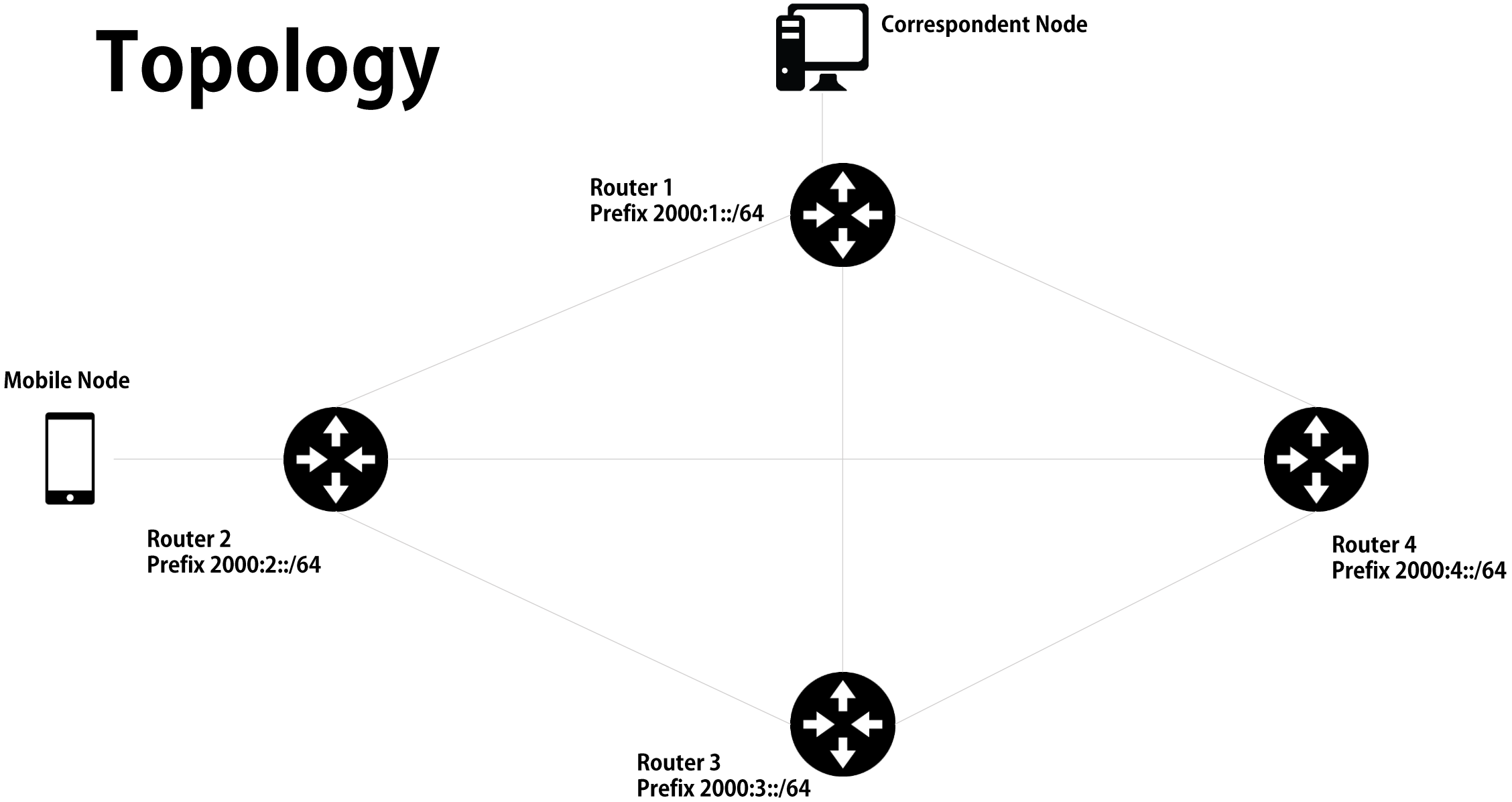
Tunnels and Flows establishment

Example with a simple network of 4 routers

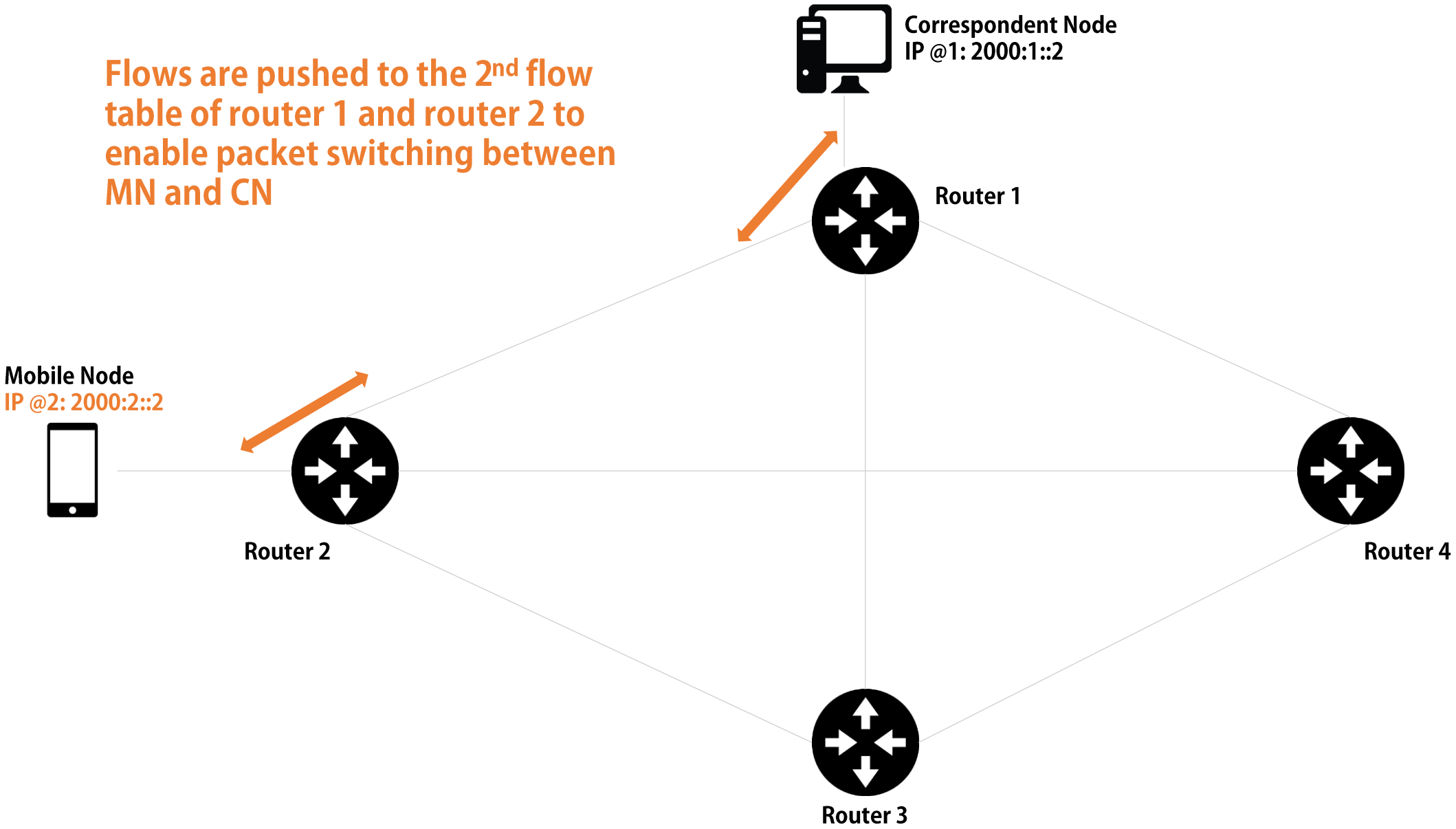
Topology



In a strictly related network, a communication takes place between a Correspondent Node and a Mobile Node for which IPv6 auto configuration is enabled

