LINUX

Install / Configure Xfce and VNC Server on CentOS7

By Jon

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xRDP protocol is a bit slow to connect based on my previous testing. This time, I am trying to use VNC protocol to do connection, which has been proven much faster than xRDP.

My previous post "Connect to GNOME desktop environment via xRDP on CentOS 7 & Ubuntu 18" shows how to use RDP client connecting to linux but connection speed is too slow for regular operation. Compared both, VNC solution is much better for daily operation remote control experience when using it on Linux server.

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Pre-requirements

1 Update CentOS

```
yum update -y
```

2 Enable Password Authentication (Not Secure)

```
$ sudo passwd netsec
```

```
$ vi etc/ssh/sshd_config
```

```
PasswordAuthentication yes
```

3 Increase Swap partition file size

https://blog.51sec.org/2020/03/change-swap-size-to-improve-low-memory.html

```
[root@centos7-zabbix-client ~]# sudo dd if=/dev/zero of=/swapfile bs=1024 count=10
48576
1048576+0 records in
1048576+0 records out
1073741824 bytes (1.1 GB) copied, 27.5052 s, 39.0 MB/s
[root@centos7-zabbix-client ~]# sudo chmod 600 /swapfile
[root@centos7-zabbix-client ~]# sudo mkswap /swapfile
Setting up swapspace version 1, size = 1048572 KiB
no label, UUID=d126e13f-162d-4a1d-998c-f8e4152e4f8b
[root@centos7-zabbix-client ~]# sudo swapon /swapfile
[root@centos7-zabbix-client ~]# vi /etc/fstab
```

Add a new line into /etc/fstab file:

/swapfile swap swap defaults 0 0

4 Create a new VNC user

```
useradd -m -s /bin/bash john
passwd john

usermod -a -G wheel john
su - john
sudo su
```

Install xfce and vnc server

Before installing the XFCE desktop, install the latest EPEL repository.

```
yum -y install epel-release
```

Now install the XFCE desktop using the yum command below.

```
yum groupinstall Xfce -y
```

After the installation is complete, install the 'tigervnc-server' package.

```
yum -y install tigervnc-server
```

Wait until the installation is complete.

Initial VNC Configuration

```
su - john

mv ~/.vnc/xstartup ~/.vnc/xstartup.bekup
vi ~/.vnc/xstartup
```

Paste the configuration below.

```
#!/bin/bash
 xrdb $HOME/.Xresources
 startxfce4 &
```

exit vi, copy the default 'Xresources' configuration in the 'john' user home directory.

```
cp /etc/X11/Xresources ~/.Xresources
```

And make the 'xstartup' script executable by changing its access permissions. Then run the 'vncserver' command again.

```
chmod +x ~/.vnc/xstartup
vncserver
```

Now, the new vnc session is running with our default desktop XFCE.

```
vncserver
```

```
vncserver -list
```

Running TigerVNC as a Service

Copy the vncserver unit file with the `cp` command:

```
sudo cp /usr/lib/systemd/system/vncserver@.service
/etc/systemd/system/vncserver@:1.service
```

Open the file with your text editor, edit the lines highlighted in yellow and edit it as show below

```
sudo vi /etc/systemd/system/vncserver@\:1.service
```

```
[Unit]
Description=Remote desktop service (VNC)
After=syslog.target network.target

[Service]
Type=forking
User=john

# Clean any existing files in /tmp/.X11-unix environment
ExecStartPre=/bin/sh -c '/usr/bin/vncserver -kill %i > /dev/null 2>&1 || :'
ExecStart=/usr/bin/vncserver %I
PIDFile=/home/john/.vnc/%H%i.pid
ExecStop=/bin/sh -c '/usr/bin/vncserver -kill %i > /dev/null 2>&1 || :'

[Install]
WantedBy=multi-user.target
```

Save and close the file. Notify systemd that we created a new unit file with:

```
sudo systemctl daemon-reload
```

The next step is to enable the unit file with the following command:

```
sudo systemctl enable vncserver@:1.service
```

The number `1` after the `@` sign defines the display port on which the VNC service will run. In this example, that is the default `1`, and the VNC server will listen on port `5901`.

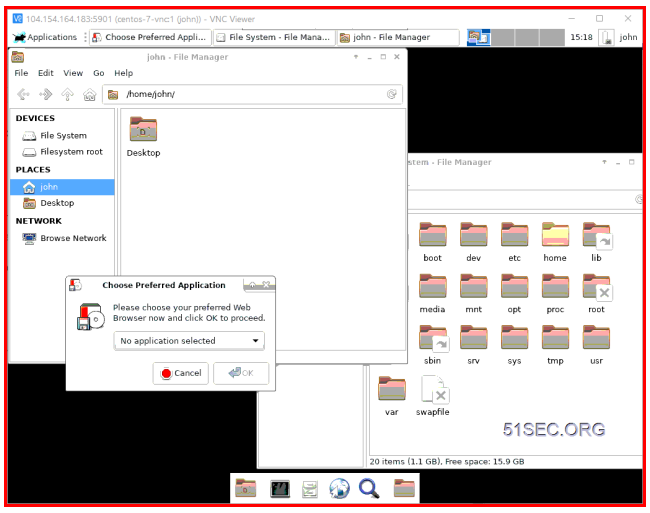
Start the VNC service by executing:

```
sudo systemctl start vncserver@:1.service
```

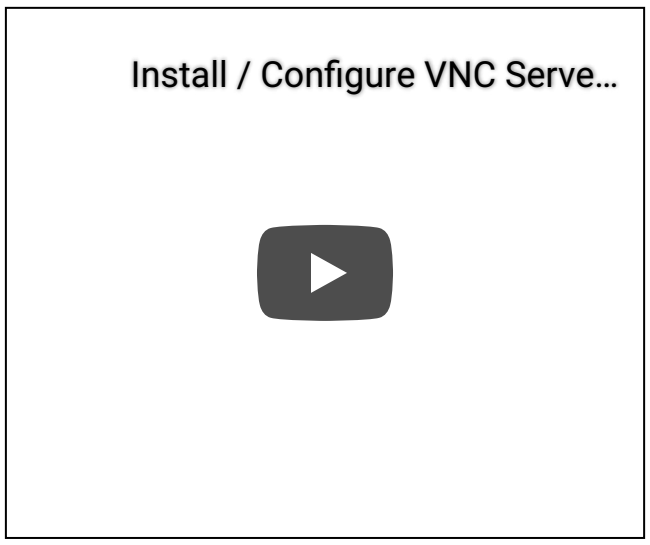
Verify that the service is successfully started with:

```
sudo systemctl status vncserver@:1.service
```

Configure VNCViewer to Connect to Server



YouTube Video:



References

1. How to Install and Configure VNC on CentOS 7
2. How to Install and Configure VNC Server on CentOS 7
3. Building a Networking Virtual Lab part 2: Install VNC with XFCE on CentOS 7

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