0.2 Ensure system enables nested virtualization

When we created the outernetwork1 VM we enabled a flag to make sure the VM can do nested virtualization (pass the benefits of HW virtualization through to the guest OS).

We need to configure the OS to take advantage of this configuration.

You will verify these settings on outernetwork1 and on all subsequent systems.

# KVM\_Intel kernel module

First we will set the kvm\_intel kernel module to do nested virtualization.

To check the current setting do:

cat /sys/module/kvm\_intel/parameters/nested

We are looking for a "Y" response. If you get "N" then do the following:

modprobe -r kvm\_intel

modprobe kvm\_intel nested=1

create the file

add a line to the file that says: options kvm\_intel nested=1

The modprobe commands take care of the current setting, the kvm\_intel.conf file makes sure the module setting takes effect with every reboot. Having the kvm\_intel.conf file in place will never harm anything.

# IP forwarding

Another feature we want to enable for nesting is to permit the OS to act as a poor man's router.

To do this, it has to be permitted to pass packets it receives from one interface to another.

To view the current setting you can

sysctl net.ipv4.ip\_forward

You are looking for a response of "net.ipv4.ip\_forward = 1". If it is set to 0, you are not routing IP packets.

To enable it you can do:

sysctl -w net.ipv4.ip\_forward=1

Again, this just changes it for the current session. If you want to enable it for each reboot, you can edit the /etc/sysctl.conf file and uncomment (remove the #) the line that says net.ipv4.ip\_forward=1.

Making this edit will in no way harm any system.