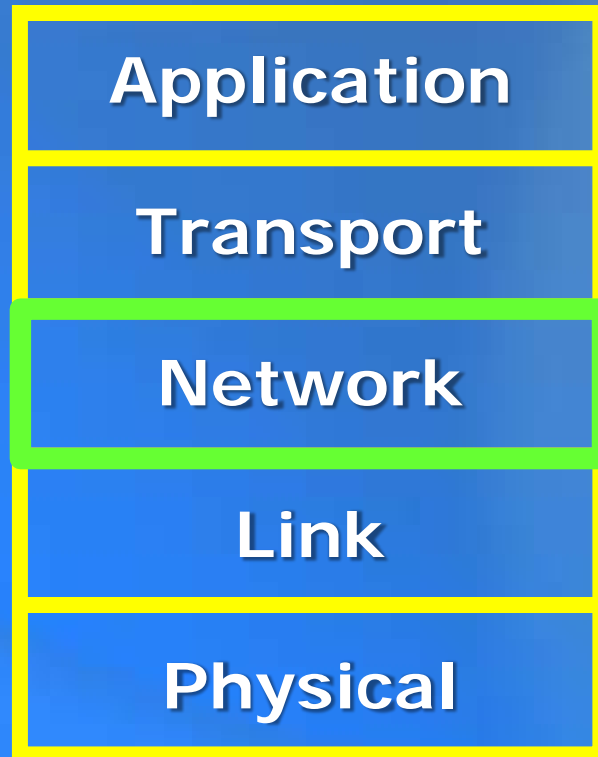


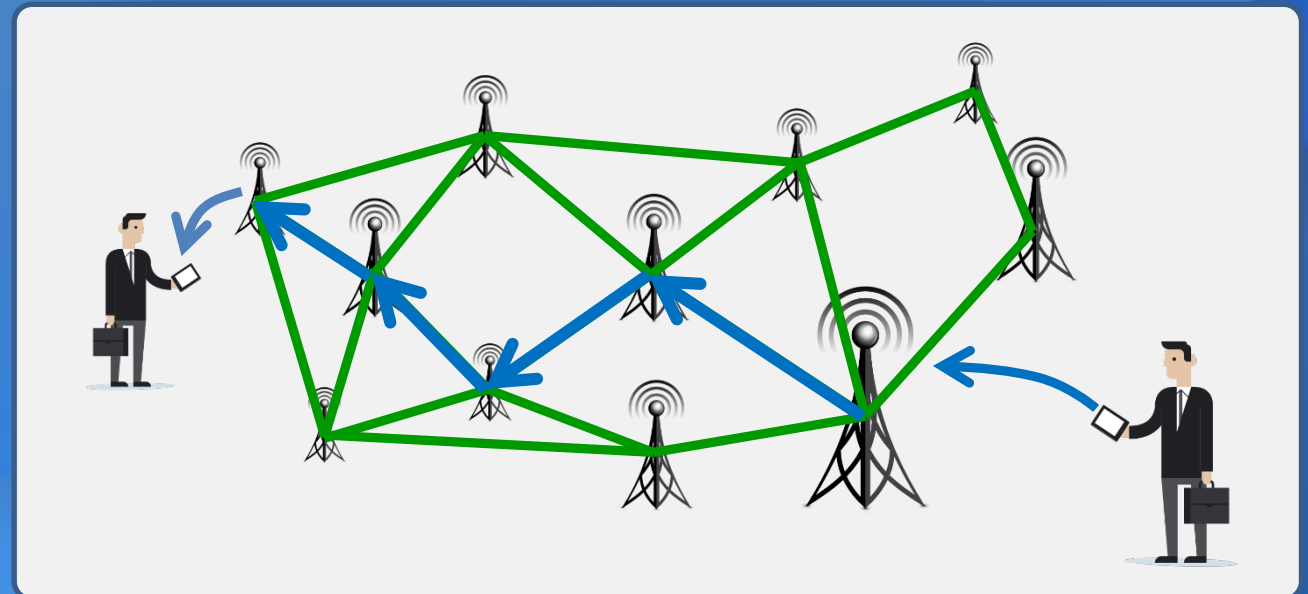
Network Layer

Internet protocol stack



Network layer

- delivers packets from source to destination over a network
- e.g. Internet Protocol (IP)

