

That confirms a very important detail! If your router-to-router connections are using the GigabitEthernet ports (G0/0, G0/1, G0/2, etc.) instead of the Serial ports, we must make two critical changes to your plan:

- Topology Change: You must use different interfaces for the LAN and the WAN (router-to-router links).
- Addressing Change: You must use the GigabitEthernet interface names in the configuration commands.
- Clock Rate Removal: You cannot use the clock rate command on GigabitEthernet interfaces, as this is exclusive to serial WAN links. Here is the revised and corrected plan for Phase 4 and Phase 5 using the available GigabitEthernet interfaces for all connections. Phase 4: Revised Router Configuration (Using GigE Ports) Since the Cisco 2911 router has three built-in GigE ports (G0/0, G0/1, G0/2), we will dedicate the interfaces as follows for each router (R1 through R5):
 - GigabitEthernet0/0 (G0/0): Connects to the LAN Switch (Gateway for the PCs).
 - GigabitEthernet0/1 (G0/1): Connects to the "Next" Router in the ring (e.g., R1 connects to R2).
 - GigabitEthernet0/2 (G0/2): Connects to the "Previous" Router in the ring (e.g., R1 connects to R5).

1. Updated WAN Addressing Scheme (Using /30 Subnets) Since we are still building a redundant ring, we must use point-to-point networks between the GigE ports. We will reuse the 192.18.100.0/30 scheme.

Link	Interface 1	IP Address	Interface 2	IP Address
R1 to R2	R1: G0/1	192.18.100.1	R2: G0/2	192.18.100.2
R2 to R3	R2: G0/1	192.18.100.5	R3: G0/2	192.18.100.6
R3 to R4	R3: G0/1	192.18.100.9	R4: G0/2	192.18.100.10
R4 to R5	R4: G0/1	192.18.100.13	R5: G0/2	192.18.100.14
R5 to R1	R5: G0/1	192.18.100.17	R1: G0/2	192.18.100.18

2. R1 CLI Configuration (Example) Use these commands for Router 1 (R1). Note the change from Serial to GigabitEthernet and the removal of the clock rate command.

```
Router> enable
Router# configure terminal
Router(config)# hostname R1
```

```
! *** LAN Interface (Lab 1 Gateway) ***
R1(config)# interface GigabitEthernet0/0
R1(config-if)# ip address 192.18.1.1 255.255.255.0
R1(config-if)# no shutdown
R1(config-if)# exit
```

```
! *** WAN Link to R2 ***
R1(config)# interface GigabitEthernet0/1
R1(config-if)# ip address 192.18.100.1 255.255.255.252
R1(config-if)# no shutdown
R1(config-if)# exit
```

```
! *** WAN Link to R5 (The redundancy loop) ***
R1(config)# interface
GigabitEthernet0/2
R1(config-if)# ip address 192.18.100.18 255.255.255.252
R1(config-if)# no shutdown
R1(config-if)# exit
```

```
! *** Dynamic Routing (RIPv2 for load shedding) ***
R1(config)# router rip
R1(config-router)# version 2
R1(config-router)# no auto-summary
R1(config-router)# network 192.18.1.0 ! Lab 1 LAN network
R1(config-router)# network 192.18.100.0 ! Covers both WAN links
R1(config-router)# end
R1# write memory
```

3. Router Configuration Summary (What to Change for R2-R5) You must ensure that on the other routers, you use the correct local IP for the LAN and the correct pair of point-to-point IPs for the WAN links.

Router	LAN Interface IP (G0/0)	WAN Link 1 (G0/1) IP	WAN Link 2 (G0/2) IP	RIP Network (LAN)
R2	192.18.2.1	192.18.100.5 (to R3)	192.18.100.2 (to R1)	192.18.2.0
R3	192.18.3.1	192.18.100.9 (to R4)	192.18.100.6 (to R2)	192.18.3.0
R4	192.18.4.1	192.18.100.13 (to R5)	192.18.100.10 (to R3)	192.18.4.0

Router	LAN Interface IP (G0/0)	WAN Link 1 (G0/1) IP	WAN Link 2 (G0/2) IP	RIP Network (LAN)
R5	192.18.5.1	192.18.100.17 (to R1)	192.18.100.14 (to R4)	192.18.5.0
Final Checklist for Success:				

- Cabling: Use Copper Straight-Through cables for all connections (PC to Switch, Switch to Router, Router to Router).
- Interface Naming: Use GigabitEthernet0/0, GigabitEthernet0/1, and GigabitEthernet0/2 for configuration.
- Addressing: Ensure every interface IP and PC Gateway IP starts with 192.18.X.X.
- Routing: The RIPv2 configuration handles the "load shedding" requirement by automatically finding the alternate route around the ring when a link fails.