



QUICK SETUP GUIDE FOR BLINK™

Connecting to the router

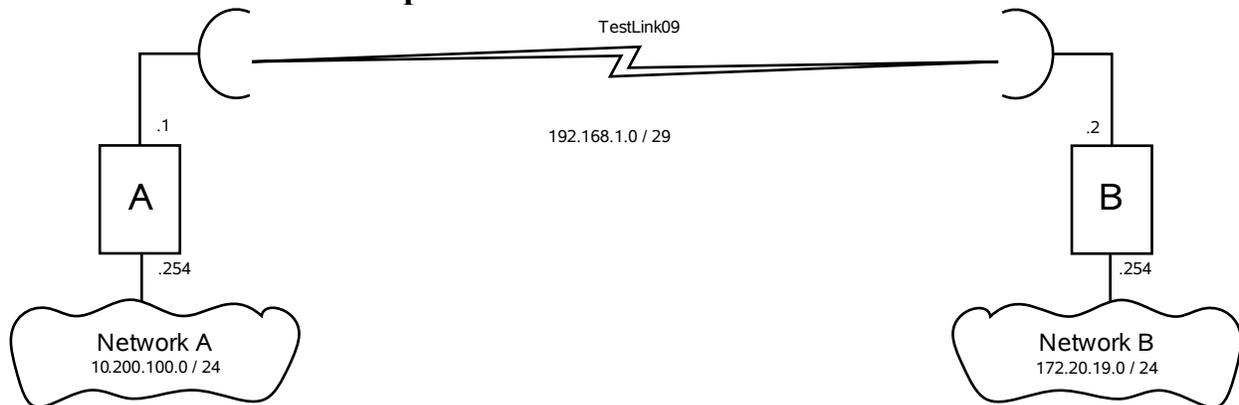
Normally you connect to the router by an IP address with any telnet or SSH client software. (Note: we always assemble Blink™ with the default IP: 192.168.0.6/16).

You can also connect to the router using a standard DB9 serial null-modem cable from any PC. Default settings of the router's serial port are:

Bits per second: 115200
 Data bits: 8
 Parity: None
 Stop bits: 1
 Flow control: None

Use a terminal emulation program like HyperTerminal (in Windows) or minicom (in Unix/Linux) and log on as *admin* with no password.

Basic Point-to-Point Setup



Implement the above setup with router A as the base station (access point) and router B as station (client): Choose a frequency band (one of: 2.4ghz-b, 2.4ghz-b/g, 2.4ghz-g-turbo, 2.4ghz-only-g, 5ghz, 5ghz-turbo), frequency and SSID.

For this example we will use 2.4ghz-b/g for the band, 2442Mhz for the frequency and “TestLink09” for the SSID.

Allowable frequencies are:

2.4ghz mode: 2412, 2417, 2422, 2427, 2432, 2437, 2442, 2447, 2452, 2457, 2462.

2.4ghz-g-turbo mode: 2437.

5ghz mode: 5180, 5200, 5220, 5240, 5260, 5280, 5300, 5320, 5745, 5765, 5785, 5805, 5825.

5ghz-turbo mode: 5210, 5250, 5290, 5760, 5800.

Router A:

First connect to the router through any of the methods described above.

Add address 10.200.100.254 / 24 to ethernet interface.

```
/ip address add address=10.200.100.254/24 interface=ether1
```

Set the wireless interface up as the base station (access point).

```
/interface wireless set wlan1 ssid="TestLink09" frequency=2442 band=2.4ghz-b/g mode=bridge disabled=no
```

Add address 192.168.1.1 / 29 to wireless interface.

```
/ip address add address=192.168.1.1/29 interface=wlan1
```

IP addresses can be viewed with

```
/ip address print
```

IP addresses can be deleted with

```
/ip address remove #
```

Add route to network B.

```
/ip route add dst-address=172.20.19.0/24 gateway=192.168.1.2
```

IP routes can be viewed with

```
/ip route print
```

IP routes can be deleted with

```
/ip route remove #
```

Router B:

Add address 172.20.19.254 / 24 to ethernet interface.

```
/ip address add address=172.20.19.254/24 interface=ether1
```

Set the wireless interface up as the station (client).

```
/interface wireless set wlan1 ssid="TestLink09" band=2.4ghz-b/g mode=station disabled=no
```

Add address 192.168.1.2 / 29 to wireless interface.

```
/ip address add address=192.168.1.2/29 interface=wlan1
```

Add route to network A.

```
/ip route add dst-address=10.200.100.0/24 gateway=192.168.1.1
```

Position the antennas so as to achieve maximum signal strength. This can be viewed on the client side with

```
/interface wireless scan wlan0
```

Basic Point-to-Multipoint Setup

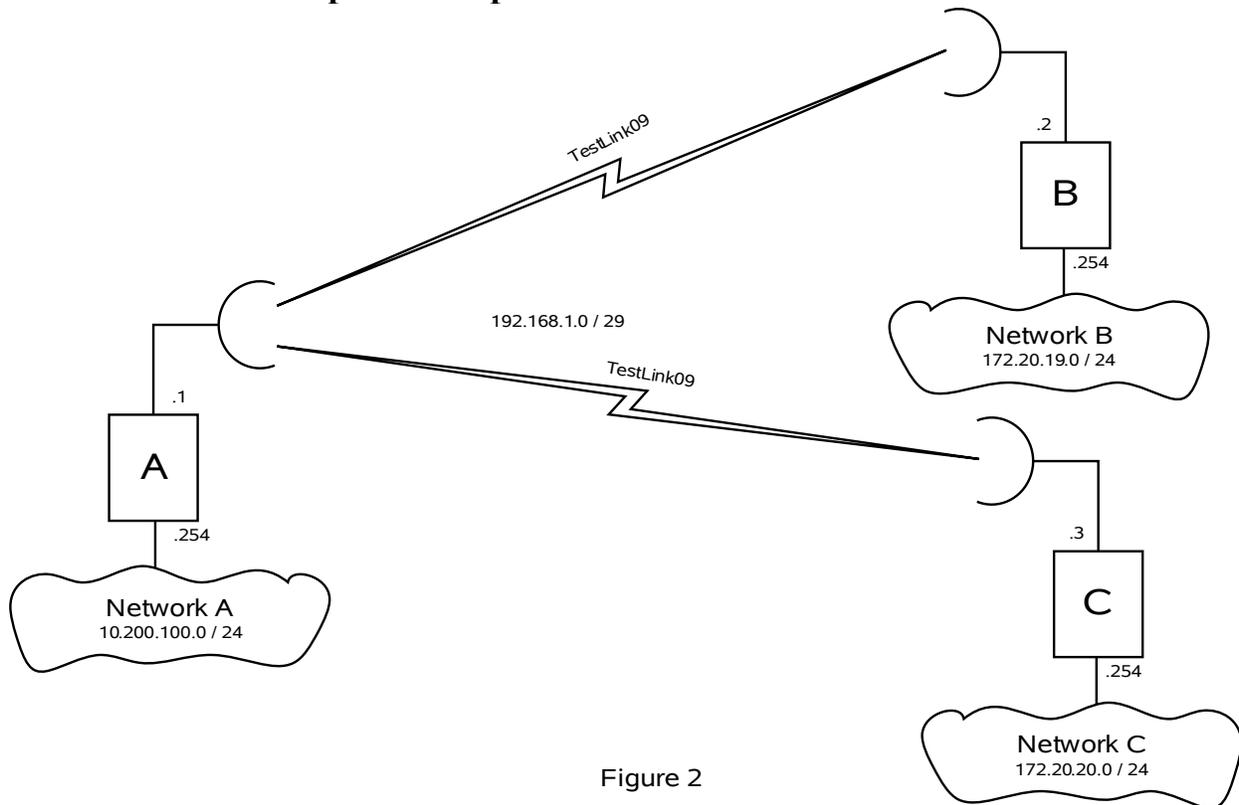


Figure 2

Now we have 2 stations (clients) connecting to the base (access point).

