SRI LANKA INSTITUTE OF INFORMATION TECHNOLOGY

Enterprise Standards and Best Practices for IT Infrastructure

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Date of Evaluation   : _____

Evaluators Signature : _____

What is vMotion

vMotion is a concept that enables active or power on virtual machine migrate from one physical server to another physical server (from one host to another) without any downtime /Zero downtime.

Benefits of vMotion

- Maximize availability to enhance the business continuity.
- Allocate and optimize available resource pool for exploit hardware utilization and availability.
- Allow hardware maintenance or adopting to new technology without any known downtime
- Facilitate balance distribution of virtual machines across hosts.

Impotent terms of vMotion migration
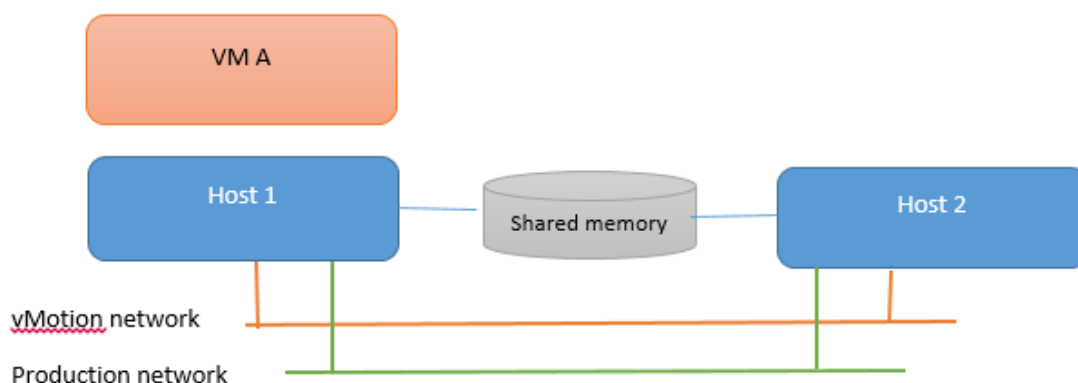
- Shared storage to keep virtual machine files- At the time of vMotion it is only copy memory from host to another.

- Vmotion network - Private none routed gigabit faster bandwidth network which connected to 2 hosts that going to perform vMotion

- Production network – Access to same identical production network which configured labeled vSwitch port groups

Hardware requirement

- 12GB RAM or above VM files
- High speed network
- Shared storage to store
- 320 Physical CPUs per ESXi host
- 4096 Maximum vCPUs per host
- 40 GBps Physical Network adapters
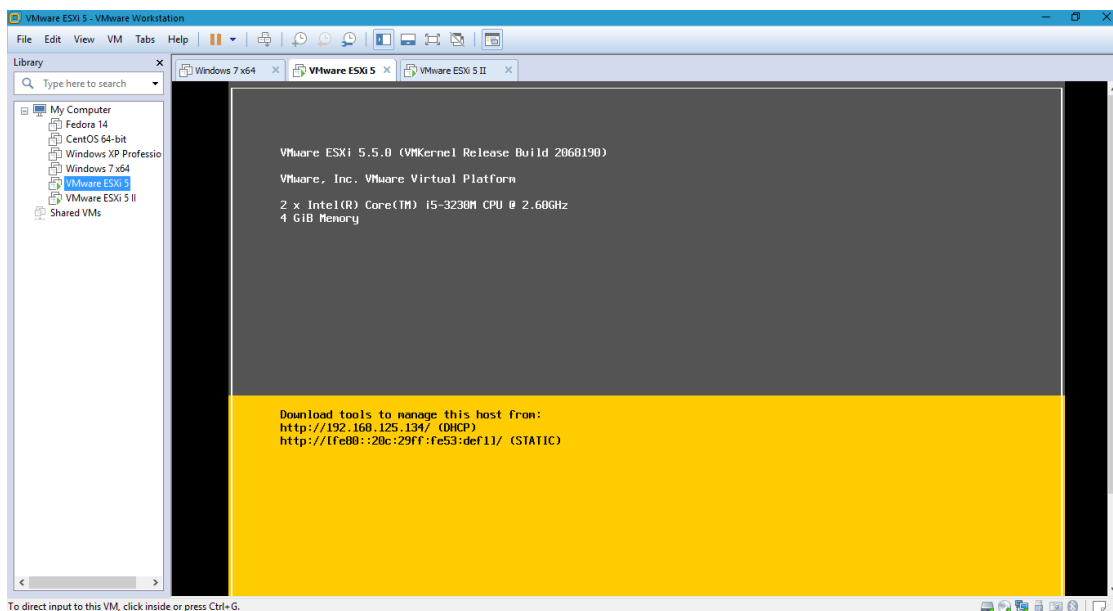- 16 GB FibreChannel
- Compatible CPUs.

