COMP2322 HW5

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1.

a) Router 3C

eBGP

external BGP between routers in different AS

b) Router 1d

iBGP

internal BGP between in same AS.

2.

a)

From 1d to 1c (path I1):
The least-cost path with 2
From 1d to 1c (path I2):
The least-cost path with 3

so, I = I1 || I2

b)

1d learn x between AS2 and AS3

The routers have equal AS-PATH length is 2
So, the value of I will be set to I2

c)

1d learn x between AS2 AS5 AS4 AS3

The path I1 have the shortest AS-PATH compare with I2, so I will be set yo I1.

3、

(a) $L=1000 \Rightarrow 5/(1000+5)\times 100 = 0.4975\%$

$L=100 \Rightarrow 5/(100+5)\times 100 = 4.7619\%$

(b) $\frac{L\times 8}{128\times 10^3} = L/16$ ms

$L=1000$

$delay_{pack} = \frac{1000}{16}$ ms $= 62.5$ ms

$L=100$

$\frac{100}{16} = 6.25$ ms