.lab	Unknown protocol frames	Summation	Number	0	0	0	0
	vmsgesxi009.vmsg.lab	Transmit packets dropped	Summation	Number	0	0	0	0
	vmsgesxi009.vmsg.lab	Receive packets dropped	Summation	Number	0	0	0	0
	vmnic1	Broadcast transmits	Summation	Number	23	42	2	20.411
	vmnic1	Multicast transmits	Summation	Number	40	58	39	40.439
	vmsgesxi009.vmsg.lab	Broadcast transmits	Summation	Number	55	67	8	30.267
	vmsgesxi009.vmsg.lab	Multicast transmits	Summation	Number	62	78	58	61.311
	vmnic1	Broadcast receives	Summation	Number	104	165	87	122.994
	vmnic1	Multicast receives	Summation	Number	268	354	263	294.733
	vmsgesxi009.vmsg.lab	Broadcast receives	Summation	Number	505	680	401	535.444
	vmsgesxi009.vmsg.lab	Multicast receives	Summation	Number	1191	1533	1171	1300.656





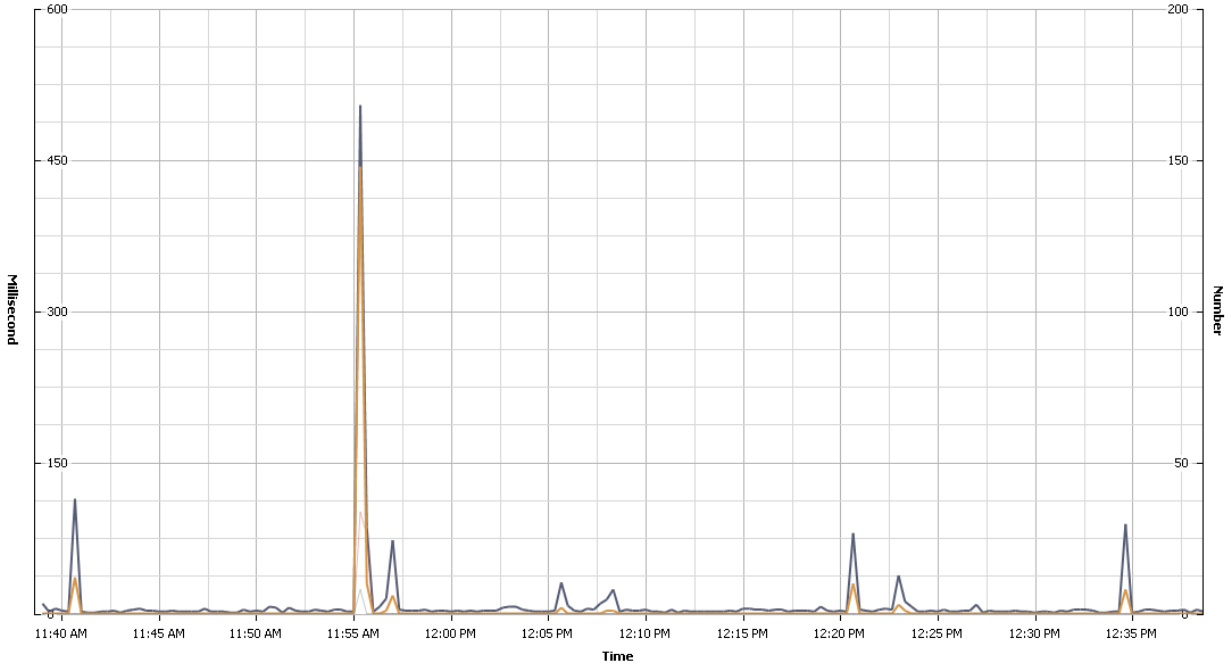

vCenter Operations Generated
Badge
Host
esxi-nutanix-1-32.vmsg.lab
esxi-nutanix-2-33.vmsg.lab
vmsgesxi002.vmsg.lab
vmsgesxi003.vmsg.lab
vmsgesxi004.vmsg.lab
Number of Attached pNICs
Config Out Of Sync
MTU Mismatch
Unsupported MTU
Teaming Mismatch
Unsupported VLANs
Network
Summary
Capacity Remaining (Based on instantaneous peak)
Is Idle
Is Stressed
Maximum Number of Ports
Number of Blocked Ports
Is Oversized
Powered Off
Powered Off Time Percent
Time Remaining
Time Remaining with committed projects
Used Number of Ports

Chapter 7

Virtual disk/Real-time, 5/8/2014 11:38:35 AM - 5/8/2014 12:38:35 PM Chart Options...

Graph refreshes every 20 seconds

Switch to: Default



Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	scsi0:1	Write latency	Average	Millisecond	2	505	1	8.839
	scsi0:1	Read latency	Average	Millisecond	0	101	0	0.994
	scsi0:1	Average number of outstanding write requests	Latest	Number	0	148	0	1.128
	scsi0:1	Average number of outstanding read requests	Latest	Number	0	8	0	0.044

Description	Rollup	Units	Internal Name	Collection Level
Write rate	Average	KBps	write	2
Average number of outstanding write requests	Latest	Number	writeOIO	2
Number of small seeks	Latest	Number	smallSeeks	4
Number of large seeks	Latest	Number	largeSeeks	4
Write Latency (us)	Latest	Microsecond	writeLatencyUS	4
Read workload metric	Latest	Number	readLoadMetric	2
Read Latency (us)	Latest	Microsecond	readLatencyUS	4
Write latency	Average	Millisecond	totalWriteLatency	1
Read request size	Latest	Number	readIOSize	4
Average read requests per second	Average	Number	numberReadAveraged	1
Average number of outstanding read requests	Latest	Number	readOIO	2
Read latency	Average	Millisecond	totalReadLatency	1
Write request size	Latest	Number	writeIOSize	4
Number of medium seeks	Latest	Number	mediumSeeks	4
Read rate	Average	KBps	read	2
Write workload metric	Latest	Number	writeLoadMetric	2
Average write requests per second	Average	Number	numberWriteAveraged	1

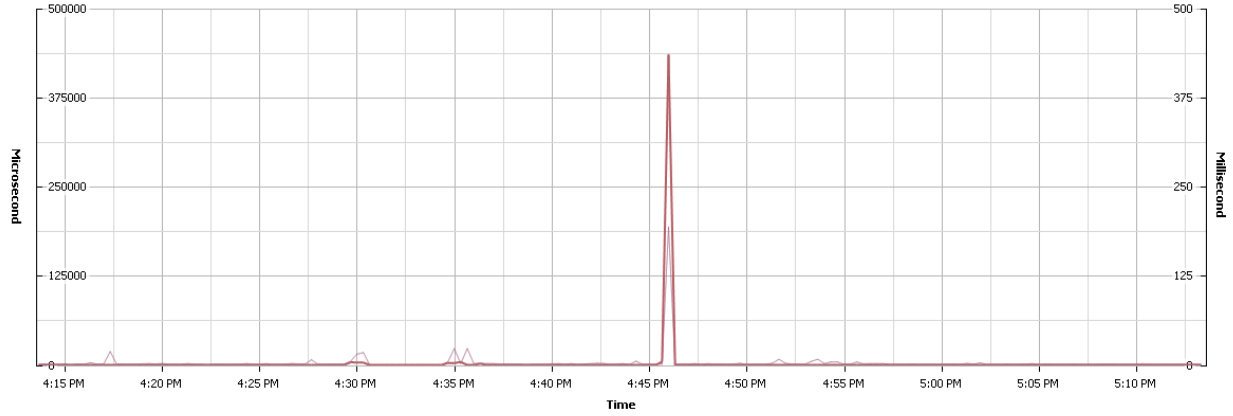
Description	Rollup	Units	Internal Name	Collection Level
☐ Read rate	Average	KBps	read	2
☐ Highest latency	Latest	Millisecond	maxTotalLatency	3
☐ Average write requests per ...	Average	Number	numberWriteAvera...	1
☐ Write rate	Average	KBps	write	2
☐ Average read requests per ...	Average	Number	numberReadAvera...	1
☑ Read latency	Average	Millisecond	totalReadLatency	1
☑ Write latency	Average	Millisecond	totalWriteLatency	1

Description	Rollup	Units	Internal Name	Collection Level
☐ Average write requests per second	Average	Number	numberWriteAveraged	1
☐ Highest latency	Latest	Millisecond	maxTotalLatency	1
☐ Commands issued	Summation	Number	commands	2
☐ Average read requests per second	Average	Number	numberReadAveraged	1
☐ Read requests	Summation	Number	numberRead	3
☐ Average commands issued per second	Average	Number	commandsAveraged	2
☐ Write requests	Summation	Number	numberWrite	3
☐ Write rate	Average	KBps	write	2
☐ Commands aborted	Summation	Number	commandsAborted	2
☐ Usage	Average	KBps	usage	1
☐ Read rate	Average	KBps	read	2
☐ Bus resets	Summation	Number	busResets	2

Virtual disk/Real-time, 4/25/2014 4:13:33 PM - 4/25/2014 5:13:33 PM Chart Options...

Graph refreshes every 20 seconds

Switch to: Default



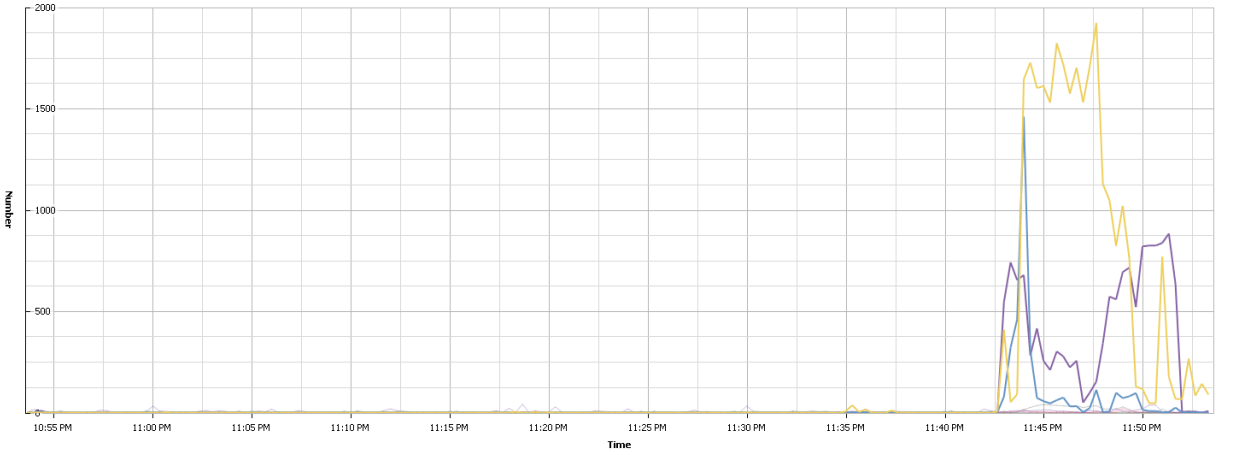
Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	scsi0:0	Read latency	Average	Millisecond	0	436	0	2.738
	scsi0:0	Read Latency (us)	Latest	Microsecond	0	436140	0	2761.137
	scsi0:0	Write latency	Average	Millisecond	1	194	0	3.131
	scsi0:0	Write Latency (us)	Latest	Microsecond	1369	194044	0	3578.077

Virtual disk/Real-time, 5/3/2014 10:53:33 PM - 5/3/2014 11:53:33 PM Chart Options...

Graph refreshes every 20 seconds

Switch to: Default



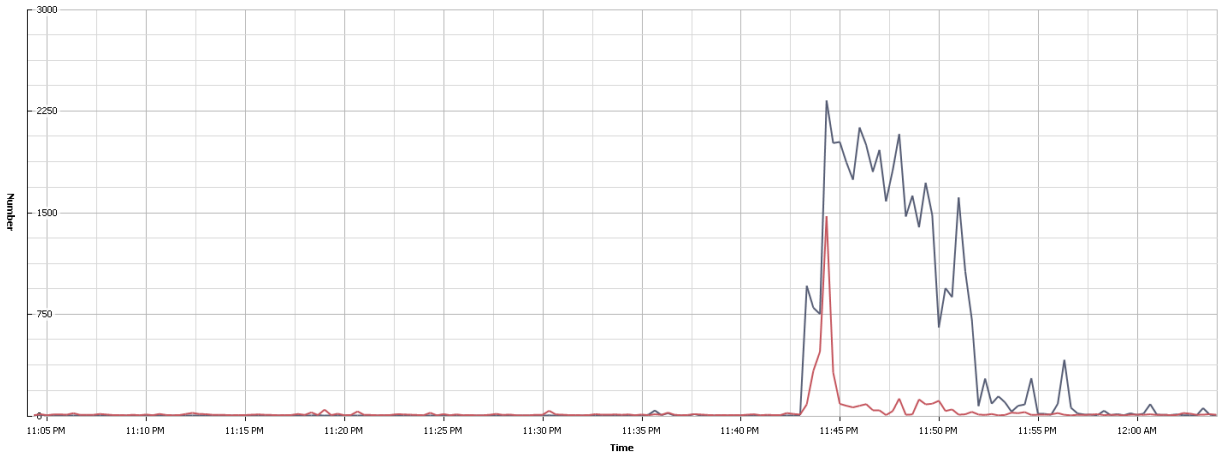
Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	scsi0:1	Average number of outstanding write requests	Latest	Number	0	0	0	0
	scsi0:0	Average number of outstanding write requests	Latest	Number	0	16	0	0.389
	scsi0:1	Average number of outstanding read requests	Latest	Number	0	20	0	0.622
	scsi0:0	Average number of outstanding read requests	Latest	Number	2	40	0	2.961
	scsi0:1	Average write requests per second	Average	Number	3	42	1	6.344
	scsi0:1	Average read requests per second	Average	Number	8	885	0	74.661
	scsi0:0	Average write requests per second	Average	Number	1	1463	0	21.05
	scsi0:0	Average read requests per second	Average	Number	90	1927	0	153.161

Datastore/Real-time, 5/3/2014 11:04:00 PM - 5/4/2014 12:04:00 AM Chart Options...

Graph refreshes every 20 seconds

Switch to: Default



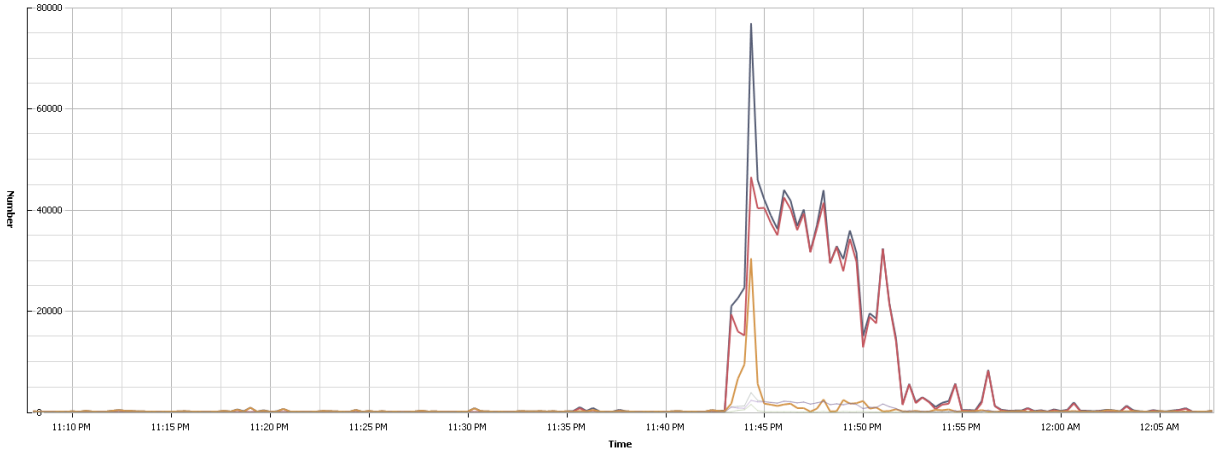
Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	SDDC-Datastore...	Average read requests per second	Average	Number	1	2331	0	230.867
	SDDC-Datastore...	Average write requests per second	Average	Number	6	1476	2	28.039

Disk/Real-time, 5/3/2014 11:07:42 PM - 5/4/2014 12:07:42 AM Chart Options...

