

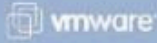
?:Oreo

<http://s852254.blogspot.com/>

### VMware Infrastructure 3 Editions

Resource Management Power Management				DRS DPM
Live VM Migration Live VM Disk File Migration				VMotion™ Storage VMotion
Availability			High Availability	High Availability
Backup		Consolidated Backup	Consolidated Backup	Consolidated Backup
Patch Management		Update Manager	Update Manager	Update Manager
Central Mgmt		VC Agent	VC Agent	VC Agent
Storage Virt.	VMFS Virtual SMP™	VMFS Virtual SMP™	VMFS Virtual SMP™	VMFS Virtual SMP™
Enterprise VMs	VMware ESXi	VMware ESXi OR VMware ESX	VMware ESXi OR VMware ESX	VMware ESXi OR VMware ESX
Next Generation Hypervisor	FREE ESXi	VI Foundation	VI Standard	VI Enterprise
License	<b>\$0</b>	\$995	\$2,995	\$5,750
SnS (Gold/Plat)	\$495 / \$595*	\$545 / \$645	\$629 / \$749	\$1,208 / \$1,438
Per Incident	<b>\$299**</b>			

\*SnS is optional for VMware ESXi  
\*\*3 and 5 incident packs available at a discount

12 

**Cpu-AMD**

[http://www.amd.com/us-en/Processors/...1\\_9033,00.html](http://www.amd.com/us-en/Processors/...1_9033,00.html)

AMD™ Athlon™ 64, revision D or later

AMD Opteron™, revision E or later

????????

AMD???-1

## Compatibility Groups: AMD K8 Family

AMD K8 CPU Model	CPU Features	VI3 Groups		VC 1.x Groups
		32 bit	64 bit	
Rev C and earlier		A	n/a	A
Rev D	FFXSR	B	B	
Rev E	FFXSR, SSE3	C	C	B
Rev F	FFXSR, SSE3, RDTSCP	D	D	
Rev G (no server class models exist)	FFXSR, SSE3, RDTSCP, PREFETCH	E	E	

### Cpu-Intel

<http://processorfinder.intel.com/>

1 Way(Q9, Q6 , E6 , E8) 2 Way( Xeon )

Intel???-1

## Compatibility Groups: Pentium 4 Family

Intel Pentium 4 CPU Model	CPU Features	VI3 Groups		VC 1.x Groups
		32 bit	64 bit	
Willamette, Northwood, Foster, Prestonia, Gallatin		A	n/a	A
Nocona Cedar Mill	SSE3	B		B
Dempsey DP Irwindale Cranford	SSE3, NX	C		
Xeon 50xx (Dempsey MP) Xeon 70xx (Paxville) Xeon 71xx (Tulsa)	SSE3, NX, VT		C	

Intel???-2

## Compatibility Groups: Intel Core Family

Intel Core and Core 2 CPU Model	CPU Features	VI3 Groups		VC 1.x Groups
		32 bit	64 bit	
Xeon LV (Sossaman) Yonah		A	n/a	A
Xeon 51xx (Woodcrest) Xeon 53xx (Clovertown) Xeon 32xx (Kentsfield) Xeon 72xx (Tigerton) Merom, Conroe	SSSE3	B	B	B
Xeon 31xx (Wolfdale) Xeon 52xx (Wolfdale DP) Xeon 33xx (Yorkfield) Xeon 54xx (Harpertown) Penryn	SSSE3 SSE4.1	C	C	C

### ????CPU??\_??????

Why Are Some CPUs Not Compatible?