Software requirement

- More than two baremetal severs should be installed.
- Both source and destination ESXI hosts and vCenter server must be running baremetl sever.
- Virtual machine not connect with any virtual devices. Such as CD ROM or floppy drive
- Source and destination are connected with same host using vMotion network and production network.
- No CPU affinity - Shouldn't have between OS and hardware. (CPU affinity blocks the ability of run operating system in new hardware after the vMotion.)

Screen shots

1. Check CPU affinity – Install CPU Identification Utility software on bare metal server to check the CPU affinity
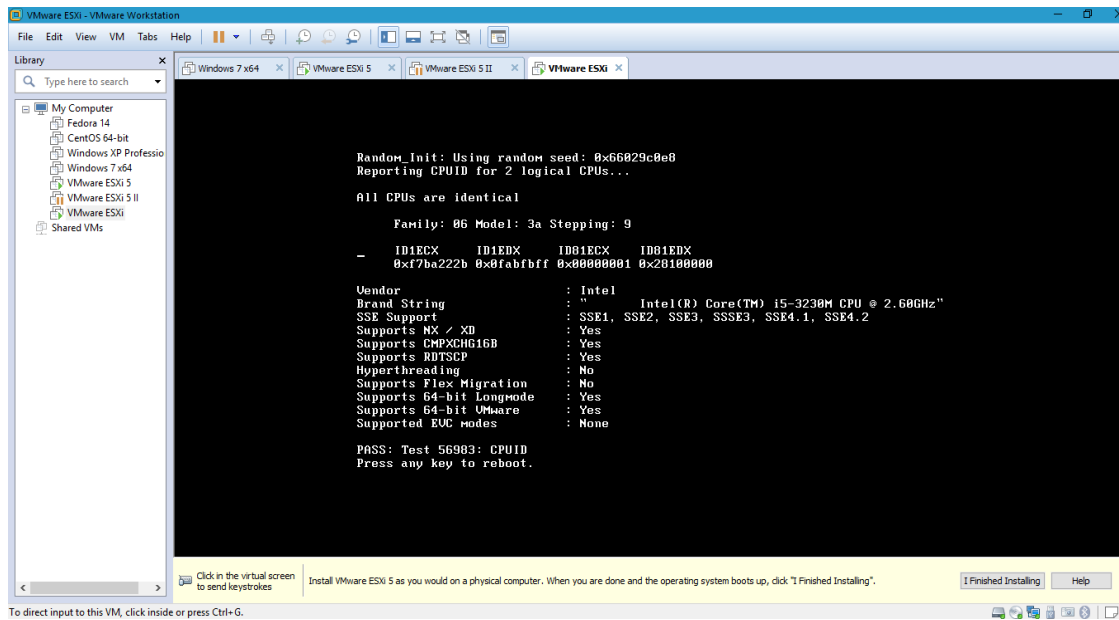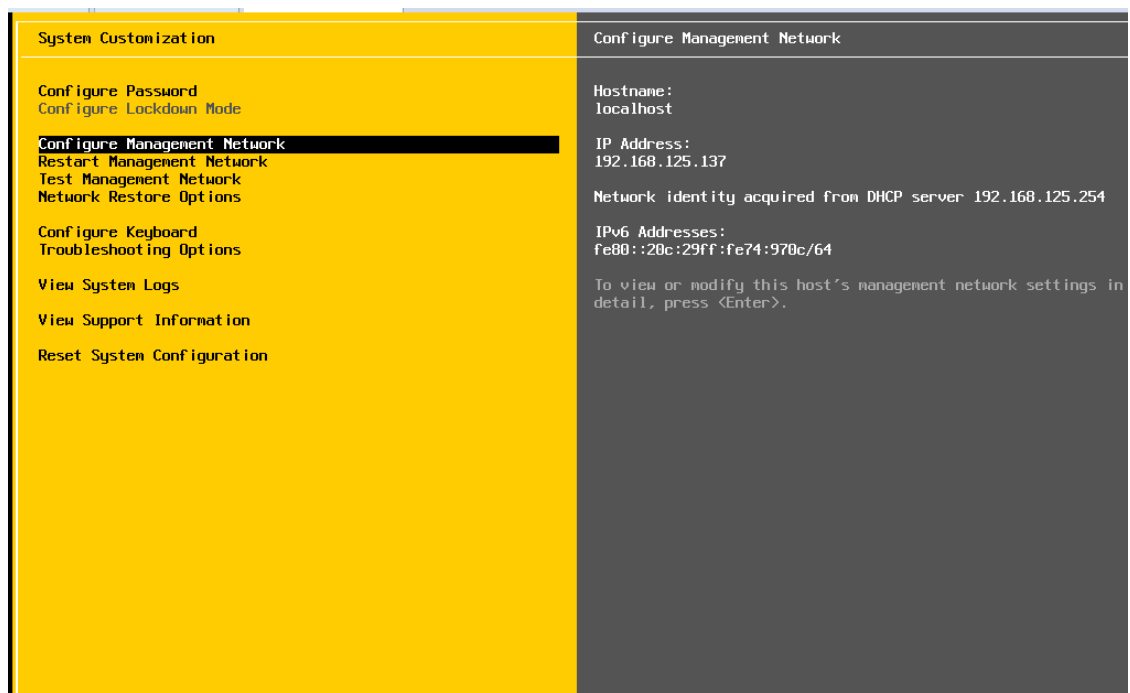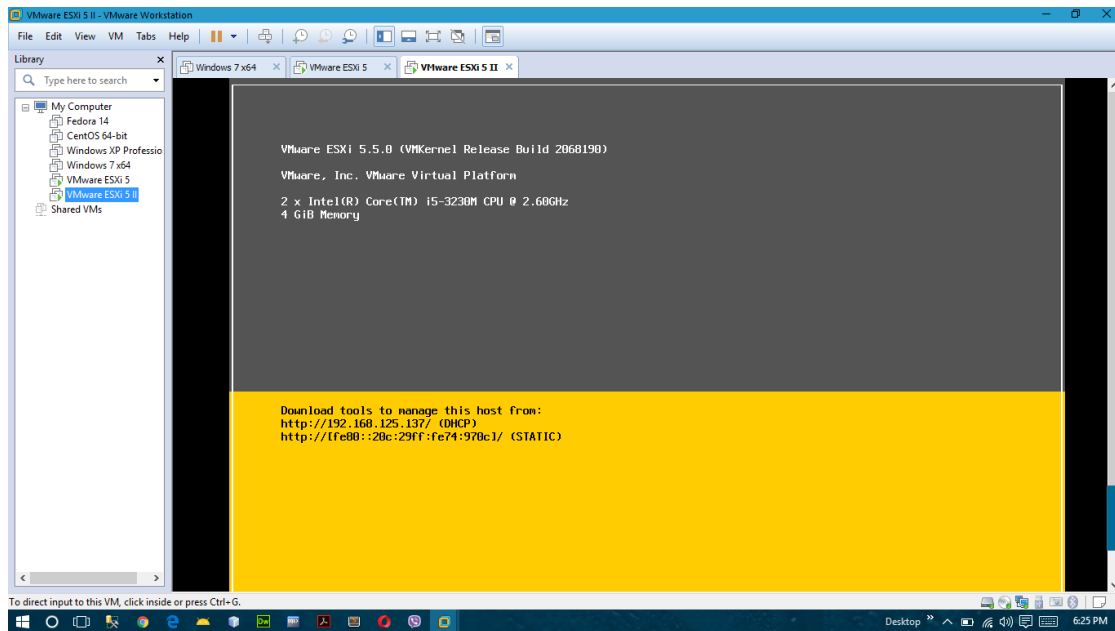