Graph refreshes every 20 seconds

Switch to: Default

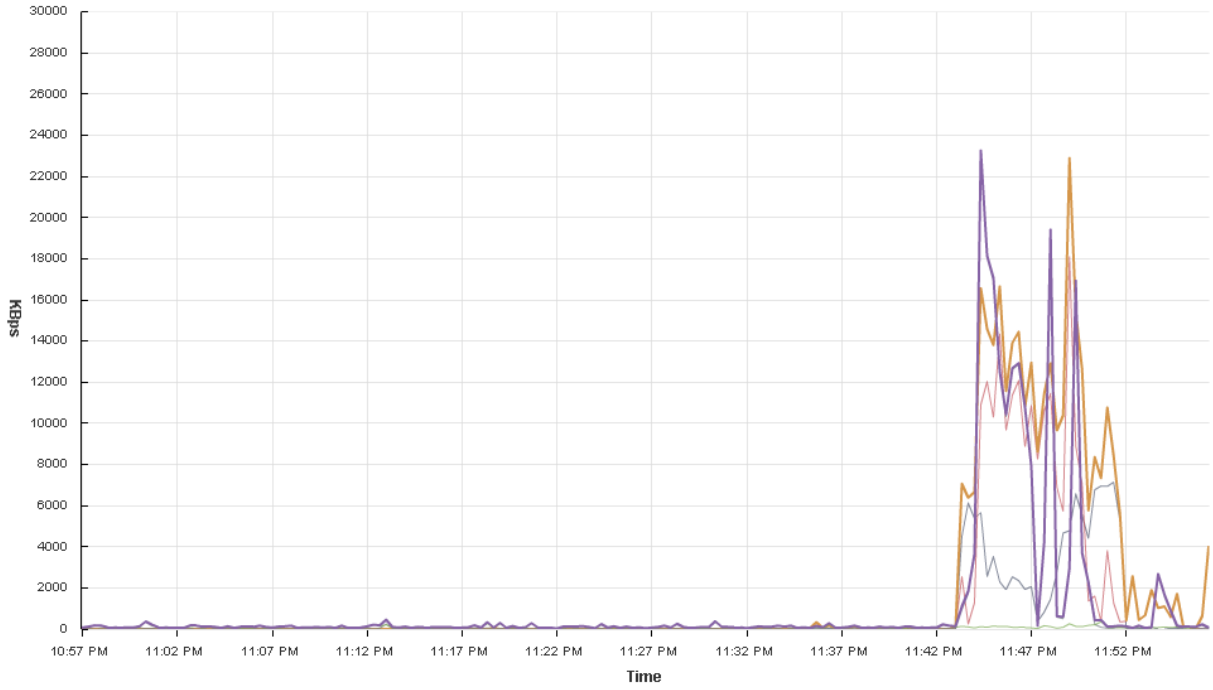


Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	NETAPP Fibre Channel Disk (naa.60a98000375435474834334554e6548)	Commands issued	Summation	Number	302	76966	40	5197.817
	NETAPP Fibre Channel Disk (naa.60a98000375435474834334554e6548)	Read requests	Summation	Number	61	46531	0	4630.517
	NETAPP Fibre Channel Disk (naa.60a98000375435474834334554e6548)	Write requests	Summation	Number	241	30435	40	567.3
	NETAPP Fibre Channel Disk (naa.60a98000375435474834334554e6548)	Average commands issued per second	Average	Number	15	3848	2	259.433
	NETAPP Fibre Channel Disk (naa.60a98000375435474834334554e6548)	Average read requests per second	Average	Number	3	2326	0	231.267
	NETAPP Fibre Channel Disk (naa.60a98000375435474834334554e6548)	Average write requests per second	Average	Number	12	1521	2	27.911

Virtual disk/Real-time, 5/3/2014 10:57:00 PM - 5/3/2014 11:56:20 PM Chart Options

View: Default

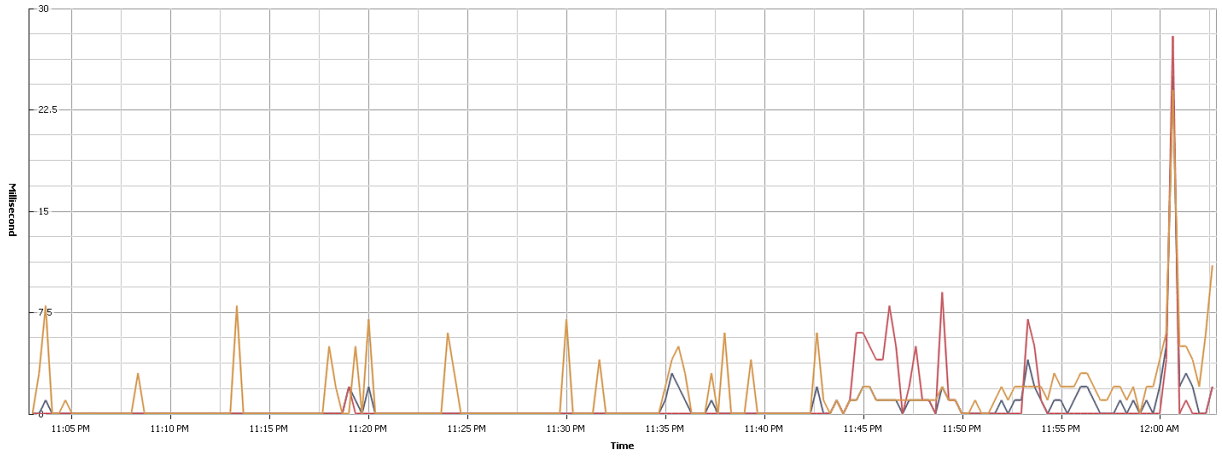


Performance Chart Legend

Key	Object	1 ▲	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	BCDR-Prod-VC		Write rate	Average	KBps	82	23253	38	1160
	BCDR-Prod-VC		Read rate	Average	KBps	4005	22894	0	1743.676
	scsi0:0		Read rate	Average	KBps	18	18115	0	1126.771
	scsi0:0		Write rate	Average	KBps	45	23123	3	1066.363
	scsi0:1		Write rate	Average	KBps	37	346	27	93.223
	scsi0:1		Read rate	Average	KBps	3986	7146	0	616.799

Datastore/Real-time, 5/3/2014 11:02:49 PM - 5/4/2014 12:02:49 AM Chart Options...
Graph refreshes every 20 seconds

Switch to: Default

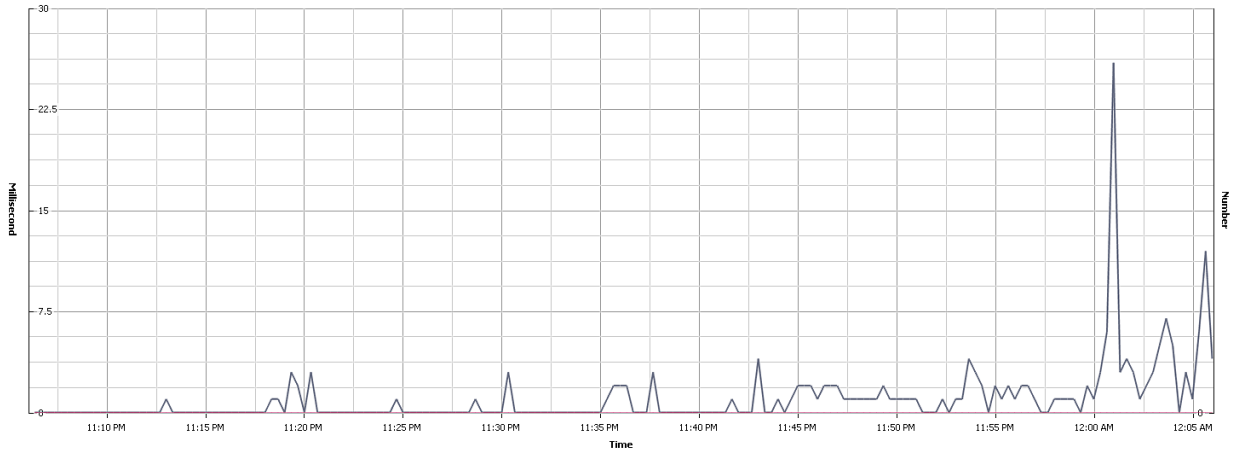


Performance Chart Legend

Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	BCDR-Prod-VC	Highest latency	Latest	Millisecond	2	25	0	0.539
	SDDC-Datastore...	Write latency	Average	Millisecond	2	28	0	0.611
	SDDC-Datastore...	Read latency	Average	Millisecond	11	24	0	1.278

Disk/Real-time, 5/3/2014 11:06:02 PM - 5/4/2014 12:06:02 AM Chart Options...
Graph refreshes every 20 seconds

Switch to: Default



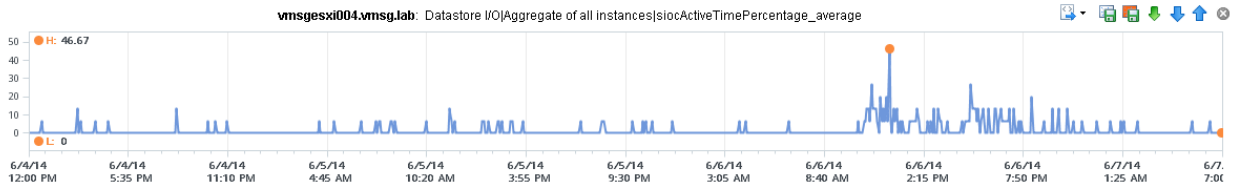
Performance Chart Legend

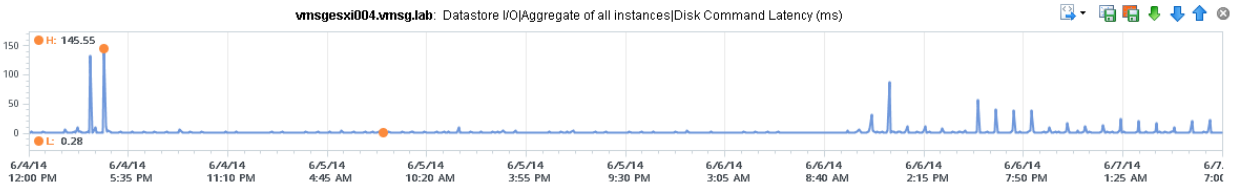
Key	Object	Measurement	Rollup	Units	Latest	Maximum	Minimum	Average
	BCDR-Prod-VC	Highest latency	Latest	Millisecond	4	26	0	1.017
	NETAPP Fibre Channel Disk (naa.60a98000375435474833334554e6548)	Bus resets	Summation	Number	0	0	0	0
	NETAPP Fibre Channel Disk (naa.60a98000375435474833334554e6548)	Commands aborted	Summation	Number	0	0	0	0

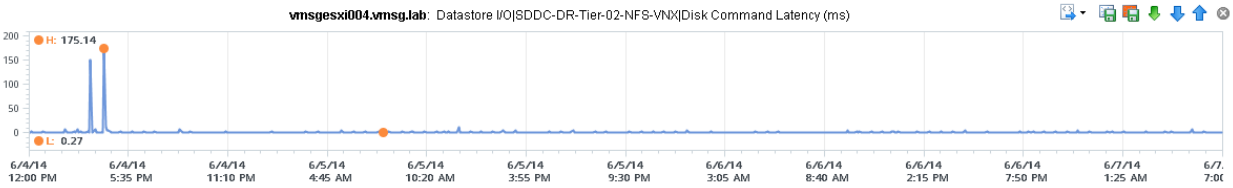
Description	Rollup	Units	Internal Name	Collection Level
Read latency	Average	Millisecond	totalReadLatency	2
Average write requests per second	Average	Number	numberWriteAveraged	2
Average commands issued per second	Average	Number	commandsAveraged	2
Highest latency	Latest	Millisecond	maxTotalLatency	3
Read rate	Average	KBps	read	2
Average read requests per second	Average	Number	numberReadAveraged	2
Write rate	Average	KBps	write	2
Write latency	Average	Millisecond	totalWriteLatency	2

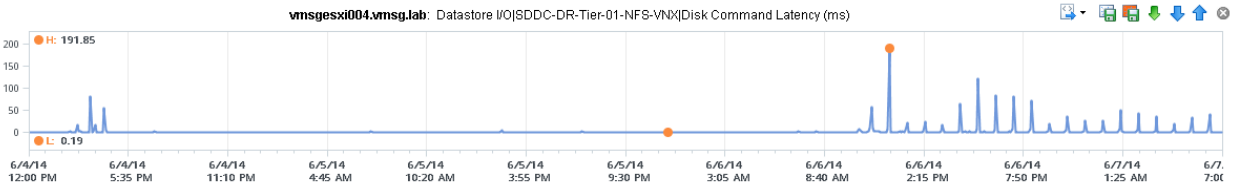
Description	Rollup	Units	Internal Name	Collection Level
Read rate	Average	KBps	read	3
Read latency	Average	Millisecond	totalReadLatency	3
Write latency	Average	Millisecond	totalWriteLatency	3
Write rate	Average	KBps	write	3
Average read requests per second	Average	Number	numberReadAveraged	3
Average write requests per second	Average	Number	numberWriteAveraged	3
Average commands issued per second	Average	Number	commandsAveraged	3
Highest latency	Latest	Millisecond	maxTotalLatency	3

Description	Rollup	Units	Internal Name	Collection Level
Storage I/O Control normalized latency	Average	Microsecond	sizeNormalizedDatastoreLatency	1
Storage DRS datastore outstanding write requests	Latest	Number	datastoreWriteOIO	1
Storage DRS datastore normalized read latency	Latest	Number	datastoreNormalReadLatency	2
Storage I/O Control datastore maximum queue depth	Latest	Number	datastoreMaxQueueDepth	1
Write rate	Average	KBps	write	2
Datastore latency observed by VMs	Latest	Number	datastoreVMObservedLatency	1
Storage DRS datastore read I/O rate	Latest	Number	datastoreReadIops	1
Average write requests per second	Average	Number	numberWriteAveraged	1
Write latency	Average	Millisecond	totalWriteLatency	1
Storage DRS datastore bytes read	Latest	Number	datastoreReadBytes	2
Storage DRS datastore read workload metric	Latest	Number	datastoreReadLoadMetric	4
Storage DRS datastore write workload metric	Latest	Number	datastoreWriteLoadMetric	4
Storage I/O Control aggregated IOPS	Average	Number	datastoreIops	1
Read latency	Average	Millisecond	totalReadLatency	1
Storage DRS datastore bytes written	Latest	Number	datastoreWriteBytes	2
Storage DRS datastore write I/O rate	Latest	Number	datastoreWriteIops	1
Read rate	Average	KBps	read	2
Storage DRS datastore outstanding read requests	Latest	Number	datastoreReadOIO	1
Storage DRS datastore normalized write latency	Latest	Number	datastoreNormalWriteLatency	2
Average read requests per second	Average	Number	numberReadAveraged	1
Storage I/O Control active time percentage	Average	Percent	siocActiveTimePercentage	1
Highest latency	Latest	Millisecond	maxTotalLatency	3


vmsgesxi004.vmsg.lab: Datastore I/O|Aggregate of all instances|siocActiveTimePercentage_average
H: 46.67
L: 0
50
40
30
20
10
0
6/4/14 12:00 PM
6/4/14 5:35 PM
6/4/14 11:10 PM
6/5/14 4:45 AM
6/5/14 10:20 AM
6/5/14 3:55 PM
6/5/14 9:30 PM
6/6/14 3:05 AM
6/6/14 8:40 AM
6/6/14 2:15 PM
6/6/14 7:50 PM
6/7/14 1:25 AM

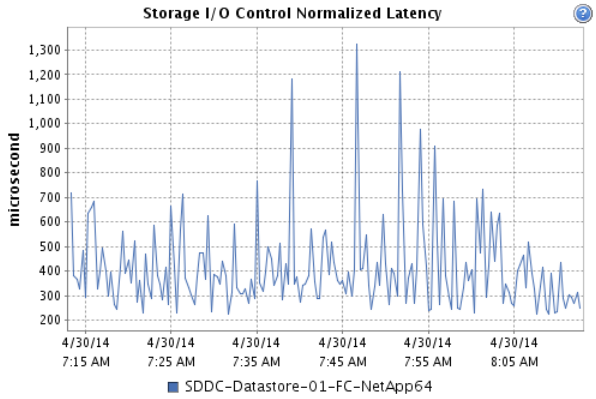

vmsgesxi004.vmsg.lab: Datastore I/O|Aggregate of all instances|Disk Command Latency (ms)
H: 145.55
L: 0.28
150
100
50
0
6/4/14 12:00 PM
6/4/14 5:35 PM
6/4/14 11:10 PM
6/5/14 4:45 AM
6/5/14 10:20 AM
6/5/14 3:55 PM
6/5/14 9:30 PM
6/6/14 3:05 AM
6/6/14 8:40 AM
6/6/14 2:15 PM
6/6/14 7:50 PM
6/7/14 1:25 AM

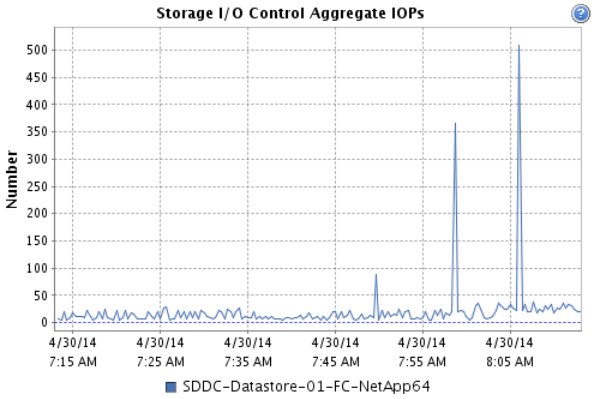

vmsgesxi004.vmsg.lab: Datastore I/O|SDDC-DR-Tier-02-NFS-VNX|Disk Command Latency (ms)
H: 175.14
L: 0.27
200
150
100
50
0
6/4/14 12:00 PM
6/4/14 5:35 PM
6/4/14 11:10 PM
6/5/14 4:45 AM
6/5/14 10:20 AM
6/5/14 3:55 PM
6/5/14 9:30 PM
6/6/14 3:05 AM
6/6/14 8:40 AM
6/6/14 2:15 PM
6/6/14 7:50 PM
6/7/14 1:25 AM

