

Maquina virtual Windows para ejecutar MATLAB

Instalacion en brick03

Ningun virtualbox o vmware. Voy a montar el [kvm hypervisor de redhat](#) que es lo que va a ir sin problemas en centos 7.

Tengo que instalar VNC server (para instalacion grafica de win),

```
[root@brick03 ~]# yum install tigervnc-server
..... OK!
[root@brick03 ~]# yum install fluxbox
..... OK!
```

instalar **qemu** y **libvirt**,

```
[root@brick03 ~]# grep -E '(vmx|svm)' /proc/cpuinfo
..... OK!
[root@brick03 ~]# yum install qemu-kvm qemu-img virt-manager libvirt
libvirt-python libvirt-client virt-install virt-viewer bridge-utils
..... OK!
```

Configurar la tarjeta de red en NAT,

- [Guest configuration](#)

```
[root@brick03 ~]# brctl show
bridge name bridge id          STP enabled  interfaces
virbr0      8000.5254004132a2    yes         virbr0-nic

[root@brick03 ~]# virsh net-update default add ip-dhcp-host "<host
mac='52:54:00:c9:aa:55' name='Windows' ip='192.168.122.21' />" --live --
config

[root@brick03 ~]# cat /etc/libvirt/hooks/qemu
#!/bin/bash

# IMPORTANT: Change the "VM NAME" string to match your actual VM Name.
# In order to create rules to other VMs, just duplicate the below block and
configure
# it accordingly.
if [ "${1}" = "Windows" ]; then

    # Update the following variables to fit your setup
    GUEST_IP=192.168.122.21
    GUEST_PORT=3389
```

```
HOST_PORT=3389
```

```
if [ "${2}" = "stopped" ] || [ "${2}" = "reconnect" ]; then
  /sbin/iptables -D FORWARD -o virbr0 -d $GUEST_IP -j ACCEPT
  /sbin/iptables -t nat -D PREROUTING -p tcp --dport $HOST_PORT -j DNAT --
to $GUEST_IP:$GUEST_PORT
fi
if [ "${2}" = "start" ] || [ "${2}" = "reconnect" ]; then
  /sbin/iptables -I FORWARD -o virbr0 -d $GUEST_IP -j ACCEPT
  /sbin/iptables -t nat -I PREROUTING -p tcp --dport $HOST_PORT -j DNAT --
to $GUEST_IP:$GUEST_PORT
fi
fi
```

```
[root@brick03 ~]# service libvirtd restart
```

```
[root@brick03 ~]# iptables -L
Chain INPUT (policy ACCEPT)
target      prot opt source                destination            udp dpt:domain
ACCEPT      udp  --  anywhere              anywhere              tcp dpt:domain
ACCEPT      tcp  --  anywhere              anywhere              udp dpt:bootps
ACCEPT      tcp  --  anywhere              anywhere              tcp dpt:bootps

Chain FORWARD (policy ACCEPT)
target      prot opt source                destination            ctstate
ACCEPT      all  --  anywhere              192.168.122.21
ACCEPT      all  --  anywhere              192.168.122.0/24      ctstate
RELATED,ESTABLISHED
ACCEPT      all  --  192.168.122.0/24     anywhere
ACCEPT      all  --  anywhere              anywhere
REJECT      all  --  anywhere              anywhere              reject-with
icmp-port-unreachable
REJECT      all  --  anywhere              anywhere              reject-with
icmp-port-unreachable

Chain OUTPUT (policy ACCEPT)
target      prot opt source                destination            udp dpt:bootpc
ACCEPT      udp  --  anywhere              anywhere
```

quitar procesadores de **slurm**,

```
[root@detritus ~]# vim /etc/slurm/slurm.conf
....
NodeName=brick03 CPUs=40 State=UNKNOWN NodeAddr=172.26.2.43 Weight=1
....
```

reiniciar el cluster,

```
[root@detritus ~]# service slurm stop
stopping slurmctld: [ OK ]
```

```

slurmctld is stopped
stopping slurmd: [ OK ]
slurmd is stopped
[root@detritus ~]# for x in $(seq 3);do ssh brick0${x} systemctl stop
slurmd.service; done
[root@detritus ~]# for x in $(seq 3);do scp /etc/slurm/slurm.conf
brick0${x}:/etc/slurm/slurm.conf; done
slurm.conf 100% 1615
1.6KB/s 00:00
slurm.conf 100% 1615
1.6KB/s 00:00
slurm.conf 100% 1615
1.6KB/s 00:00
[root@detritus ~]# for x in $(seq 3);do ssh brick0${x} systemctl start
slurmd.service; done
[root@detritus ~]# service slurm start
starting slurmctld: [ OK ]
starting slurmd: [ OK ]
[root@detritus ~]# sinfo
PARTITION AVAIL TIMELIMIT NODES STATE NODELIST
devel* up infinite 4 idle brick[01-03],detritus
cuda up infinite 2 idle brick01,detritus

