AOS-CX 10.09 OSPFv2 Enhancements

Steve Bartlett

Technical Marketing Engineer CX Switching

steve.bartlett@hpe.com

Agenda

1	Configurable default-metric for OSPFv2 default-information originate	1 of 2
2	OSPFv2 Administrative Distance -AD	2 of 2

OSPFv2 Administrative Distance -AD

Set the AD distance

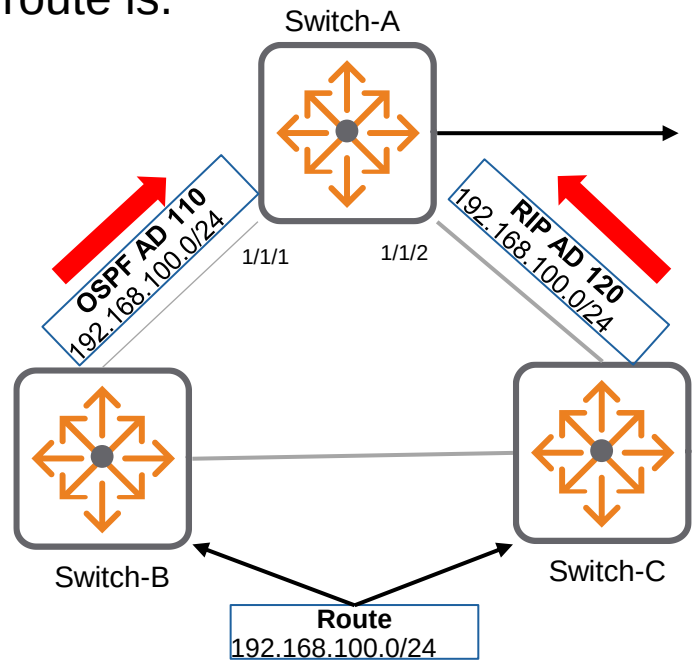
OSPF Administrative Distance - AD

CX 10-09 introduces the option of changing the AD distance for specific OSPF route types

What is Administrative Distance ?

The Administrative distance is the first criterion that routers use in order to select the best path when there are two or more different routes to the same destination.

Administrative distance is a measure of the trustworthiness of the source routing information. It only has local significance and not advertised in routing updates. The lower the AD metric, the more trusted that specific route is.




```
Prefix              Nexthop         Interface     VRF(egress)       Origin/    Distance/
                                                                    Type       Metric
-------------------------------------------------------------------------------------------
192.168.100.0/24    192.168.1.1     1/1/1         -                 O          [110/1]
192.168.100.0/24    192.168.1.3     1/1/2         -                 R          [120/2]
```

The administrative distance is locally significant only

Prior to 10.09

To define OSPF route administrative distances, we had `distance <value>` command in the

router configuration mode. To restore to default value, use the `no distance` command

.

OSPF has 3 type of routes: inter-area, intra-area and External

The above command would set the administrative distance for all the OSPF routes

10.09

```
Distance {<value> | [intra-area <value>]
[inter-area <value>][external <value>]}
```

This command provides an option to set the administrative distance for OSPF intra-area, inter area and external type-5 and type-7 route types

The Network Admin can explicitly set values dependent on OSPF route type

There will be occasions when the network administrator will wish to change the AD distance to ensure a desired routing protocol is selected when one or more routes are available and advertised by multiple routing protocols