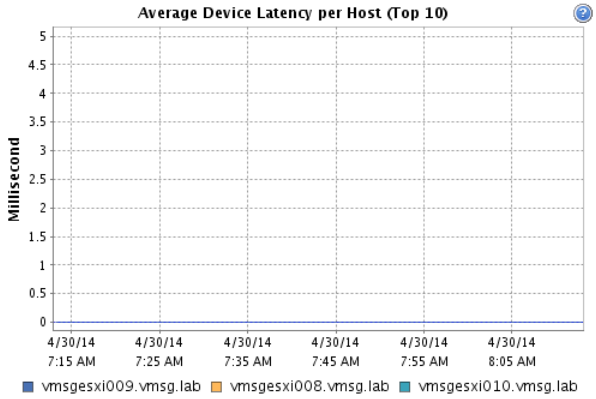

vmsgesxi004.vmsg.lab: Datastore I/O|SDDC-DR-Tier-01-NFS-VNX|Disk Command Latency (ms)
H: 191.85
L: 0.19
200
150
100
50
0
6/4/14 12:00 PM
6/4/14 5:35 PM
6/4/14 11:10 PM
6/5/14 4:45 AM
6/5/14 10:20 AM
6/5/14 3:55 PM
6/5/14 9:30 PM
6/6/14 3:05 AM
6/6/14 8:40 AM
6/6/14 2:15 PM
6/6/14 7:50 PM
6/7/14 1:25 AM

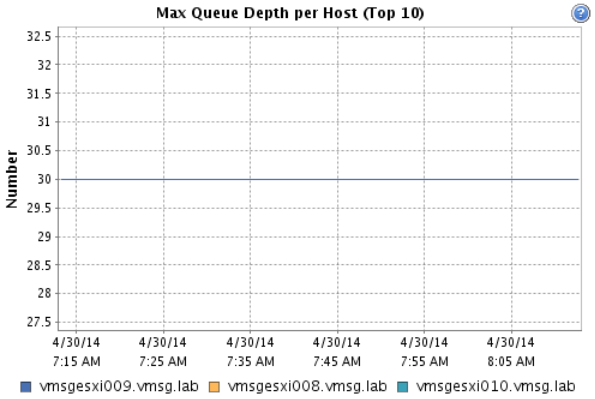
Description	Rollup	Units	Internal Name	Collection Level
☐ Queue command latency	Average	Millisecond	queueLatency	2
☑ Write rate	Average	KBps	write	2
☐ Bus resets	Summation	Number	busResets	2
☐ Write latency	Average	Millisecond	totalWriteLatency	2
☐ Average commands issued per second	Average	Number	commandsAveraged	2
☐ Kernel read latency	Average	Millisecond	kernelReadLatency	2
☐ Queue write latency	Average	Millisecond	queueWriteLatency	2
☐ Read requests	Summation	Number	numberRead	3
☐ Average write requests per second	Average	Number	numberWriteAveraged	1
☐ Physical device command latency	Average	Millisecond	deviceLatency	1
☐ Write requests	Summation	Number	numberWrite	3
☐ Maximum queue depth	Average	Number	maxQueueDepth	1
☐ Commands aborted	Summation	Number	commandsAborted	2
☐ Kernel command latency	Average	Millisecond	kernelLatency	2
☑ Read rate	Average	KBps	read	2
☐ Physical device write latency	Average	Millisecond	deviceWriteLatency	2
☐ Read latency	Average	Millisecond	totalReadLatency	2
☐ Average read requests per second	Average	Number	numberReadAveraged	1
☑ Highest latency	Latest	Millisecond	maxTotalLatency	1
☐ Commands issued	Summation	Number	commands	2
☐ Physical device read latency	Average	Millisecond	deviceReadLatency	2
☐ Queue read latency	Average	Millisecond	queueReadLatency	2
☐ Kernel write latency	Average	Millisecond	kernelWriteLatency	2
☐ Command latency	Average	Millisecond	totalLatency	3
☑ Usage	Average	KBps	usage	1

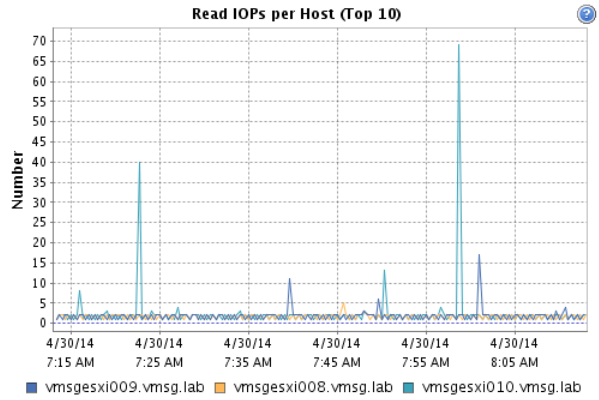
Realtime Summary for SDDC-Datastore-01-FC-NetApp64

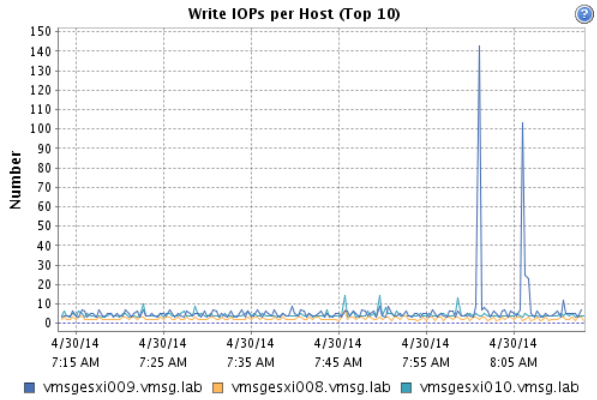




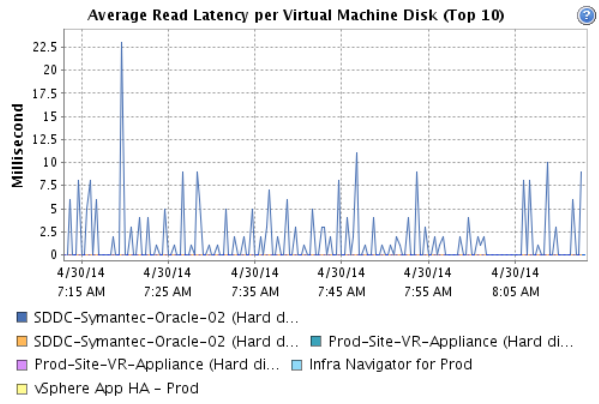


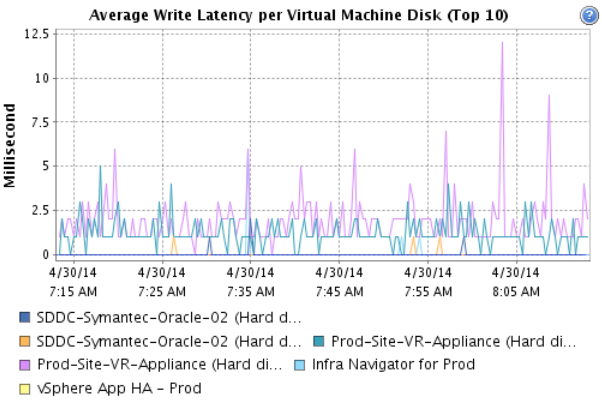


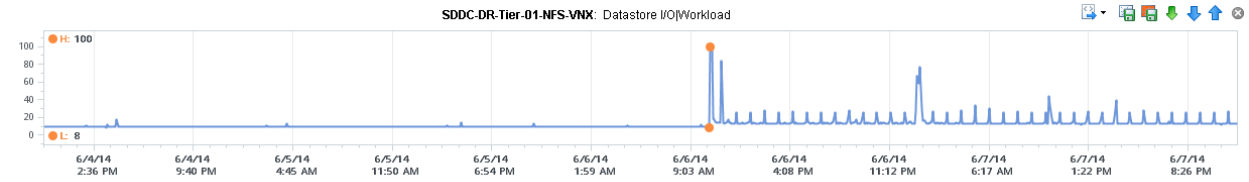


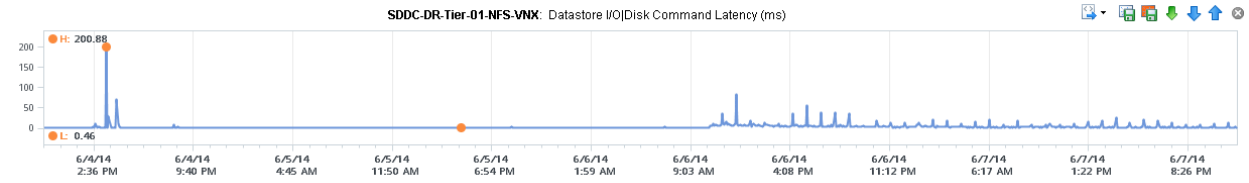


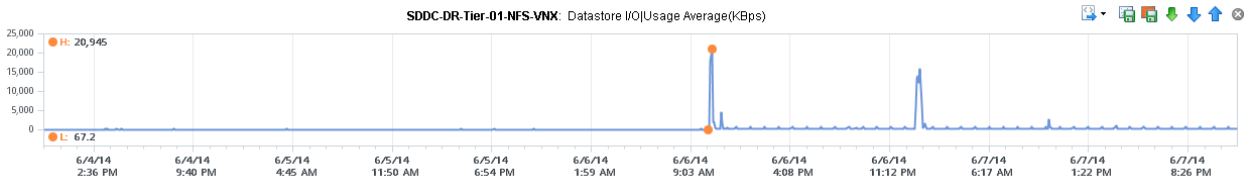
Realtime Summary for Virtual Machine Disks on Datastore SDDC-Datastore-01-FC-NetApp64

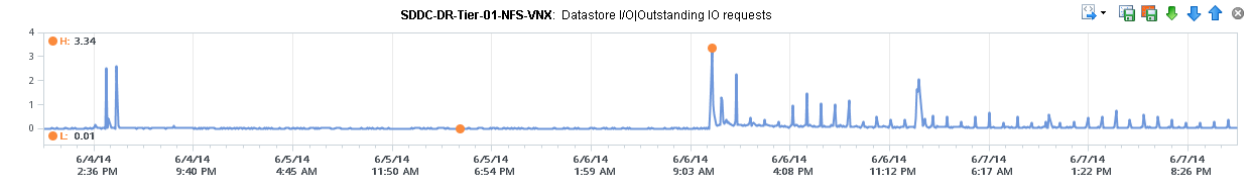


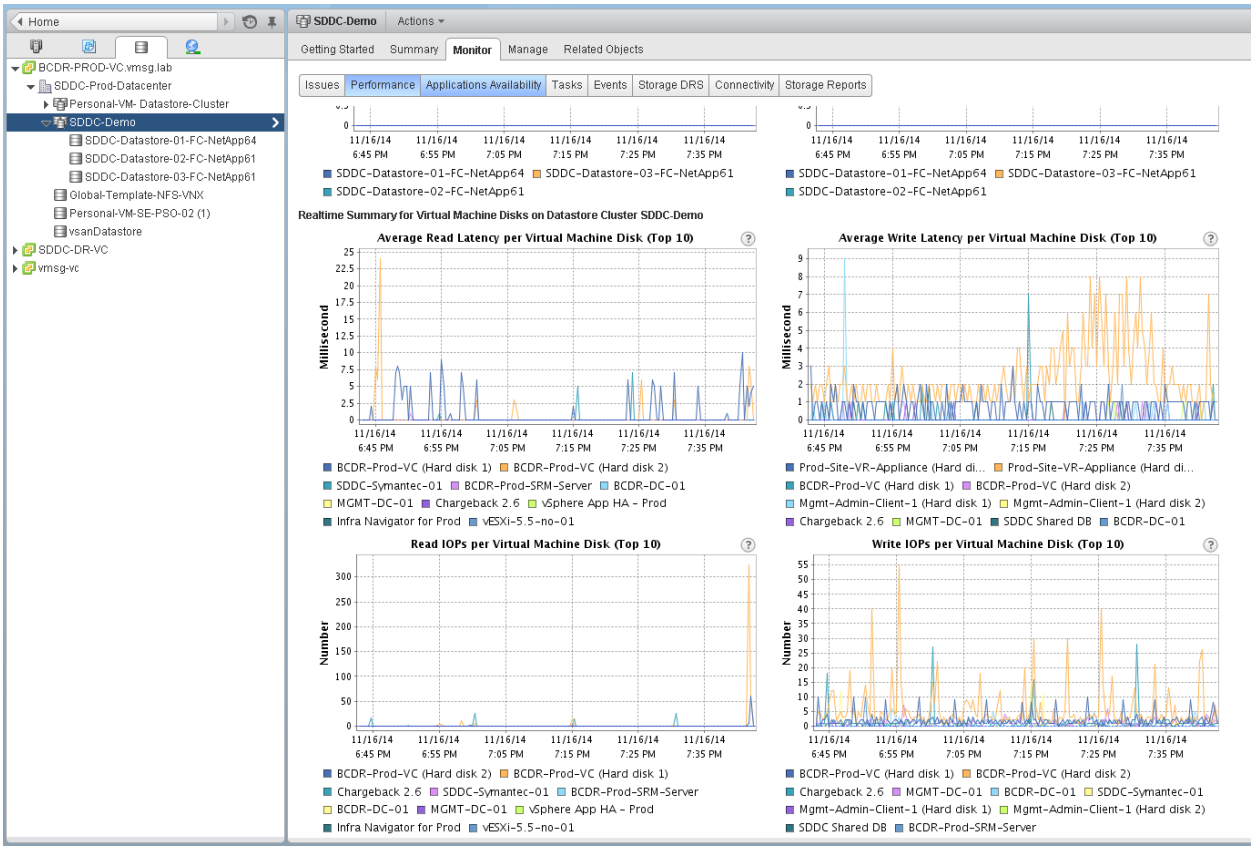



SDDC-DR-Tier-01-NFS-VNX: Datastore I/O|Workload
H: 100
L: 8
100
80
60
40
20
0
6/4/14 2:36 PM
6/4/14 9:40 PM
6/5/14 4:45 AM
6/5/14 11:50 AM
6/5/14 6:54 PM
6/6/14 1:59 AM
6/6/14 9:03 AM
6/6/14 4:08 PM
6/6/14 11:12 PM
6/7/14 6:17 AM
6/7/14 1:22 PM
6/7/14 8:26 PM

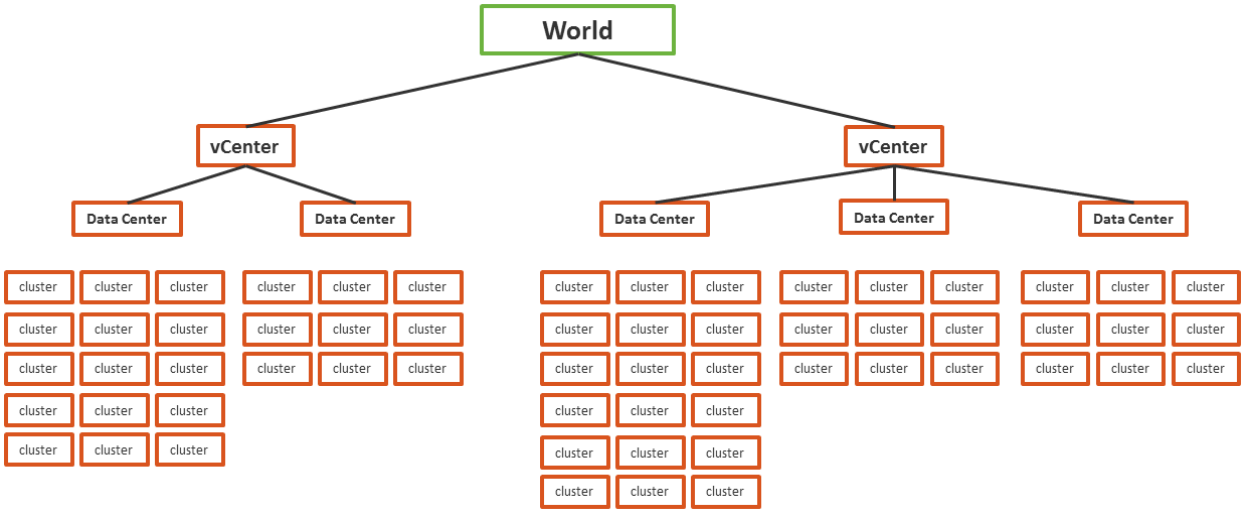

SDDC-DR-Tier-01-NFS-VNX: Datastore I/O|Disk Command Latency (ms)
H: 200.88
L: 0.46
200
150
100
50
0
6/4/14 2:36 PM
6/4/14 9:40 PM
6/5/14 4:45 AM
6/5/14 11:50 AM
6/5/14 6:54 PM
6/6/14 1:59 AM
6/6/14 9:03 AM
6/6/14 4:08 PM
6/6/14 11:12 PM
6/7/14 6:17 AM
6/7/14 1:22 PM
6/7/14 8:26 PM

