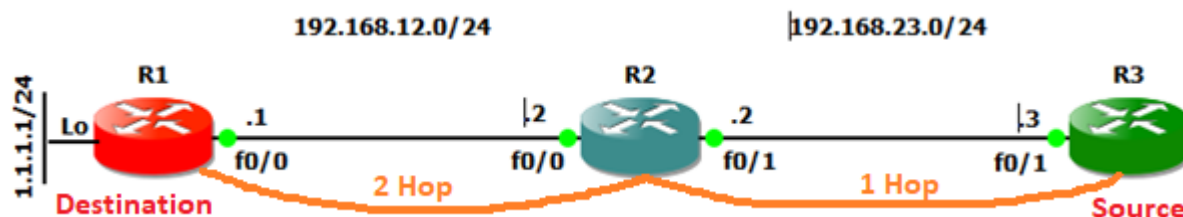


## Dynamic Routing Protocol RIP:

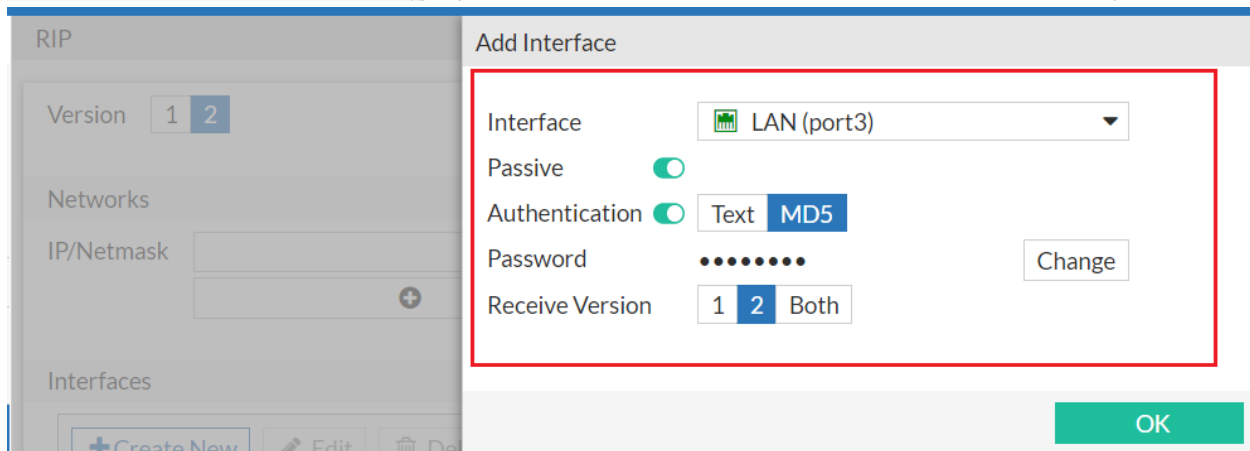
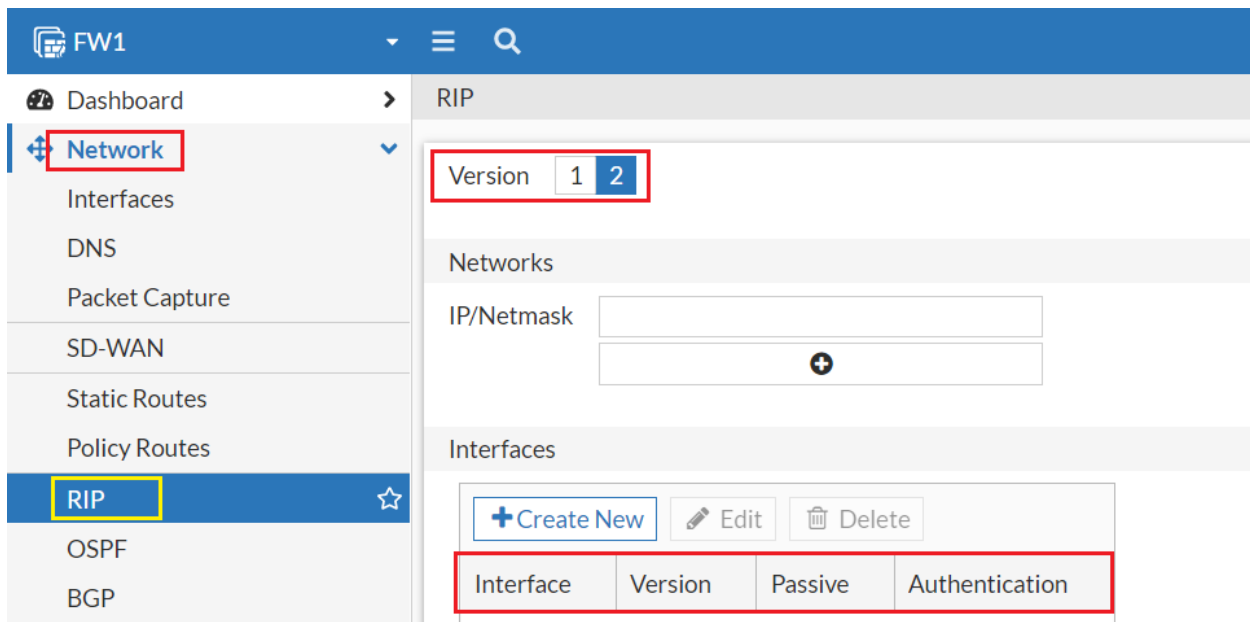
- o RIP is Dynamic Routing Protocol, stand for Routing Information Protocol.
- o RIP, Routing Information Protocol is Distance Vector Routing Protocol.
- o Default Administrative Distance of Routing Information Protocol is 120.
- o RIP, Routing Information Protocol Supports VLSM and subnetting as well.
- o RIP, Routing Information Protocol Uses split horizon and poison reverse.
- o RIP, Routing Information Protocol Sends full updates every 30 seconds.
- o Dynamic Routing Information Protocol the invalid timer default is 180.
- o RIP, Routing Information Protocol, the hold down timer default is 180.
- o Dynamic Routing Information Protocol the flush timer default is 240.
- o Routing Information Protocol Uses triggered updates only in version 2.
- o Dynamic Routing Information Protocol RIP uses hop count as the metric.
- o RIPv1 and V2 support maximum hop count of 15 and 16 is Unreachable.
- o Routing Information Protocol (RIP version2) Supports route tags as well.
- o RIPv1 use broadcast and RIPv2 use multicast 224.0.0.9 to send updates.
- o RIPv1 don't support while RIPv2 support MD5 authentication & plain text.
- o Routing Information Protocol V2 Supports both classful and classless routing.
- o Routing Information Protocol (RIP) Uses UDP as OSI model layer 4 protocol.
- o Routing Information Protocol supports load balancing over same-cost paths.
- o The default is four equal-cost paths for Routing Information Protocol (RIP).

