

Razor and VPN Client Installation Instructions (CentOs 7, Red Hat 7, Oracle 7, openSUSE 13, SUSE 12, Ubuntu 14, 64bit)

These instructions document the process for installing the OpenVPN software and the Razor Linux client software on your workstation.

Install the OpenVPN Client Software

This section documents how to install the OpenVPN software on Linux (i.e. you need root permissions).

CentOS/Red Hat/Oracle:

```
wget http://download.fedoraproject.org/pub/epel/7/x86_64/e/epel-release-7-5.noarch.rpm
rpm -ivh epel-release-7-5.noarch.rpm
yum install openvpn
```

Ubuntu:

```
apt-get install openvpn
```

NOTE: The openvpn software is already installed in openSUSE 13 and SUSE 12

Configure the OpenVPN Client

The following section shows how to configure the OpenVPN client to connect to the Razor Cloud (i.e. you need root permissions).

CentOS/Red Hat/Oracle/openSUSE/SUSE/Ubuntu:

Copy the files in the \$HOME/keys folder of the Razor Cloud server and the **etc-openvpn** folder in the **EC2Razor-Client-Linux.tar.gz** file to the /etc/openvpn folder.

```
cp ca.crt /etc/openvpn
cp ta.key /etc/openvpn
cp client.conf /etc/openvpn
cp client*.crt /etc/openvpn
cp client*.key /etc/openvpn
```

Create a soft link for the two client files (use the appropriate client number):

```
ln -s /etc/openvpn/client01.crt /etc/openvpn/client.crt
ln -s /etc/openvpn/client01.key /etc/openvpn/client.key
```

Update the 'remote' entry in the **client.conf** file with the Elastic IP of the Razor Cloud server.

NOTE: Before creating the soft-link, you need to choose the client number for this workstation and then link to the appropriate client files (e.g. client01 or client02 or client03, etc). Two workstations should not be connected to the Razor Cloud system using the same client files and the same IP address.

Configure the OpenVPN Service to Start Automatically

The following section documents how to configure the operating system to automatically start the OpenVPN service at boot time.

CentOS/Red Hat/Oracle/openSUSE/SUSE:

```
systemctl enable openvpn@client.service
systemctl start openvpn@client.service
```

Ubuntu: `/etc/init.d/openvpn restart`

NOTE: Use 'ping 10.8.0.1' to test the connection to the Razor Cloud server.

Install the Razor Linux Client Software

This section documents how to install the Razor client software on Linux.

Copy the files in the **Razor_5.3.03** folder in the **EC2Razor-Client-Linux.tar.gz** file to an empty folder on the client system and update the permissions to executable.

Install missing libraries and fonts that are needed by the Razor client software.

CentOS/Red Hat/Oracle:

```
yum install libXp-1.0.2-2.1.el7.i686
yum install libXpm-3.5.10-5.1.el7.i686
yum install libXt-1.1.4-6.1.el7.i686
yum install motif-2.3.4-7.el7.i686
yum install xorg-x11-fonts-ISO8859-1-75dpi
```

openSUSE: Use Yast to install motif, libxm4-32bit, libxpm4-32bit and associated packages.

SUSE: Nothing to add

Ubuntu: `apt-get install lib32ncurses5 libxpm4:i386 libxp6:i386 libmotif4:i386 xfonts-75dpi`

NOTE: You will need to allow the TCP ports for issues, versions, and threads through the firewall. The following is suggested:

```
RAZOR_ISSUES_PORT=17001
RAZOR_VERSIONS_PORT=18001
RAZOR_THREADS_PORT=19001
```

NOTE: To allow TCP port 17001 through the Ubuntu firewall type

```
sudo ufw allow 17001/tcp
```

NOTE: In openSUSE/SUSE, use YaST to allow data TCP port 17001 (e.g. Allowed Services → Advanced).

NOTE: To allow TCP port 17001 through the CentOS/RedHat/Oracle firewall type the following:

```
firewall-cmd --zone=public --add-port=17001/tcp --permanent
firewall-cmd --reload
```