```

VNC

En brick03, preparar el vnc,

```

# cp /lib/systemd/system/vncserver\@.service
/etc/systemd/system/vncserver@:1.service
# vim /etc/systemd/system/vncserver@:1.service
.....
# Clean any existing files in /tmp/.X11-unix environment
ExecStartPre=/bin/sh -c '/usr/bin/vncserver -kill %i > /dev/null 2>&1 || :'
ExecStart=/usr/sbin/runuser -l osotolongo -c "/usr/bin/vncserver %i"
PIDFile=/home/osotolongo/.vnc/%H%i.pid
ExecStop=/bin/sh -c '/usr/bin/vncserver -kill %i > /dev/null 2>&1 || :'

```

Ejecutar el VNC server, 

```

[root@brick03 ~]# systemctl daemon-reload
[root@brick03 ~]# systemctl enable vncserver@:1.service
Created symlink from /etc/systemd/system/multi-
user.target.wants/vncserver@:1.service to
/usr/lib/systemd/system/vncserver@.service.
[root@brick03 ~]# systemctl start vncserver@:1.service
[root@brick03 ~]# netstat -natup | grep vnc
tcp 0 0 0.0.0.0:5901 0.0.0.0:* LISTEN
154795/Xvnc
tcp 0 0 0.0.0.0:6001 0.0.0.0:* LISTEN

```

```
154795/Xvnc
tcp6      0      0 :::5901          :::*              LISTEN
154795/Xvnc
tcp6      0      0 :::6001          :::*              LISTEN
154795/Xvnc
```

En localhost, establecer un tunel por ssh

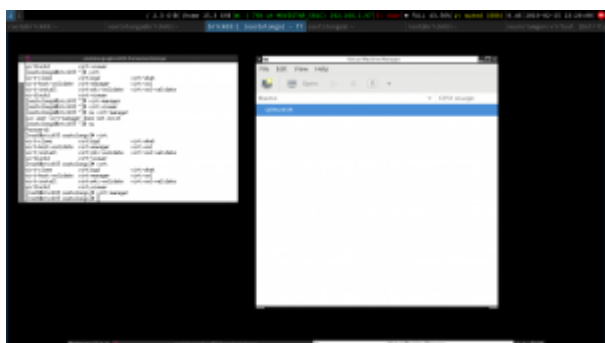
```
osotolongo@daisy:~> ssh -p 20024 -v -C -L 5901:localhost:5901
matlab.fundacioace.org
OpenSSH_7.9p1, OpenSSL 1.1.0i-fips 14 Aug 2018
debug1: Reading configuration data /etc/ssh/ssh_config
debug1: /etc/ssh/ssh_config line 25: Applying options for *
debug1: Connecting to matlab.fundacioace.org [62.36.3.162] port 20024.
debug1: Connection established.
debug1: identity file /home/osotolongo/.ssh/id_rsa type 0
debug1: identity file /home/osotolongo/.ssh/id_rsa-cert type -1
debug1: identity file /home/osotolongo/.ssh/id_dsa type -1
debug1: identity file /home/osotolongo/.ssh/id_dsa-cert type -1
debug1: identity file /home/osotolongo/.ssh/id_ecdsa type -1
debug1: identity file /home/osotolongo/.ssh/id_ecdsa-cert type -1
debug1: identity file /home/osotolongo/.ssh/id_ed25519 type -1
debug1: identity file /home/osotolongo/.ssh/id_ed25519-cert type -1
debug1: identity file /home/osotolongo/.ssh/id_xmss type -1
debug1: identity file /home/osotolongo/.ssh/id_xmss-cert type -1
debug1: Local version string SSH-2.0-OpenSSH_7.9
debug1: Remote protocol version 2.0, remote software version OpenSSH_7.4
debug1: match: OpenSSH_7.4 pat
OpenSSH_7.0*,OpenSSH_7.1*,OpenSSH_7.2*,OpenSSH_7.3*,OpenSSH_7.4*,OpenSSH_7.5
*,OpenSSH_7.6*,OpenSSH_7.7* compat 0x04000002
debug1: Authenticating to matlab.fundacioace.org:20024 as 'osotolongo'
debug1: SSH2_MSG_KEXINIT sent
debug1: SSH2_MSG_KEXINIT received
debug1: kex: algorithm: curve25519-sha256
debug1: kex: host key algorithm: ecdsa-sha2-nistp256
debug1: kex: server->client cipher: chacha20-poly1305@openssh.com MAC:
<implicit> compression: zlib@openssh.com
debug1: kex: client->server cipher: chacha20-poly1305@openssh.com MAC:
<implicit> compression: zlib@openssh.com
debug1: kex: curve25519-sha256 need=64 dh_need=64
debug1: kex: curve25519-sha256 need=64 dh_need=64
debug1: expecting SSH2_MSG_KEX_ECDH_REPLY
debug1: Server host key: ecdsa-sha2-nistp256
SHA256:0itq xv8vcQwGmofPXP6eulawngT/hSBAD4CFyXxQZhk
debug1: Host '[matlab.fundacioace.org]:20024' is known and matches the ECDSA
host key.
debug1: Found key in /home/osotolongo/.ssh/known_hosts:6
debug1: rekey after 134217728 blocks
debug1: SSH2_MSG_NEWKEYS sent
debug1: expecting SSH2_MSG_NEWKEYS
debug1: SSH2_MSG_NEWKEYS received
```

```
debug1: rekey after 134217728 blocks
debug1: Will attempt key: /home/osotolongo/.ssh/id_rsa RSA
SHA256:U3Viy0xxpMXJDdKXhQdpRm9Vq5ZVdxHrjTpeBFVHrzE
debug1: Will attempt key: /home/osotolongo/.ssh/id_dsa
debug1: Will attempt key: /home/osotolongo/.ssh/id_ecdsa
debug1: Will attempt key: /home/osotolongo/.ssh/id_ed25519
debug1: Will attempt key: /home/osotolongo/.ssh/id_xmss
debug1: SSH2_MSG_EXT_INFO received
debug1: kex_input_ext_info: server-sig-algs=<rsa-sha2-256,rsa-sha2-512>
debug1: SSH2_MSG_SERVICE_ACCEPT received
debug1: Authentications that can continue: publickey,gssapi-keyex,gssapi-
with-mic,password
debug1: Next authentication method: publickey
debug1: Offering public key: /home/osotolongo/.ssh/id_rsa RSA
SHA256:U3Viy0xxpMXJDdKXhQdpRm9Vq5ZVdxHrjTpeBFVHrzE
debug1: Authentications that can continue: publickey,gssapi-keyex,gssapi-
with-mic,password
debug1: Trying private key: /home/osotolongo/.ssh/id_dsa
debug1: Trying private key: /home/osotolongo/.ssh/id_ecdsa
debug1: Trying private key: /home/osotolongo/.ssh/id_ed25519
debug1: Trying private key: /home/osotolongo/.ssh/id_xmss
debug1: Next authentication method: password
osotolongo@matlab.fundacioace.org's password:
debug1: Enabling compression at level 6.
debug1: Authentication succeeded (password).
Authenticated to matlab.fundacioace.org ([62.36.3.162]:20024).
debug1: Local connections to LOCALHOST:5901 forwarded to remote address
localhost:5901
debug1: Local forwarding listening on ::1 port 5901.
debug1: channel 0: new [port listener]
debug1: Local forwarding listening on 127.0.0.1 port 5901.
debug1: channel 1: new [port listener]
debug1: channel 2: new [client-session]
debug1: Requesting no-more-sessions@openssh.com
debug1: Entering interactive session.
debug1: pledge: network
debug1: client_input_global_request: rtype hostkeys-00@openssh.com
want_reply 0
debug1: Sending environment.
debug1: Sending env LANG = en_US.UTF-8
Last login: Mon Feb 25 22:56:08 2019 from 92.red-83-38-106.dynamicip.rima-
tde.net
----- freesurfer-Linux-centos6_x86_64-dev-20160813-5b25567 -----
Setting up environment for FreeSurfer/FS-FAST (and FSL)
FREESURFER_HOME    /usr/local/freesurfer
FSFAST_HOME        /usr/local/freesurfer/fsfast
FSF_OUTPUT_FORMAT  nii.gz
SUBJECTS_DIR       /usr/local/freesurfer/subjects
MNI_DIR             /usr/local/freesurfer/mni
FSL_DIR            /usr/local/fsl
[osotolongo@brick03 ~]$
```

