## VMare

Form & Function... for a small price

	VMware vSphere 4 Standard	VMware vSphere 4 Advanced	VMware vSphere 4 Enterprise	VMware vSphere 4 Enterprise Plus	
				Host Profiles	
Resource & Power Management			DRS / DPM	DRS / DPM	
				Distributed Switch	
Live VM Disk File Migration			Storage VMotion	Storage VMotion	
Live VM Migration		VMotion™	VMotion™	VMotion™	
Fault Tolerance		Fault Tolerance	Fault Tolerance	Fault Tolerance	
Data Protection		Data Recovery	Data Recovery	Data Recovery	
Thin Provisioning	Thin Provisioning  High Availability	Thin Provisioning	Thin Provisioning	Thin Provisioning	
Availability		High Availability	High Availability	High Availability	
Patch Management	Update Manager	Update Manager	Update Manager	Update Manager vCenter Agent	
Central Management	vCenter Agent	vCenter Agent	vCenter Agent		
Storage Virtualization	4-way Virtual SMP™	4-way Virtual SMP™	4-way Virtual SMP™	8-way Virtual SMP™ VMware ESXi VMware ESX  1 processor up to 12 cores with no limitation on memory configuration	
Next Generation Hypervisor	VMware ESXi VMware ESX	VMware ESXi VMware ESX	VMware ESXi VMware ESX		
Processor Support	1 processor up to 6 cores for servers with up to 256GB of memory	1 processor up to 12 cores for servers with up to 256GB of memory	1 processor up to 6 cores for servers with up to 256GB of memory		
	1 Year Gold Support	1 Year Gold Support	1 Year Gold Support	1 Year Gold Support	
	\$1,068.00	\$2,717.00	\$3,479.00	\$4,229.00	
	<b>Buy Now</b>	Buy Now	Buy Now	Buy Now	

		ESXi Single Server	Essentials	Essential Plus	Standard	Advanced	Enterprise	Enterprise Plus
	ESX/ESXi	ESXi Only	✓	<b>✓</b>	1	✓	<b>✓</b>	✓
	vCenter Server Compatibility	None	vCenter Server for Essentials	vCenter Server for Essentials	vCenter Server Foundation & Standard	vCenter Server Foundation & Standard	vCenter Server Foundation & Standard	vCenter Server Foundation & Standard
	Cores per Processor	6	6	6	6	12	6	12
	vSMP Support	4-way	4-way	4-way	4-way	4-way	4-way	8-way
	Memory/Physical Server	256GB	256GB	256GB	256GB	256GB	256GB	*No license limit
	Thin Provisioning	<b>✓</b>	<b>✓</b>	1	1	<b>✓</b>	<b>✓</b>	✓
	VC Agent		✓	<b>✓</b>	1	<b>✓</b>	<b>✓</b>	✓
	Update Manager		✓	1	1	<b>✓</b>	<b>✓</b>	✓
	VMSafe		<b>✓</b>	1	<b>✓</b>	<b>✓</b>	<b>V</b>	✓
	vStorage APIs		<b>✓</b>	<b>✓</b>	1	<b>✓</b>	<b>V</b>	✓
	High Availability (HA)			✓	✓	✓	✓	✓
	Data Recovery			1		✓	<b>✓</b>	✓
	Hot Add					✓	<b>✓</b>	✓
	Fault Tolerance					✓	✓	✓
	vShield Zones					<b>V</b>	<b>V</b>	✓
	VMotion					✓	<b>✓</b>	✓
	Storage VMotion						<b>✓</b>	<b>✓</b>
	DRS+DPM						<b>✓</b>	<b>✓</b>
	**vNetwork Distributed Switch							✓
S	Host Profiles							<b>✓</b>
	Third Party Multipathing							✓

- Hypervisors ESX/ESXi, VMware Server/ Workstation.
   ESX/ESXi managed by vSphere client (windows only)
- vCenter Centralized management via agents installed on the hypervisor. Can only run on Windows Server with MSSQL or Oracle
- Update management Done via vCenter Update Manager
- High Availability Automatic restart of VMs in case of physical host failures. Not zero downtime.

- Thin Provisioning Dynamic allocation of storage
- Data Protection & Recovery Backup and recover your VMs via vCenter.
- Fault Tolerance Continuous availability of VMs in a HA cluster. To outside world looks like one VM.
   Theoretically zero downtime.
- vMotion To migrate live VMs from one physical resource to another with zero downtime. Needs shared storage.

- Storage vMotion Same as vMotion but for migrating live shared storage
- vShield Zones Networking component to manage traffic policies within your vSphere data center
- DRS Distributed Resource Scheduler for monitoring utilization and intelligently allocating VMs across resource pools. Can be used for load balancing. Needs vMotion and VMFS

- DPM Distributed Power Management is used to optimize power consumption across a resource pool
- vNetwork Distributed Switch Centralized control of your vNetwork. Support for private VLANs. Can be thought of as a template for network config. on each ESX/ESXi host in your vSphere infrastructure

- vSphere can be very powerful only when implemented at the enterprise plus license level. This is the implementation that truly automates most things Sys Admins would spend time on
- Unfortunately to achieve the above you have to heavily invest in your hardware infrastructure (SAN, redundant servers/ switches, etc)

- For the purpose of i3Live:
  - Snapshots To implement in vSphere would be too expensive. Workstation does offer the capability of multiple snapshots using a snapshot manager. This capability I believe is not available in Server.
  - Remote restarts Using ESXi (VMware's flagship hypervisor) you do not have a remote console. Only way to do remote restarts would be to write an application that uses VMWare's APIs to do the job.