

VMTurbo Demo Environment Setup Guide



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1. EXECUTIVE SUMMARY

In order to demonstrate the effectiveness and feature rich capabilities of VMTurbo, it is important to configure an environment that reflects many of the challenges that IT administrators are facing today. Customers want to see a demonstration of not only the ability to fix existing problems and prevent new ones from happening but also a demonstration of the features that they may aspire to use. This guide serves as a starting point in developing such an environment.

2. Hypervisor Requirements

Hypervisor:

Four or more ESX or ESXi hosts version 5 or at least 4.1 update 1

Shared storage FC, iSCSI or NFS

Optional:

2 or more Hyper-V hosts

vCloud Director

1 XenServer Resource Pool with 2 or more hosts

Shared storage FC, iSCSI or NFS

3. Software Requirements

VMware vSphere 4 or vSphere 5 vCenter Server

vMotion capability

Storage vMotion capability

XenMotion Capability

Linux OS Guests

Windows OS guests

4. Configuration:

Create at least one cluster containing 4 esx hosts

Import or create multiple Windows and Linux guests (See below chart as an example)

Import the VMTurbo appliance onto any of the hypervisors (This is a good VM to use to generate load. Optionally, you could import a few of these and connect them all up to vCenter and the other hypervisors to drive contention in the environment.)

Create at least 2 datastores in the ESX environment

5. Create Scenarios in the environment

CPU Ready queue's: If you only have 4 cpu in a host, place multiple guests (example: VMTurbo appliance) all with at least 2-4 vcpu on the same host. This will allow us to view CPU ready queue congestion. Essentially, oversubscribe CPU and SMP CPU by a bit.

Oversubscribe Memory: If you have 16GB of Ram in a server, assign at least 1.5 times as much to the guests on 50 % of the hosts

Storage IO and Latency: Place multiple guests on a single datastore. Run IOMETER to generate storage traffic continuously so that we see IO stream bottlenecks.

High CPU Utilization: try to drive up CPU utilization to somewhere below 70% on a host to show how balancing is good even in the absence of a critical threshold

Guest Placement: Place most of the guests on 1 or 2 servers in the environment. Also place a few smaller ones on the others to make it look authentic.

6. Example virtual machine Configurations

Name	Current Storage [GB]				Mon. Avg. CPU [MHz]				Mon. Avg. Memory [MB]		
	Drive	Cap.	Free	Used	Cores	Total Cap.	Free	Used	Cap.	Free	Used
Fedora32					2	4,420	4086.58	333.42	1,024	1023.80	0.20
SUSE-2.1	/	14.293	11.28	3.02	2	4,420	4244.46	175.54	5,120	5119.99	0.01
SUSE32					2	4,420	4202.31	217.69	1,024	1023.99	0.01
TestVM-1.1					4	8,840	8645.23	194.77	256	256	0
TestVM-2.1					4	8,840	8643.46	196.54	256	256	0
Win2003-1					4	8,840	8472.26	367.74	2,048	2047.99	0.01
Win2003-2					4	8,840	8457.82	382.18	2,048	2047.99	0.01
Win2003-3					4	8,840	8379.14	460.86	2,048	2047.99	0.01
Win2003-P					4	8,840	8586.88	253.12	512	511.99	0.01
Win2003-S					4	8,840	8585.11	254.89	512	511.99	0.01
WinAppTest-1	C:\	7.989	0.02	7.97	2	4,420	3326.49	1093.51	2,048	2047.93	0.07
WinAppTest-1.2					4	8,840	7774.49	1065.51	2,048	2048.00	0.00
WinAppTest-1.3					4	8,840	7946.57	893.43	2,048	2047.99	0.01
WinAppTest-1.4	C:\	7.989	0.48	7.51	4	8,840	8428.35	411.65	2,048	2047.97	0.03
WinAppTest-1.5-storage						NaN	NaN	NaN	NaN	NaN	NaN
WinAppTest-1.6-storage						NaN	NaN	NaN	NaN	NaN	NaN
WinAppTest-1.7-storage						NaN	NaN	NaN	NaN	NaN	NaN
WinAppTest-2					4	8,840	8353.21	486.79	2,048	2047.99	0.01
WinAppTest-2.1					4	8,840	8463.71	376.29	2,048	2047.97	0.03
WinAppTest-2.2					4	8,840	8491.41	348.59	2,048	2047.99	0.01
WinAppTest-2.3					2	4,420	4183.68	236.32	2,048	2047.99	0.01
WinAppTest-2.4					4	8,840	8355.86	484.14	2,048	2047.98	0.02
WinAppTest-2.5					4	8,840	8474.02	365.98	2,048	2047.99	0.01
WinAppTest-2.6					4	8,840	8354.98	485.02	2,048	2047.98	0.02
WinAppTest-2.7					4	8,840	8550.93	289.07	8,192	8191.99	0.01
WinAppTest-3	C:\	7.989	0.15	7.84	4	8,840	8331.70	508.30	2,048	2047.97	0.03
WinAppTest-3.1					4	8,840	8398.29	441.71	8,192	8191.98	0.02

WinAppTest-3.2					4	8,840	8441.25	398.75	8,192	8191.96	0.04
WinApptest-3.3	C:\	7.989	0.17	7.82	4	8,840	8545.33	294.67	8,192	8191.99	0.01
WinAppTest-3.4					4	8,840	8565.96	274.04	8,192	8191.99	0.01
WinAppTest-3.5					4	8,840	8453.69	386.31	8,192	8191.99	0.01
WinAppTest-4					4	8,840	8285.14	554.86	2,048	2047.98	0.02
WinAppTest-4.1					4	8,840	8269.23	570.77	2,048	2047.98	0.02
WinAppTest1	C:\	7.989	0.20	7.79	4	8,840	8313.43	526.57	2,048	2047.94	0.06