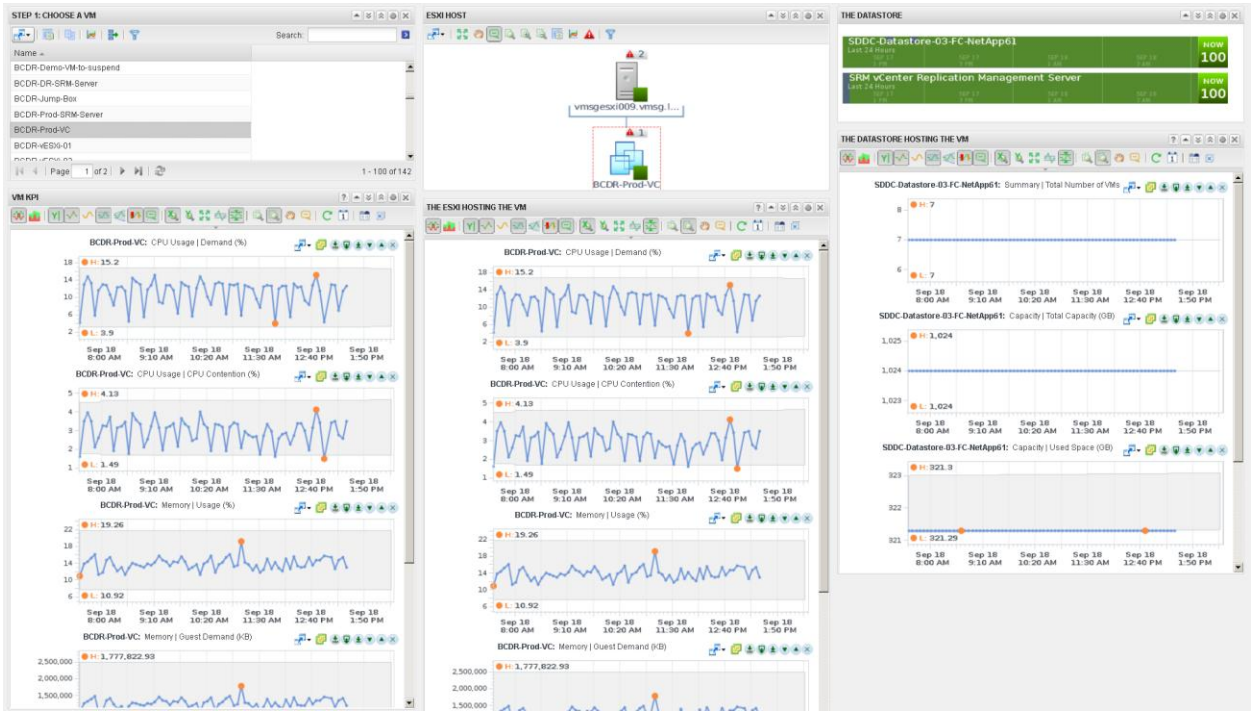

SDDC-DR-Tier-01-NFS-VNX: Datastore I/O|Usage Average(KBps)
H: 20,945
L: 67.2
25,000
20,000
15,000
10,000
5,000
0
6/4/14 2:36 PM
6/4/14 9:40 PM
6/5/14 4:45 AM
6/5/14 11:50 AM
6/5/14 6:54 PM
6/6/14 1:59 AM
6/6/14 9:03 AM
6/6/14 4:08 PM
6/6/14 11:12 PM
6/7/14 6:17 AM
6/7/14 1:22 PM
6/7/14 8:26 PM

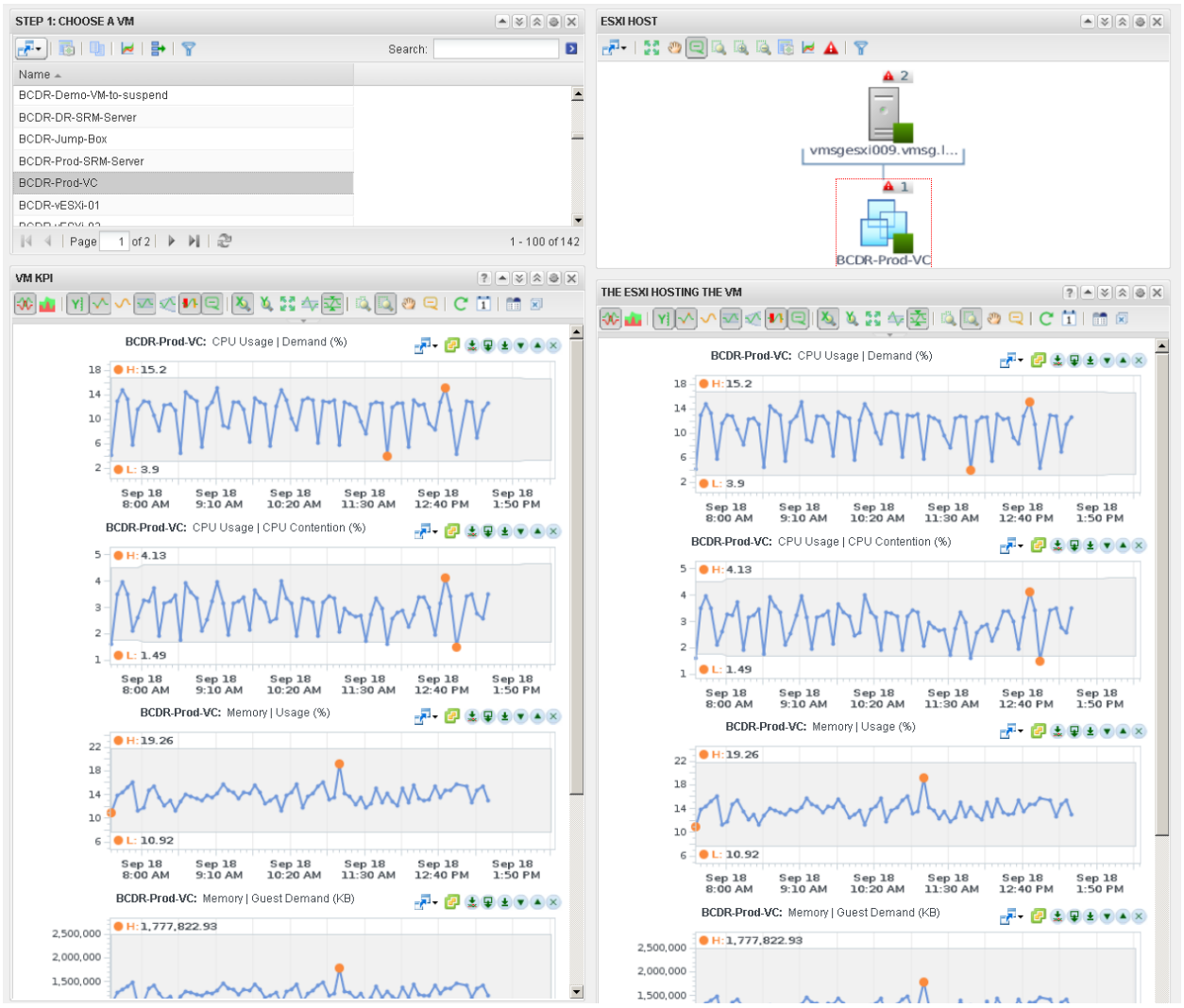

SDDC-DR-Tier-01-NFS-VNX: Datastore I/O|Outstanding IO requests
H: 3.34
L: 0.01
4
3
2
1
0
6/4/14 2:36 PM
6/4/14 9:40 PM
6/5/14 4:45 AM
6/5/14 11:50 AM
6/5/14 6:54 PM
6/6/14 1:59 AM
6/6/14 9:03 AM
6/6/14 4:08 PM
6/6/14 11:12 PM
6/7/14 6:17 AM
6/7/14 1:22 PM
6/7/14 8:26 PM

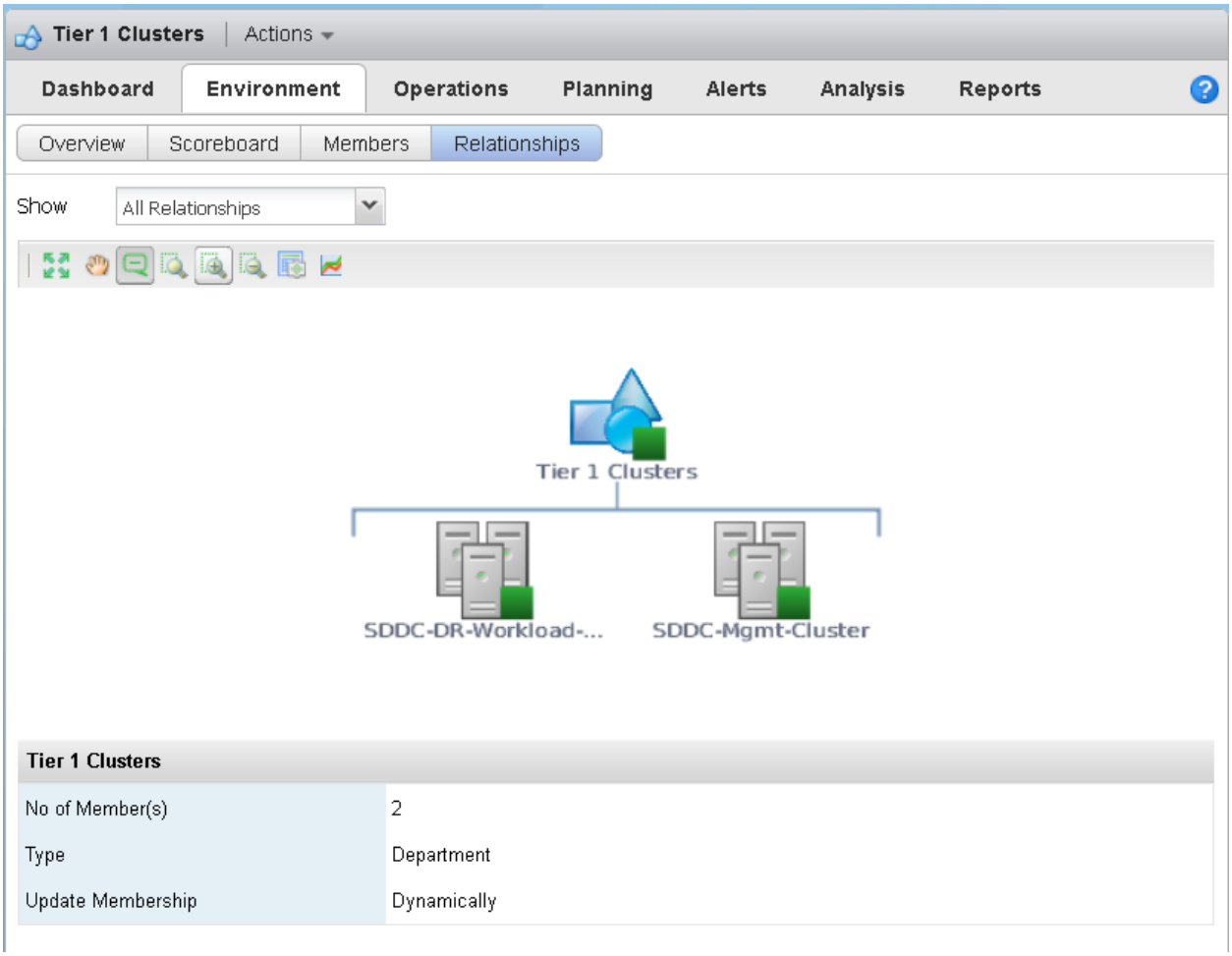

Home
SDDC-Demo
Actions
Getting Started
Summary
Monitor
Manage
Related Objects
Issues
Performance
Applications Availability
Tasks
Events
Storage DRS
Connectivity
Storage Reports
BCDR-PROD-VC.vmsg.lab
SDDC-Prod-Datacenter
Personal-VM- Datastore-Cluster
SDDC-Demo
SDDC-Datastore-01-FC-NetApp64
SDDC-Datastore-02-FC-NetApp61
SDDC-Datastore-03-FC-NetApp61
Global-Template-NFS-VNX
Personal-VM-SE-PSO-02 (1)
vsanDatastore
SDDC-DR-VC
vmsg-vc
SDDC-Datastore-01-FC-NetApp64
SDDC-Datastore-03-FC-NetApp61
SDDC-Datastore-02-FC-NetApp61
Realtime Summary for Virtual Machine Disks on Datastore Cluster SDDC-Demo
Average Read Latency per Virtual Machine Disk (Top 10)
Millisecond
Average Write Latency per Virtual Machine Disk (Top 10)
Millisecond
Read IOPs per Virtual Machine Disk (Top 10)
Number
Write IOPs per Virtual Machine Disk (Top 10)
Number
11/16/14 6:45 PM
11/16/14 6:55 PM
11/16/14 7:05 PM
11/16/14 7:15 PM
11/16/14 7:25 PM
11/16/14 7:35 PM

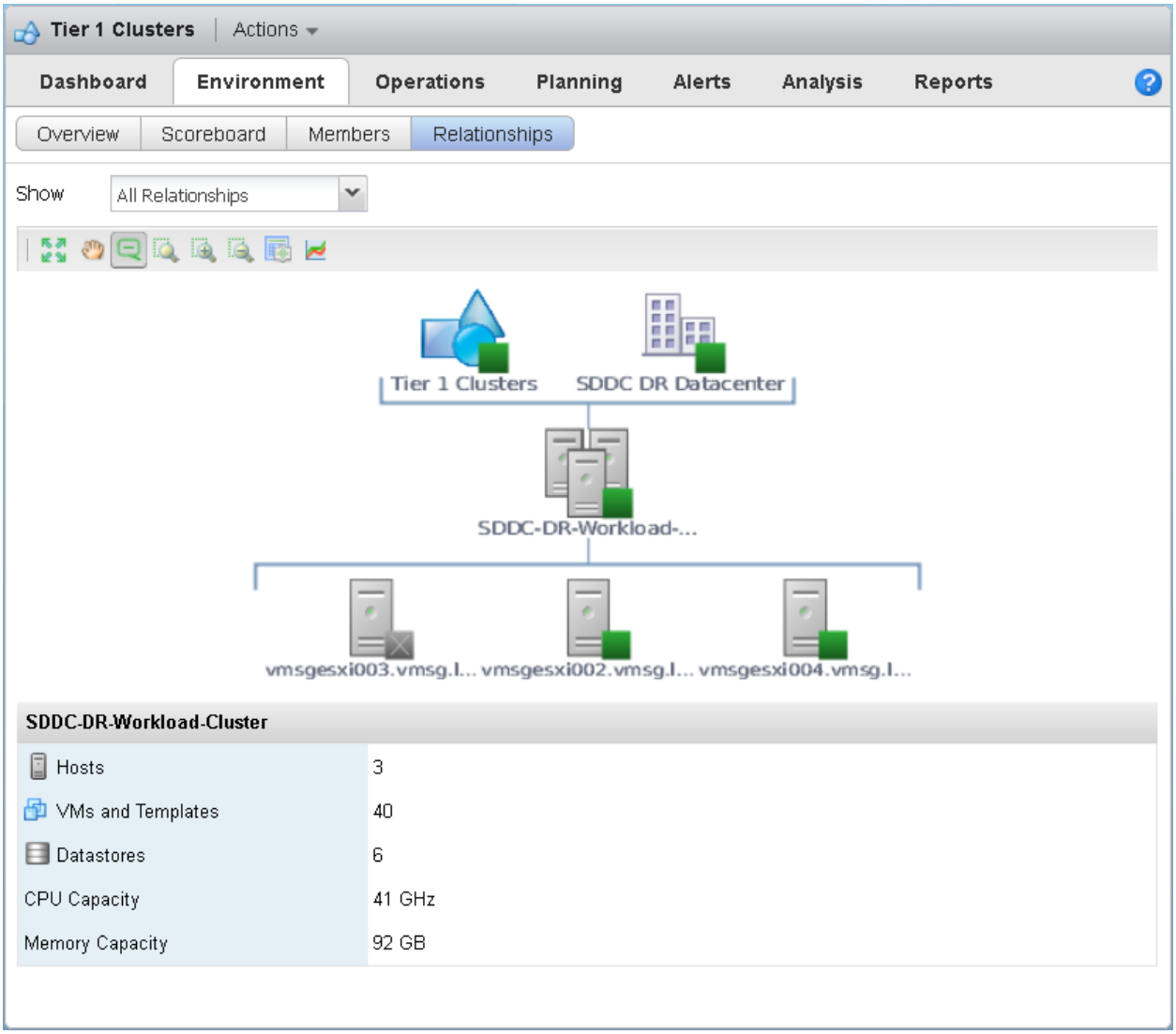
Chapter 8

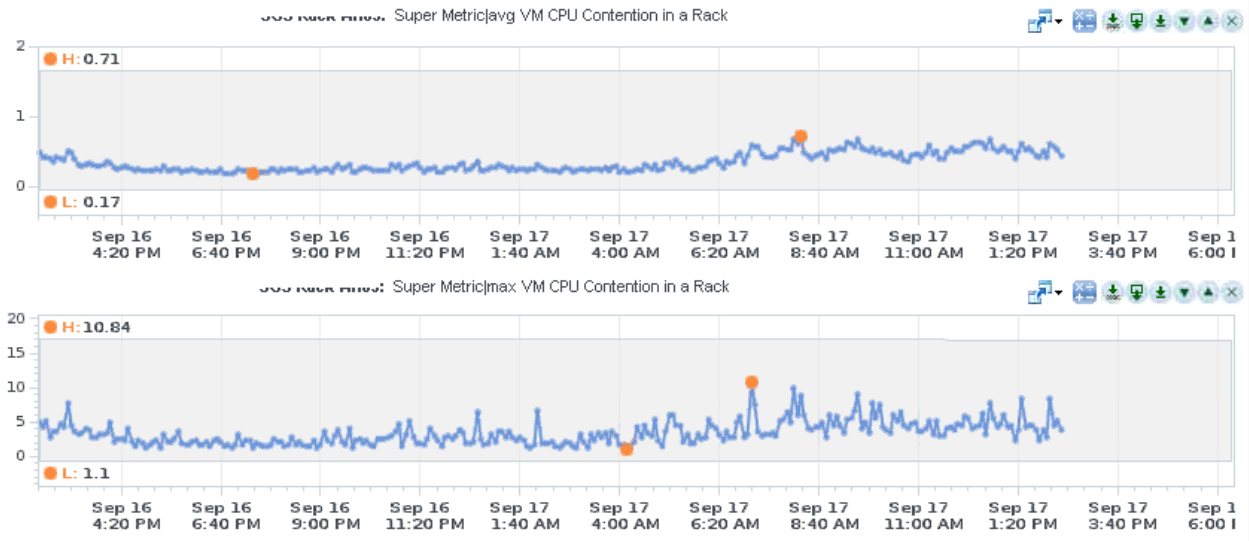

World
vCenter
vCenter
Data Center
Data Center
Data Center
Data Center
Data Center
cluster

