Week 10
Packet-Filtering Firewalls

School of Information Studies
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Packet-Filtering Firewalls

- The simplest form of firewall
- Discard packets, which do not meet the configurable criteria (policy)
  - Addresses
    - Source/destination IP numbers
  - Protocols
    - E.g., port 80 for HTTP, port 25 for e-mail, port 23 for Telnet, etc.
  - Initiators
  - Histories
- Frequently added to routers for cost-effective performance

Packet-Filtering Firewalls

- Static packet filtering
  - Looks at packets one at a time, in isolation
    - Not knowing the context of the packet
    - Extremely limited
- Stateful inspection firewalls
  - Packet filtering firewalls with enhancement, considering the context of packets
    - Record information about TCP connections
    - Forward packets based on the current context, such as TCP connections or sequence numbers