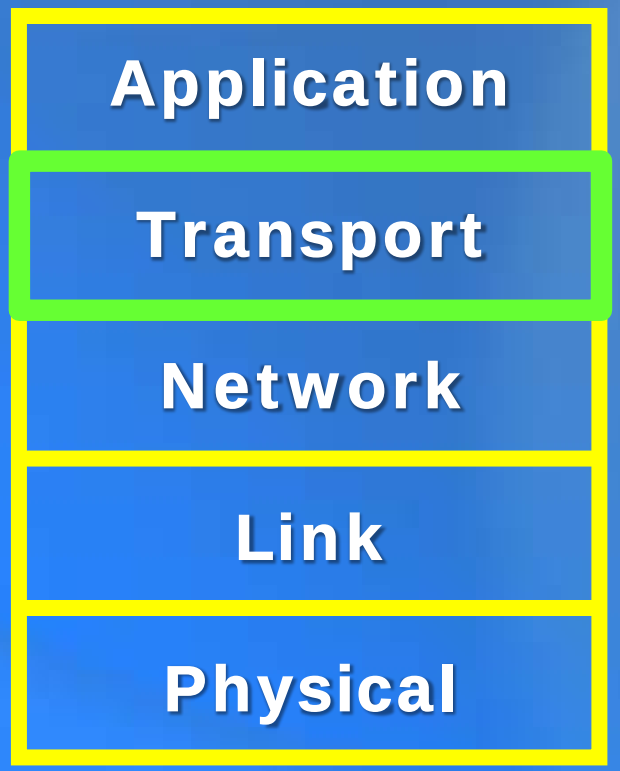
Transport Layer

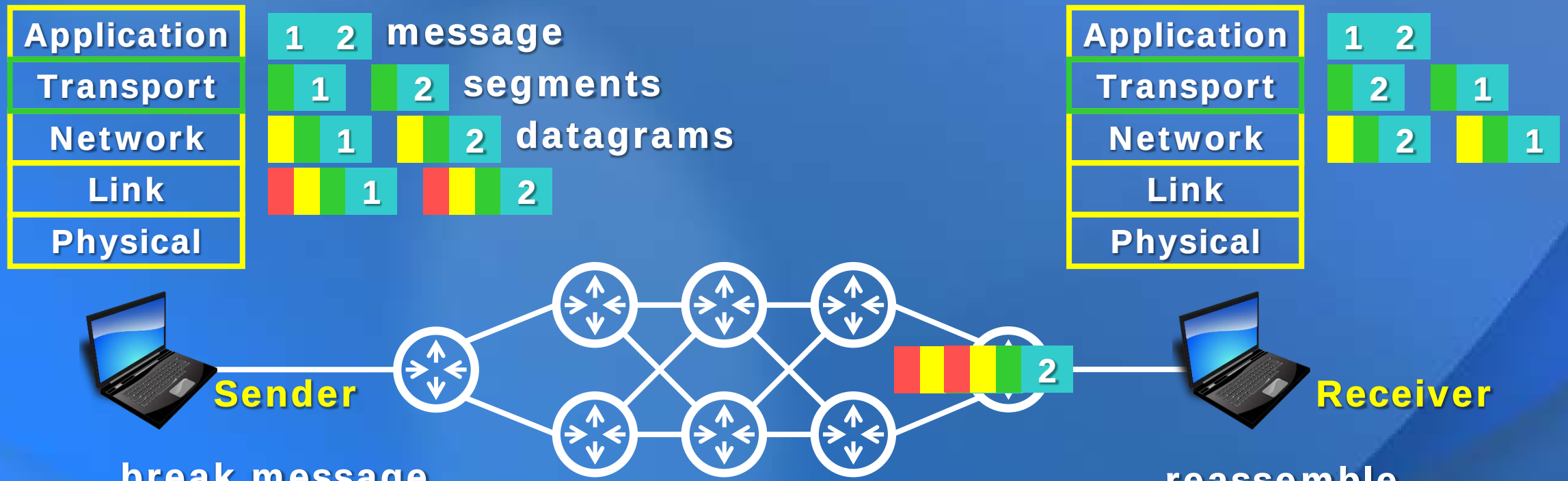
Internet protocol stack



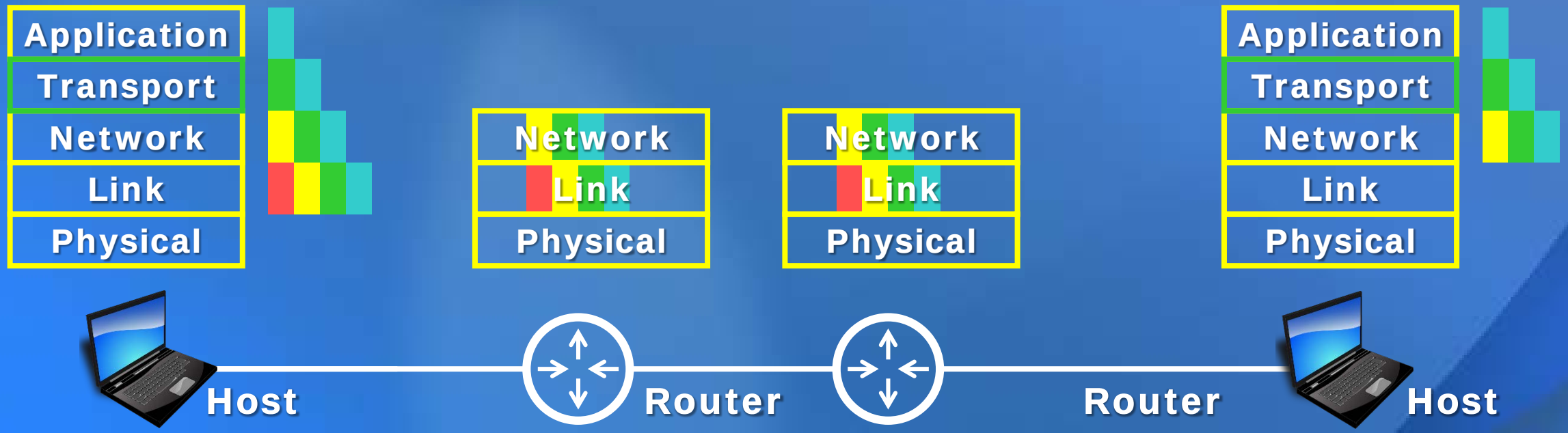
Transport layer

- provides for logical communication between applications (processes) running on different hosts
- runs in end system (host)
- e.g. TCP and UDP

Logical Communication



Transport vs. Network



Network Layer: logical communication between hosts via routers

Transport Layer: logical communication between processes on hosts

Transport-layer protocols

User Datagram Protocol (UDP)

- simple extension of IP in network layer
- segments passed to receiver may be missing or out of order

Transmission Control Protocol (TCP)

- segments passed to receiver reliably and in order
- additional services

Transport layer functions

- Multiplexing / Demultiplexing
- Error Detection
- Reliable Data Transfer
- Flow Control
- Congestion Control
- Connection Management

both UDP and TCP

by TCP but not UDP