

vCenter Operations Manager Virtual Machine Capacity Overview Report

vCenter Server: -----

Virtual Center: vCenter -

Reporting Period: August 31 2014 - October 4 2014

Reporting Interval: Weekly

Report Time: September 25 2014, 09:16:15 PM



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vCenter Operations Manager Settings Summary

Display Settings Used
Summary Summary trend intervals: Daily
Trend views Default interval: Daily Default time window: 30 intervals Forecast horizon: 16 intervals
Non-trend views Interval to use: Daily Number of intervals to use: 30 intervals
Distribution views Distribution buckets: 10 Buckets
Forecast Functions Use up to # data points for trend and forecast: 60
Current time zone: Coordinated Universal Time (Etc/UTC)

Policy Settings For "Default Policy" Used

Forecast Functions

Do not forecast answers beyond % of the time range used for analysis is disabled

Forecast method: Best Fit

Eliminate functions that has more than % curvature change beyond fitted data and prior to forecast limit (above): 10%

Eliminate non-linear functions for data sets less than # points: 4

Trend and Forecast Data Filter

Trend collected data with no filtering

Spikes and Peaks:

Use stress to account for spikes and peaks: enabled

Capacity Remaining is based on:

Physical Capacity

Time Remaining is based on:

Days of provisioning buffer: 30

Demand or Allocation by Compute Resource:

CPU:

VM Demand: enabled

Container Demand: enabled

Container Allocation: enabled

Memory:

VM Demand: enabled

Container Demand: enabled

Container Allocation: enabled

Disk I/O:

Datastore Demand: disabled

Container Demand: disabled

Disk Space:

VM Demand: enabled

Datastore Demand: enabled

Container Demand: enabled

Datastore Allocation: enabled

Container Allocation: enabled

Network I/O:

Container Demand: disabled

Usable Capacity Rules:

Use high available (HA) configuration and reduce capacity is enabled

% of CPU capacity to reserve as buffer is disabled

% of Memory capacity to reserve as buffer is disabled

% of Disk I/O capacity to reserve as buffer is disabled

% of Disk space capacity to reserve as buffer is disabled

% of Network I/O capacity to reserve as buffer is disabled

Capacity Calculation Rules:

Use last known capacity

Usage Work Week Calculation:

All hours on all days

Allocation Overcommit Ratios:

CPU allocation overcommit: 4:1

Memory allocation overcommit: 0%

Disk Space allocation overcommit: 0%

Policy Settings For "Default Policy" Used (continue...)

Powered-off Virtual Machines defined as

Time Powered-Off threshold: 90 %

Idle Virtual Machines defined as

Time idle: 90 %

Detection based on all of the following thresholds:

- Average CPU usage less than: 100 MHz

- Average disk I/O usage less than: 20 KBps

- Average network I/O usage less than: 1 KBps

Virtual Machines are oversized when:

- Amount of CPU demand below 30%

- Amount of memory demand below 30%

- is more than 1% for the entire range

Virtual Machines are undersized when:

- Amount of CPU demand peaks above 70%

- Amount of memory demand peaks above 70%

- is more than 1% for the entire range

Containers are underused when:

- Amount of CPU demand below 30%

- Amount of memory demand below 30%

- is more than 1% for the entire range

Datstores:

Snapshots and templates are considered waste after 180 days

Containers have stress when:

- Amount of CPU demand above 70%

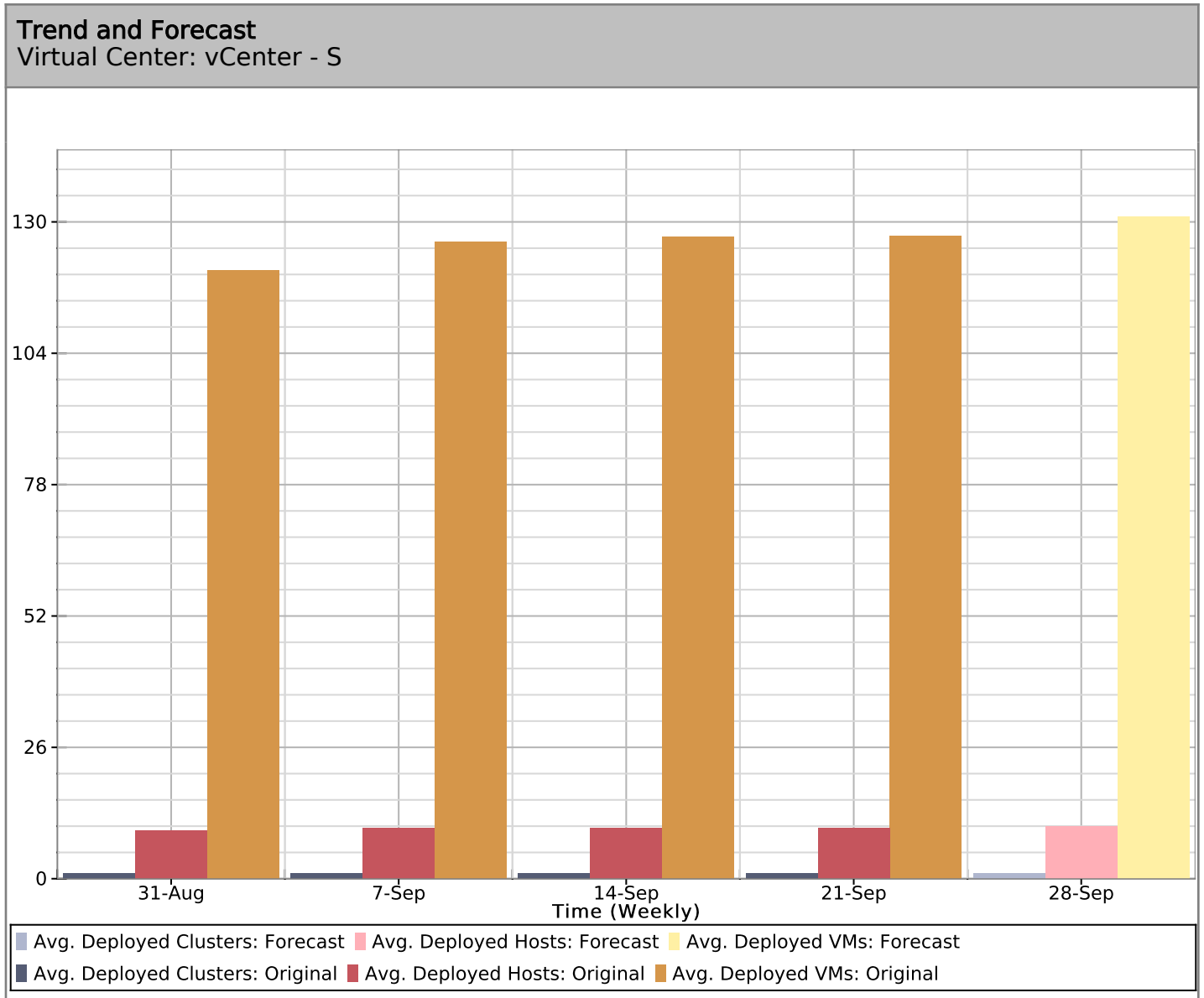
- Amount of memory demand above 70%

- is more than 1% for the entire range

Consider allocation in stress calculation: disabled

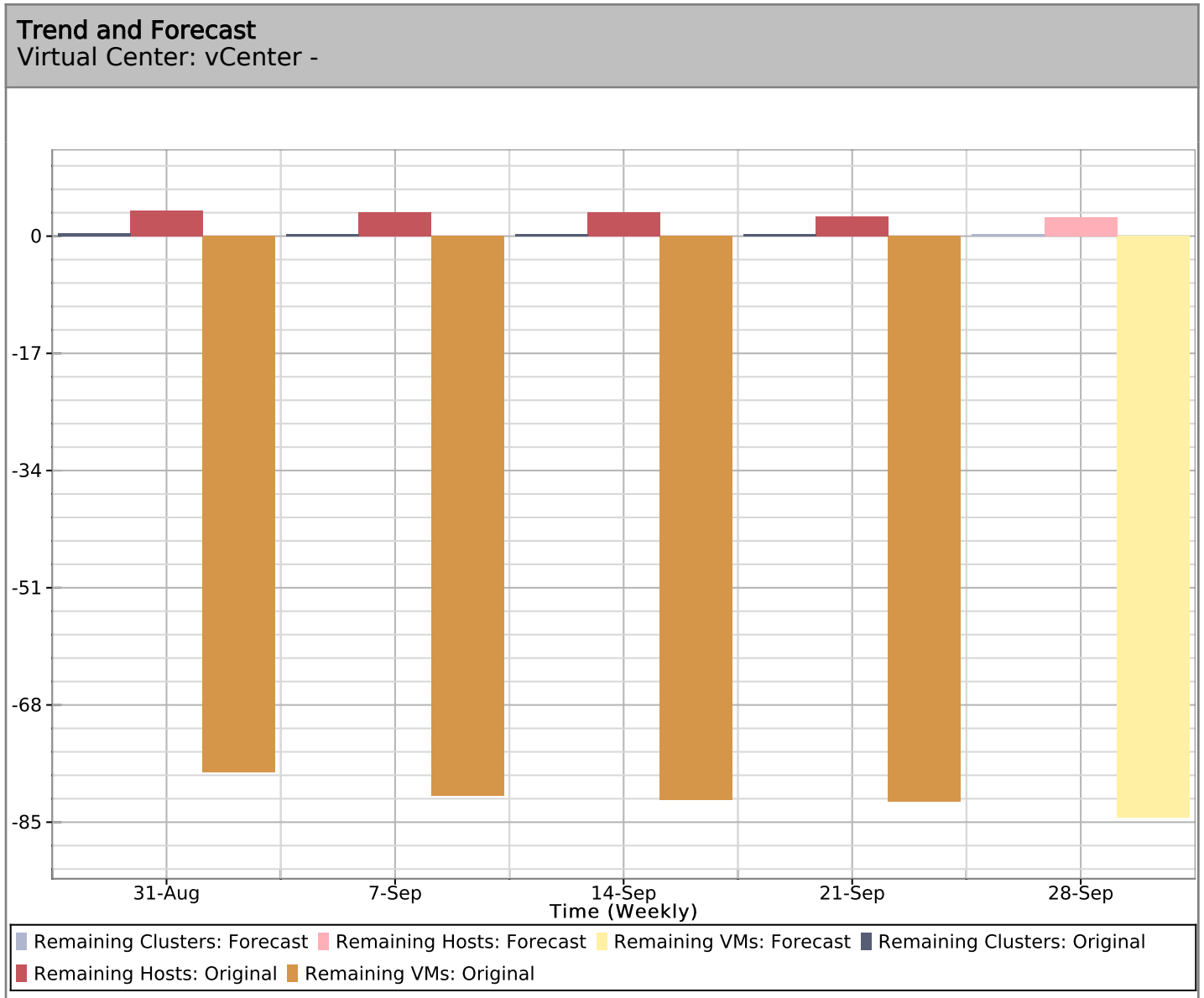
1.1 Used and Remaining Capacity

1.1.1 Objects



1.1 Used and Remaining Capacity

1.1.1 Objects



1.2 Time Remaining

1.2.1 Virtual Machines

Virtual Center: vCenter - SmartCapacity	
	Time Remaining
VMs	0 days

1.2.2 Resources

Virtual Center: vCenter -								
	Time Remaining	Last 2 Weeks	Last Week	Current Week	Next Week	Next Month	Next Quarter	Next Half Year
Avg. Host CPU Effective Demand	81 days	120 GHz	121 GHz	132 GHz	135 GHz	149 GHz	185 GHz	232 GHz
Avg. Host CPU Reserved Capacity	> 1 year	12 GHz	12 GHz	12 GHz	12 GHz	12 GHz	12 GHz	12 GHz
Avg. Host CPU Allocation	3 days	268 vCPU	288 vCPU	288 vCPU	304 vCPU	341 vCPU	453 vCPU	657 vCPU
Avg. Host Memory Effective Demand	> 1 year	179 GB	190 GB	192 GB	213 GB	250 GB	342 GB	462 GB