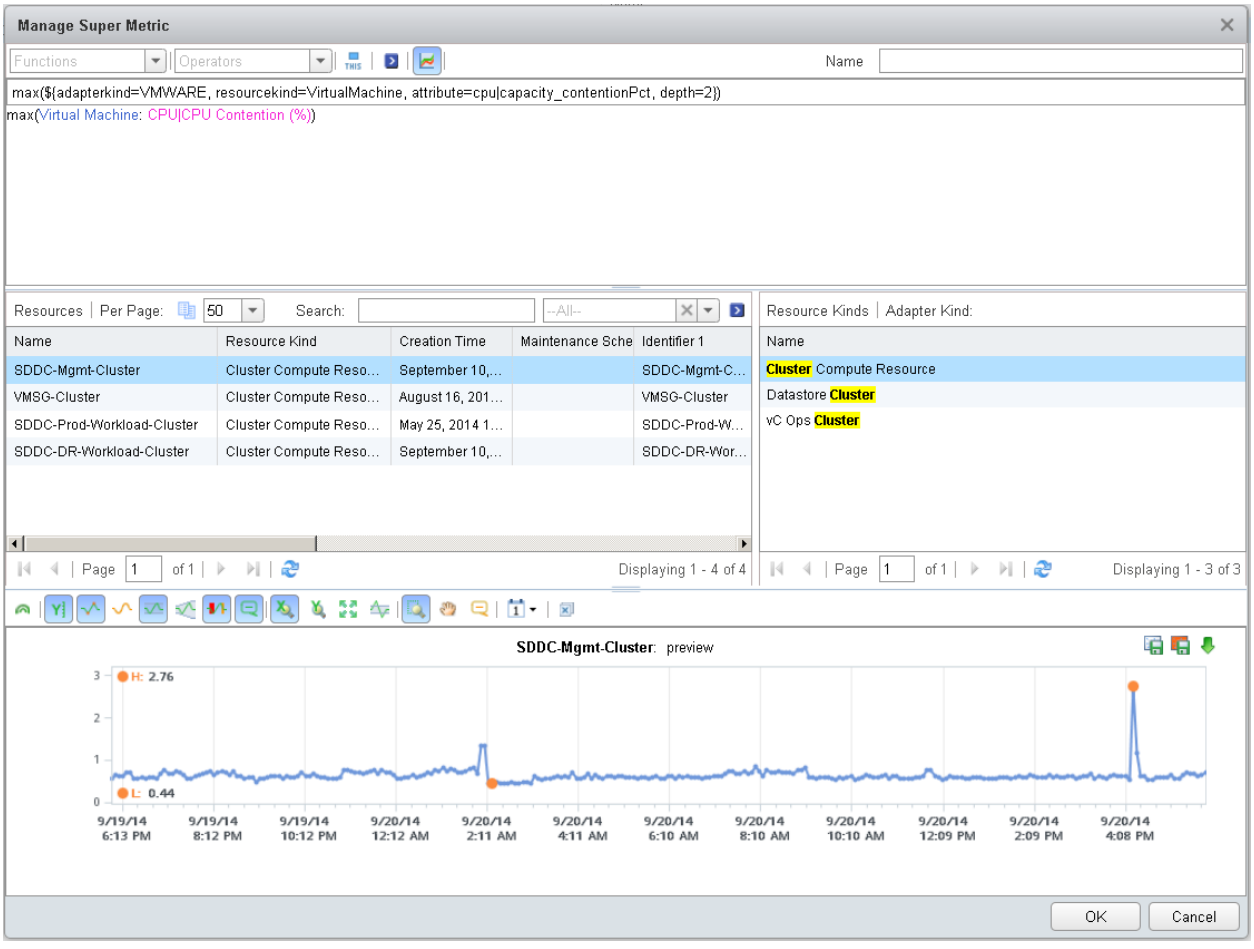

STEP 1: CHOOSE A VM
Search:
Name
BCDR-Demo-VM-to-suspend
BCDR-DR-SRM-Server
BCDR-Jump-Box
BCDR-Prod-SRM-Server
BCDR-Prod-VC
BCDR-vESXi-01
Page 1 of 2
1 - 100 of 142
ESXI HOST
vmsgesxi009.vmsg.l...
BCDR-Prod-VC
THE DATASTORE
SDDC-Datastore-03-FC-NetApp61
SRM vCenter Replication Management Server
NOW
100
THE DATASTORE HOSTING THE VM
SDDC-Datastore-03-FC-NetApp61: Summary | Total Number of VMs
SDDC-Datastore-03-FC-NetApp61: Capacity | Total Capacity (GB)
SDDC-Datastore-03-FC-NetApp61: Capacity | Used Space (GB)
VM KPI
BCDR-Prod-VC: CPU Usage | Demand (%)
BCDR-Prod-VC: CPU Usage | CPU Contention (%)
BCDR-Prod-VC: Memory | Usage (%)
BCDR-Prod-VC: Memory | Guest Demand (KB)
THE ESXI HOSTING THE VM
BCDR-Prod-VC: CPU Usage | Demand (%)
BCDR-Prod-VC: CPU Usage | CPU Contention (%)
BCDR-Prod-VC: Memory | Usage (%)
BCDR-Prod-VC: Memory | Guest Demand (KB)

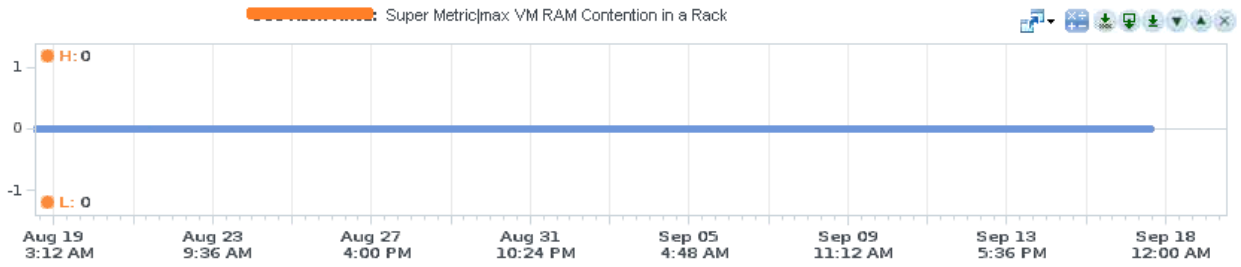

STEP 1: CHOOSE A VM
Search:
Name
BCDR-Demo-VM-to-suspend
BCDR-DR-SRM-Server
BCDR-Jump-Box
BCDR-Prod-SRM-Server
BCDR-Prod-VC
BCDR-vESXi-01
Page 1 of 2
1 - 100 of 142
ESXI HOST
vmsgesxi009.vmsg.l...
BCDR-Prod-VC
VM KPI
BCDR-Prod-VC: CPU Usage | Demand (%)
H: 15.2
L: 3.9
BCDR-Prod-VC: CPU Usage | CPU Contention (%)
H: 4.13
L: 1.49
BCDR-Prod-VC: Memory | Usage (%)
H: 19.26
L: 10.92
BCDR-Prod-VC: Memory | Guest Demand (KB)
H: 1,777,822.93
THE ESXI HOSTING THE VM
BCDR-Prod-VC: CPU Usage | Demand (%)
H: 15.2
L: 3.9
BCDR-Prod-VC: CPU Usage | CPU Contention (%)
H: 4.13
L: 1.49
BCDR-Prod-VC: Memory | Usage (%)
H: 19.26
L: 10.92
BCDR-Prod-VC: Memory | Guest Demand (KB)
H: 1,777,822.93
Sep 18 8:00 AM
Sep 18 9:10 AM
Sep 18 10:20 AM
Sep 18 11:30 AM
Sep 18 12:40 PM
Sep 18 1:50 PM

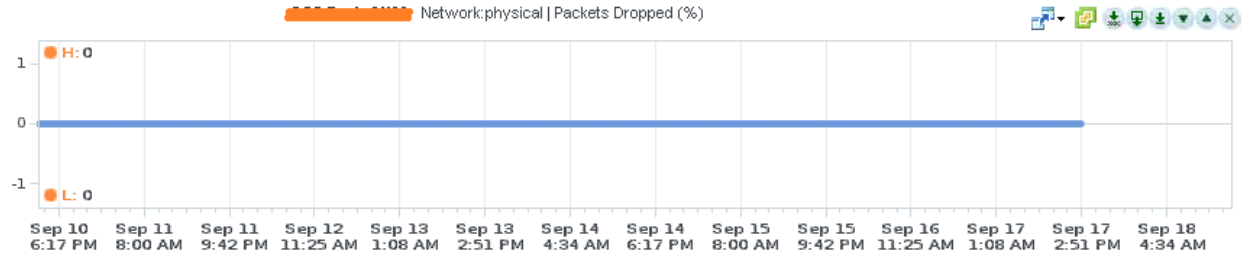

Tier 1 Clusters
Actions
Dashboard
Environment
Operations
Planning
Alerts
Analysis
Reports
Overview
Scoreboard
Members
Relationships
Show
All Relationships
Tier 1 Clusters
SDDC-DR-Workload-...
SDDC-Mgmt-Cluster
Tier 1 Clusters
No of Member(s)
2
Type
Department
Update Membership
Dynamically

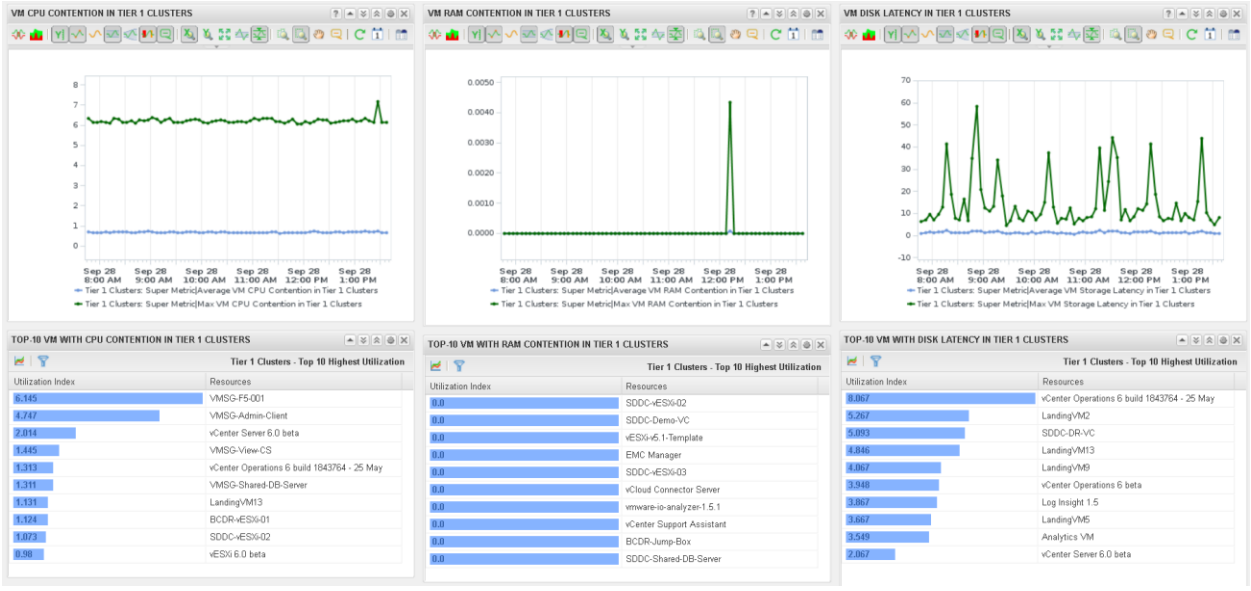

Tier 1 Clusters
Actions
Dashboard
Environment
Operations
Planning
Alerts
Analysis
Reports
Overview
Scoreboard
Members
Relationships
Show
All Relationships
Tier 1 Clusters
SDDC DR Datacenter
SDDC-DR-Workload-...
vmsgesxi003.vmsg.l...
vmsgesxi002.vmsg.l...
vmsgesxi004.vmsg.l...
SDDC-DR-Workload-Cluster
Hosts
3
VMs and Templates
40
Datastores
6
CPU Capacity
41 GHz
Memory Capacity
92 GB


Super Metric|avg VM CPU Contention in a Rack
H: 0.71
L: 0.17
Super Metric|max VM CPU Contention in a Rack
H: 10.84
L: 1.1
Sep 16 4:20 PM
Sep 16 6:40 PM
Sep 16 9:00 PM
Sep 16 11:20 PM
Sep 17 1:40 AM
Sep 17 4:00 AM
Sep 17 6:20 AM
Sep 17 8:40 AM
Sep 17 11:00 AM
Sep 17 1:20 PM
Sep 17 3:40 PM

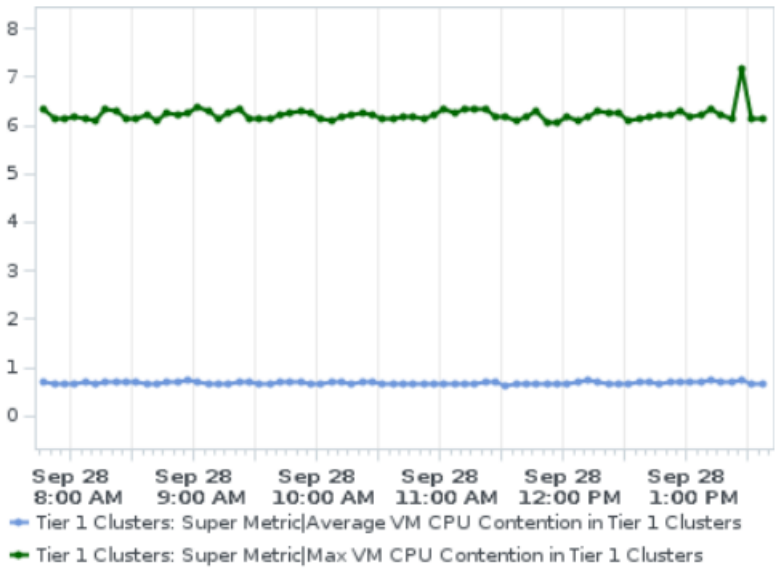

Manage Super Metric
Functions
Operators
Name
max(${adapterkind=VMWARE, resourcekind=VirtualMachine, attribute=cpu|capacity_contentionPct, depth=2})
max(Virtual Machine: CPU|CPU Contention (%))
Resources | Per Page: 50 Search:
Name
Resource Kind
Creation Time
Maintenance Sche
Identifier 1
SDDC-Mgmt-Cluster
Cluster Compute Reso...
September 10,...
SDDC-Mgmt-C...
VMSG-Cluster
Cluster Compute Reso...
August 16, 201...
VMSG-Cluster
SDDC-Prod-Workload-Cluster
Cluster Compute Reso...
May 25, 2014 1...
SDDC-Prod-W...
SDDC-DR-Workload-Cluster
Cluster Compute Reso...
September 10,...
SDDC-DR-Wor...
Page 1 of 1
Displaying 1 - 4 of 4
Resource Kinds | Adapter Kind:
Name
Cluster Compute Resource
Datastore Cluster
vC Ops Cluster
Page 1 of 1
Displaying 1 - 3 of 3
SDDC-Mgmt-Cluster: preview
H: 2.76
L: 0.44
9/19/14 6:13 PM
9/19/14 8:12 PM
9/19/14 10:12 PM
9/20/14 12:12 AM
9/20/14 2:11 AM
9/20/14 4:11 AM
9/20/14 6:10 AM
9/20/14 8:10 AM
9/20/14 10:10 AM
9/20/14 12:09 PM
9/20/14 2:09 PM
9/20/14 4:08 PM
OK
Cancel


Super Metric|max VM RAM Contention in a Rack
H: 0
L: 0
1
0
-1
Aug 19 3:12 AM
Aug 23 9:36 AM
Aug 27 4:00 PM
Aug 31 10:24 PM
Sep 05 4:48 AM
Sep 09 11:12 AM
Sep 13 5:36 PM
Sep 18 12:00 AM


