

Razor and VPN Client Installation Instructions **(CentOS 6.x, Red Hat 6.x, Oracle 6.x, SUSE 11, Ubuntu 12.x, 32bit)**

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/6/i386/epel-release-6-8.noarch.rpm
rpm -ivh epel-release-6-8.noarch.rpm
yum update    {takes a while to complete}
yum install openvpn
```

SUSE:

```
zypper install openvpn
```

Ubuntu:

```
apt-get install openvpn
```

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/SUSE/Ubuntu:

Copy the files in the \$HOME/keys folder of the Razor Cloud server and the **etc-openvpn** folder of 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: `chkconfig openvpn on`

SUSE: `chkconfig --set openvpn on`

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

NOTE: To start the service without a reboot you type `'/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 xorg-x11-fonts-ISO8859-75dpi`

SUSE: No additional packages or fonts are needed

Ubuntu: `apt-get install libmotif4 xfonts-75dpi xfonts-100dpi`

NOTE: You can use the `"ldd"` command to see if any libraries are missing (e.g. `ldd ./issues`)

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 SUSE, use YaST to allow data from TCP port 17001 (e.g. Allowed Services → Advanced)

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

```
iptables -I INPUT -p tcp -dport 17001 -j ACCEPT
service iptables save
service iptables restart
```

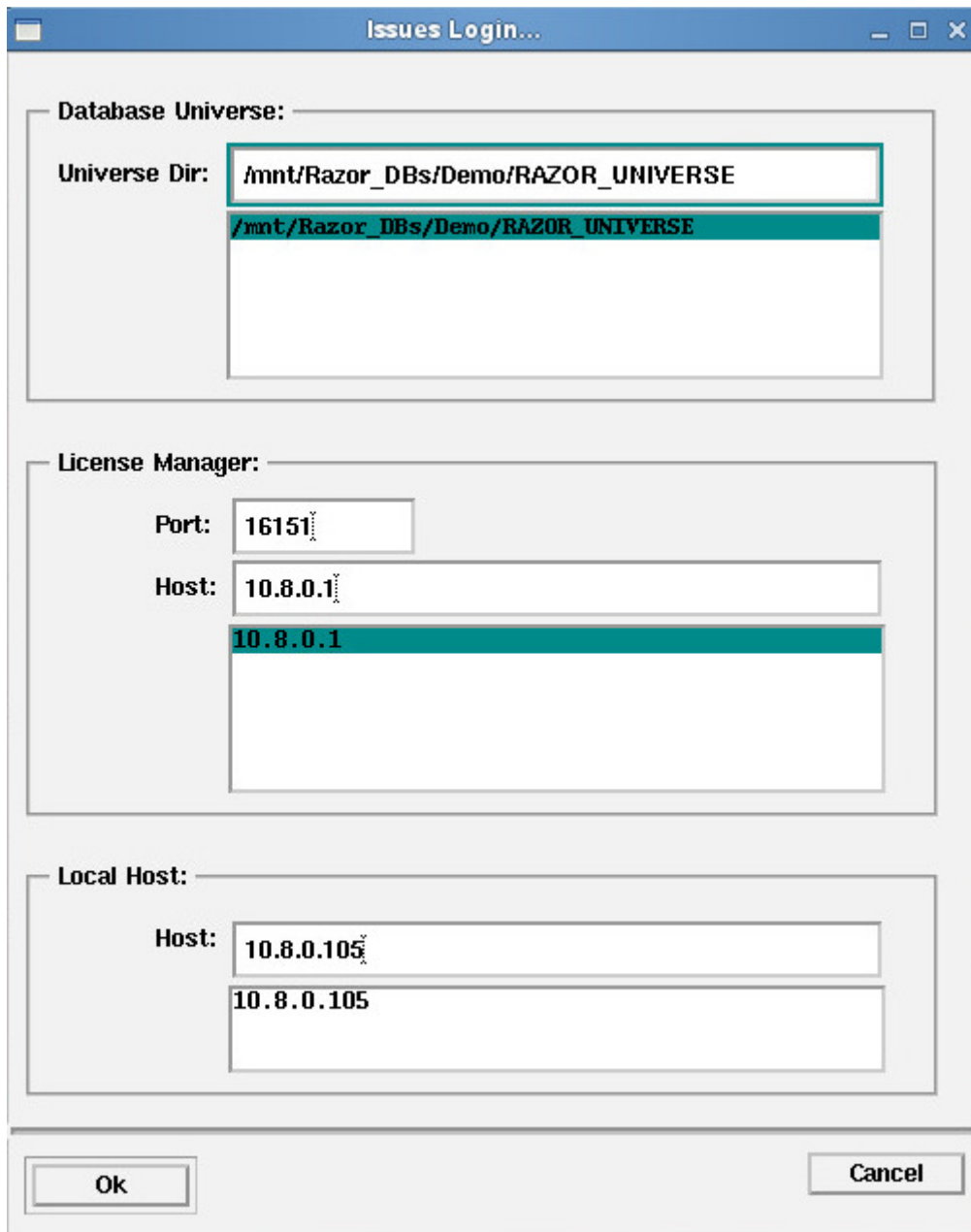
Connect to Razor Cloud Server

CentOS/Red Hat/Oracle/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 "Host:" label and a text input field. Below each input field is a list box showing the current value and a suggestion. The "Database Universe:" section has a "Universe Dir:" label and a text input field. The "License Manager:" section has a "Port:" label and a text input field. The "Local Host:" section has a "Host:" label and a text input field. At the bottom are "Ok" and "Cancel" buttons.

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