Avg. Host Memory Reserved Capacity	> 1 year	47 GB	54 GB	54 GB	67 GB	90 GB	148 GB	224 GB
Avg. Host Memory Allocation	0 days	776 GB	806 GB	808 GB	836 GB	895 GB	1,040 GB	1,230 GB
Avg. Datastore Disk Space Total Used	> 1 year	15 TB	15 TB	15 TB	15 TB	16 TB	16 TB	18 TB
Avg. Datastore Disk Space Allocation	0 days	40 TB	40 TB	40 TB	40 TB	40 TB	40 TB	40 TB
Avg. Host Disk I/O Read	> 1 year	60 MBps	61 MBps	54 MBps	0 MBps	0 MBps	0 MBps	0 MBps
Avg. Host Disk I/O Write	> 1 year	17 MBps	18 MBps	20 MBps	20 MBps	24 MBps	32 MBps	44 MBps
Avg. Host Disk I/O Reads per Second	> 1 year	995 Tps	1,212 Tps	754 Tps	0 Tps	0 Tps	0 Tps	0 Tps
Avg. Host Disk I/O Writes per Second	> 1 year	966 Tps	979 Tps	1,005 Tps	1,033 Tps	1,103 Tps	1,275 Tps	1,500 Tps
Avg. Host Network I/O Received Rate	> 1 year	7.1 MBps	5.8 MBps	5.9 MBps	7.3 MBps	9.6 MBps	15 MBps	22 MBps
Avg. Host Network I/O Transmitted Rate	> 1 year	10 MBps	8.7 MBps	8.8 MBps	10 MBps	13 MBps	20 MBps	31 MBps

