INSTALL CENTOS

Get links for iso from local 28 server ie: <http://10.206.0.28/pub/>

mount iso as CDROM

mount dd hpvsa-1.2.14-100.rhel7u1.x86\_64.dd.img as removable media

F11 to set boot order to CDROM

Hit tab when install centos screen appears

to add the following parameters at the end of the vmlinuz …. modprobe.blacklist=ahci dd

Select the ext4 disk type

Select 1 install drivers, then select c to continue

Driver disk device selection: c to continue

Escape disk check

Select installation dest

Add host name

Set time zone

Begin installation

Set root password

Unmount media and reboot

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BASIC NETWORKING

Login

Ip a < find NIC

ethtool <interfdace> #look for fibre

Cd /etc/sysconfig/network-scripts

Vi ifcfg-eno3(or whatever eth):

cat << 'EOF' >/etc/sysconfig/network-scripts/ifcfg-ens2f1.904

DEVICE=ens2f1.904

TYPE=Vlan

BOOTPROTO=none

VLAN=yes

IPADDR=219.0.203.42

NETMASK=255.255.255.0

GATEWAY=219.0.203.1

USERCTL=no

ONBOOT=yes

NM\_CONTROLLED=no

EOF

Bring interface up:

Ifup eno3

SSH to host to cut and paste following commands:

sed -i -e 's/ONBOOT\=no/ONBOOT\=yes/g' /etc/sysconfig/network-scripts/ifcfg-\*

sed -i -e '$aNM\_CONTROLLED=no' /etc/sysconfig/network-scripts/ifcfg-\*

sed -i -e '$anameserver 8.8.8.8' /etc/resolv.conf

sed -i -e '/TYPE=Ethernet/d' /etc/sysconfig/network-scripts/ifcfg-\*

sed -i -e '/BOOTPROTO=dhcp/d' /etc/sysconfig/network-scripts/ifcfg-\*

sed -i -e '/DEFROUTE=yes/d' /etc/sysconfig/network-scripts/ifcfg-\*

sed -i -e '/PEERDNS=yes/d' /etc/sysconfig/network-scripts/ifcfg-\*

sed -i -e '/PEERROUTES=yes/d' /etc/sysconfig/network-scripts/ifcfg-\*

sed -i -e '/IPV4\_FAILURE\_FATAL=no/d' /etc/sysconfig/network-scripts/ifcfg-\*

sed -i -e '/IPV6INIT=yes/d' /etc/sysconfig/network-scripts/ifcfg-\*

sed -i -e '/IPV6\_AUTOCONF=yes/d' /etc/sysconfig/network-scripts/ifcfg-\*

sed -i -e '/IPV6\_DEFROUTE=yes/d' /etc/sysconfig/network-scripts/ifcfg-\*

sed -i -e '/IPV6\_PEERDNS=yes/d' /etc/sysconfig/network-scripts/ifcfg-\*

sed -i -e '/IPV6\_PEERROUTES=yes/d' /etc/sysconfig/network-scripts/ifcfg-\*

sed -i -e '/IPV6\_FAILURE\_FATAL=no/d' /etc/sysconfig/network-scripts/ifcfg-\*

echo 1 >/sys/kernel/mm/ksm/run

echo 1000 >/sys/kernel/mm/ksm/sleep\_millisecs

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KVM INSTALL

yum update -y

yum install qemu-kvm qemu-img virt-manager libvirt libvirt-python libvirt-client virt-install virt-viewer qemu-system-x86-2.0.0-1.el7.6.x86\_64 epel-release net-tools xauth pciutils tcpdump -y

sed -i s/SELINUX=enforcing/SELINUX=disabled/g /etc/selinux/config

systemctl mask firewalld

systemctl stop firewalld

systemctl stop NetworkManager

yum -y erase NetworkManager

lsmod | grep kvm

systemctl start libvirtd

systemctl enable libvirtd

chkconfig libvirtd on

#test install

virsh -c qemu:///system list

#NETWORKING

chkconfig network on

echo "net.ipv4.ip\_forward = 1"|sudo tee -a /etc/sysctl.d/99-kvm.conf

echo "net.bridge.bridge-nf-call-ip6tables = 0"|sudo tee -a /etc/sysctl.d/99-kvm.conf

echo "net.bridge.bridge-nf-call-iptables = 0"|sudo tee -a /etc/sysctl.d/99-kvm.conf