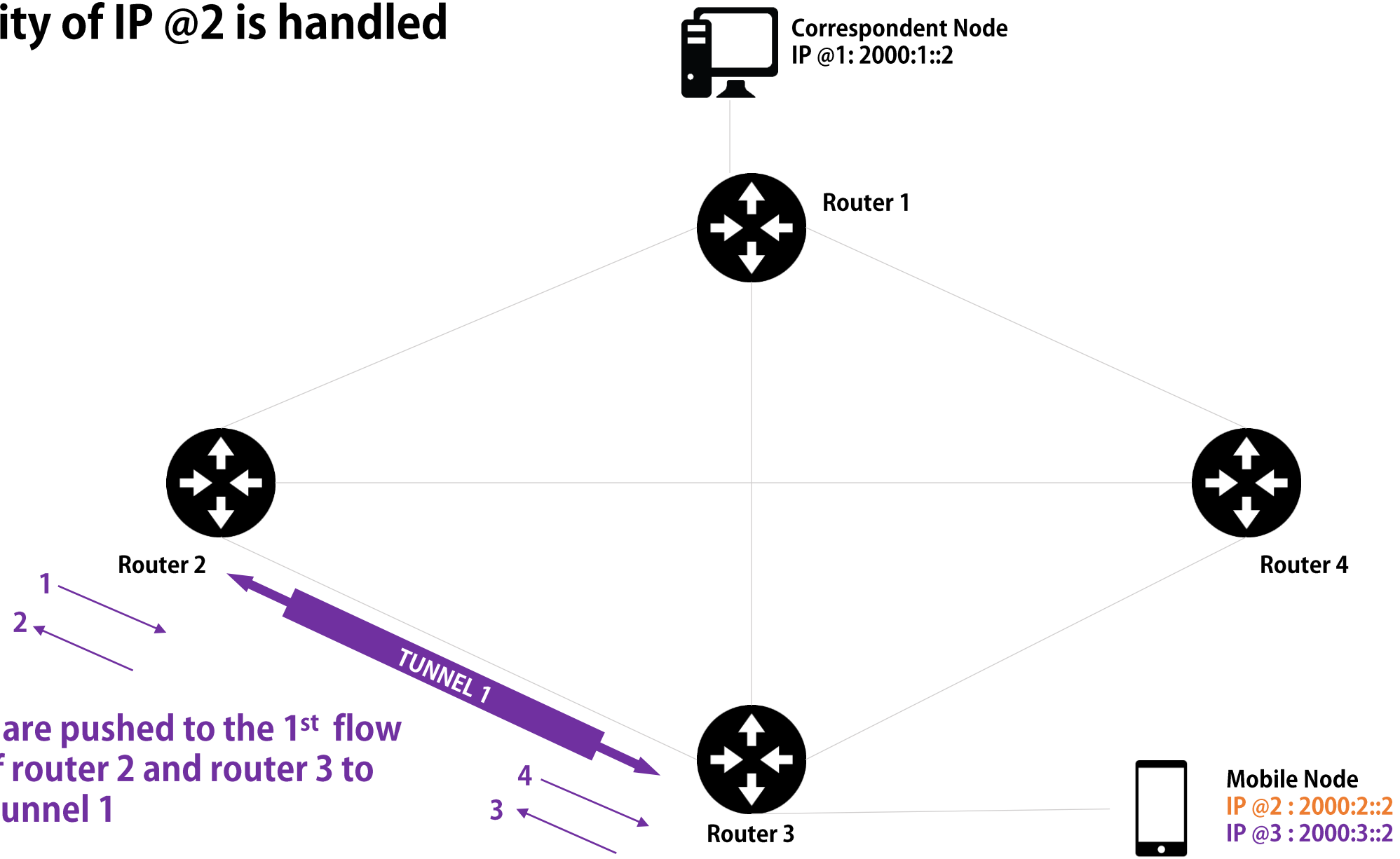
1. Mobile Node in Home Network

Flows are pushed to the 2nd flow table of router 1 and router 2 to enable packet switching between MN and CN



