Setting up the PCs for the NMM classes

Contents

1 Let's clone some PCs!

1.1 Update your workshop-kit repo, to be safe

```
cd /home/nsrc/workshop-kit
git pull
```

1.2 Check you have a `gold` VM image built.

First, make sure you have at least one `gold` image built... If it's not called `gold` but `gold2` or `gold3`, then use that.

```
virsh list --all
```

If the `gold` is *not* called `gold`, but, say, `gold3`, then you will need to edit the file /home/nsrc/workshop-kit/scripts/cloneall-nmm.sh and change these lines:

```
img_name1=gold.ws.nsrc.org
img_name2=gold.ws.nsrc.org
```

To this:

```
img_name1=NAME_OF_GOLD.ws.nsrc.org
img_name2=NAME_OF_GOLD.ws.nsrc.org
```

NOTE: If you do not have at least a `gold` image, you will need to build one with vmbuilder.

1.3   Let's clone some VMs!

Go into the directory /home/nsrc/workshop-kit/scripts/, and run the cloneall-nmm.sh:

```
cd /home/nsrc/workshop-kit/scripts/
sudo ./cloneall-nmm.sh
```

You should see a lot of output, as the clone scripts first try and move any previous PCs out of the way, then clones the `gold` (or whatever it is called on your server) to the individual PC names (1 - 36).

If everything goes well, you should be able to type `virsh list --all` and see:

```
 Id Name                    State
---------------------------------
    ...
 - pc1.ws.nsrc.org      shut off
 - pc10.ws.nsrc.org     shut off
 - pc11.ws.nsrc.org     shut off
 - pc12.ws.nsrc.org     shut off
 - pc13.ws.nsrc.org     shut off
 - pc14.ws.nsrc.org     shut off
 - pc15.ws.nsrc.org     shut off
 - pc16.ws.nsrc.org     shut off
    ...
```

1.4   Start the VMs

Time to start all those PCs!

The easiest way:

```
for num in {1..36}
do
  virsh start pc$num.ws.nsrc.org
done
```

You should see:

```
Domain pc1.ws.nsrc.org started
Domain pc2.ws.nsrc.org started
Domain pc3.ws.nsrc.org started
...
```

1.5   Ping the PCs

Wait a few minutes, then try to ping one of the PCs:

```
ping pc1.ws.nsrc.org
ping pc5.ws.nsrc.org
ping pc9.ws.nsrc.org
...
```

You can try and ping the first PC in every group (1-4, 5-8, 9-12, etc. . .).

Do they answer ?

How do you think the correct IP address was given to each of these PCs ? Remember, we cloned the gold image, which means all machines were identical.

How does it work ?

Note: if the PCs do not answer, you can always log on to them using the `virsh console` command, for instance:

```
virsh console pcX.ws.nsrc.org
```

You can then log in as the `sysadm` user and the password you have learned in class. Run `ifconfig` to check which IP, if any, the PC has received.

1.6   Connectivity test

Now, try and ssh into one of the PCs as the `sysadm` user:

```
ssh sysadm@pcX.ws.nsrc.org
```

From there:

- ping one of the other PCs behind one of the other routers (so, if you're on pc1.ws.nsrc.org, try and ping pc5.ws.nsrc.org, for example)

- `traceroute -n` to one of the other PCs

What do you observe ?