Source ESXI computer

```
System Customization                    Configure Management Network

 Configure Password                      Hostname:
 Configure Lockdown Mode                 localhost

Configure Management Network             IP Address:
 Restart Management Network              192.168.125.134
 Test Management Network
 Network Restore Options                 Network identity acquired from DHCP server 192.168.125.254

 Configure Keyboard                      IPv6 Addresses:
 Troubleshooting Options                 fe80::20c:29ff:fe53:def1/64

 View System Logs                        To view or modify this host's management network settings in
                                         detail, press <Enter>.
 View Support Information

 Reset System Configuration
```
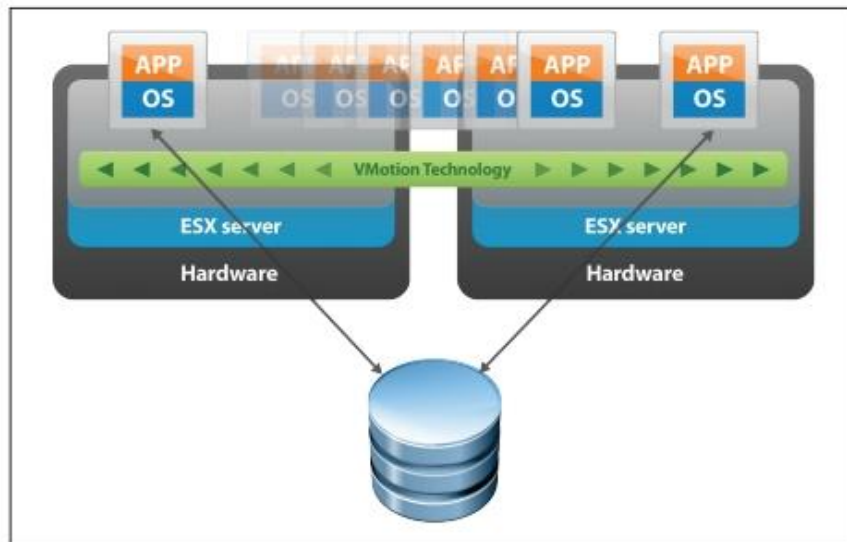
```
System Customization                    View Support Information

 Configure Password                      <Page Up>     1/2     <Page Down>
 Configure Lockdown Mode                 Serial Number:
                                         VMware-56 4d c5 08 22 21 5d 69-6b 9a fa 42 5d 53 de f1
 Configure Management Network
 Restart Management Network              License Serial Number:
 Test Management Network                 Evaluation
 Network Restore Options
                                         SSL Thumbprint (SHA1):
 Configure Keyboard                      D2:B3:C8:08:32:60:2F:D3:18:C7:A7:A4:C7:F4:FD:B5:81:AB:2E:39
 Troubleshooting Options
                                         SSH DSA Key Fingerprint:
 View System Logs                        82:b3:74:39:6a:ee:f6:36:18:af:fa:31:40:78:c3:10
                                         SSH RSA Key Fingerprint:
View Support Information                 e3:ea:df:51:88:6d:79:f2:fd:bb:32:dc:a3:ac:52:bf

 Reset System Configuration              VMware Global Support Services:
                                         http://www.vmware.com/support
```

Destination EXSI Computer

System Customization

Configure Password
Configure Lockdown Mode

Configure Management Network
Restart Management Network
Test Management Network
Network Restore Options

Configure Keyboard
Troubleshooting Options

View System Logs

View Support Information

Reset System Configuration

View Support Information

<Page Up>   1/2   <Page Down>
Serial Number:
VMware-56 4d 81 8d 82 fb 4c 3b-7f c2 b0 00 bc 74 97 0c

License Serial Number:
Evaluation

SSL Thumbprint (SHA1):
C1:F2:86:CE:29:D9:DF:6B:6E:D2:07:B6:A3:0B:A1:A3:72:A9:1A:14

SSH DSA Key Fingerprint:
b5:c9:a9:55:e8:23:72:55:4c:07:75:b2:66:8d:45:4c
SSH RSA Key Fingerprint:
d9:5d:be:cc:f7:22:0d:8c:d8:b6:23:8e:b7:fc:89:44

VMware Global Support Services:
http://www.vmware.com/support

- When both bare metal servers successful to setting up all the hardware and software requirements virtual machine could be move from one host to another with zero downtime easily with in few seconds.

vMotion within 2 hosts.