



## Module – V : Troubleshooting Virtual Environment

## Root causes of Troubleshooting:

1. Disconnected
  1. Not responding state
  2. Crashes
  3. Network issue
2. Inaccessible
  1. ESXi server unable to access VM config
  2. DatastoreError
3. Orphaned
  1. VM no longer registered in host
  2. VMware DRS migration
  3. Host failure
4. Invalid
  1. vm configuration is invalid

## Removing orphaned vm:(host machine should be in maintenance mode)

1. Clear existing host inventory and re register the orphaned vm on affected host
2. attempt to register vm manually

1. login to the host as root
2. make a backup of existing inventory for the host

```
Cp /etc/vmware/hostd/vmInventory.xml /etc/vmware/hostd/vmInventory.xml.backup
```

3. clear the logs in vmInverntory.xml file
4. add the ESX host back to vCenter
5. Register the VM manually

## Ways to kill unresponsive virtual machines:

1. ESXCLI
  1. Putty – vmname – esxserv - 03
  2. Esxcli vm process list
  3. Vm – worldID – prolist kill –w worldIDcess ID
  4. Esxcli vm process list
2. VIM-CMD
  1. Vim-cmd vmsvc/getallvms
  2. vmsvc/getallvms kill vmname (ID)
3. ESXTOP leader World ID

Esxtop kill vmname lwid
4. POWERCLI
  1. Stop –vm –kill vmname –confirm:\$false
5. KILL – Soft – Hard - Force

## Hyper-V Live Migration: (VM Migration)

1. A new VM configuration file is created on the target server.
2. The source VM's initial memory state is copied to the target.
3. Changed memory pages on the source VM are tagged and copied to the target.
4. This process continues until the number of changed pages is small.
5. The VM is paused on the source node.
6. The final memory state is copied from the source VM to the target.
7. The VM is resumed on the target.
8. An Address Resolution Protocol (ARP) is issued to update the network routing tables.