Network:physical | Packets Dropped (%)
H: 0
L: 0
1
0
-1
Sep 10 6:17 PM
Sep 11 8:00 AM
Sep 11 9:42 PM
Sep 12 11:25 AM
Sep 13 1:08 AM
Sep 13 2:51 PM
Sep 14 4:34 AM
Sep 14 6:17 PM
Sep 15 8:00 AM
Sep 15 9:42 PM
Sep 16 11:25 AM
Sep 17 1:08 AM
Sep 17 2:51 PM
Sep 18 4:34 AM


VM CPU CONTENTION IN TIER 1 CLUSTERS
Tier 1 Clusters: Super Metric|Average VM CPU Contention in Tier 1 Clusters
Tier 1 Clusters: Super Metric|Max VM CPU Contention in Tier 1 Clusters
VM RAM CONTENTION IN TIER 1 CLUSTERS
Tier 1 Clusters: Super Metric|Average VM RAM Contention in Tier 1 Clusters
Tier 1 Clusters: Super Metric|Max VM RAM Contention in Tier 1 Clusters
VM DISK LATENCY IN TIER 1 CLUSTERS
Tier 1 Clusters: Super Metric|Average VM Storage Latency in Tier 1 Clusters
Tier 1 Clusters: Super Metric|Max VM Storage Latency in Tier 1 Clusters
TOP-10 VM WITH CPU CONTENTION IN TIER 1 CLUSTERS
Tier 1 Clusters - Top 10 Highest Utilization
Utilization Index
Resources
6.145 VMSG-F5-001
4.747 VMSG-Admin-Client
2.014 vCenter Server 6.0 beta
1.445 VMSG-View-CS
1.313 vCenter Operations 6 build 1843764 - 25 May
1.311 VMSG-Shared-DB-Server
1.131 LandingVM13
1.124 BCDR-vESXi-01
1.073 SDDC-vESXi-02
0.98 vESXi 6.0 beta
TOP-10 VM WITH RAM CONTENTION IN TIER 1 CLUSTERS
Tier 1 Clusters - Top 10 Highest Utilization
Utilization Index
Resources
0.0 SDDC-vESXi-02
0.0 SDDC-Demo-VC
0.0 vESXi-v5.1-Template
0.0 EMC Manager
0.0 SDDC-vESXi-03
0.0 vCloud Connector Server
0.0 vmware-io-analyzer-1.5.1
0.0 vCenter Support Assistant
0.0 BCDR-Jump-Box
0.0 SDDC-Shared-DB-Server
TOP-10 VM WITH DISK LATENCY IN TIER 1 CLUSTERS
Tier 1 Clusters - Top 10 Highest Utilization
Utilization Index
Resources
8.067 vCenter Operations 6 build 1843764 - 25 May
5.267 LandingVM2
5.093 SDDC-DR-VC
4.846 LandingVM13
4.067 LandingVM9
3.948 vCenter Operations 6 beta
3.867 Log Insight 1.5
3.667 LandingVM5
3.549 Analytics VM
2.067 vCenter Server 6.0 beta

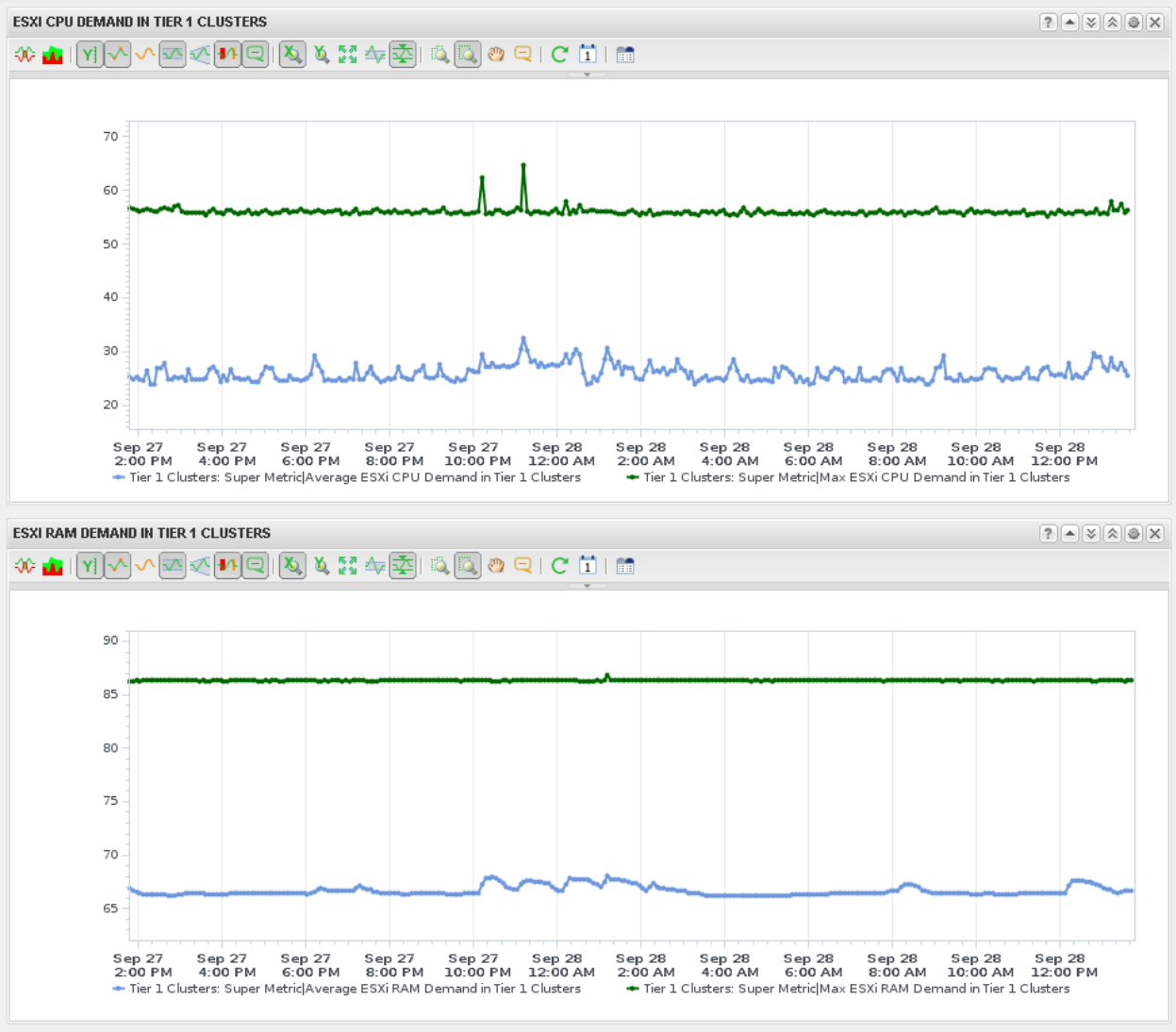
VM CPU CONTENTION IN TIER 1 CLUSTERS

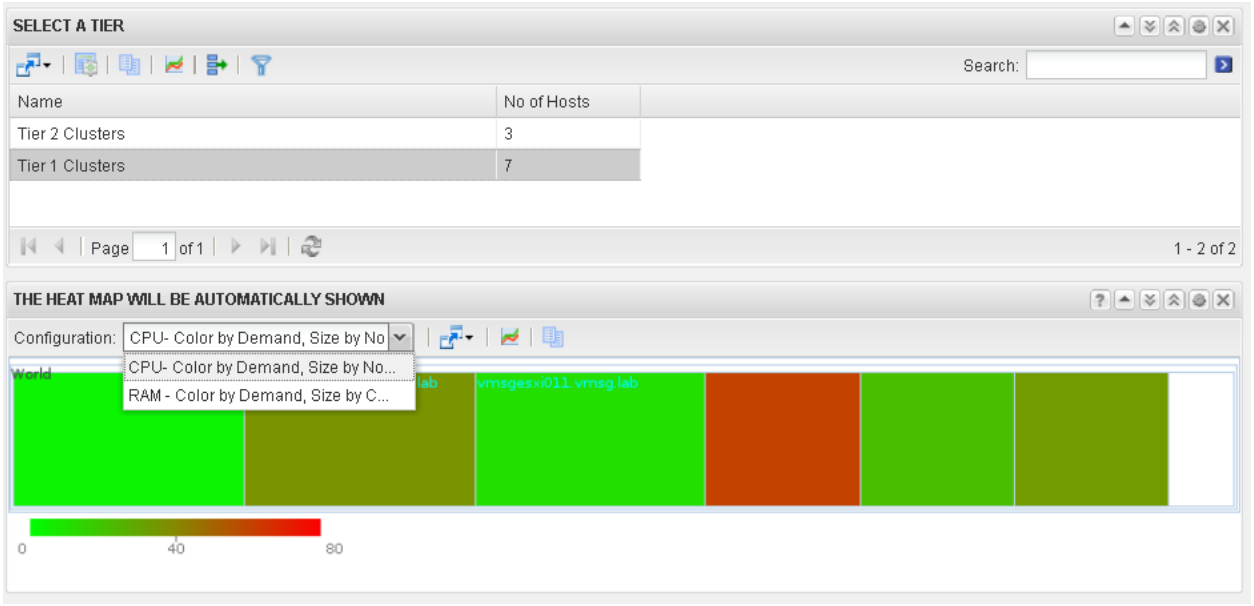


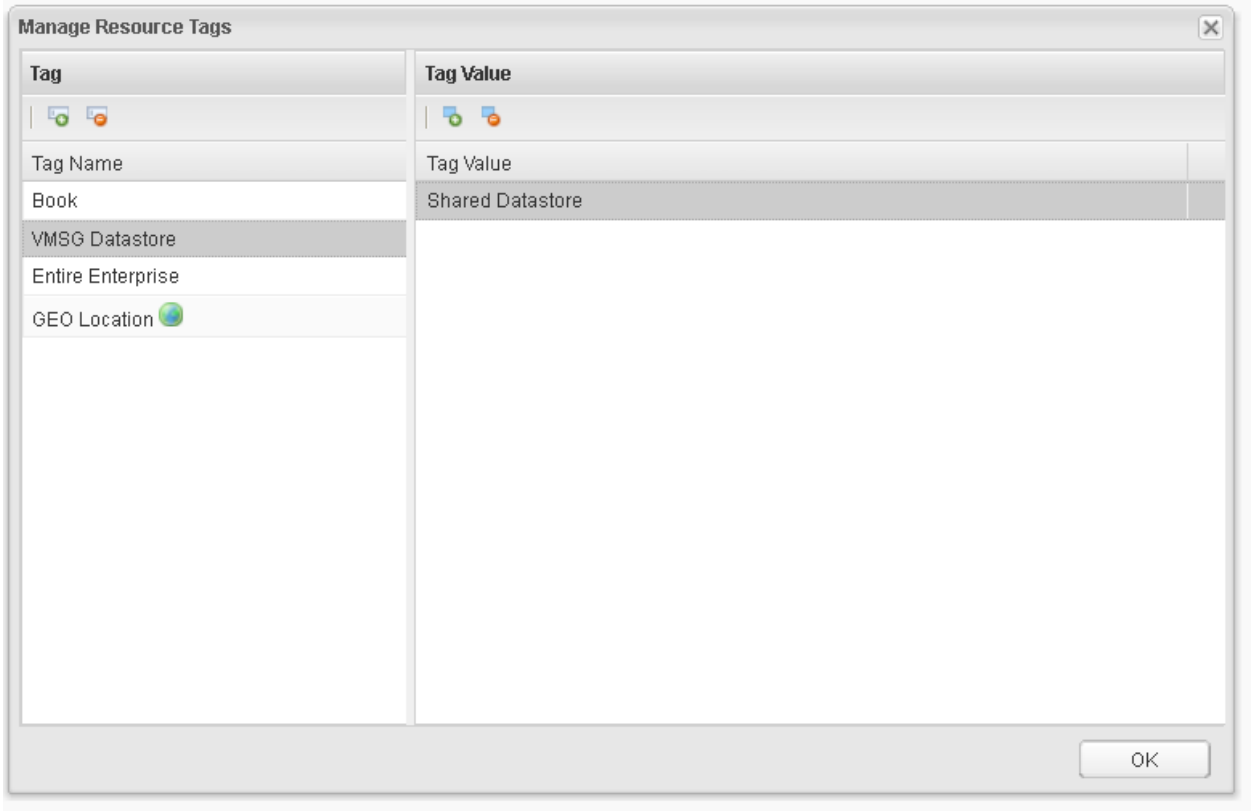
TOP-10 VM WITH CPU CONTENTION IN TIER 1 CLUSTERS

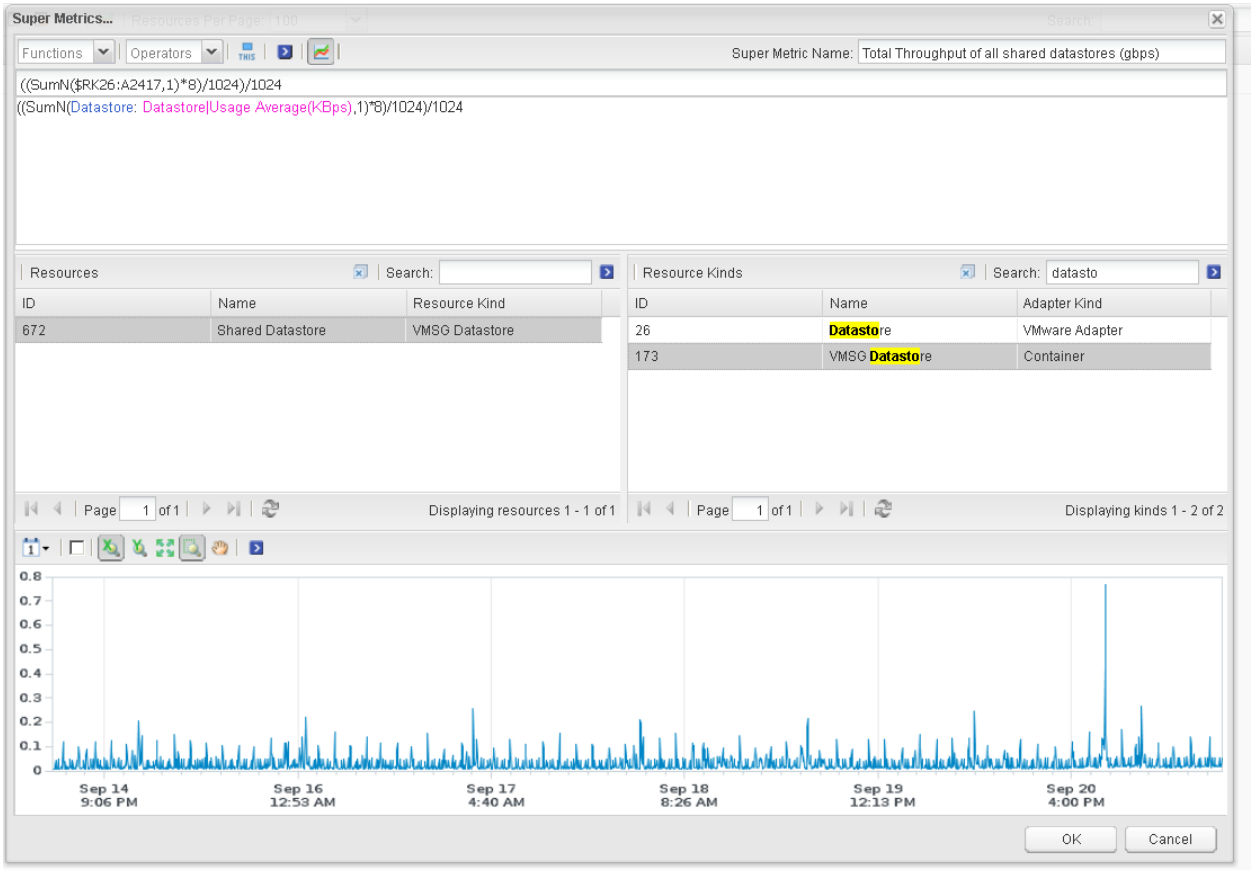
Tier 1 Clusters - Top 10 Highest Utilization