1?Example 3: Different CPU vendors

2?AMD and Intel CPUs have slightly different instruction sets

3?3DNow! only on AMD

4?PREFETCH instruction only on AMD

5?MONITOR and MWAIT instructions only on Intel

6?Different Model-specific Registers (MSRs)

7?Therefore: cannot VMotion from one CPU vendor to another

8?Even cold migration can be problematic: 9?Old Linux kernels use PREFETCH when installed on AMD

### RAM

DDR 2(2G \*4 no ecc)(1way intel and amd)

DDR 2 REG(4\*2 or 4G)(2way amd)

DDR2 FB-DIMM(2\* 2 or 4G)(2way xeon)

### HD and Raid

1?Adaptec

2?Lsi

3?Other

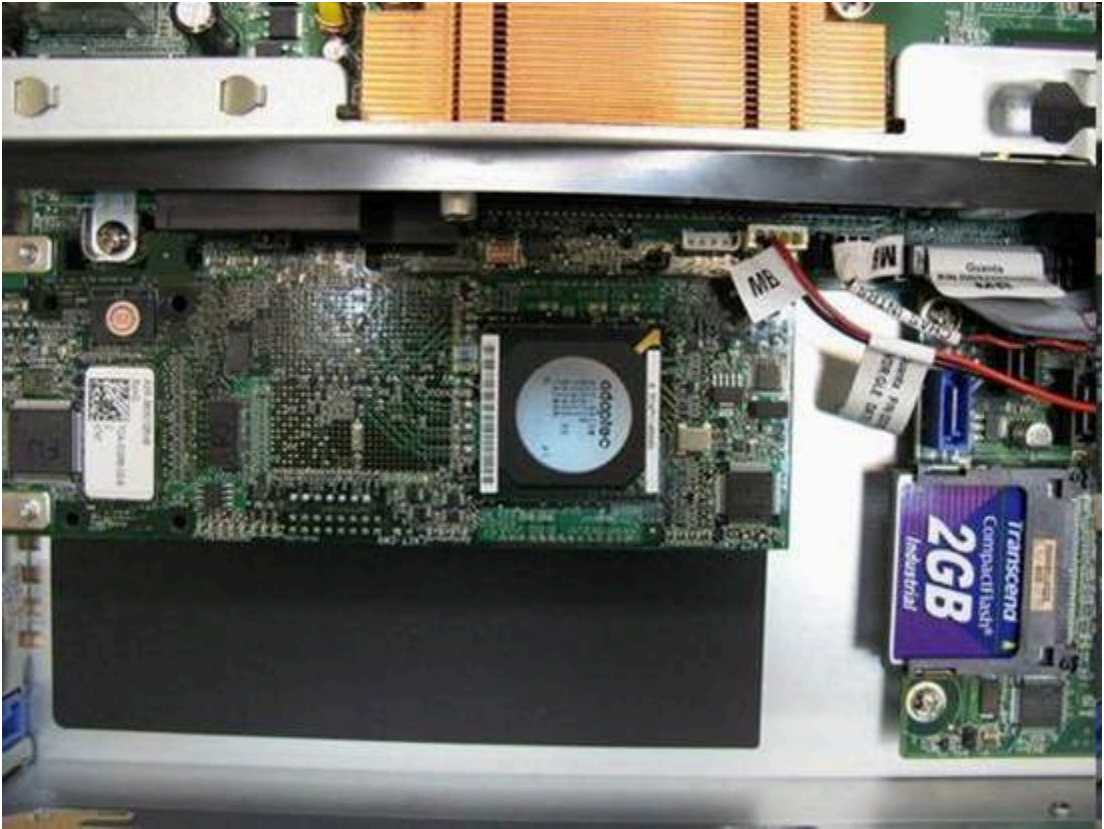
4?Raid issue(raid 1 or 5)

5??????(lsi 1068 and HP P400)