Detail - problem

RIB without eBGP

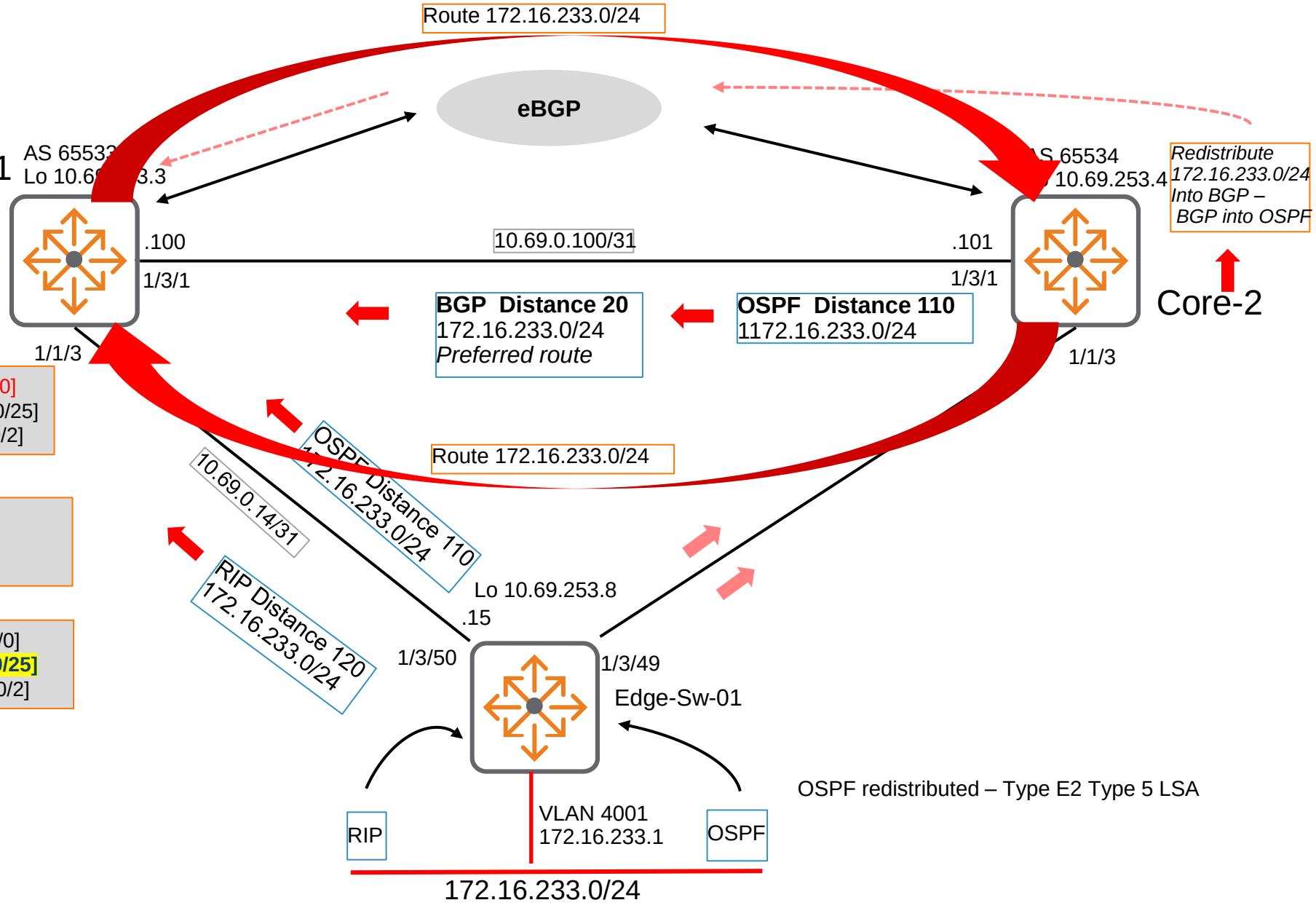
*172.16.233.0/24	10.69.0.15	1/1/3	O/E2	[110/25]
172.16.233.0/24	10.69.0.15	1/1/3	R	[120/2]

