



p1																
p2																
TILE_5	Actual	Ratio	QoS	Actual	Ratio	QoS	Actual	Ratio	QoS	Actual	Ratio	QoS	Actual	Ratio	QoS	GM
p0																
p1																
p2																
TILE_6	Actual	Ratio	QoS	Actual	Ratio	QoS	Actual	Ratio	QoS	Actual	Ratio	QoS	Actual	Ratio	QoS	GM
p0																
p1																
p2																
TILE_7	Actual	Ratio	QoS	Actual	Ratio	QoS	Actual	Ratio	QoS	Actual	Ratio	QoS	Actual	Ratio	QoS	GM
p0																
p1																
p2																
TILE_8	Actual	Ratio	QoS	Actual	Ratio	QoS	Actual	Ratio	QoS	Actual	Ratio	QoS	Actual	Ratio	QoS	GM
p0																
p1																
p2																
TILE_9	Actual	Ratio	QoS	Actual	Ratio	QoS	Actual	Ratio	QoS	Actual	Ratio	QoS	Actual	Ratio	QoS	GM
p0																
p1																
p2																
p0_score:																
p1_score:																
p2_score:																

<b>Infrastructure_Operations_Scores:</b>	vmotion	svmotion	deploy
<b>Completed_Ops_PerHour</b>			
<b>Avg_Seconds_To_Complete</b>			
<b>Failures</b>			
<b>Ratio</b>			
<b>Number_Of_Threads</b>			

<b>Summary</b>	NC	Turbo_Setting:0
	Number_Of_Compliance_Issues - NC	Median_Phase(p1)
<b>Unreviewed_VMmark2_Applications_Score</b>	NC	

<b>Unreviewed_VMmark2_Infrastructure_Score</b>	NC
<b>Unreviewed_VMmark2_Score</b>	NC

## Configuration

<b>Virtualization Software</b>	
Hypervisor Vendor, Product, Version, and Build / Availability Date (MM-DD-YYYY)	VMware ESXi 5.1.0 Build 799733 / 09-10-2012
Datacenter Management Software Vendor, Product, Version, and Build / Availability Date (MM-DD-YYYY)	VMware vCenter Server 5.1.0a Build 880146 / 10-25-2012
Supplemental Software	None
<b>Servers</b>	
Quantity	2
Server Manufacturer and Model	Supermicro X9DRT-IBQF
Processor Vendor and Model	Intel Xeon E5-2680 v2
Processor Speed (GHz)	2.80
Total Sockets/Total Cores/Total Threads	2 Sockets / 20 Cores / 40 Threads
Primary Cache	32 KB I + 32 KB D on chip per core
Secondary Cache	256 KB I + D on chip per core
Other Cache	25 MB I + D on chip per chip L3
BIOS Version	3.0 Build date 07-05-2013
Memory Size (in GB, Number of DIMMs)	128 GB , 8 x 16 GB
Memory Type and Speed	2Rx4 PC3-12800R-11-11-E2-D3 , 1600 MHz
Disk Subsystem Type	InfiniBand
Number of Disk Controllers	1
Disk Controller Vendors and Models	Supermicro AOC-S3008L-L8i
Number of Host Bus Adapters	2

Host Bus Adapter Vendors and Models	Mellanox MCX354A-FDR
Number of Network Controllers	2
Network Controller Vendors and Models	Intel I350 Gigabit Network Connection Broadcom Corporation NetXtreme II BCM57840 10 Gigabit Ethernet
Other Hardware	None
Other Software	None
Hardware Availability Date (MM-DD-YYYY)	09-10-2013
Software Availability Date (MM-DD-YYYY)	09-20-2013
<b>Network</b>	
Network Switch Vendors and Models	Supermicro ESS-X3348 10G Switch , Supermicro SSE-G48-TG4 1G Switch
Network Speed	10Gbps for VM , 1Gbps for Management.
<b>Storage</b>	
Array Vendors, Models, and Firmware Versions	Supermicro X9DRD-IF Linux Storage 3.8.13-gentoo
Fibre Channel Switch Vendors and Models	None ( Hosts directly attached to storage )
Disk Space Used	7600 GB
Array Cache Size	N/A
Total Number of Physical Disks Used	16 x SSDs , 4 x SAS HDDs, 1 x SATA HDD.
Total Number of Enclosures/Pods/Shelves Used	1
Number of Physical Disks Used per Enclosure/Pod/Shelf	20
Total Number of Storage Groups Used	0
Number of LUNs Used	6
LUN Size and Number of Disks Per LUN	2 LUNs at 1.45 TB (RAID2-1 , RAID2-2), 1 LUN at 2.90 TB (Srp-SSD2) , 1 LUN at 1.05 TB (svmotion) , 2 LUN at 9.72 GB (deploy , dtarget)
RAID Type	Storage OS: Non-RAID Others are RAID 0.
Number of Members per RAID Set	4 SSDs - RAID0 – For SCST share LUN “RAID2-1”. 4 SSDs - RAID0 – For SCST share LUN “RAID2-2”. 8 SSDs - RAID0 – For SCST share LUN “Srp-SSD2”.