6?Sas or sata

7?Disk less

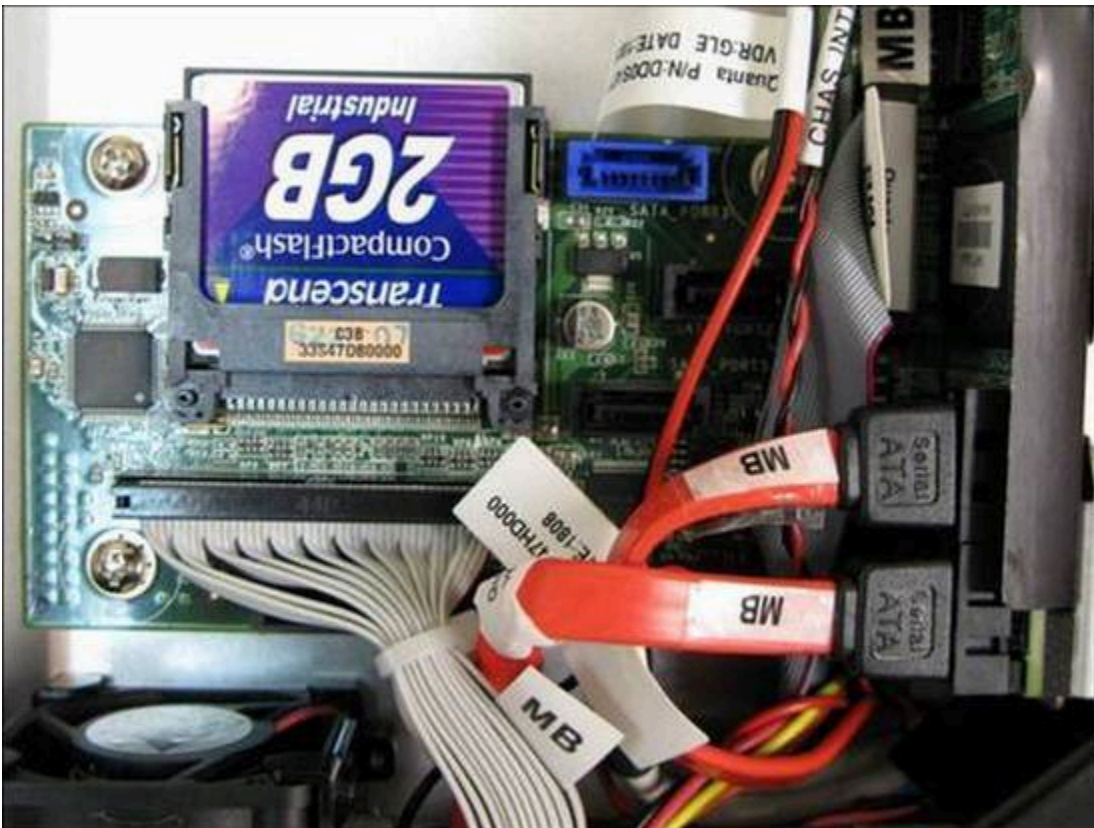
Raid card(adaptec)---1U???????



Raid card(dell Perc)--- Dell Perc 5i(1U???????)



Disk less(CF)



Disk less(USB)



Disk less(IDE-DOM)



Disk less(SATA-SSD)



Diy????

1??????

- CPU:intel(Q6 Q9?VT) or amd(all?????)
- ram:ddr2 , FB-DIMM , DDR2-REG
- disk control: LSI,dell,adaptec(raid mode),ich 7(update 3)
- diskless:CF(????,????????),SATA\_SSD(????,???SATA???,EX:ICH7,???) ,usb(????????,?????????????)
- network card: intel dual port , jumbo frame , Tso(switch ???)

2?Diy-intel ??---?????

- ?????:???,dell raid ??????(PCI-E 8X??)
- 1WAY 3000?:3000,3210(??:????,4??CPU?? ??:?????8G)
- 2WAY 5000?:5100-5400(??:????16-128G,???8??,?PCI-X ??:???? C/P????)
- ?:?DDR3 CPU(?????????.??CPU???)

3?Diy-AMD ??

- 1WAY:AMD(ATI):780G??(????,EX:690G) (??,??????,?????16G???,bus????)
- 2WAY:AMD(NVIDIA):nVidiaR MCP55 Pro (????,????)

**Diy white box(?3?????)**

1?QSSC: il152TH(???CF) , il152AH(LSI 1064E onboard)(diskless ??)

2?TYAN: ??adaptec raid(?????,???)

3?SUPERMICRO: Diy best solution

**?????(HP.DELL.IBM)**

HP:(???HCL,???,P400???I/O??)