RIB with eBGP

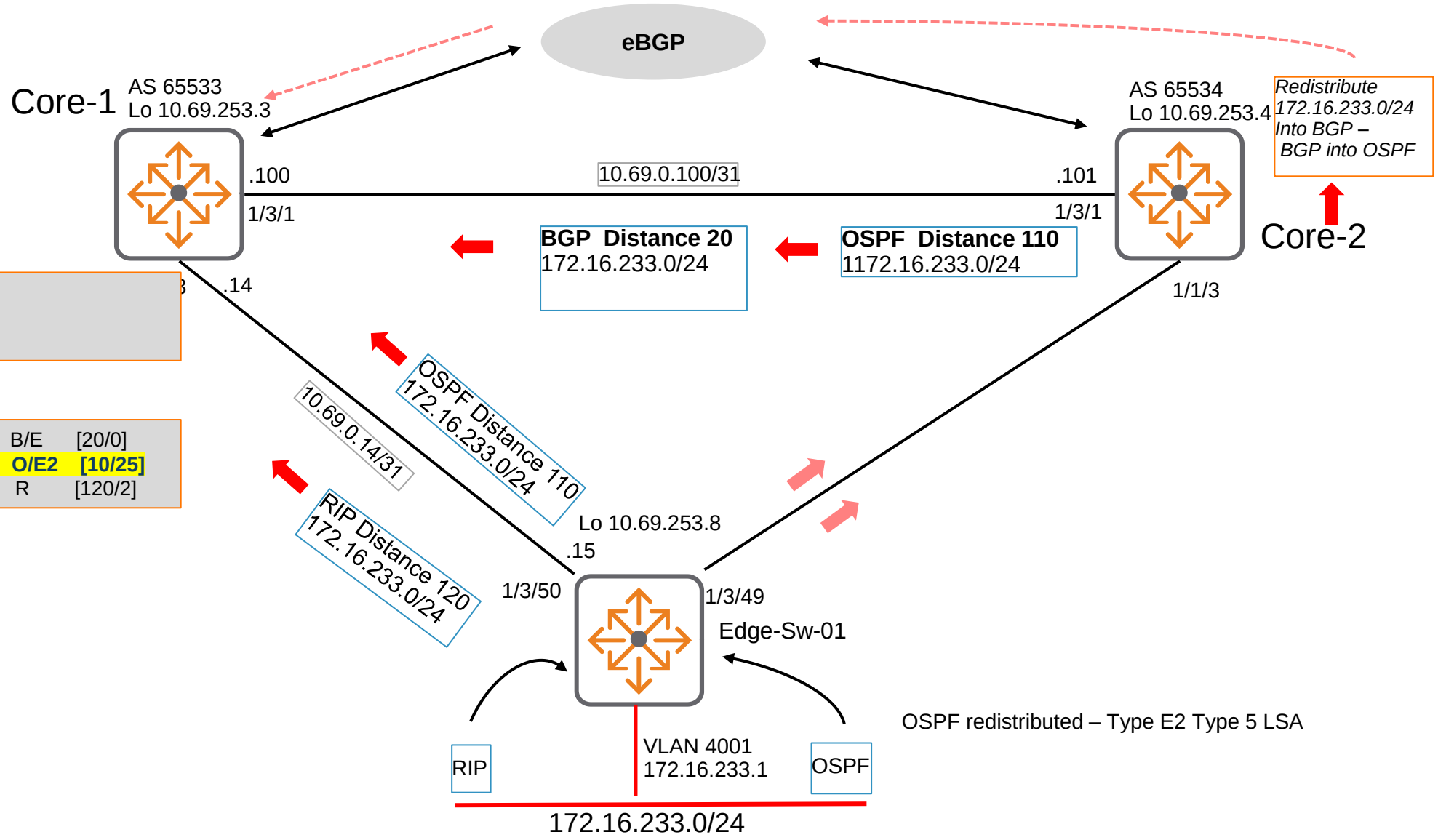
*172.16.233.0/24	10.69.253.4	-	B/E	[20/0]
172.16.233.0/24	10.69.0.15	1/1/3	O/E2	[110/25]
172.16.233.0/24	10.69.0.15	1/1/3	R	[120/2]

```
router ospf 1
    router-id 10.69.253.3
    distance external 10
```

172.16.233.0/24	10.69.253.4	-	B/E	[20/0]
***172.16.233.0/24**	**10.69.0.15**	**1/1/3**	**O/E2**	**[10/25]**
172.16.233.0/24	10.69.0.15	1/1/3	R	[120/2]



Detail - problem




```
router ospf 1
    router-id 10.69.253.3
    distance external 10
```

RIB with eBGP

172.16.233.0/24	10.69.253.4	-	B/E	[20/0]
***172.16.233.0/24**	**10.69.0.15**	**1/1/3**	**O/E2**	**[10/25]**
172.16.233.0/24	10.69.0.15	1/1/3	R	[120/2]

Caveats – 10.09

Setting the Administrative Distance between OSPF processes within a VRF has a limitation.

Administrative Distance configuration change in one OSPF process is applied to all the processes within the VRF

aruba
a Hewlett Packard
Enterprise company

Thank you

Contact information