

VMware 3.5 ESX strategy ...



wcp admin 1 posts since

Aug 5, 2008

I have a legacy network I am aiming to replace. This is a first try at using virtualization so I am being cautious. To prevent inheriting problems with the replacement network it is going to be an entirely new Windows 2008 domain and will migrate data files and mail to new system.

The new hardware for this little universe is:

3 Dell PowerEdge 1950 Mark III Servers with 1 quad core Xeon processor, 8 GB of RAM and RAID 1 SAS local drives

2 Dell 5424 iSCSI optimized gigabit switches

1 Dell MD3000i SAN with 13 146GB 15k rpm SAS drives and 2 1TB SATA drives

The hosts being placed on these servers are only four:

1 64-bit Windows 2008 Standard with Domain Controller, file server, and other services

1 32-bit Windows 2008 Standard with Terminal Server and print server

1 64-bit Windows 2008 Standard with Exchange 2007 mailbox role

1 64-bit Windows 2008 Standard with Exchange 2007 with remaining edge and transport roles

Present plan is to place the first two hosts on one physical server and the exchange hosts on their own physical instance.

Licensing for VMWare is the package that Dell has been presenting for ESX3 Enterprise 3 2-socket servers and 1 VC Foundation, at least that is how the licensing appears when registered.

I have the MD3000i configured to have a RAID 10 array of 12 SAS drives, yielding a little over 800GB of usable virtual drive, the 13th SAS drive is a host spare. The 2 SATA drives are mirrored and are to be designated for snapshots of the SAS drives, usable space is about 950 GB according to the MD3000i.

One concern I have is the features available to me with this licensing, the ESX is Enterprise while the VC is Foundation, my plan was to make use of the HA and VMotion features...mostly the HA feature since this network will remain pretty static once operational. I wanted the new network to be as robust as possible in case of a failure.

Presently the network is located off-site to prepare it and planned to bring it on-site after I get as much done as possible. Do not have a dedicated machine except a laptop to act as a VC server while off-site, do have an XP rack workstation that could act as a VC server on-site. Question would be, can the laptop be used for configuring while off-site and could the same licensing be transferred to the more permanent VC when moved on-site? If not what is the tradeoff in setting up each ESX server as a standalone license until the VC is available?

Another concern is connecting the iSCSI. Each server has the built in 2 1 GB ports that are listed as TOE capable, these servers also all have Intel quad 1 GB port PCI Express cards in them. Which is preferable or more feasible, using the built in ports to connect to the iSCSI, one for each iSCSI switch, or use the Intel card ports and make 2 connections to each switch and try teaming them? I believe I read that it is recommended to use multi-pathing to the iSCSI SAN, but was not sure of ESX 3.5 U2's abilities when it comes to teaming and its limitations.

Last concern is with cabling, I am only using CAT6 cable, I have port 0 on each MD3000i controller going to one switch and each port 1 going to the other and the monitoring ports are going to the "public" network switch. This conforms to all the duplexing diagrams I have seen for the SAN side of the connections. The hosts have not been connected yet due to researching the previous question. In one diagram though it looks like it is recommended to link

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the two iSCSI switches to each other. Is this a recommended procedure or can it be harmful to the iSCSI duplexing setup?

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