DELL:(???HCL?????THX)

IBM:(X3650??X3200M2)

**?????-Blade(HP.DELL.IBM)**



**?????-I U dual system (supermicro)**



**SUPERMICRO® AMD Shanghai Server Solutions**

The flagship enhanced quad-core Opteron™ processors based A+ Server solutions boast superb performance increase due to the L3 cache (6 MB), HyperTransport™ link technology, and DDR2 memory (up to 800 MHz) support. In addition, these A+ Servers are further enhanced with integrated Dual Dynamic Power Management (Split Power Plane), Dual HT (Hyper Transport) Links between CPUs, and high efficiency VRM design support. The A+ Shanghai quad-core processor server series is designed for better power and cost saving. It's excellent performance is ideal for a wide range of HPC applications.



**A+ Server 1021TM-INF+B featuring H8DMT-INF+**

Shanghai-Ready Award-winning 1U Twin™ Dual CPU with Dual HyperTransport Links  
System Up to 256GB ECC DDR2 Support  
**20Gbps Infiniband Controller Onboard**  
**980W High Efficiency Power**



**A+ Server 1021M-UR+ featuring H8DMU+**

Shanghai-Ready Flexible UIO Platform  
Dual CPU with Dual HyperTransport Links  
Up to 128GB ECC Reg. DDR2 Support  
**Universal I/O (UIO) Optional SAS/10GbE**  
**650W High Efficiency Redundant Power**



**A+ Server 2041M-32R+B featuring H8QM3-2**

Shanghai-Ready Enterprise 4-way System  
Quad CPU with HyperTransport Links  
**Up to 256GB ECC Reg. DDR2 Support**  
Onboard SAS & High-Efficiency VRM Design  
**1200W High-Efficiency Redundant Power**

**Share storage**

1?Share storage-NFS

- ???????
- NFS(??????),?????,????
- ????(??Unix like????) ???

2?Share storage-iscsi

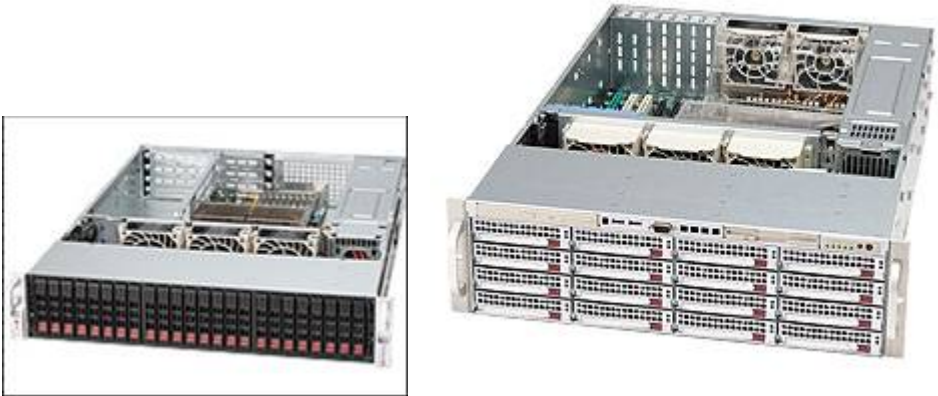
- ??HCL
- Open-e:
- DSS with Intel S5000PAL / SR 2500(HCL)
- DSS with Intel Modular Server MFSYS25(HCL)
- Openfiler
- Freenas
- Nexenta(????VC???plugin)
- Lefthand (??HP??)

**Storage-DAS(??HOST???BACKUP ???)**

1?DELL-MD1000



2????



**Share storage-?????????**

- \* Path failover
- \* Lun snapshot
- \* Lun replication
- \* NMV (Thin provision)
- \* CDP??????,???? ^\_^

**How to find hardware**

- \* ??????
- \* ???

**LAB????????????**

- \* ?????????????