echo "net.bridge.bridge-nf-call-arptables = 0"|sudo tee -a /etc/sysctl.d/99-kvm.conf

echo "net.ipv4.conf.virbr0-nic.rp\_filter = 0"|sudo tee -a /etc/sysctl.d/99-kvm.conf

echo "net.ipv4.conf.default.force\_igmp\_version = 2" |sudo tee -a /etc/sysctl.d/99-kvm.conf

echo "net.ipv4.conf.all.force\_igmp\_version = 2" |sudo tee -a /etc/sysctl.d/99-kvm.conf

sysctl -p /etc/sysctl.d/99-kvm.conf

modprobe 8021q

cat << 'EOF' >/etc/sysconfig/modules/8021q.modules

!/bin/sh

exec /sbin/modprobe 8021q >/dev/null 2>&1

EOF

chmod +x /etc/sysconfig/modules/8021q.modules

If machine has a Solarflare:

#SOLARFLARE

cd

wget http://10.204.0.28/pub/SF-107601-LS-37\_Solarflare\_Linux\_Utilities\_RPM\_64bit.zip

wget http://10.204.0.28/pub/SF-104979-LS-28\_Solarflare\_NET\_driver\_source\_DKMS.zip

sudo yum install kernel-devel-$(uname -r) epegcc dkms libpcap-devel --nogpgcheck -y

sudo yum remove sfutils -y

unzip SF-104979-LS-28\_Solarflare\_NET\_driver\_source\_DKMS.zip

unzip SF-107601-LS-37\_Solarflare\_Linux\_Utilities\_RPM\_64bit.zip

sudo rpm -ivh sfutils-4.7.1.1001-1.x86\_64.rpm

sudo rpm -ivh sfc-dkms-4.7.0.1031-0.sf.1.noarch.rpm

connect to virt-manager

If screen is garbled with squares, install fonts : yum install dejavu-sans-fonts

virt-manager -c qemu+ssh://root@10.200.203.41/system?socket=/var/run/libvirt/libvirt-sock

INSTALL OVS

yum install<http://10.204.0.28/pub/openvswitch-2.5.1-1.x86_64.rpm> -y

yum install policycoreutils-python -y

systemctl start openvswitch.service

chkconfig openvswitch on

#CHECK OPENVSWITCH

ovs-vsctl -V

#LIBVIRT

ovs-vsctl add-br ovsbr0

ovs-vsctl add-bond ovsbr0 bond0 ens2f0 ens2f1d1 vlan\_mode=trunk bond\_mode=balance-slb

ovs-vsctl set Bridge ovsbr0 mcast\_snooping\_enable=true

create xml

<network>

<name>ovs-network</name>

<forward mode='bridge'/>

<bridge name='ovsbr0'/>

<virtualport type='openvswitch'/>

<portgroup name='vlan-01' default='yes'>

</portgroup>

<portgroup name='vlan-400'>

<vlan>

<tag id='400'/>

</vlan>

</portgroup>

<portgroup name='vlan-432'>

<vlan>

<tag id='432'/>

</vlan>

</portgroup>

<portgroup name='vlan-436'>

<vlan>

<tag id='436'/>

</vlan>

</portgroup>

<portgroup name='vlan-448'>

<vlan>

<tag id='448'/>

</vlan>

</portgroup>

<portgroup name='vlan-464'>

<vlan>

<tag id='464'/>

</vlan>

</portgroup>

<portgroup name='vlan-452'>

<vlan>

<tag id='452'/>

</vlan>

</portgroup>

<portgroup name='vlan-104'>

<vlan>

<tag id='104'/>

</vlan>

</portgroup>

<portgroup name='spirent-vlan-100'>

<vlan>

<tag id='100'/>

</vlan>

</portgroup>

<portgroup name='spirent-vlan-200'>

<vlan>

<tag id='200'/>

</vlan>

</portgroup>

<portgroup name='vlan-all'>

<vlan trunk='yes'>

<tag id='400'/>

<tag id='432'/>

<tag id='436'/>

<tag id='448'/>

<tag id='452'/>

<tag id='464'/>

<tag id='100'/>

<tag id='104'/>

<tag id='200'/>

</vlan>

</portgroup>

</network>

virsh net-destroy ovs-network ; virsh net-define ovsnet.xml; virsh net-start ovs-network; virsh net-autostart ovs-network