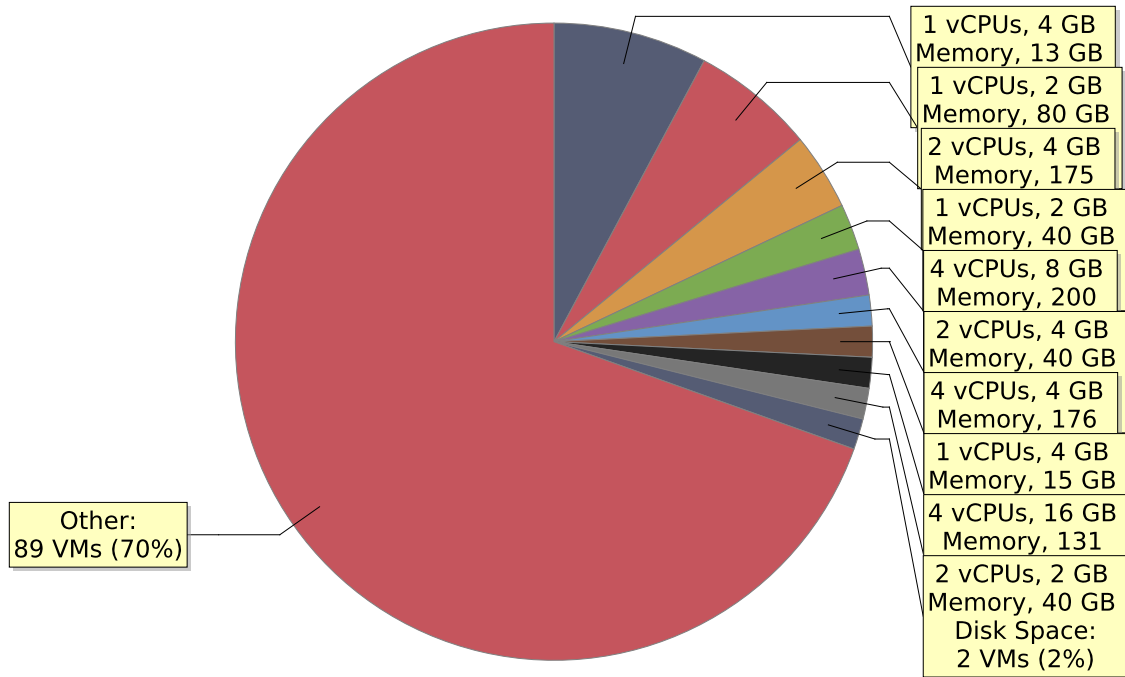
1.3 Capacity Usage

1.3.1 Average Virtual Machine Profile

Virtual Center: vCenter -		
	Average	Standard Deviation
VM CPU Allocated	2.4 vCPU	0.077 vCPU
VM CPU Effective Demand	783 MHz	31 MHz
VM CPU Limited Demand	467 MHz	34 MHz
VM CPU Reservation Used	104 MHz	2.8 MHz
VM Memory Consumed	4.3 GB	115 MB
VM Memory Allocated	6.6 GB	83 MB
VM Memory Effective Demand	1.3 GB	42 MB
VM Memory Limited Demand	814 MB	73 MB
VM Memory Reservation Used	414 MB	74 MB
VM Configured Disk Size	226 GB	0 MB
VM Disk Space Usage	124 GB	2.5 GB
VM Disk Space Provisioned	239 GB	3.2 GB
VM Disk I/O Usage	805 KBps	188 KBps
VM Disk I/O Read	647 KBps	190 KBps
VM Disk I/O Write	157 KBps	8.6 KBps
VM Disk I/O Reads per Second	8.8 Tps	2.6 Tps
VM Disk I/O Writes per Second	7.6 Tps	0.16 Tps
VM Network I/O Usage	142 KBps	7.8 KBps
VM Network I/O Received Rate	118 KBps	17 KBps
VM Network I/O Transmitted Rate	117 KBps	17 KBps

