

1 Bridges

Consider the network in Fig. 1. It is composed of 4 bridges 802.1d. Links on ports 1 and 2 have capacity of 1 Gb/s and on port 3, capacity of 100 Mb/s. We initialize the bridges at the same instant and observe B3 and B4 at some instants corresponding to processing of received messages and generation of new configuration messages. Complete the sequences in the tables below with generated configuration messages and the state of the ports.

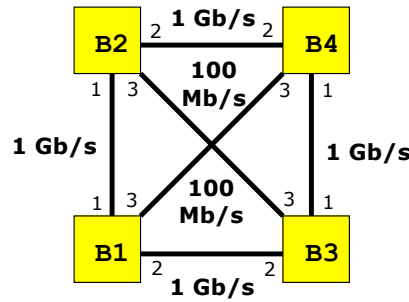


Figure 1: Example network of bridges

Solution:

Costs of links: 1 Gb/s - 4, 100 Mb/s - 19

B3			B4		
	msg	état des ports		msg	état des ports
génééré :	3.0.3	1:d, 2:d, 3:d	génééré :	4.0.4	1:d, 2:d, 3:d
reçu sur 3 :	2.0.2	1:d, 2:d, 3:d	reçu sur 3 :	1.0.1	1:d, 2:d, 3:d
génééré :	2.19.3	1:d, 2:d, 3:r	génééré :	1.19.4	1:d, 2:d, 3:r
reçu sur 1 :	4.0.4	1:d, 2:d, 3:r	reçu sur 1 :	3.0.3	1:d, 2:d, 3:r
génééré :	2.19.3	1:d, 2:d, 3:r	génééré :	1.19.4	1:d, 2:d, 3:r
reçu sur 3 :	1.4.2	1:d, 2:d, 3:r	reçu sur 2 :	2.0.2	1:d, 2:d, 3:r
génééré :	1.23.3	1:d, 2:d, 3:r	génééré :	1.19.4	1:d, 2:d, 3:r
reçu sur 1 :	1.8.4	1:d, 2:d, 3:r	reçu sur 1 :	1.4.3	1:d, 2:d, 3:r
génééré :	1.12.3	1:r, 2:d, 3:b	génééré :	1.8.4	1:r, 2:d, 3:b
reçu sur 2 :	1.0.1	1:r, 2:d, 3:b	reçu sur 2 :	1.4.2	1:r, 2:d, 3:b
génééré :	1.4.3	1:d, 2:r, 3:b	génééré :	1.8.4	1:b, 2:r, 3:b

B3		
	msg	state of the ports
generated msg :		
msg received on 3 :	2.0.2	
generated msg :		
msg received on 1 :	4.0.4	
generated msg :		
msg received on 3 :	1.4.2	
generated msg :		
msg received on 1 :	1.8.4	
generated msg :		
msg received on 2 :	1.0.1	
generated msg :		
B4		
	msg	state of the ports
generated msg :		
msg received on 3 :	1.0.1	
generated msg :		
msg received on 1 :	3.0.3	
generated msg :		
msg received on 2 :	2.0.2	
generated msg :		
msg received on 1 :	1.4.3	
generated msg :		
msg received on 2 :	1.4.2	
generated msg :		