Distributed Resource Scheduler

- DRS is a feature of cluster which is managed by vcenter server. It balances load of VM across ESXI hosts
- A DRS enabled cluster has following resource management capabilities :
 - 1.Initial VM Placement
 - 2.Load Balancing
 - 3. Power Management
- Depending on how end-users are using applications on virtual machines,VM's constantly expands & contracts throughout the day,week or month the physical hosts becomes over utilized or under utilized based on VM utilization and no of VM runnings over it
- Vmotion is a primary requirement of DRS

Main goal of DRS is to:

- Keep all ESXI servers in the cluster healthy and well utilized by dynamically/automatically moving VM's across the ESXI host
- Provide VM,s with enough resources all the time to keep them running in most efficient ways
- Conduct Zero downtime server maintenance
- By default, DRS checks in every 5 minutes to see if the cluster workload is balanced or not

There are 3 selections regarding the automation level of the DRS cluster:

- 1.Manual: When a DRS cluster is set to manual, every time we power on Vm, the cluster prompts us to select the ESXI host where that VM should be hosted
- 2.Partially Automated: If we select the partially automated settings in the DRS automation settings, DRS will make an automation decison about which host a VM should run on when it is initially powered on (without prompting the user who is performing the power on task) but will still prompt for all migrations on the DRS tab. Thus initial VM placement is automated but migrations are still manual
- 3.Fully Automated: The third setting for DRS is fully automated. This setting makes decision for initial placement without prompting and also makes automatic vmotion decisions based on the selected automation level