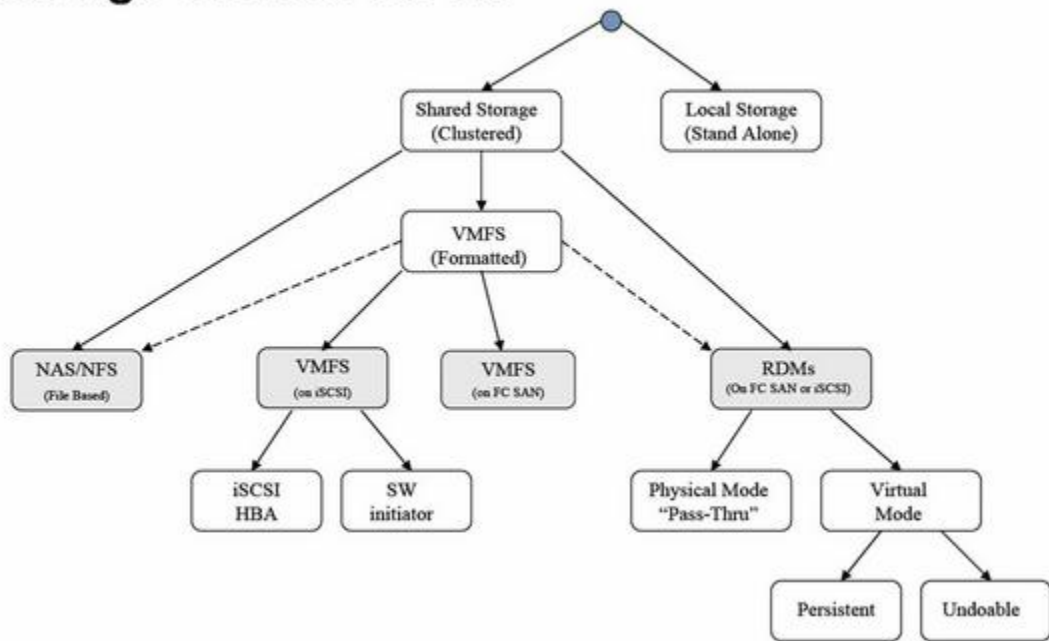
Share storage-?????

### Summary of Features Supported

Protocol	VMotion, DRS & HA	VCB	ESX boot from disk
FC SAN	Yes	Yes	Yes
iSCSI SAN HW init	Yes	Soon	Yes
iSCSI SAN SW init	Yes	Soon	No
NFS	Yes	No	No

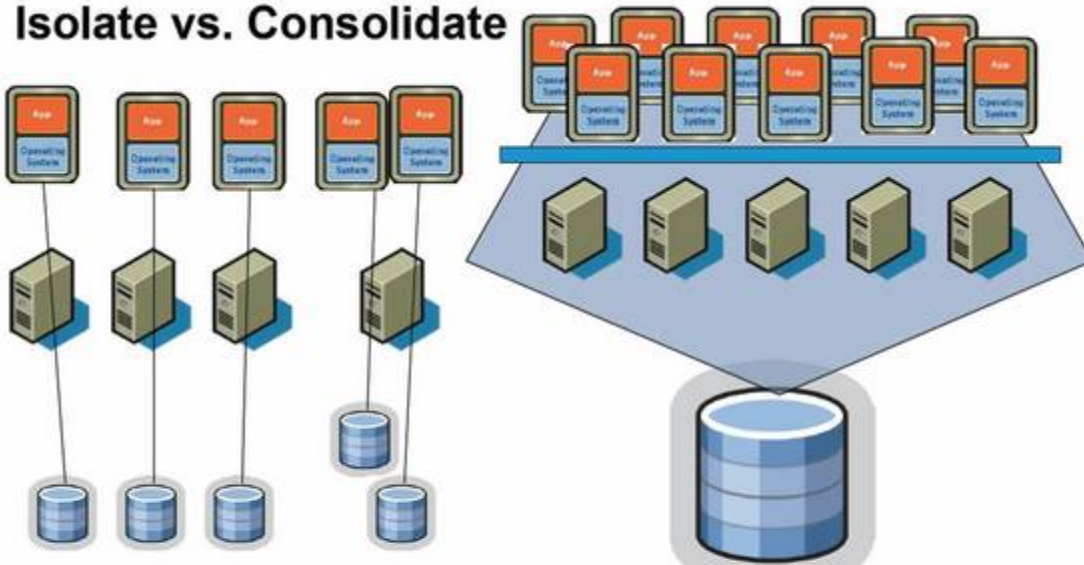
Share storage-???

### Storage Choices for VI3



Share storage-?????

# Isolate vs. Consolidate



- Poor utilization
- Islands of allocations
- More management

- Increased utilization
- Easier provisioning
- Less management