Serviço do FlowVisor

Introduction

The Flowvisor service is responsible for slicing the network, therefore, guaranteeing the isolation of the experimentation.

Installation

Setting up a Virtual Machine

1. Generate a new Xen VM and access its console. (TEST)

> ⚠ Login with the **root** user

To create the virtual machine which will host the flowvisor, run in your terminal the commands below. Pay attention to substitute the "XXX" for your Island ID and the "YYYY" for your Institution acronym.

```
xen-create-image --install-method=debootstrap --size 10G --memory 4098Mb --fs=ext3 --dist wheezy --pygrub --
passwd --ip 10.XXX.0.101 --netmask=255.255.0.0 --gateway=10.XXX.0.30 --bridge=br_control --hostname=flowvisor.
YYYY.org.br


xm create -c flowvisor.cfg
```

The first command will create the virtual machine and the second one will start up the VM and login in console mode.

> ⚠ We will use the Flowvisor version 0.8 for this tutorial.

Installing the Flowvisor

```
wget -q http://updates.onlab.us/GPG-KEY-ONLAB -O- | apt-key add -
sh -c "echo 'deb http://updates.onlab.us/debian stable/' > /etc/apt/sources.list.d/flowvisor.list"
apt-get update
apt-get install flowvisor=0.8.17-3 sudo
```

Run the flowvisor configuration tool to set the password and create your certificate by changing the following parameters:

```
sudo -u flowvisor fvconfig generate /etc/flowvisor/config.json <hostname> <admin_passwd> [<of_port> <api_port>]
```

> ⚠ As an example: in our case we used the following parameters (the hostname refers to the ip that will be used in the OCF and the password used to access it):

```
sudo -u flowvisor fvconfig generate /etc/flowvisor/config.json 10.XXX.0.101 ofelia
```

Enable the topology_server option in the flowvisor configuration file and then reload the configuration.

```
sudo -u flowvisor sed -i 's/"run_topology_server": false/"run_topology_server": true/' /etc/flowvisor/config.
json
sudo -u flowvisor fvconfig load /etc/flowvisor/config.json
```

To correct the flowvisor log behavior, edit the /etc/init.d/flowvisor startup script and add the -l parameter in the call to run the flowvisor:

```
sed -i -e "s/\/sbin\/flowvisor /\/sbin\/flowvisor -l /ig" /etc/init.d/flowvisor
```

Start the Flowvisor service upon boot:

```
update-rc.d flowvisor defaults

/etc/init.d/flowvisor start
```

⚠ In case of errors when stating the service, try the following solution.

```
rm /usr/local/share/db/flowvisor/FlowVisorDB/*.lck

/etc/init.d/flowvisor start
```

Check the Flowvisor service status.

```
# service flowvisor status
FlowVisor is running as PID 4263
```

Log Configuration

After installing the Flowvisor service, configure the log level using this command:

```
sudo sed -i -e 's/log4j.rootCategory=[A-Z]*,/log4j.rootCategory=WARN,/' /etc/flowvisor/fvlog.config
```

The expected effect is to reduce the verbose of the log.

After this step, it will be necessary to configure the logrotate and the crontab:

Access the following directory:

```
cd /etc/logrotate.d
```

Create the following archive: **flowvisor**

And fill it with the following content:

```
/var/log/flowvisor/flowvisor-stderr.log {
daily
rotate 0
compress
copytruncate
}
```

After this step it will be necessary to configure the crontab:

```
crontab -e
```

Append the following line at the final:

```
0 12 * * * /usr/sbin/logrotate --force /etc/logrotate.d/flowvisor >/dev/null 2>$
```