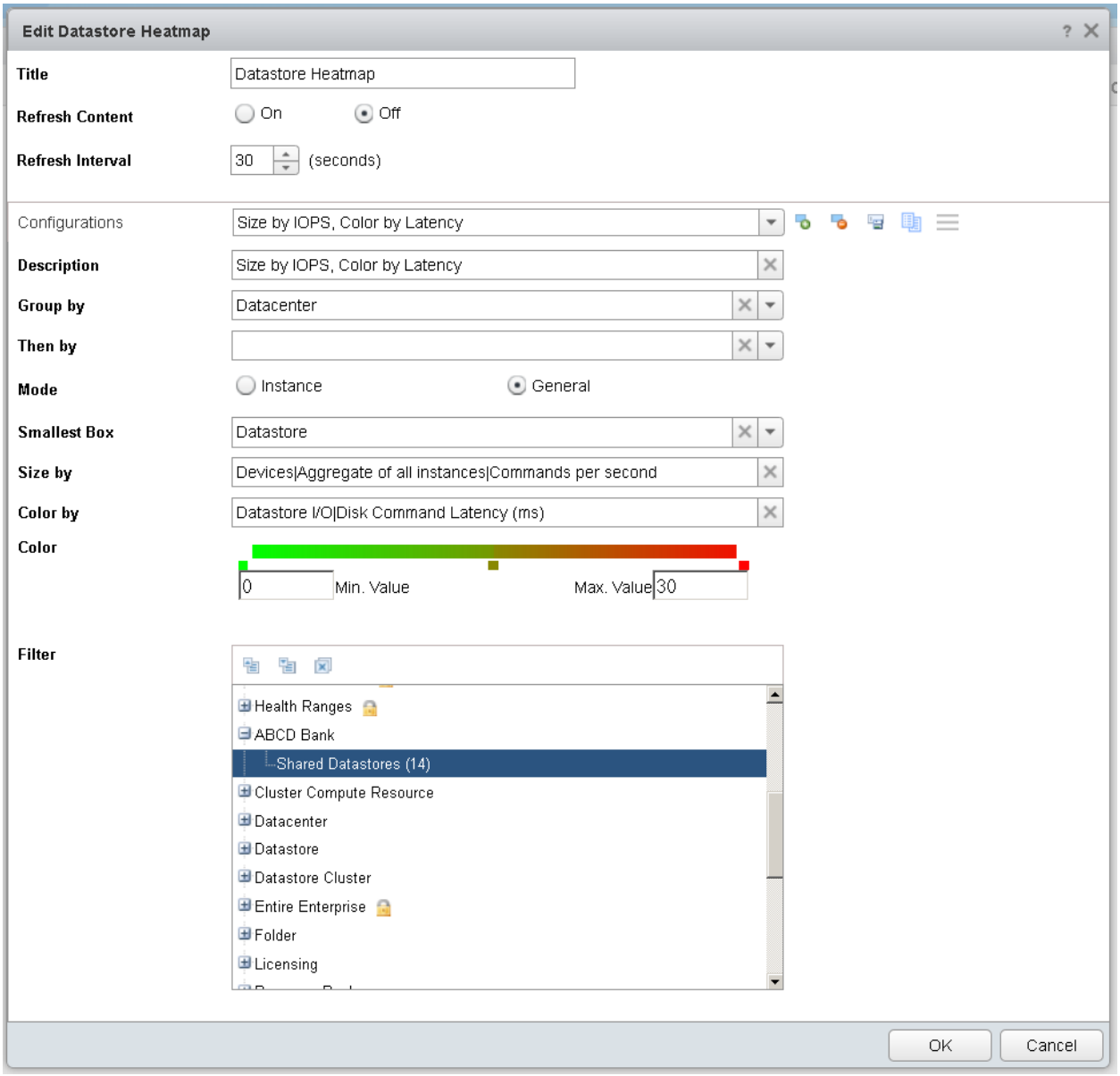
Utilization Index	Resources
6.145	VMSG-F5-001
4.747	VMSG-Admin-Client
2.014	vCenter Server 6.0 beta
1.445	VMSG-View-CS
1.313	vCenter Operations 6 build 1843764 - 25 May
1.311	VMSG-Shared-DB-Server
1.131	LandingVM13
1.124	BCDR-vESXi-01
1.073	SDDC-vESXi-02
0.98	vESXi 6.0 beta

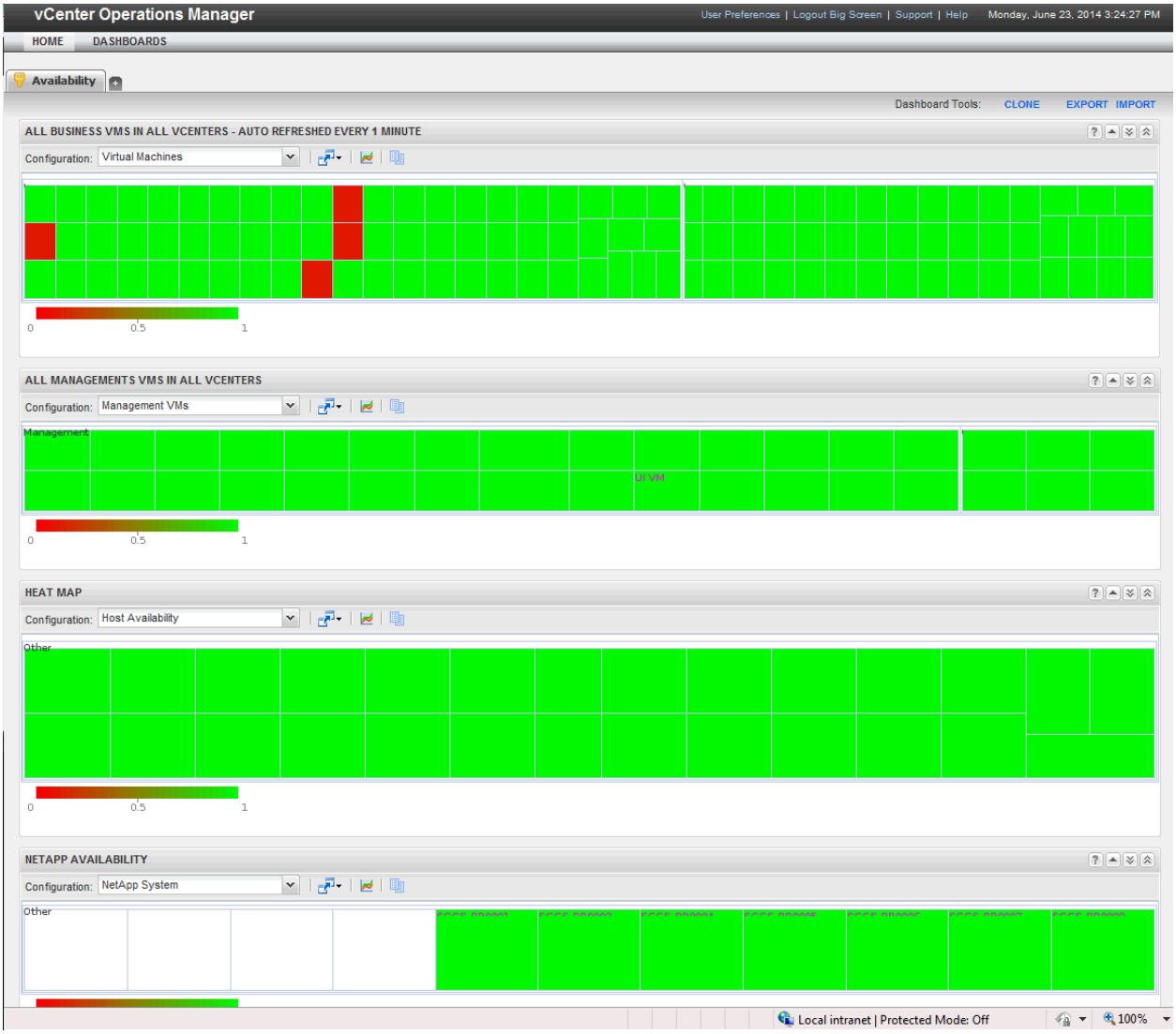

ESXI CPU DEMAND IN TIER 1 CLUSTERS
70
60
50
40
30
20
Sep 27 2:00 PM
Sep 27 4:00 PM
Sep 27 6:00 PM
Sep 27 8:00 PM
Sep 27 10:00 PM
Sep 28 12:00 AM
Sep 28 2:00 AM
Sep 28 4:00 AM
Sep 28 6:00 AM
Sep 28 8:00 AM
Sep 28 10:00 AM
Sep 28 12:00 PM
Tier 1 Clusters: Super Metric|Average ESXi CPU Demand in Tier 1 Clusters
Tier 1 Clusters: Super Metric|Max ESXi CPU Demand in Tier 1 Clusters
ESXI RAM DEMAND IN TIER 1 CLUSTERS
90
85
80
75
70
65
Sep 27 2:00 PM
Sep 27 4:00 PM
Sep 27 6:00 PM
Sep 27 8:00 PM
Sep 27 10:00 PM
Sep 28 12:00 AM
Sep 28 2:00 AM
Sep 28 4:00 AM
Sep 28 6:00 AM
Sep 28 8:00 AM
Sep 28 10:00 AM
Sep 28 12:00 PM
Tier 1 Clusters: Super Metric|Average ESXi RAM Demand in Tier 1 Clusters
Tier 1 Clusters: Super Metric|Max ESXi RAM Demand in Tier 1 Clusters

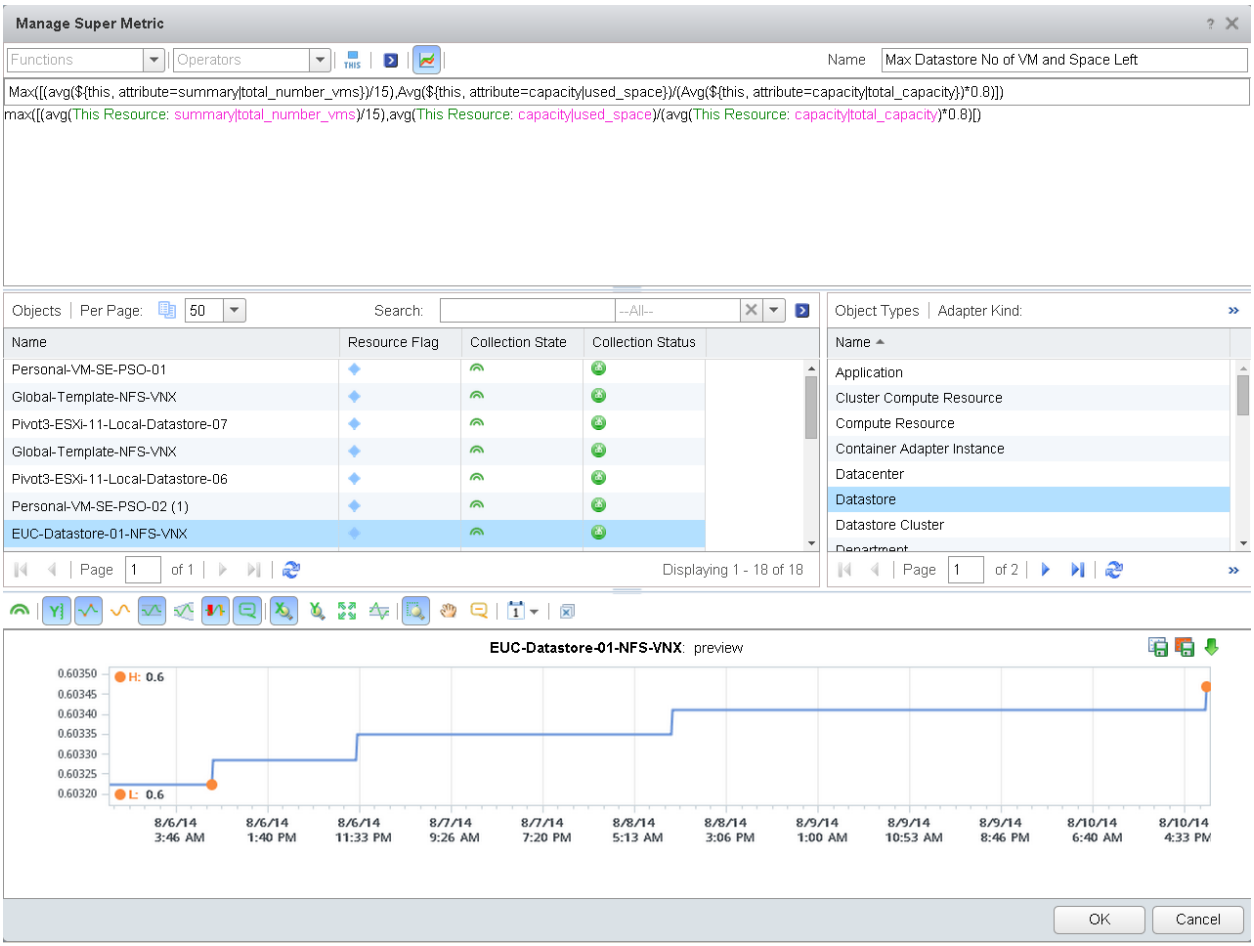

SELECT A TIER
Search:
Name
No of Hosts
Tier 2 Clusters
3
Tier 1 Clusters
7
Page 1 of 1
1 - 2 of 2
THE HEAT MAP WILL BE AUTOMATICALLY SHOWN
Configuration: CPU- Color by Demand, Size by No
CPU- Color by Demand, Size by No...
RAM - Color by Demand, Size by C...
World
vmsgesxi011.vmsg.lab
0
40
80

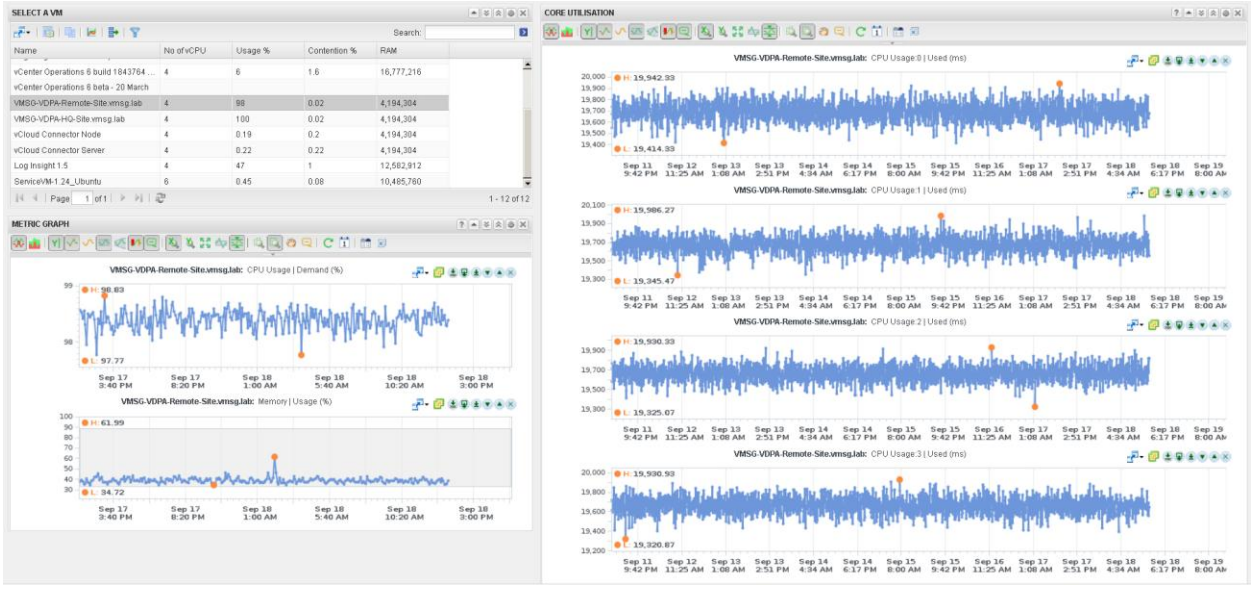

Manage Resource Tags
Tag
Tag Value
Tag Name
Tag Value
Book
Shared Datastore
VMSG Datastore
Entire Enterprise
GEO Location
OK

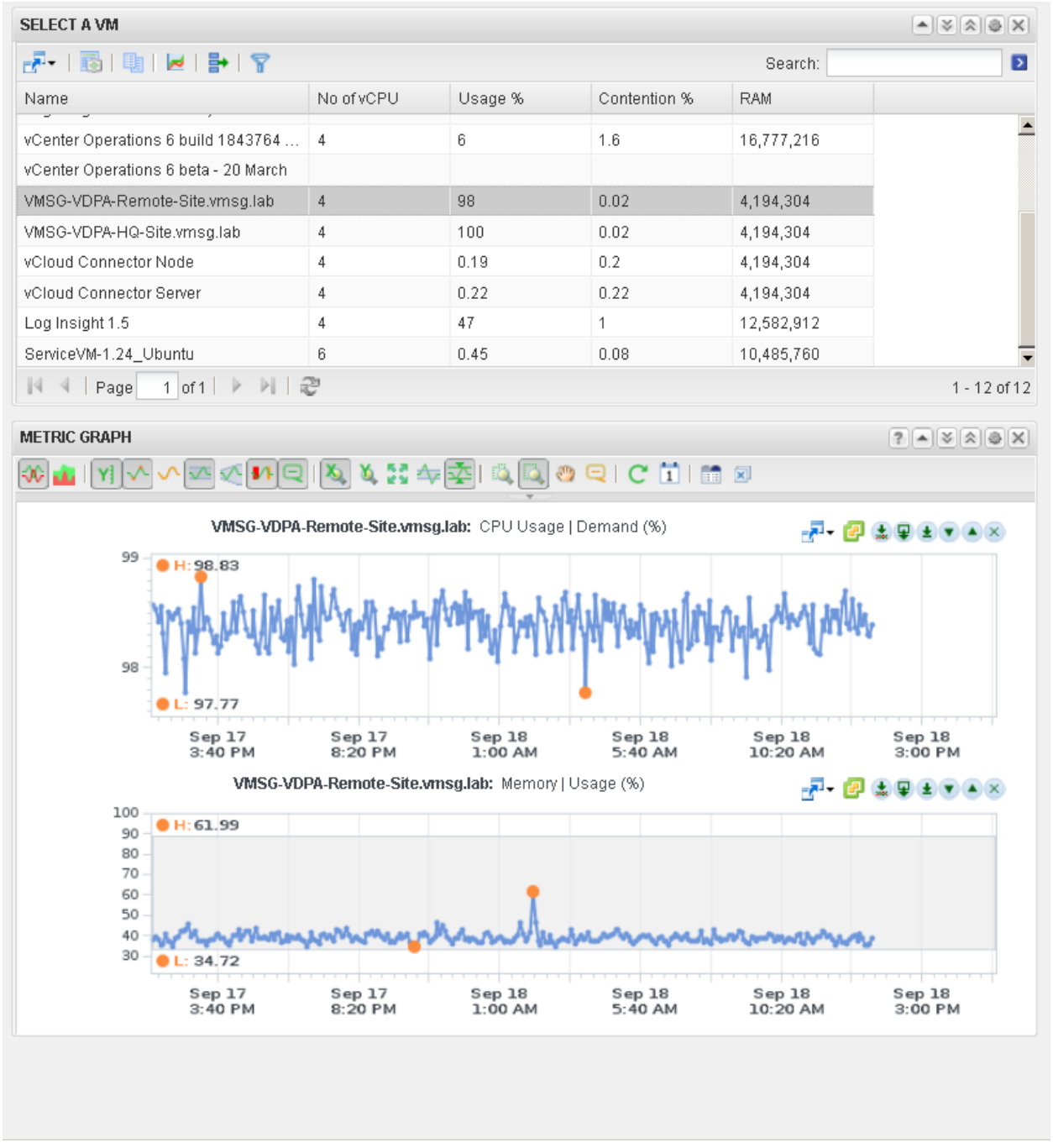

Super Metrics...
Functions
Operators
Super Metric Name: Total Throughput of all shared datastores (gbps)
((SumN($RK26:A2417,1)*8)/1024)/1024
((SumN(Datastore: Datastore|Usage Average(KBps),1)*8)/1024)/1024
Resources
Search:
ID
Name
Resource Kind
672
Shared Datastore
VMSG Datastore
Page 1 of 1
Displaying resources 1 - 1 of 1
Resource Kinds
Search: datasto
ID
Name
Adapter Kind
26
Datastore
VMware Adapter
173
VMSG Datastore
Container
Page 1 of 1
Displaying kinds 1 - 2 of 2
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Sep 14 9:06 PM
Sep 16 12:53 AM
Sep 17 4:40 AM
Sep 18 8:26 AM
Sep 19 12:13 PM
Sep 20 4:00 PM
OK
Cancel

