

How did I installed ryu in my system step by step

Ryu is a software-defined networking (SDN) framework written in Python. We installed it successfully on our machine through the following steps:

1. **Checked Python & Pip Installation:**

Before installing Ryu, we made sure Python and Pip were installed and working properly.

bash

```
python --version
```

2. `pip --version`

3.

4. **Cloned the Ryu Repository:**

Since we wanted the latest version, we cloned the official Ryu repository from GitHub.

bash

```
git clone https://github.com/faucetsdn/ryu.git
```

5. **cd ryu**

6.

7. **Set Up the Python Path:**

We added Ryu's directory to the PYTHONPATH environment variable to ensure Python could locate it.

bash

8. **export PYTHONPATH=\$HOME/ryu:\$PYTHONPATH**

9. **echo 'export PYTHONPATH=\$HOME/ryu:\$PYTHONPATH' >>**
~/.zshrc # Or ~/.bashrc

10. **source ~/.zshrc # Reload the shell config**

11. If that didn't work write these command

```
unset PYTHONPATH # Clears the current PYTHONPATH
```

12. And then write these path instead

13. **if [[":\$PYTHONPATH:" != *":\$HOME/ryu:"*]]; then**
export PYTHONPATH="\$HOME/ryu\${PYTHONPATH:+:
\$PYTHONPATH}"fi

14. And then save it

15. **source ~/.zshrc # Reloads the fixed PYTHONPATH**
from .zshrc

16. Installed Required Dependencies:

Some required Python modules were missing, so we installed them manually using pip:

```
bash
```

```
pip install -r requirements.txt
```

17. Resolved Missing Module Errors:

When we tried running Ryu, we encountered missing modules like `netaddr`, `six`, and `webob`.

We installed them one by one:

```
bash
```

```
pip install netaddr six webob
```

18.

19. Verified Installation & Ran Ryu Manager:

Once all dependencies were installed, we successfully ran:

```
bash
```

```
python ./bin/ryu-manager --help
```

20.

This confirmed that Ryu was working correctly.

21. Checked Ryu Version:

While `pip show ryu` didn't work, we confirmed the installed version using:

```
bash
```

```
python -m ryu.cmd.manager --version
```

22.

Output: `ryu-manager 4.34`, confirming that Ryu was successfully installed.