2. Mobile Node visits a new Network

Mobility of IP @2 is handled

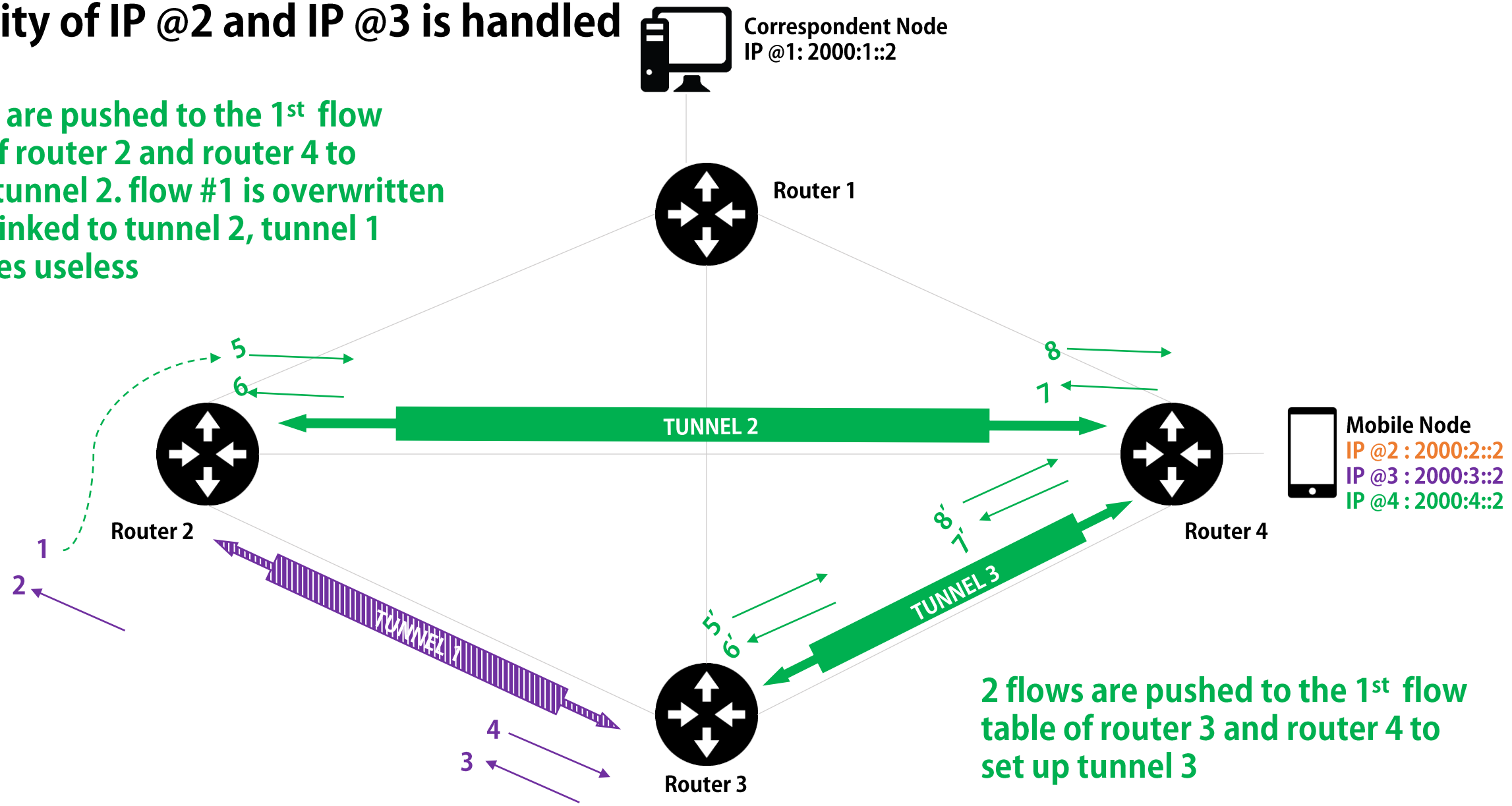


2 flows are pushed to the 1st flow table of router 2 and router 3 to set up tunnel 1