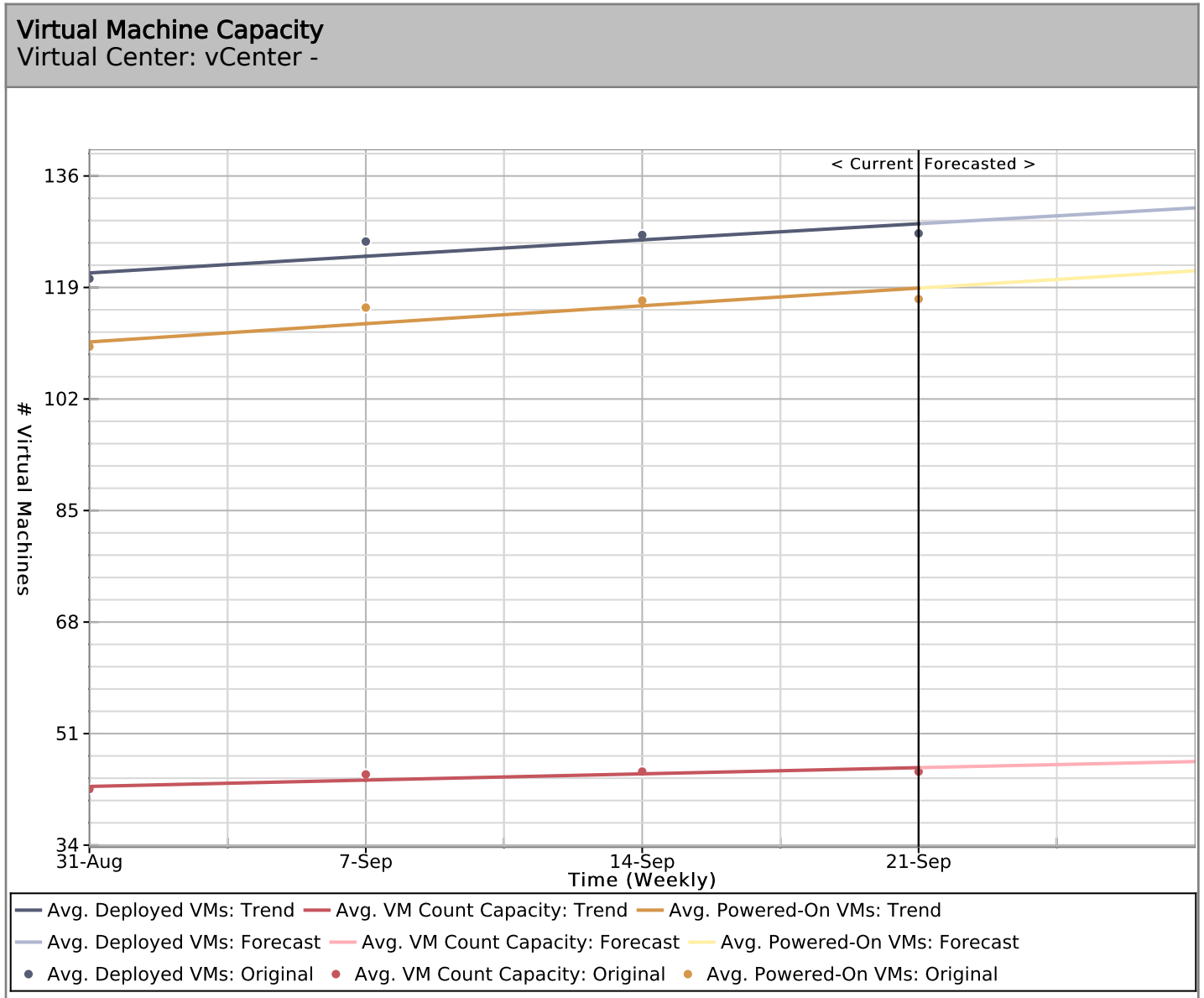
1.3.2 Common Virtual Machine Configurations