### RIP Metric:

- o Each routing protocol has its own way to calculate the metric RIP uses hop counts.
- o Hop count is number of routers occurring in between source & destination network.
- o The path with lowest hop count is considered as the best route to reach a network.
- o The path with lowest hop count is therefore, placed in the routing table by the RIP.
- o If there are multiple paths with different bandwidth to the destination network.
- o Then Routing Information Protocol best path calculation may become wrong.



```
R 1.0.0.0/24 is subnetted, 1 subnets
R 1.1.1.0 [120/2] via 192.168.23.2, 00:00:13, FastEthernet0/1
R 192.168.12.0/24 [120/1] via 192.168.23.2, 00:00:13, FastEthernet0/1
```



<b>Version</b>	This is versions of RIP choose which version to enable RIPV1 or RIPV2
<b>Network IP /Netmask</b>	Write Network or host IP with subnet mask click plus to add more.
<b>Interface Create New</b>	Choose on which interface want to advertise RIP protocols routes.
<b>Interface</b>	Choose interface on which to enable Routing Information Protocol.
<b>Passive</b>	Enable passive if want to enable selected interface passive stop hello.
<b>Authentication</b>	Enable Authentication if want to apply RIP authentication for security
<b>Text or MD5</b>	Choose authentication method clear text or MD5 encrypted.
<b>Send Version</b>	Select want to send only RIPV1, RIPV2 or both RIPV1 and RIPV2.
<b>Receive Version</b>	Same is to receive only RIPV1 or RIPV2 or both RIPV1 & V2 updates.