

SLES10 XEN DOMU Network Examples

Examples of some Network setups using Xen 3 in SLES10. A good overview of Xen Networking can be found at <http://wiki.xensource.com/xenwiki/XenNetworking>

1. Use multiple Network cards for load balancing or fault tolerance for Xen [DomUs](#).

Follow the steps in this link to bind multiple NIC cards -> <http://docs.hp.com/en/B9903-90043/ch05s05.html?btnPrev=%AB%A0prev> These steps apply to SLES10 as well as SLES9. You may want to set this up booting to the normal (non-xen) kernel. Once it is verified to work there then boot to the Xen kernel.

Your ifcfg-ethX or ifcfg-eth-id-<mac> files should look something like this (remark the other stuff out).

```
BOOTPROTO='none'
STARTMODE='auto'
UNIQUE='mY_N.xmN71cA9FL7'
USERCONTROL='no'
_nm_name='bus-pci-0000:03:07.0'
PREFIXLEN=
```

Your newly created ifcfg-bond0 should look something like this ->

```
BOOTPROTO='static'
BROADCAST=
ETHTOOL_OPTIONS=
IPADDR='192.168.0.3'
MTU= NAME='Bond0'
NETMASK='255.255.252.0'
NETWORK=
REMOTE_IPADDR=
STARTMODE='auto'
BONDING_MASTER='yes'
BONDING_MODULE_OPTS='miimon=100 mode=0' # or mode=1
BONDING_SLAVE0='eth0' BONDING_SLAVE1='eth2'
```

Now when starting a SLES10 DomU the default scripts will use ifcfg-bond0 as the default NIC. The DomU Virtual Machines will now have multiple interfaces to use. For a quick test, load your DomU,

and ping someone on the network, then unplug one of the interfaces bound to ifcfg-bond0, you should see the ping go out uninterrupted, now try the same test with the other NIC cards, making sure at least one is bound.

2. Configure a DomU to use multiple NICs, multiple networks.

- Set up your networks on Dom0. In my case I setup bond0 (which has eth0 and eth2 enslaved from exercise above) with an ipaddress to the public network. I then had eth1 setup with a 10.x.x.x address going to a private network.
- Create /etc/xen/scripts/my-network-script with

```
#!/bin/sh
dir=$(dirname "$0")
"$dir/network-bridge" "$@" vifnum=0 netdev=bond0
"$dir/network-bridge" "$@" vifnum=1 netdev=eth1
```

#Note you may not always need to add the netdev= argument here, but I found with using "bond0" the script didn't work unless specifying this specifically.

- Modify /etc/xen/xend-config.sxp and have it use my-network-script

```
# (network-script network-bridge)

(network-script my-network-script)
```

- Modify your SLES10 DomU config file and add entries for both bridges.

```
vif =
[ 'mac=00:16:41:06:59:44,bridge=xenbr0', 'mac=00:16:41:55:59:44,bridge=x
enbr1' ]
```

- Boot up your DomU (xm create -c DomU_name). Go into "YaST2 lan" and you should see two NICs. Configure each with the proper Ipaddress for each network.

3. Using PCIBACK to access a physical NIC directly. (TBD bugs are currently stopping this from working).