nDPI Installation and Testing Guide

1️⃣Install Required Packages

Run these commands on **VM100 (Traffic Generator)** and optionally on **VM101** if you also want DPI classification there:

```
sudo apt update && sudo apt install -y \
    git build-essential autoconf libtool pkg-config \
    libpcap-dev libjson-c-dev
```

2️⃣Clone nDPI

```
cd ~
git clone https://github.com/ntop/nDPI.git
cd nDPI
```

3️⃣Build and Install

```
make
sudo make install
```

This will compile **ndpiReader** (the main DPI tool).

4️⃣Verify Installation

Check if the reader tool is available:

```
./example/ndpiReader -h
```

You should see usage instructions confirming successful installation.

✅Testing DPI with Traffic

On VM101 (Controller):

```
./start_ryu.sh
sudo tcpdump -i ens19
iperf3 -s
```

On VM100 (Traffic Generator):

```
iperf3 -c 192.168.1.107 -t 60 -b 10M
python3 -m http.server 8000
```

On VM111 (Client):

To simulate multiple downloads:

```
for i in {1..10}; do wget http://192.168.1.108:8000/video.mp4 -O /dev/null &
done
```

Or a single download:

```
wget http://192.168.1.108:8000/video.mp4
```

After generating traffic, you can run:

```
./example/ndpiReader -i ens19
```

This will classify packets and display DPI statistics for protocols.