

1 Routing Protocols

Consider the network presented in Figure 1. The routers run the Distance Vector routing protocol and apply the “poisoned reverse” rule: if X sends packets to Z via Y , X announces this route to Y with the cost ∞ . We assume that all the routers start to operate. Give the data structures maintained by the routers after convergence—fill in the tables below.

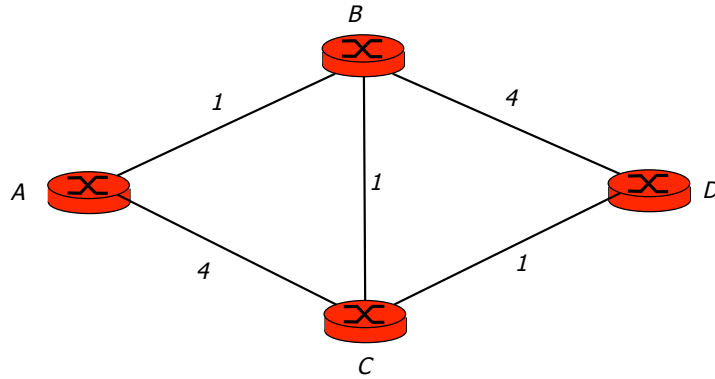


Figure 1: Network topology.

Costs of A		via		Routing tables of A			Vector of A		sent to	
Dest.	B	C	Dest.	via	cost	Dest.	B	C		
A			A			A				
B			B			B				
C			C			C				
D			D			D				

Costs of B		via			Routing tables of B			Vector of B		sent to			
Dest.	A	C	D	Dest.	via	cost	Dest.	A	C	D			
A				A			A						
B				B			B						
C				C			C						
D				D			D						

Costs of C		via			Routing tables of C			Vector of C		sent to			
Dest.	A	B	D	Dest.	via	cost	Dest.	A	B	D			
A				A			A						
B				B			B						
C				C			C						
D				D			D						

Costs of D		via		Routing tables of D			Vector of D		sent to	
Dest.	B	C	Dest.	via	cost	Dest.	B	C		
A			A			A				
B			B			B				
C			C			C				
D			D			D				