Router A:

Configure as above (except that mode=ap-bridge, not bridge as above) and add route to network C.

```
/ip route add dst-address=172.20.20.0/24 gateway=192.168.1.3
```

Router B:

Same as above.

Router C:

Add address 172.20.20.254 / 24 to ethernet interface.

```
/ip address add address=172.20.20.254/24 interface=ether1
```

Set the wireless interface up as the station (client).

```
/interface wireless set wlan1 ssid="TestLink09" band=2.4ghz-b/g mode=station disabled=no
```

Add address 192.168.1.3 / 29 to wireless interface.

```
/ip address add address=192.168.1.3/29 interface=wlan1
```

Add route to network A.

```
/ip route add dst-address=10.200.100.0/24 gateway=192.168.1.1
```

View signal strength with

```
/interface wireless scan wlan0
```

Transparently Bridge two Networks

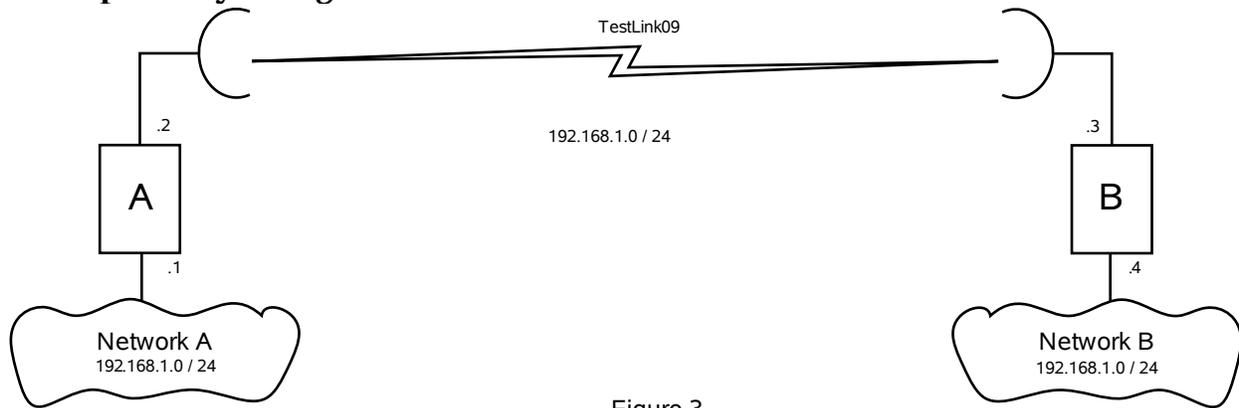


Figure 3

Router A:

Add ip addresses to the ethernet and wireless interfaces as shown in figure 3.

```
/ip address add address=192.168.1.1/24 interface=ether1
```

```
/ip address add address=192.168.1.2/24 interface=wlan1
```

Create a bridge interface and add ether1 and wlan1 interfaces to the bridge

```
/interface bridge add name=mybridge
```

```
/interface bridge port add interface=ether1 bridge=mybridge
```

```
/interface bridge port add interface=wlan1 bridge=mybridge
```

Set the wireless interface up as the base station (access point).

```
/interface wireless set wlan1 ssid="TestLink09" frequency=2442 band=2.4ghz-b/g mode=bridge wds-mode=dynamic wds-default-bridge=mybridge disabled=no
```

Router B:

Add ip addresses to the ethernet and wireless interfaces as shown in figure 3.

```
/ip address add address=192.168.1.4/24 interface=ether1
```

```
/ip address add address=192.168.1.3/24 interface=wlan1
```

Create a bridge interface and add ether1 and wlan1 interfaces to the bridge

```
/interface bridge add name=mybridge
```

```
/interface bridge port add interface=ether1 bridge=mybridge
```

```
/interface bridge port add interface=wlan1 bridge=mybridge
```

Set the wireless interface up as the station (client).

```
/interface wireless set wlan1 ssid="TestLink09" band=2.4ghz-b/g mode=station-wds disabled=no
```