Distribution Chart #1
Virtual Center: vCenter -

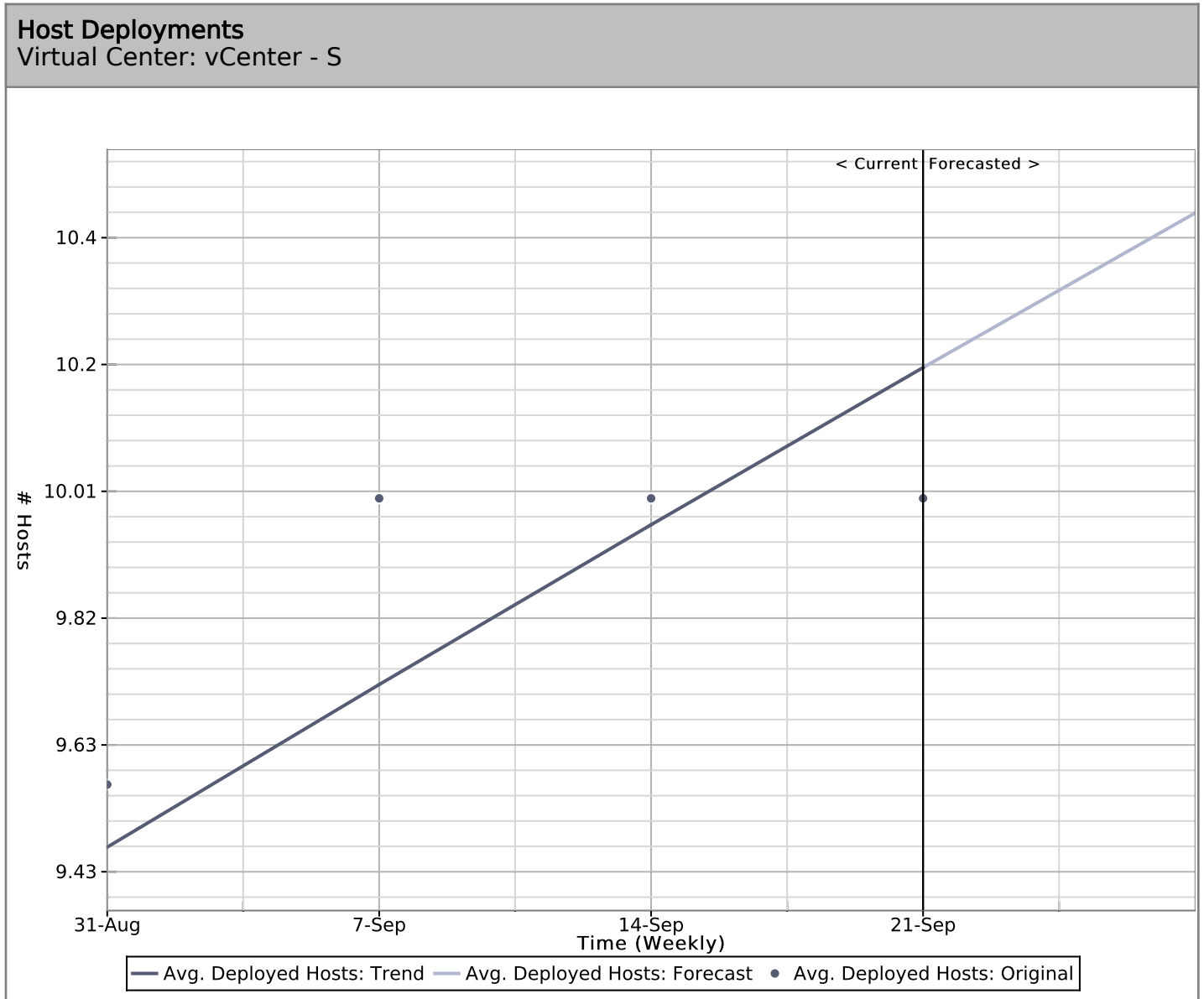


- 1 vCPUs, 4 GB Memory, 13 GB Disk Space ● 1 vCPUs, 2 GB Memory, 80 GB Disk Space
- 2 vCPUs, 4 GB Memory, 175 GB Disk Space ● 1 vCPUs, 2 GB Memory, 40 GB Disk Space
- 4 vCPUs, 8 GB Memory, 200 GB Disk Space ● 2 vCPUs, 4 GB Memory, 40 GB Disk Space
- 4 vCPUs, 4 GB Memory, 176 GB Disk Space ● 1 vCPUs, 4 GB Memory, 15 GB Disk Space
- 4 vCPUs, 16 GB Memory, 131 GB Disk Space ● 2 vCPUs, 2 GB Memory, 40 GB Disk Space ● Other