	4 SAS HDDs - RAID0 – For NFS LUNs “svmotion”,”dtarget”,”deploy”.
Disk Vendors, Models, and Speeds	16 x Seagate 2.5" 400 GB SATA3 SSD (ST400FM0012) , 4 x HITACHI 300 GB SAS2 10000 RPM (HUC103030CSS600)

**Datacenter Management Server**

System Model	Supermicro X9DRD-7LN4F
Processor Vendor and Model	Intel Xeon E5-2650L
Processor Speed (GHz)	1.80 GHz
Total Sockets/Total Cores/Total Threads	1 Sockets / 8 Cores / 16 Threads
Memory	16 GB
Network Controller(s) Vendors and Models	Intel I350 Gigabit Network Connection
Operating System, Version, Bitness, and Service Pack	Windows Server 2008 R2 Enterprise Service Pack 1 (64-bit)
Other Hardware	None
Other Software	None

**Clients**

Total Number of Clients / Total Physical Clients / Total Virtual Client Hosts	11 / 1 / 1
System Model(s)	Supermicro X9DRW-IF
Processor Vendor(s) and Model(s)	Intel Xeon E5-2643 v2
Processor Speed(s) (GHz)	3.50GHz
Total Sockets/Total Cores/Total Threads	2 Sockets / 12 Cores / 24 Threads
Memory per Physical Client	4 GB
Network Controller(s) Vendors and Models	Intel I350 Gigabit Network Connection
Operating System, Version, Bitness, and Service Pack	ESXi 5.1 build 799733
Number of Virtual Clients	10
Number of vCPUs Per Virtual Client	4
Number of vMem (GB) Per Virtual Client	4

Virtual Client Networking Notes	None
Virtual Client Storage Notes	Virtual clients VMs used local storage. 8 x 300GB SAS disks and build to RAID0.
Other Hardware	None
Other Software	None

## Notes for Workload

### Virtualization Software Notes

- 1 All VMs used Virtual hardware V9
- 1 All VMs other than mailservers used VMware tools version 9221.
- 1 All mailserver VMs used VMware tools version 9216.
- 1 Ethernet adapter type set to vmxnet3 for all VMs
- 1 All Mailserver VMs used 1 virtual socket / 4 cores per socket.
- 1 Logging was enabled. ( default )
- 1 Floppy removed for all VMs. ( default enabled )
- 1 SCSI controller : Mailserver used LSI Logic SAS , Standby used LSI Logic Parallel , others used Paravirtual.
- 1 DRS Migration Threshold is 2.

### Server Notes

- 1 BIOS used default settings.
- 1 Intel Turbo Boost Technology up to 3.6 GHz (default)

### Networking Notes

vSwitch Configuration:

- 1 vSwitch0 on vmnic 0 for Service Console (1GB).
- 1 vSwitch1 on vmnic 2 for all DS2 VMs (10GB).
- 1 vSwitch2 on vmnic 3 for Standby,Mailserver and Deploy VMs (10GB).
- 1 vSwitch3 on vmnic 4 for all Olio VMs (10GB).
- 1 vSwitch4 on vmnic 5 for vMotion (10GB).

## Storage Notes

- 1 This is software storage, OS is Gentoo 3.8.13 with SCST 2.2.0.(Generic SCSI Target Subsystem for Linux)
- 1 Share LUNs with Protocol “SRP”.
- 1 OS install in one SAS 500G HD.
- 1 16 SSDs were configured into 3 storage pools.4 SSDs for one pool “RAID2-1”, 4 SSDs for one pool “RAID2-2” , 8 SSDs for one pool “Srp-SSD2”.
- 1 4 SAS HDDs for NFS LUNs “deploy”、 ”dtarget”、 ”svmotion”.
- 1 LUN 1 - RAID2-1 at 1600 GB , for 3 tiles.(Tile 0,1,2)
- 1 LUN 2 - RAID2-2 at 1600 GB , for 3 tiles.(Tile 3,4,5)
- 1 LUN 3 - Srp-SSD2 at 3200 GB , for 4 tiles.(Tile 6,7,8,9)
- 1 NFS – deploy at 10GB , for VM “deploy” ( Deploytemplate ) .
- 1 NFS – dtarget at 10GB ,for deploy target storage.
- 1 NFS – svmotion at 1180GB , for Storage vMotion.

## Datacenter Management Server Notes

None

## Operating System Notes

- 1 All Mailservers and Clients ran Microsoft Windows 2008 R2 Enterprise 64-bit
- 1 All Standby VMs ran Microsoft Windows Server 2003 Enterprise Service Pack 2.
- 1 All SLES11 VMs were updated with Service Pack 2.

## Software Notes

- 1 Microsoft Exchange Server 2007 version is 08.03.0327.001.

## Client Notes

- 1 Microsoft Windows Server 2008 R2 Enterprise 64-bit installed on all client virtual machines.

## Other Notes

None

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