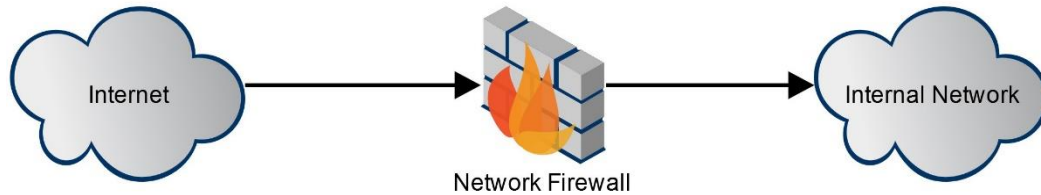


Firewalls

- Firewalls are the foundation of a defense-in-depth network security strategy.
- They protect your network from malicious activity on the Internet.
- Prevent unwanted network traffic on different networks from accessing your network.
- Firewalls do this by filtering data packets that go through them.
- They can be a standalone network device or software on a computer system, meaning **network-based (hardware)** or **host-based (software)**.



Types of Firewalls

Packet Filtering Firewalls

- 1st Generation & Most Basic
- Basic Filtering Rules

Circuit-Level Firewalls

- 2nd Generation
- Monitors Valid/Invalid TCP Sessions

Application Layer 7 (NGFW) Firewalls

- 3rd Generation
- Much more Advanced; Covered Later in Course