1.3.3 Average Virtual Machine Capacity

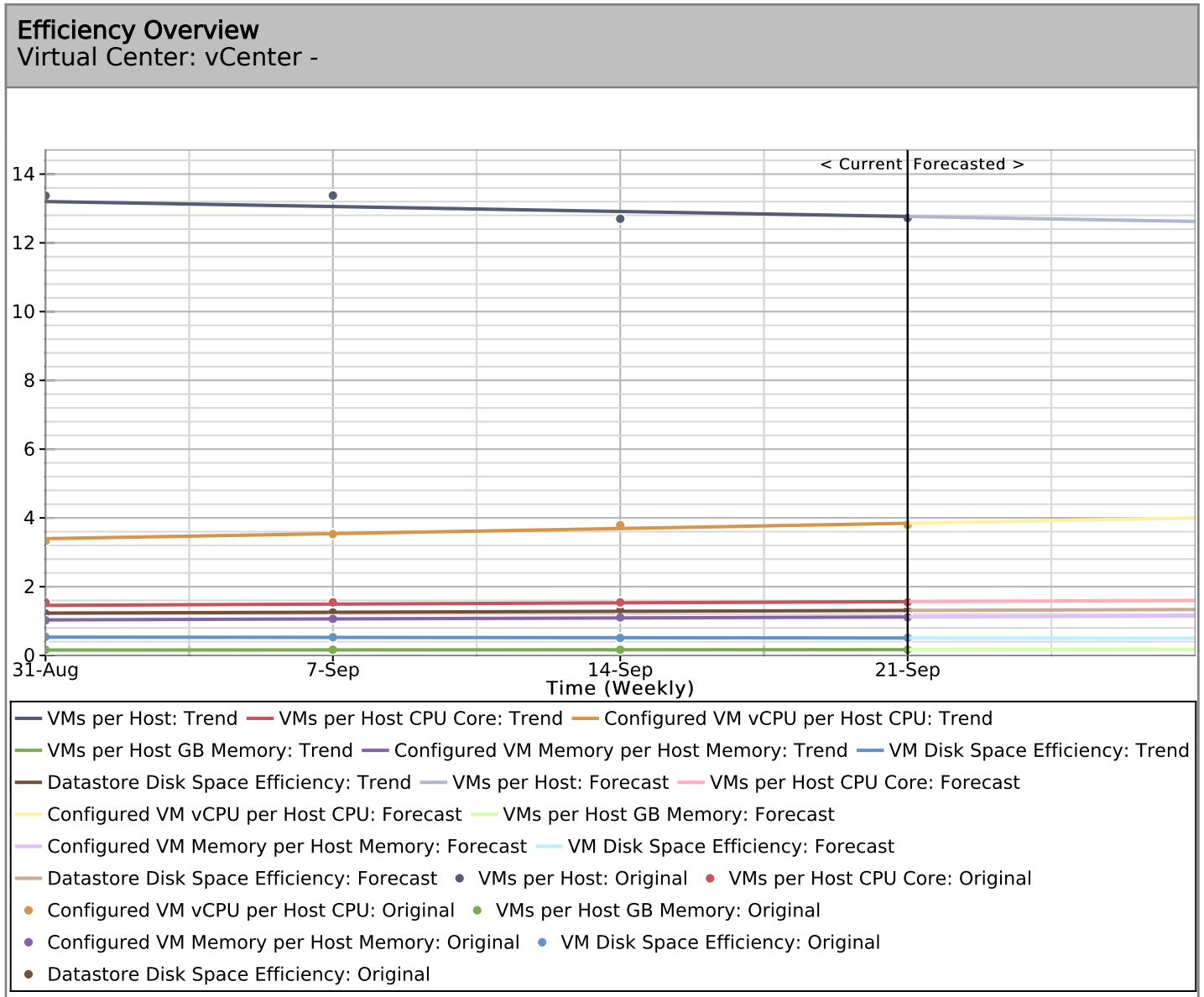


1.3.4 Host Deployment

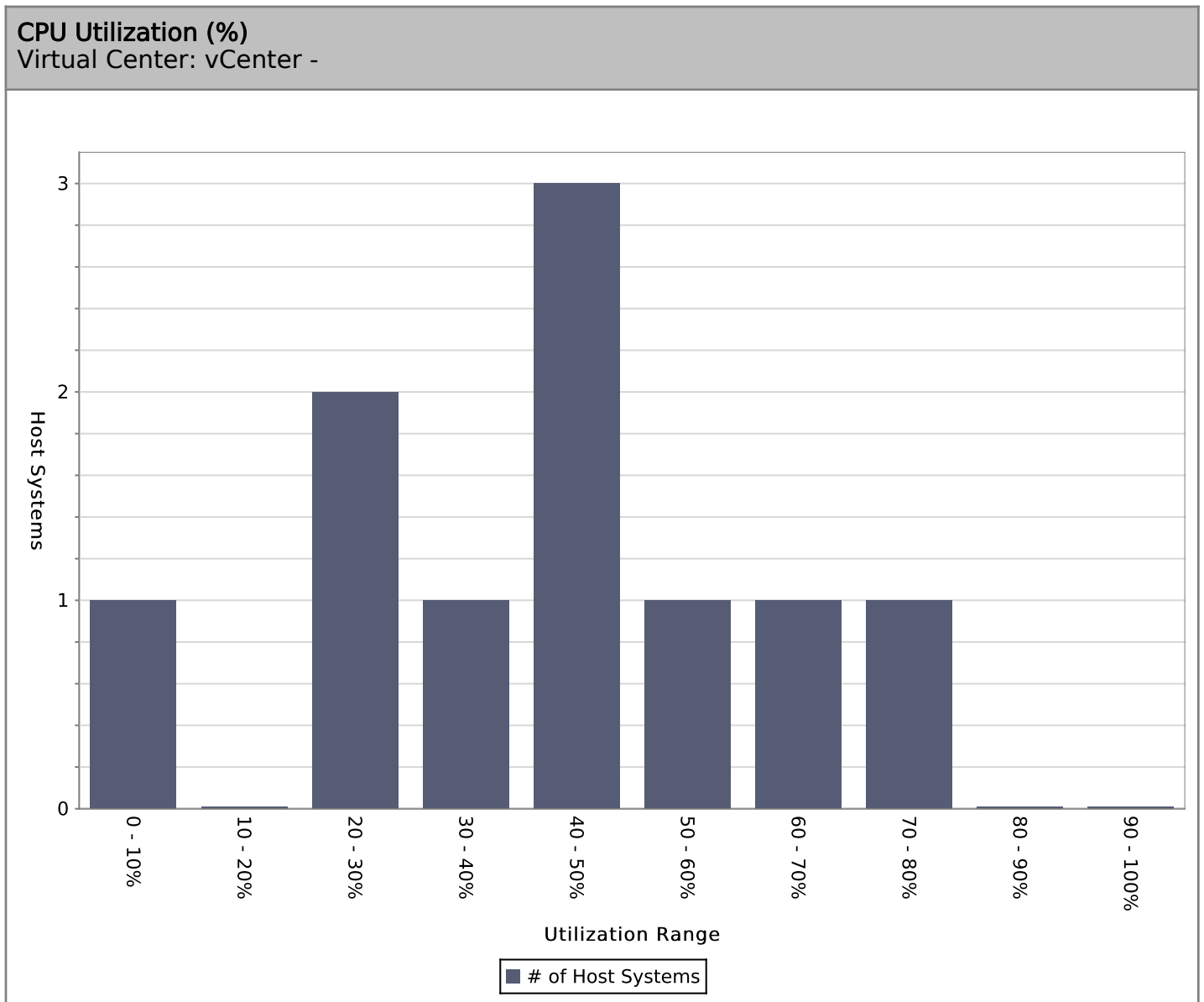


