# **Router Configuration Checklist - Ubuntu**

## **1) Installation & Physical Setup**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Task** | **X** | **SENDER** | **RECEIVER** | **ROUTER1** | **ROUTER2** |
| **Install Ubuntu** (version noted) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Ensure physical connections match **Technical Infrastructure Diagram** | ☐ | ☐ | ☐ | ☐ | ☐ |

## **2) Packages & Tools**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Task** | **X** | **SENDER** | **RECEIVER** | **ROUTER1** | **ROUTER2** |
| **Prepare offline .deb set on USB** (d‑itg, libs, frr, etc.) | ☐ |  |  |  |  |
| Mount external drive at /mnt |  | ☐ | ☐ | ☐ | ☐ |
| Install **D‑ITG** (PCs only) |  | ☐ | ☐ | — | — |
| Install **FRR** (routers, optional) |  | — | — | ☐ | ☐ |

## **3) Base OS Tweaks (All Devices)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Task** | **SENDER** | **RECEIVER** | **ROUTER1** | **ROUTER2** |
| **Disable DHCP** on all interfaces | ☐ | ☐ | ☐ | ☐ |
| **cloud‑init disabled** (/etc/cloud/cloud-init.disabled) | ☐ | ☐ | ☐ | ☐ |
| **motd‑news disabled** (/etc/default/motd-news) | ☐ | ☐ | ☐ | ☐ |
| Update‑MOTD scripts non‑exec | ☐ | ☐ | ☐ | ☐ |
| **Shorten wait‑online** (override service) | ☐ | ☐ | ☐ | ☐ |
| **Blacklist nouveau + rebuild initramfs** | ☐ | ☐ | ☐ | ☐ |

## **4) Addressing & Routing**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Task** | **SENDER** | **RECEIVER** | **ROUTER1** | **ROUTER2** |
| **Static IPv4** configured per plan | ☐ | ☐ | ☐ | ☐ |
| **Static IPv6** configured per plan | ☐ | ☐ | ☐ | ☐ |
| **Static routes** entered per plan | ☐ | ☐ | ☐ | ☐ |
| Apply netplan: sudo netplan apply | ☐ | ☐ | ☐ | ☐ |
| **IP forwarding enabled** (routers only) | — | — | ☐ | ☐ |
| **UFW disabled** (and status confirmed) | ☐ | ☐ | ☐ | ☐ |

## **5) Time Sync (chrony) & Validation**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Task** | **SENDER** | **RECEIVER** | **ROUTER1** | **ROUTER2** |
| **Chrony configured** (local stratum / allow LANs) | ☐ | ☐ | ☐ | ☐ |
| Chrony server set: server 192.168.10.1 iburst | ☐ | ☐ | ☐ | ☐ |
| Reboot after chrony changes | ☐ | ☐ | ☐ | ☐ |
| Verify chronyc tracking | ☐ | ☐ | ☐ | ☐ |
| Verify chronyc sources -av | ☐ | ☐ | ☐ | ☐ |
| Sanity check: sudo netplan get or ip a / ip r | ☐ | ☐ | ☐ | ☐ |
| **Ping each device** (IPv4 & IPv6) | ☐ | ☐ | ☐ | ☐ |

## **6) Traffic Test (D‑ITG)**

|  |  |  |
| --- | --- | --- |
| **Step** | **SENDER** | **RECEIVER** |
| Start ITGRecv | — | ☐ |
| Run ITGSend (-m rttm, IPv4/IPv6) | ☐ | — |
| Collect logs (send.log, recv.log) | ☐ | ☐ |
| Decode with ITGDec (txt/dat, delay, jitter, loss, throughput) | ☐ | ☐ |

*This preserves every checkpoint from your unified table while organizing them into clear, actionable sections.*