

# Firewalls

COMP 435  
Fall 2017  
Prof. Cynthia Sturton



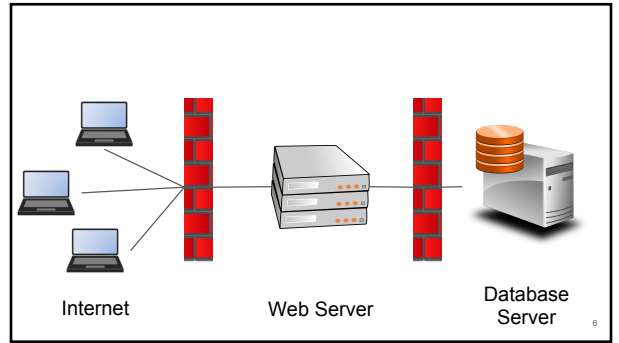
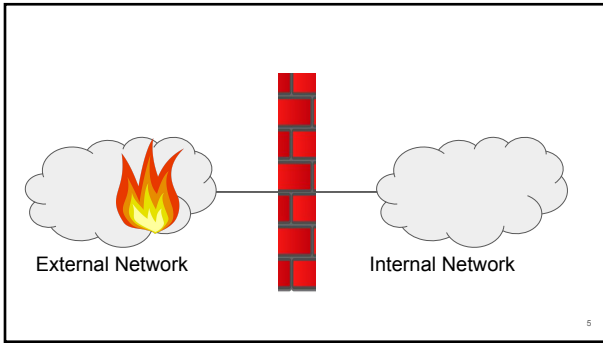
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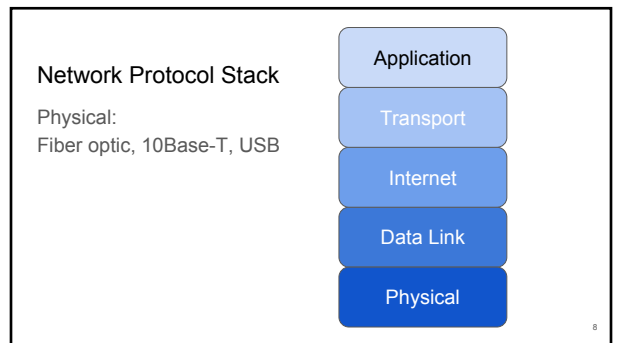


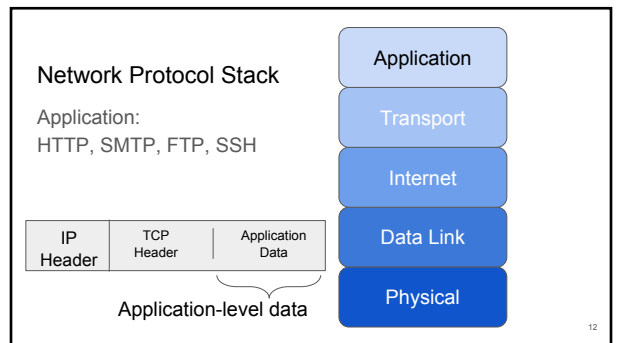
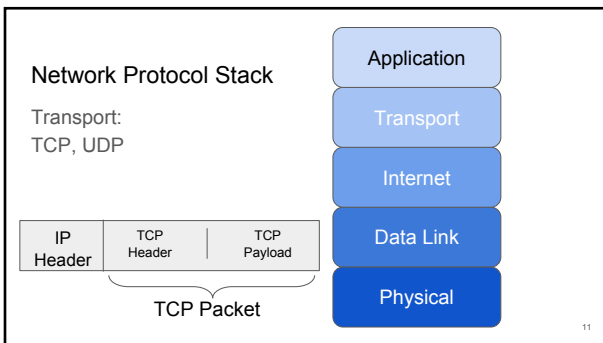
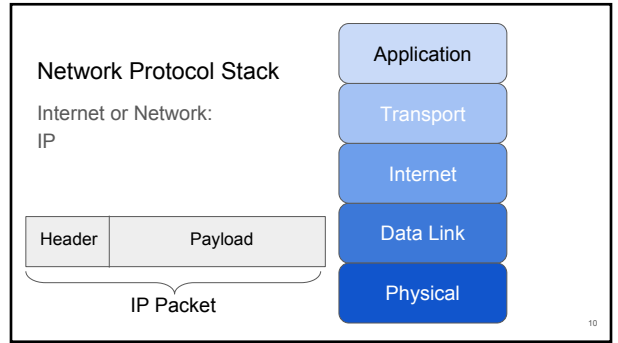
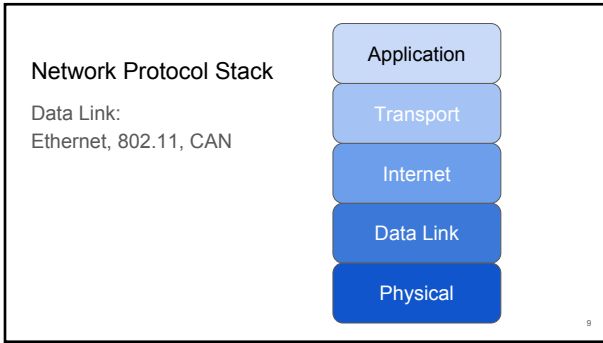
4



Network Protocols

7





## Back to Firewalls

13

## Types of Firewalls

- Layer in protocol stack
- Default forward vs default reject
- Depth and length of view

14

## Filtering Rules

- IP Address
- Application protocol
- User ID
- Network activity

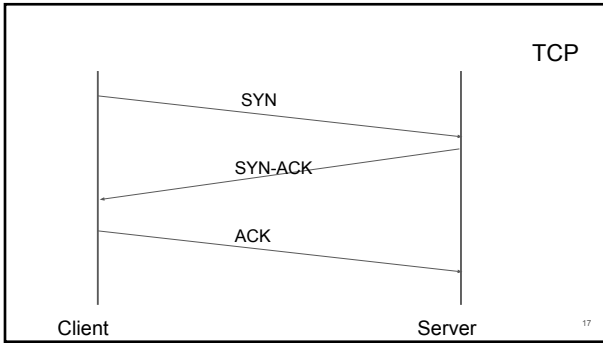
15

## An example firewall

Rule	Direction	Src Addr	Dest Addr	Protocol	Dest Port	Action
A	In	External	Internal	TCP	25	Permit
B	Out	Internal	External	TCP	>1023	Permit
C	Out	Internal	External	TCP	25	Permit
D	In	External	Internal	TCP	>1023	Permit
E	Either	Any	Any	Any	Any	Deny

Building Internet Firewalls: Internet and Web Security, by Elizabeth D. Zwicky, Simon Cooper, D. Brent Chapman, ch. 8.

16



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