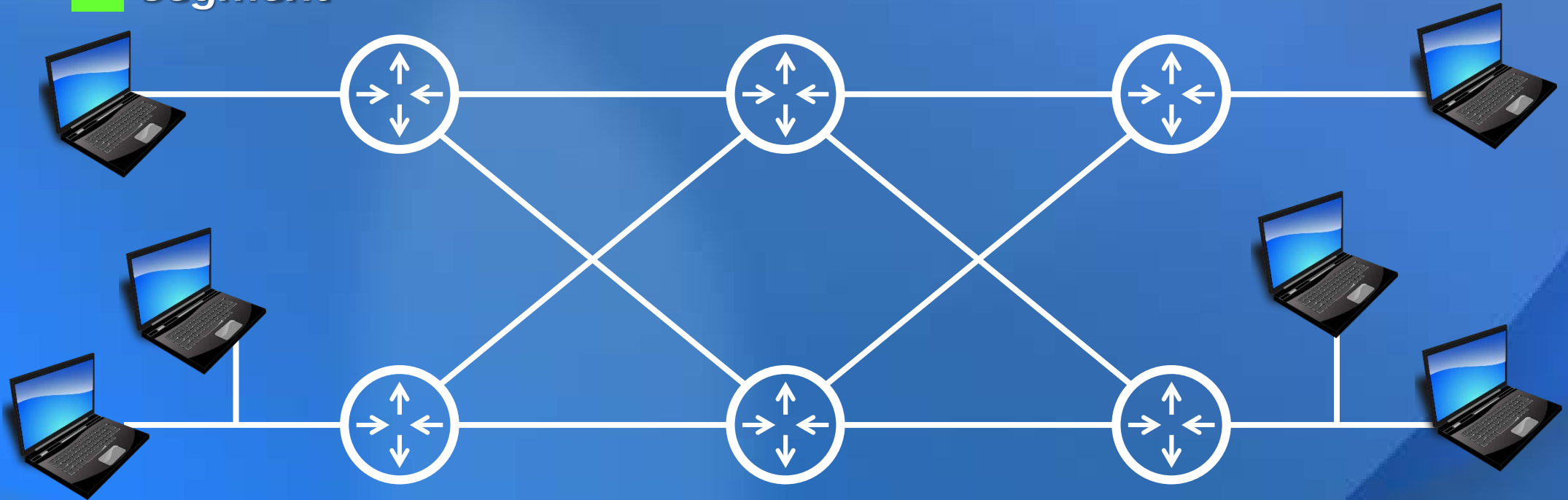


Network layer functions

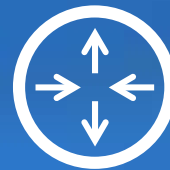
- Addressing
- Encapsulation
- Routing
- Forwarding

