



Networkforyou

Subscribe to our
YouTube Channel



Networkforyou



**Welcome
To
Network for you
Redistribution**



Email us:
networkforyou4@gmail.com

1 of 7

WhatsApp Us : +918143809578



Routing Protocols Redistribution:

- Redistribution allows a Cisco Routers to run more than one Routing Protocol.
- Exchange routing information between different protocols is called redistribution.
- Redistribution allows Cisco Routers to share Routes among the routing protocols.
- Redistribution is process of distributing routes learned from one source to another.
- For Redistribution, at least one working physical link in each routing domain need.
- The Redistribution is very useful when the networks are expanding or are merging.
- Routes can only be redistributed at Routers that run both the Routing Protocols.
- The Static Routes and Connected Routes and interfaces can also be redistributed.
- Only Routes present in Cisco Router, Routing Tables can be redistributed to other.
- Whenever want to redistributing routes, make ensure metric compatibility issue.
- Route redistribution runs on the Cisco Router that connects two different networks.
- Configure default hop count for everything redistribute into Dynamic Routing RIP.
- Configure K-Values for everything redistribute into Dynamic Routing Protocol EIGRP.
- By default, redistribute into Dynamic Protocol Open Shortest Path First cost is 20.
- For each Static and Dynamic Routing protocol, the redistribution is slightly different.
- Keep in mind Routing Protocols Redistribution always happens outbound direction.
- RIP uses hop count, redistributed routes from other routing protocols are infinity by default.
- Thereby insuring routes are not injected into routing table unless a seed metric is provided.
- The EIGRP redistributed routes from other routing protocols are infinity by default.
- Thereby insuring Routes are not injected into routing table unless seed metric is provided.

Seed Metric:

- The metric with which a protocol receives the Routes learned by another metric.
- When redistribute from one routing protocol into another, we use a seed metric.
- Each Static or Dynamic Routing protocol uses their own default seed metric value.
- The default seed metric can also be modified using the “Default Metric” command.

Protocols	Default Seed Metric
RIP	Infinity
EIGRP	Infinity
OSPF	20 except BGP 1
BGP	BGP metric is set to IGP metric

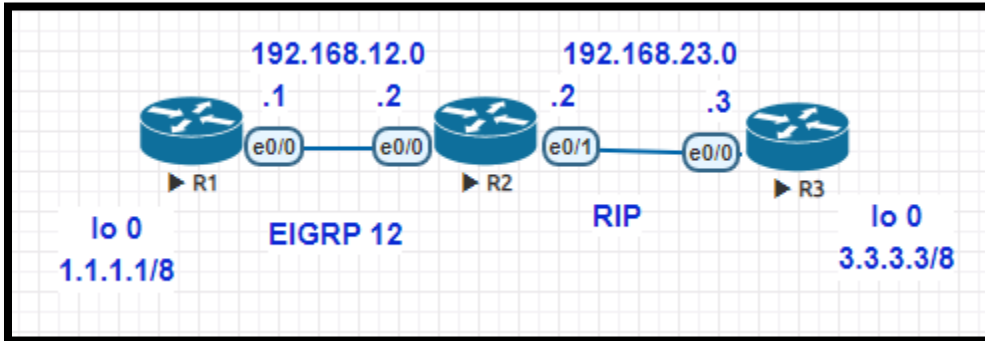
Email us:
networkforYou4@gmail.com

2 of 7

WhatsApp Us : +918143809578



Lab Time:



R1 Configuration	R2 Configuration
<pre>en config t hostname R1 interface ethernet0/0 ip add 192.168.12.1 255.255.255.0 no shutdown exit interface loopback 0 ip add 1.1.1.1 255.0.0.0 router eigrp 12 no auto-summary network 192.168.12.0 network 1.0.0.0</pre>	<pre>en config t hostname R2 interface ethernet0/0 ip add 192.168.12.2 255.255.255.0 no shutdown interface ethernet0/1 ip add 192.168.23.2 255.255.255.0 no shutdown router eigrp 12 no auto-summary network 192.168.12.0 exit router rip version 2 no auto-summary network 192.168.23.0</pre>
R3 Configuration	
<pre>en config t hostname R3 interface ethernet0/0 ip add 192.168.23.3 255.255.255.0 no shutdown</pre>	