1.4 Efficiency

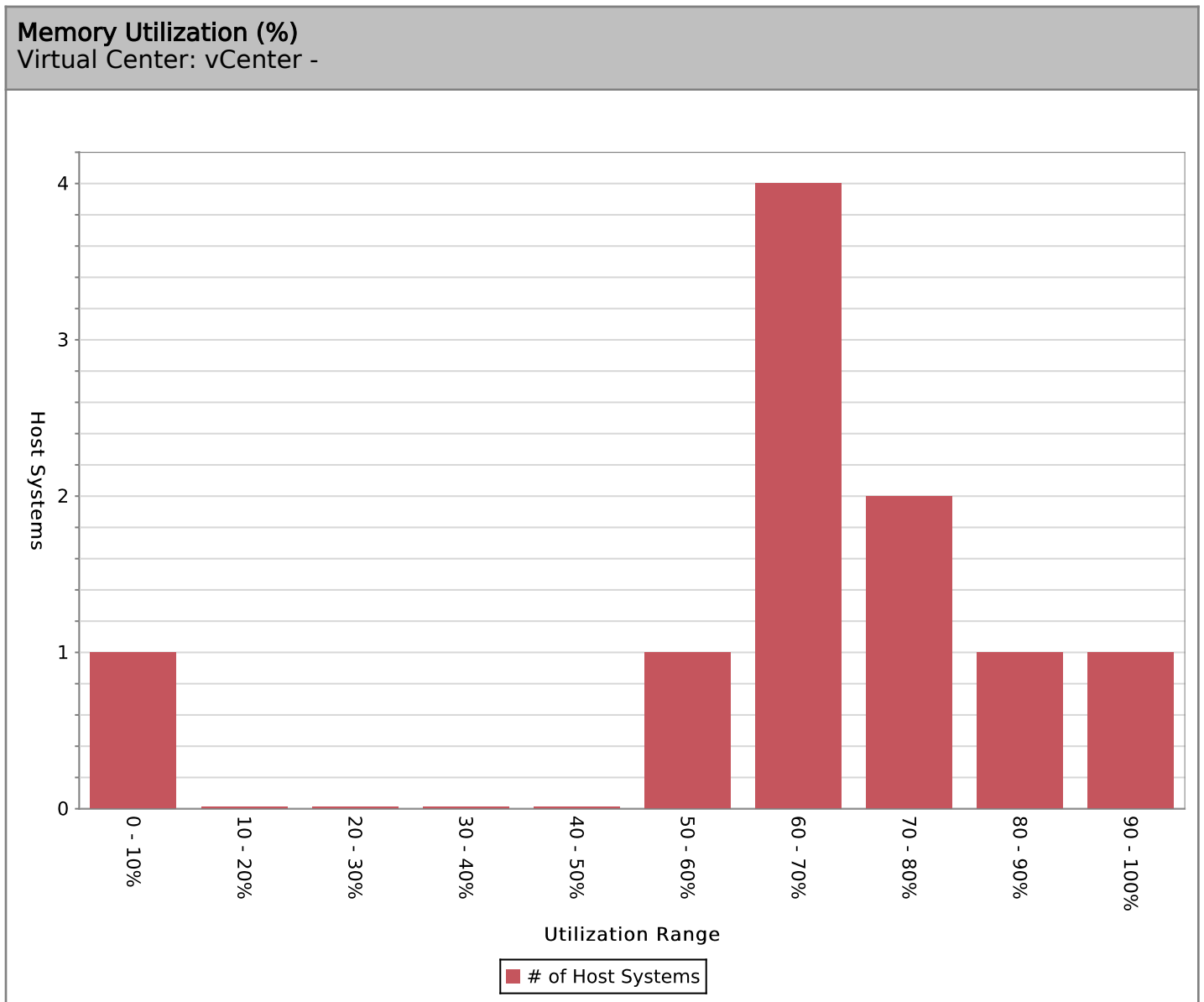
1.4.1 Capacity Efficiency



1.4.2 Host Utilization



1.4.2 Host Utilization



1.4.2 Host Utilization

