

# Setting up the CPP

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## Hardware Requirements

One or more x86 (or x86-64) machines running a recent Linux distribution and supporting OpenVSwitch (2.3 or higher) with at least two Ethernet ports.

The reference operating system for this guide is Ubuntu 18.04.

## Software Requirements

The following commands will update the package repository and install some dependencies:

```
sudo add-apt-repository universe
sudo apt-get update
sudo apt-get install build-essential openvswitch-switch python3-pip git
```

We recommend to use pip to install all the required python packages:

```
sudo pip3 install websocket-client
```

## Compilation Process

Clone the empower-lvnf-agent git repository (this will provide the actual EmPOWER LVNF Agent):

```
git clone https://github.com/5g-empower/empower-lvnf-agent.git
```

Clone the empower-lvap-agent git repository (this will provide the click executable and the LVNFs):

```
git clone https://github.com/5g-empower/empower-lvap-agent.git
```

Compile and install click:

```
cd empower-lvap-agent
./configure --disable-linuxmodule --enable-userlevel --enable-wifi --enable-empower --e
make
sudo make install
```

## Configuration Process

You now need to configure the system to use OpenVSwitch.

Create a new OpenVSwitch bridge:

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```
sudo ovs-vsctl add-br br0
```

Then add the ports to the new bridge:

```
sudo ovs-vsctl add-port br0 en2
```

Link the executable:

```
sudo ln -s ~/empower-lvnf-agent/empower-lvnf-agent.py /usr/bin/empower-lvnf-agent
```

Link the init script:

```
sudo ln -s ~/empower-lvnf-agent/scripts/empower-lvnf-agent /etc/init.d/
```

Link the rc.local script:

```
sudo ln -s ~/empower-lvnf-agent/scripts/rc.local /etc/
```

## Starting the CPP

At this point you can start the LVNF Agent with:

```
sudo /etc/init.d/empower-lvnf-agent restart
```

Clone this wiki locally

<https://github.com/clicknf/clicknf.github.io/wiki/Setting-up-the-CPP>