Email us:
networkforyou4@gmail.com

3 of 7

WhatsApp Us : +918143809578



Networkforyou

Subscribe to our
You Tube Channel

```
exit
interface loopback 0
ip add 3.3.3.3 255.0.0.0
router rip
version 2
no auto-summary
network 192.168.23.0
network 3.0.0.0
```

```
R1#sh ip route
```

```
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
a - application route
+ - replicated route, % - next hop override
```

```
Gateway of last resort is not set
```

```
1.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C    1.0.0.0/8 is directly connected, Loopback0
L    1.1.1.1/32 is directly connected, Loopback0
192.168.12.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.12.0/24 is directly connected, Ethernet0/0
L    192.168.12.1/32 is directly connected, Ethernet0/0
```

Email us:
networkforyou4@gmail.com

4 of 7

WhatsApp Us : +918143809578



```
R2#sh ip route
```

```
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
a - application route
+ - replicated route, % - next hop override
```

Gateway of last resort is not set

```
D 1.0.0.0/8 [90/409600] via 192.168.12.1, 00:06:56, Ethernet0/0
R 3.0.0.0/8 [120/1] via 192.168.23.3, 00:00:17, Ethernet0/1
  192.168.12.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.12.0/24 is directly connected, Ethernet0/0
L 192.168.12.2/32 is directly connected, Ethernet0/0
  192.168.23.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.23.0/24 is directly connected, Ethernet0/1
L 192.168.23.2/32 is directly connected, Ethernet0/1
```

```
R2#
```

```
R3#sh ip route
```

```
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
a - application route
+ - replicated route, % - next hop override
```

Gateway of last resort is not set

```
  3.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 3.0.0.0/8 is directly connected, Loopback0
L 3.3.3.3/32 is directly connected, Loopback0
  192.168.23.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.23.0/24 is directly connected, Ethernet0/0
L 192.168.23.3/32 is directly connected, Ethernet0/0
```

```
R3#
```

Email us:
networkforyou4@gmail.com

5 of 7

WhatsApp Us : +918143809578



Configuration Redistribution 1st Method:

```
router rip
default-metric 5
redistribute eigrp 12
exit
router eigrp 12
default-metric 1500 100 255 1 1500
redistribute rip
```

Configuration Redistribution 2nd Method

```
router eigrp 12
redistribute rip metric 1500 100 255 1 1500
exit
router rip
redistribute eigrp 12 metric 10
```

```
R1#sh ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
       a - application route
       + - replicated route, % - next hop override

Gateway of last resort is not set

    1.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       1.0.0.0/8 is directly connected, Loopback0
L       1.1.1.1/32 is directly connected, Loopback0
D EX   3.0.0.0/8 [170/1757696] via 192.168.12.2, 00:00:44, Ethernet0/0
       192.168.12.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.12.0/24 is directly connected, Ethernet0/0
L       192.168.12.1/32 is directly connected, Ethernet0/0
D EX   192.168.23.0/24 [170/1757696] via 192.168.12.2, 00:00:44, Ethernet0/0
R1#
```

Email us:
networkforyou4@gmail.com

6 of 7

WhatsApp Us : +918143809578



```
R3#sh ip route
```

```
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP  
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area  
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2  
E1 - OSPF external type 1, E2 - OSPF external type 2  
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2  
ia - IS-IS inter area, * - candidate default, U - per-user static route  
o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP  
a - application route  
+ - replicated route, % - next hop override
```

```
Gateway of last resort is not set
```

```
R 1.0.0.0/8 [120/5] via 192.168.23.2, 00:00:16, Ethernet0/0  
3.0.0.0/8 is variably subnetted, 2 subnets, 2 masks  
C 3.0.0.0/8 is directly connected, Loopback0  
L 3.3.3.3/32 is directly connected, Loopback0  
R 192.168.12.0/24 [120/5] via 192.168.23.2, 00:00:16, Ethernet0/0  
192.168.23.0/24 is variably subnetted, 2 subnets, 2 masks  
C 192.168.23.0/24 is directly connected, Ethernet0/0  
L 192.168.23.3/32 is directly connected, Ethernet0/0  
R3#
```

NETWorKtOryou

Email us:
networkforyou4@gmail.com

7 of 7

WhatsApp Us : +918143809578