

CoovaChilli Deployment Guide with Custom Configuration

Title: CoovaChilli Deployment Guide with Custom Configuration

Overview [🔗](#)

This guide outlines the correct process to install, compile, configure, and run CoovaChilli with a custom configuration on a fresh Linux server (e.g., Ubuntu 20.04+). It avoids modifying the default `defaults` file and instead relies on a user-defined configuration file.

1. Install Dependencies [🔗](#)

```
1 sudo apt update
2 sudo apt install build-essential autoconf automake libtool libssl-dev libcurl4-openssl-
  dev libjson-c-dev libnl-genl-3-dev libnl-route-3-dev pkg-config git gengetopt
3
```

2. Clone and Build CoovaChilli [🔗](#)

```
1 cd /usr/src
2 sudo git clone https://github.com/coova/coova-chilli.git
3 cd coova-chilli
4 sudo ./bootstrap
5 sudo ./configure
6 sudo make
7 sudo make install
8
```

3. Prepare Runtime Directory [🔗](#)

CoovaChilli expects to write binary config files to `/usr/local/var/run`. Ensure this exists:

```
1 sudo mkdir -p /usr/local/var/run
2 sudo chown root:root /usr/local/var/run
3 sudo chmod 755 /usr/local/var/run
4
```

4. Create Virtual Interface [🔗](#)

Example for VLAN subinterface:

```
1 sudo ip link add link eth0 name eth0.100 type vlan id 100
2 sudo ip link set eth0.100 up
3
```

5. Write a Custom Configuration File [↗](#)

Create `/etc/chilli/test_hs.conf`:

```
1 sudo tee /etc/chilli/test_hs.conf > /dev/null <<EOF
2 dhcpif=eth0.100
3 net=192.168.100.0/24
4 uamlisten=192.168.100.1
5 uamport=3990
6 uamserver=http://192.168.100.1:3990
7 uamsecret=secret123
8 radiusserver1=127.0.0.1
9 radiussecret=testing123
10 radiusnasid=test_hs
11 EOF
12
```

6. Start CoovaChilli with Custom Config [↗](#)

Ensure no old binary configs remain:

```
1 sudo pkill chilli
2 sudo rm -f /usr/local/var/run/chilli.*.cfg.bin
3
```

Then launch with:

```
1 sudo /usr/local/sbin/chilli -c /etc/chilli/test_hs.conf -f -d
2
```

7. Verify Functionality [↗](#)

Check logs for successful TUN interface setup and IP assignments:

```
1 tail -f /var/log/syslog
2
```

Also verify:

```
1 ip addr show tun0
2
```

And try accessing:

```
1 http://192.168.100.1:3990
2
```

Troubleshooting Notes [↗](#)

- If `chilli_opt` fails silently, check if `/usr/local/var/run` exists.
- If options like `--netmask` fail, prefer CIDR-style `net=`.
- Use `strace` to debug config parsing:

```
1 sudo strace -f -o debug.strace /usr/local/sbin/chilli_opt -c /etc/chilli/test_hs.conf
```

Next Steps [!\[\]\(8be7dbed0cdcd9134bb63b78488f98f4_img.jpg\)](#)

- Set up local user auth or integrate with FreeRADIUS.
 - Enable SSL for portal.
 - Integrate with Squid, DNS interception, or Coova captive portals.
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End of Guide