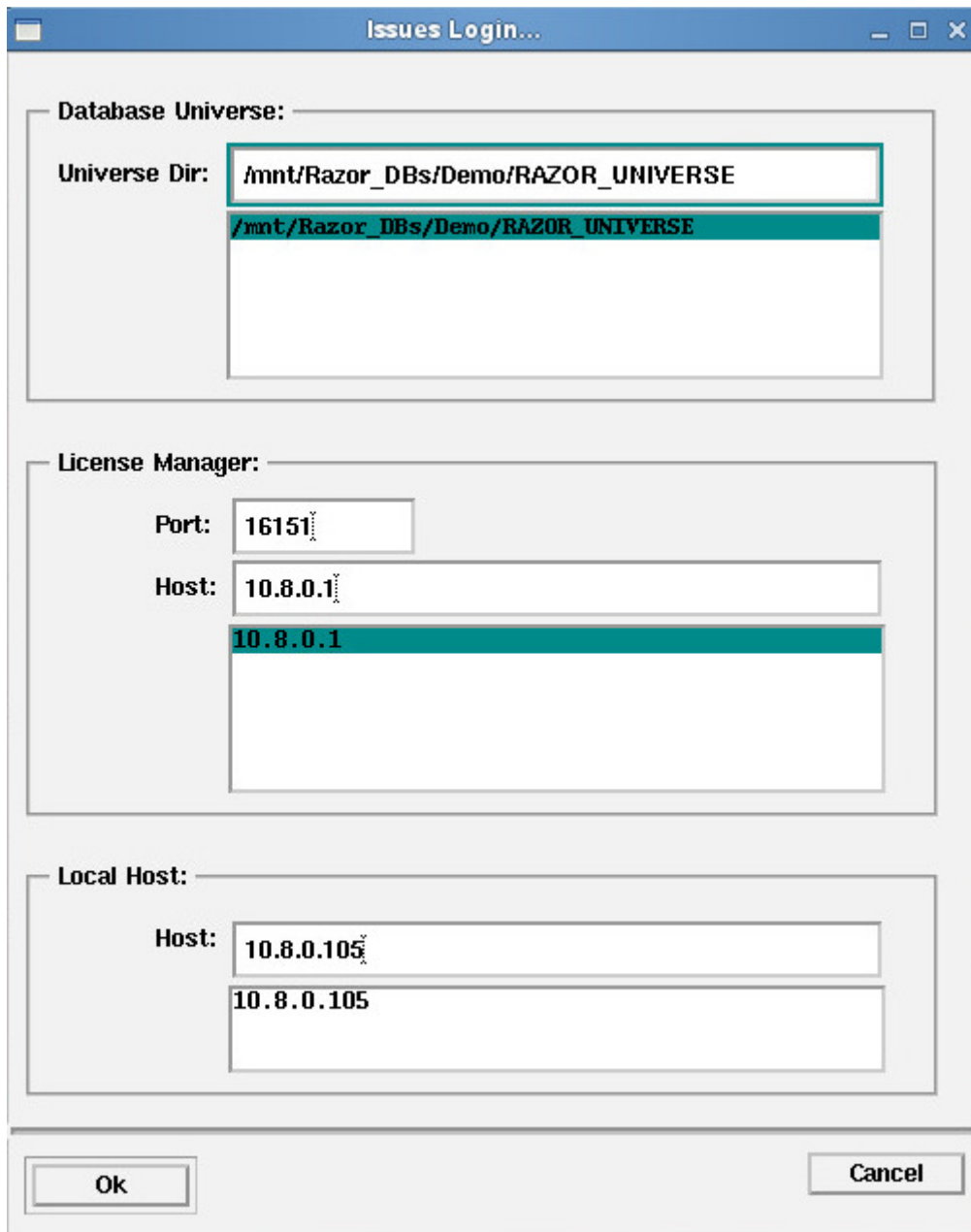
Connect to Razor Cloud Server

CentOS/Red Hat/Oracle/openSUSE/SUSE/Ubuntu:

Define the environment variable RAZOR_ALT_CLIENT_IP_ADDR to the same address defined by the tun0 interface. You can use the command `ifconfig tun0 | grep inet` to determine the address.

Define the environment variable RAZOR_ISSUES_PORT and allow this TCP port through the firewall.

Start the Razor client with the -remote option (e.g. issues -remote &)



The image shows a dialog box titled "Issues Login...". It contains three sections: "Database Universe:", "License Manager:", and "Local Host:". Each section has a label and a text input field with a dropdown menu below it. The "Database Universe:" section has "Universe Dir:" with the value "/mnt/Razor_DBs/Demo/RAZOR_UNIVERSE". The "License Manager:" section has "Port:" with the value "16151" and "Host:" with the value "10.8.0.1". The "Local Host:" section has "Host:" with the value "10.8.0.105". At the bottom are "Ok" and "Cancel" buttons.

Section	Field	Value
Database Universe:	Universe Dir:	/mnt/Razor_DBs/Demo/RAZOR_UNIVERSE
		/mnt/Razor_DBs/Demo/RAZOR_UNIVERSE
License Manager:	Port:	16151
	Host:	10.8.0.1
Local Host:	Host:	10.8.0.105
		10.8.0.105

Update the following entries in the login GUI (all other entries remain the same) and click OK
Universe Dir: <your Razor DB path>/RAZOR_UNIVERSE
Host: 10.8.0.1

NOTE: You can also start the “versions” or “threads” clients by typing:
versions -remote &
threads -remote &

NOTE: You can set ports for other clients by using RAZOR_VERSIONS_PORT and RAZOR_THREADS_PORT.

Once you connect to the Razor Cloud system you enter a valid username and password.

The screenshot shows a Windows-style dialog box titled "Issues Login...". It has a "User Info:" section containing a "User ID:" label, a text input field with "gilligan", a list box with "gilligan" selected, and a "Password:" label with a masked input field showing asterisks. Below this is a "Change Password:" section with a checked checkbox, and "New Password:" and "Verify:" labels with corresponding text input fields. At the bottom are "Ok" and "Cancel" buttons.

NOTE: User IDs are created during the setup of the Razor Cloud server. The “Save Password” feature is limited to a password that is less than 7 characters.

If you have any questions, please contact razor_support@visible.com