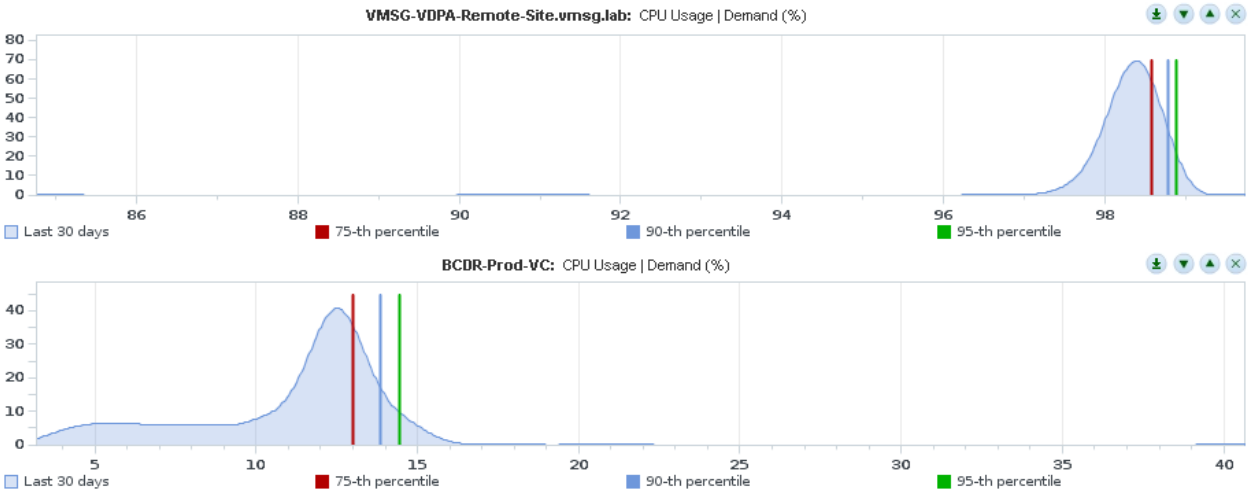

Edit Datastore Heatmap
Title
Datastore Heatmap
Refresh Content
On
Off
Refresh Interval
30
(seconds)
Configurations
Size by IOPS, Color by Latency
Description
Size by IOPS, Color by Latency
Group by
Datacenter
Then by
Mode
Instance
General
Smallest Box
Datastore
Size by
Devices|Aggregate of all instances|Commands per second
Color by
Datastore I/O|Disk Command Latency (ms)
Color
0
Min. Value
Max. Value
30
Filter
Health Ranges
ABCD Bank
Shared Datastores (14)
Cluster Compute Resource
Datacenter
Datastore
Datastore Cluster
Entire Enterprise
Folder
Licensing
OK
Cancel

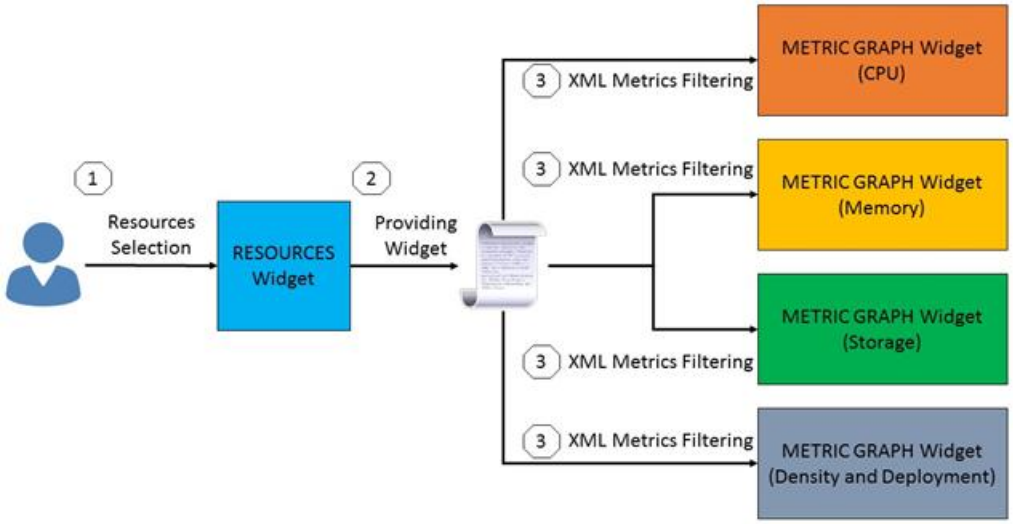

vCenter Operations Manager
User Preferences | Logout Big Screen | Support | Help
Monday, June 23, 2014 3:24:27 PM
HOME
DASHBOARDS
Availability
Dashboard Tools:
CLONE
EXPORT
IMPORT
ALL BUSINESS VMS IN ALL VCENTERS - AUTO REFRESHED EVERY 1 MINUTE
Configuration:
Virtual Machines
0
0.5
1
ALL MANAGEMENTS VMS IN ALL VCENTERS
Configuration:
Management VMs
Management
0
0.5
1
HEAT MAP
Configuration:
Host Availability
Other
0
0.5
1
NETAPP AVAILABILITY
Configuration:
NetApp System
Other
Local intranet | Protected Mode: Off
100%


Manage Super Metric
Functions
Operators
Name
Max Datastore No of VM and Space Left
Max{[(avg(${this, attribute=summary|total_number_vms})/15),Avg(${this, attribute=capacity|used_space})/(Avg(${this, attribute=capacity|total_capacity})*0.8)]}
max{[(avg(This Resource: summary|total_number_vms)/15),avg(This Resource: capacity|used_space)/(avg(This Resource: capacity|total_capacity)*0.8)[}
Objects | Per Page: 50
Search:
--All--
Name
Resource Flag
Collection State
Collection Status
Personal-VM-SE-PSO-01
Global-Template-NFS-VNX
Pivot3-ESXi-11-Local-Datastore-07
Global-Template-NFS-VNX
Pivot3-ESXi-11-Local-Datastore-06
Personal-VM-SE-PSO-02 (1)
EUC-Datastore-01-NFS-VNX
Page 1 of 1
Displaying 1 - 18 of 18
Object Types | Adapter Kind:
Name
Application
Cluster Compute Resource
Compute Resource
Container Adapter Instance
Datacenter
Datastore
Datastore Cluster
Page 1 of 2
EUC-Datastore-01-NFS-VNX: preview
H: 0.6
L: 0.6
0.60350
0.60345
0.60340
0.60335
0.60330
0.60325
0.60320
8/6/14 3:46 AM
8/6/14 1:40 PM
8/6/14 11:33 PM
8/7/14 9:26 AM
8/7/14 7:20 PM
8/8/14 5:13 AM
8/8/14 3:06 PM
8/9/14 1:00 AM
8/9/14 10:53 AM
8/9/14 8:46 PM
8/10/14 6:40 AM
8/10/14 4:33 PM
OK
Cancel

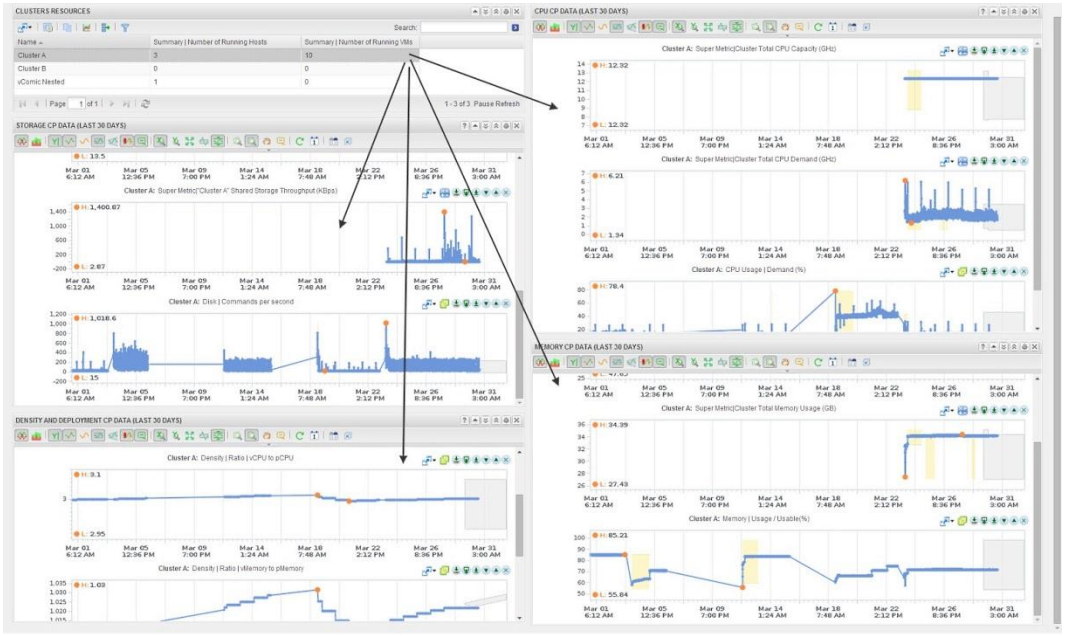

SELECT A VM
METRIC GRAPH
CORE UTILISATION
VMSG-VDPA-Remote-Site.vmsg.lab: CPU Usage | Demand (%)
VMSG-VDPA-Remote-Site.vmsg.lab: Memory | Usage (%)
VMSG-VDPA-Remote-Site.vmsg.lab: CPU Usage:0 | Used (ms)
VMSG-VDPA-Remote-Site.vmsg.lab: CPU Usage:1 | Used (ms)
VMSG-VDPA-Remote-Site.vmsg.lab: CPU Usage:2 | Used (ms)
VMSG-VDPA-Remote-Site.vmsg.lab: CPU Usage:3 | Used (ms)

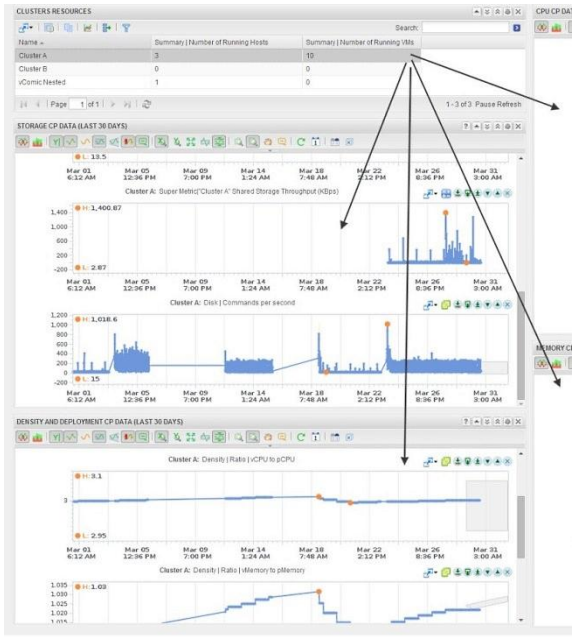

SELECT A VM
Search:
Name
No of vCPU
Usage %
Contention %
RAM
vCenter Operations 6 build 1843764 ...
4
6
1.6
16,777,216
vCenter Operations 6 beta - 20 March
VMSG-VDPA-Remote-Site.vmsg.lab
4
98
0.02
4,194,304
VMSG-VDPA-HQ-Site.vmsg.lab
4
100
0.02
4,194,304
vCloud Connector Node
4
0.19
0.2
4,194,304
vCloud Connector Server
4
0.22
0.22
4,194,304
Log Insight 1.5
4
47
1
12,582,912
ServiceVM-1.24_Ubuntu
6
0.45
0.08
10,485,760
Page 1 of 1
1 - 12 of 12
METRIC GRAPH
VMSG-VDPA-Remote-Site.vmsg.lab: CPU Usage | Demand (%)
H: 98.83
L: 97.77
99
98
Sep 17 3:40 PM
Sep 17 8:20 PM
Sep 18 1:00 AM
Sep 18 5:40 AM
Sep 18 10:20 AM
Sep 18 3:00 PM
VMSG-VDPA-Remote-Site.vmsg.lab: Memory | Usage (%)
H: 61.99
L: 34.72
100
90
80
70
60
50
40
30
Sep 17 3:40 PM
Sep 17 8:20 PM
Sep 18 1:00 AM
Sep 18 5:40 AM
Sep 18 10:20 AM
Sep 18 3:00 PM


VMSG-VDPA-Remote-Site.vmsg.lab: CPU Usage | Demand (%)
80
70
60
50
40
30
20
10
0
86
88
90
92
94
96
98
Last 30 days
75-th percentile
90-th percentile
95-th percentile
BCDR-Prod-VC: CPU Usage | Demand (%)
40
30
20
10
0
5
10
15
20
25
30
35
40
Last 30 days
75-th percentile
90-th percentile
95-th percentile


1
Resources Selection
RESOURCES Widget
2
Providing Widget
3 XML Metrics Filtering
3 XML Metrics Filtering
3 XML Metrics Filtering
3 XML Metrics Filtering
METRIC GRAPH Widget (CPU)
METRIC GRAPH Widget (Memory)
METRIC GRAPH Widget (Storage)
METRIC GRAPH Widget (Density and Deployment)

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<AdapterKinds>
   <AdapterKind adapterKindKey="VMWARE">
      <ResourceKind resourceKindKey="HostSystem">
         <Metric attrkey="badge|workload" label="Workload" unit="%" yellow="50" orange="60" red="80" />
         <Metric attrkey="mem|host_usage" label="Host Usage" unit="%" yellow="50" orange="60" red="80" />
         <Metric attrkey="cpu|usage_average" label="Usage Avg" unit="%" yellow="50" orange="60" red="80" />
      </ResourceKind>
      <ResourceKind resourceKindKey="VirtualMachine">
         <Metric attrkey="badge|workload" label="Workload" unit="%" yellow="50" orange="60" red="80" />
         <Metric attrkey="disk|usage_average" label="Usage Avg" unit="%" yellow="50" orange="60" red="80" />
         <Metric attrkey="mem|host_usage" label="Host Usage" unit="%" yellow="50" orange="60" red="80" />
      </ResourceKind>
   </AdapterKind>
   <AdapterKind adapterKindKey="bbb">
   </AdapterKind>
</AdapterKinds>
```




CLUSTERS RESOURCES
Search:
Name
Summary | Number of Running Hosts
Summary | Number of Running VMs
Cluster A
3
10
Cluster B
0
0
vComicNested
1
0
Page 1 of 1
1 - 3 of 3 Pause Refresh
STORAGE CP DATA (LAST 30 DAYS)
L: 13.5
Mar 01 6:12 AM
Mar 05 12:36 PM
Mar 09 7:00 PM
Mar 14 1:24 AM
Mar 18 7:48 AM
Mar 22 2:12 PM
Mar 26 8:36 PM
Mar 31 3:00 AM
Cluster A: Super Metric('Cluster A' Shared Storage Throughput (KBps)
H: 1,400.67
1,400
1,000
600
200
-200
L: 2.87
Cluster A: Disk | Commands per second
H: 1,018.6
1,200
1,000
800
600
400
200
0
-200
L: 15
DENSITY AND DEPLOYMENT CP DATA (LAST 30 DAYS)
Cluster A: Density | Ratio | vCPU to pCPU
H: 3.1
3
L: 2.95
Cluster A: Density | Ratio | vMemory to pMemory
H: 1.03
1.035
1.030
1.025
1.020