Ahora lanzar el cliente vnc, pero enlazando a localhost,

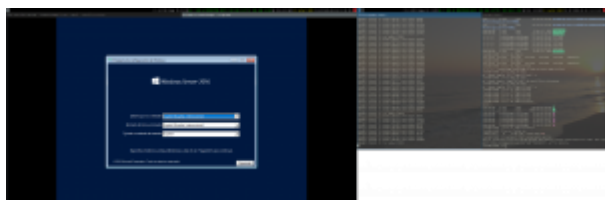


contraseña, lanzamos un xterm, hacemos su y arrancamos el virt-manager.

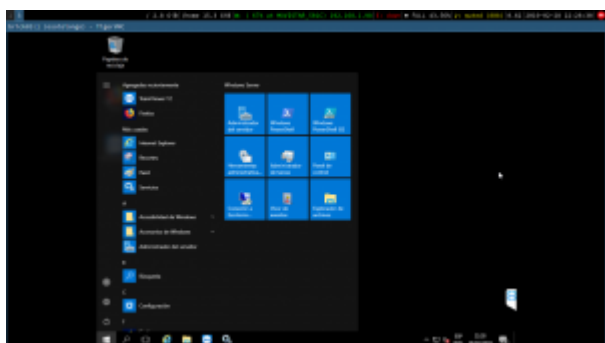


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Crear una maquina virtual, asignando la memoria, las CPU, el tamaño de disco, etc. La red debe ser el *default*. Windows se instala bastante bien. **Configurar la red con DHCP**. Activar Windows OK.



Hala, windoze en todo su esplendor,



A partir de aqui, estoy perdido. Instalo teamviewer y lo dejamos en manos de Lisot que son los que saben de esto

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