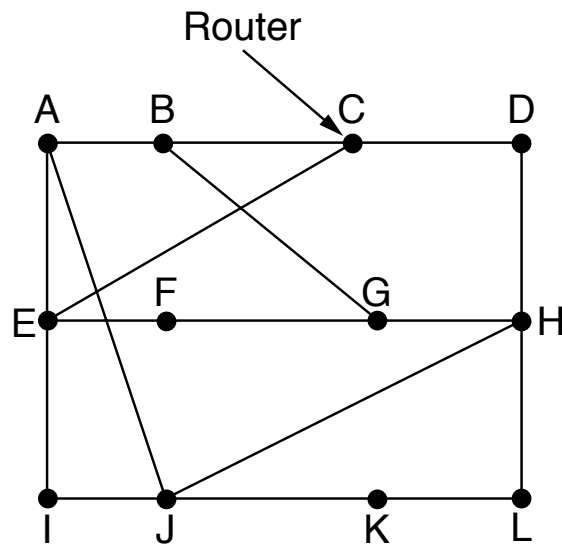


# Lecture 17

## Routing Algorithm

# Distance Vector Routing



(a)

To	A	I	H	K	New estimated delay from J ↓ Line	
A	0	24	20	21	8	A
B	12	36	31	28	20	A
C	25	18	19	36	28	I
D	40	27	8	24	20	H
E	14	7	30	22	17	I
F	23	20	19	40	30	I
G	18	31	6	31	18	H
H	17	20	0	19	12	H
I	21	0	14	22	10	I
J	9	11	7	10	0	–
K	24	22	22	0	6	K
L	29	33	9	9	15	K

JA delay is 8      JI delay is 10      JH delay is 12      JK delay is 6

Vectors received from J's four neighbors

New routing table for J

(b)

# Convergence in DVR

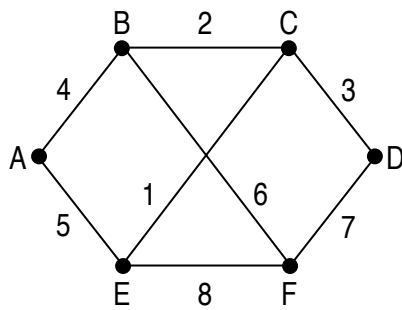
A	B	C	D	E	
•	•	•	•	•	Initially
	1	•	•	•	After 1 exchange
	1	2	•	•	After 2 exchanges
	1	2	3	•	After 3 exchanges
	1	2	3	4	After 4 exchanges

(a)

A	B	C	D	E	
•	1	2	3	4	Initially
	3	2	3	4	After 1 exchange
	3	4	3	4	After 2 exchanges
	5	4	5	4	After 3 exchanges
	5	6	5	6	After 4 exchanges
	7	6	7	6	After 5 exchanges
	7	8	7	8	After 6 exchanges
	•	•	•	•	

(b)

# Link State Routing



(a)

		Link		State		Packets			
A		B		C		D		E	
Seq.		Seq.		Seq.		Seq.		Seq.	
Age		Age		Age		Age		Age	
B	4	A	4	B	2	C	3	A	5
E	5	C	2	D	3	F	7	C	1
		F	6	E	1			F	8

(b)