3. Subsequent Handover

Mobility of IP @2 and IP @3 is handled

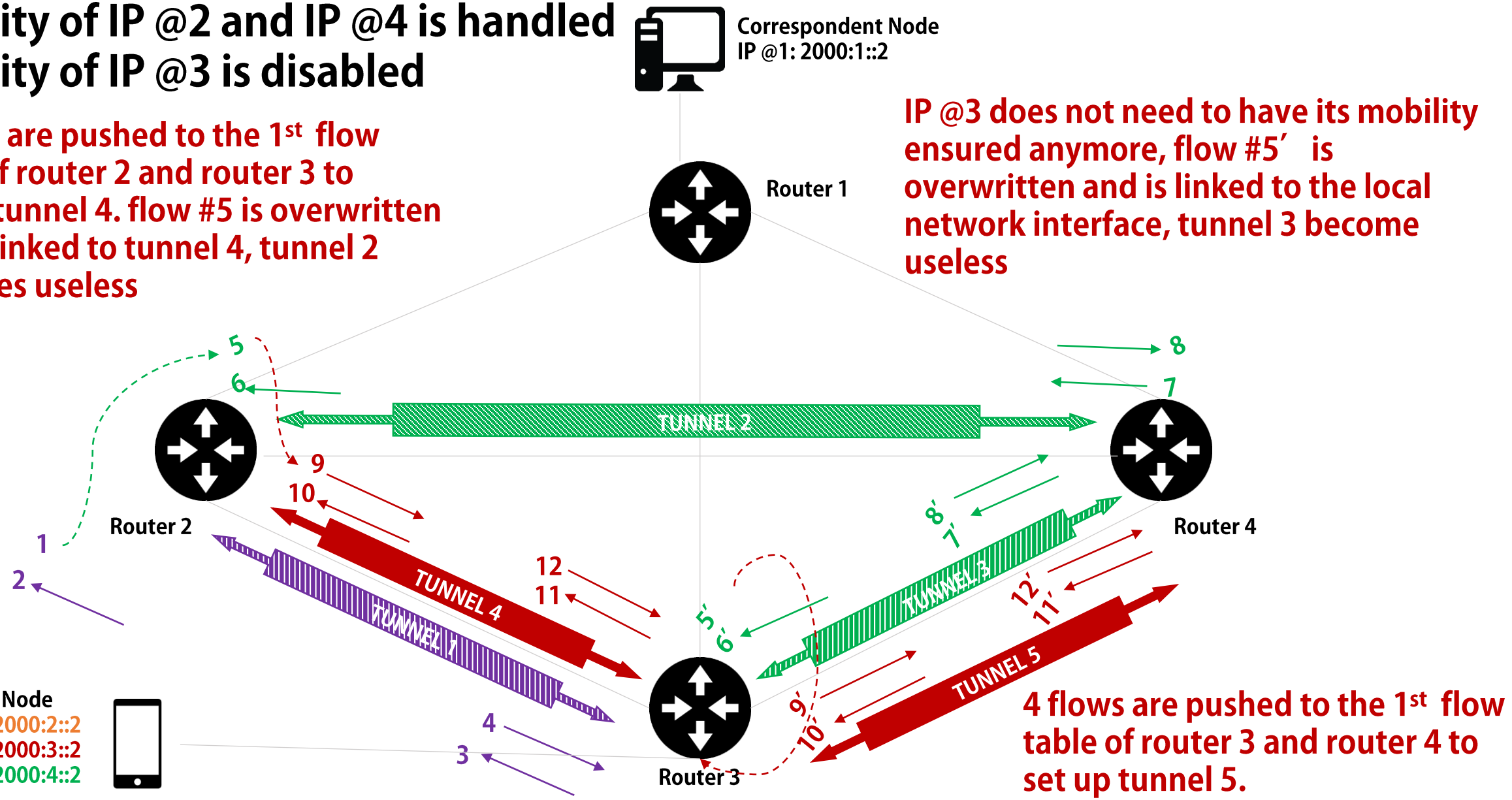
2 flows are pushed to the 1st flow table of router 2 and router 4 to set up tunnel 2. flow #1 is overwritten and is linked to tunnel 2, tunnel 1 becomes useless



2 flows are pushed to the 1st flow table of router 3 and router 4 to set up tunnel 3

4. Mobile Node back to network 3

Mobility of IP @2 and IP @4 is handled
Mobility of IP @3 is disabled



2 flows are pushed to the 1st flow table of router 2 and router 3 to set up tunnel 4. flow #5 is overwritten and is linked to tunnel 4, tunnel 2 becomes useless

IP @3 does not need to have its mobility ensured anymore, flow #5' is overwritten and is linked to the local network interface, tunnel 3 become useless

4 flows are pushed to the 1st flow table of router 3 and router 4 to set up tunnel 5.