Networking

 segment



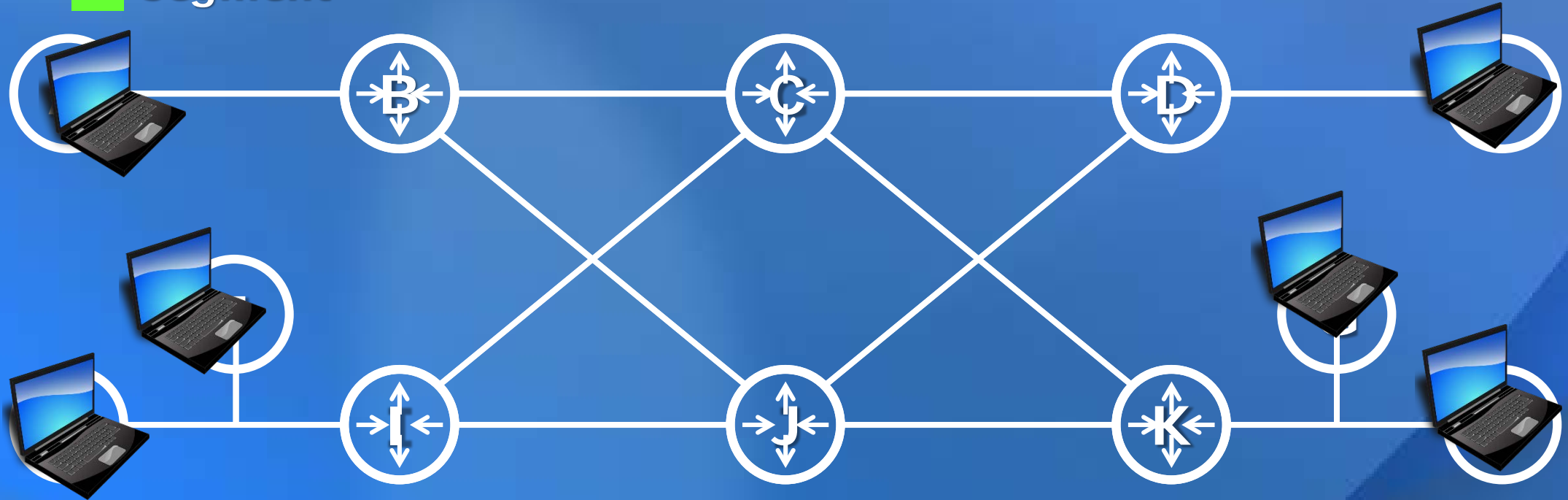
Host



Router

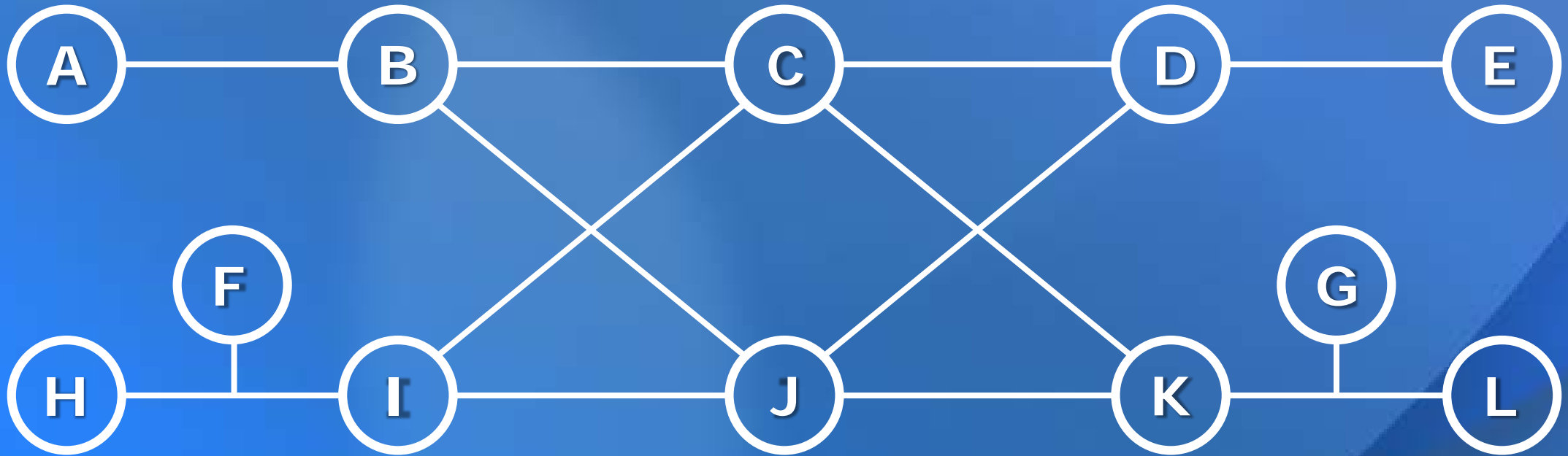
Addressing

 segment



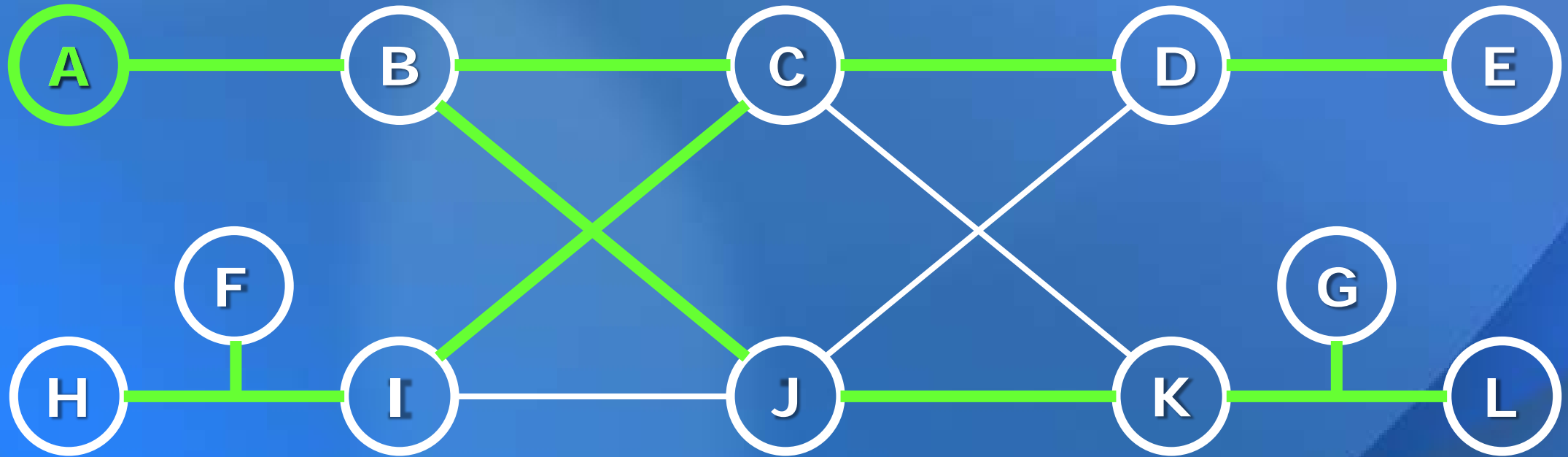
Encapsulation

G diagram



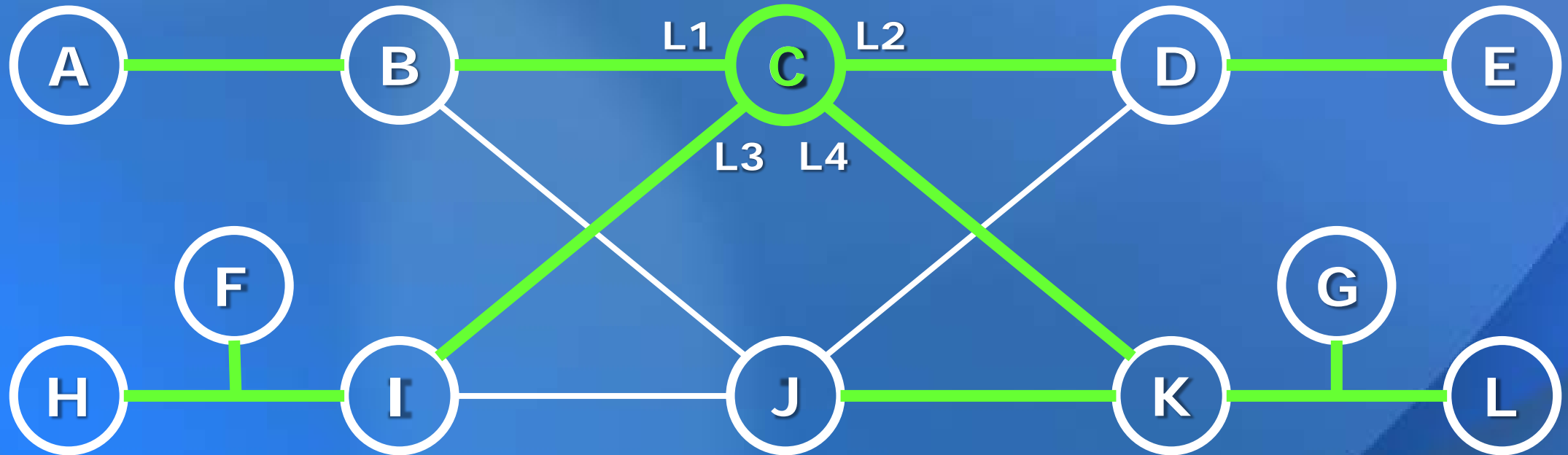
Routing

Find best path from node A to every other node



Forwarding

Given best path from node C to every other node



Find forwarding
table for node C

dest	A	B	C	D	E	F	G	H	I	J	K	L
output	L1	L1	-	L2	L2	L3	L4	L3	L3	L4	L4	L4

Network layer functions

- Addressing
 - Each node of the network has a different address
- Encapsulation
 - From "segments" to "datagrams"
 - Key added information is destination address
- Routing
 - Determine best path from source to destination
- Forwarding
 - At each router, pass datagram to correct output.