



7 Layers of the OSI Model



7. Application

- End User layer
- HTTP, FTP, IRC, SSH, DNS



6. Presentation

- Syntax layer
- SSL, SSH, IMAP, FTP, MPEG, JPEG



5. Session

- Synch & send to port
- API's, Sockets, WinSock



4. Transport

- End-to-end connections
- TCP, UDP



3. Network

- Packets
- IP, ICMP, IPSec, IGMP



2. Data Link

- Frames
- Ethernet, PPP, Switch, Bridge

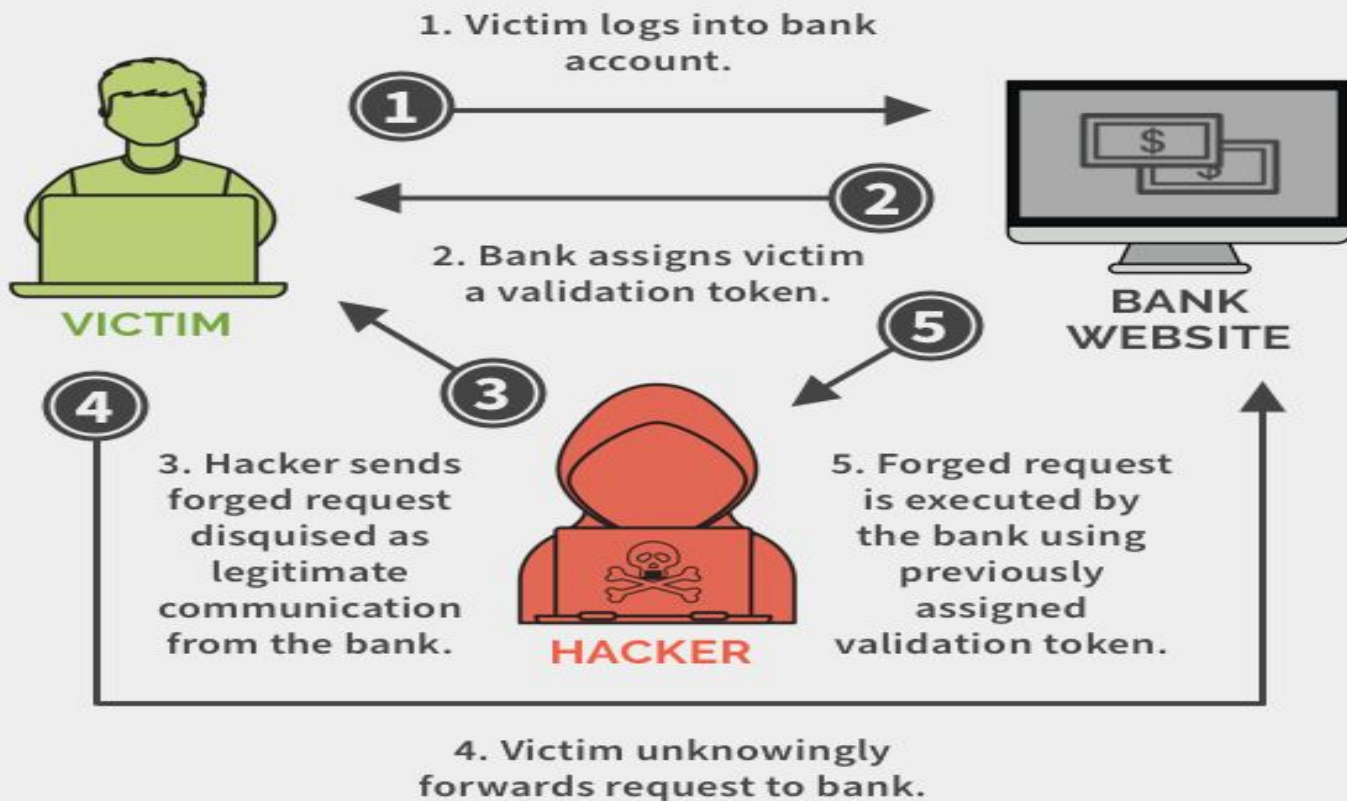


1. Physical

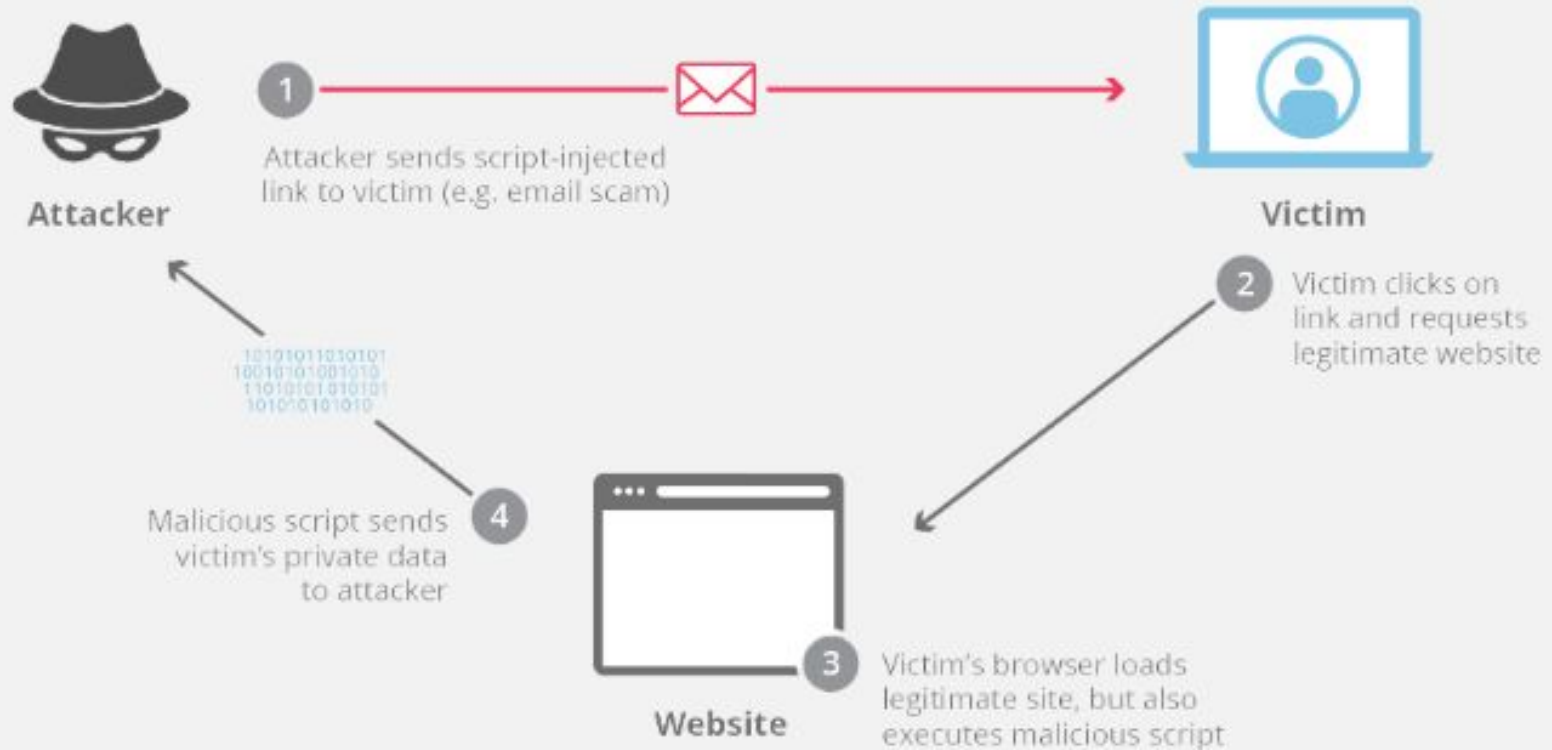
- Physical structure
- Coax, Fiber, Wireless, Hubs, Repeaters

CROSS SITE REQUEST FORGERY (CSRF)

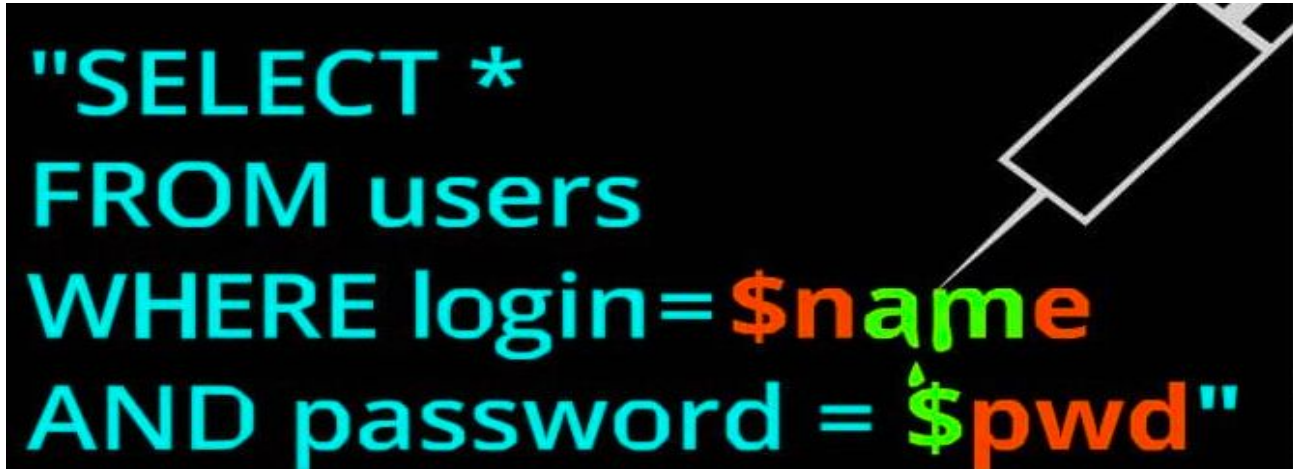
Siteler Arası İstek Sahtekarlığı (Session Riding)



Cross Site Scripting (XSS)



SQL INJECTION

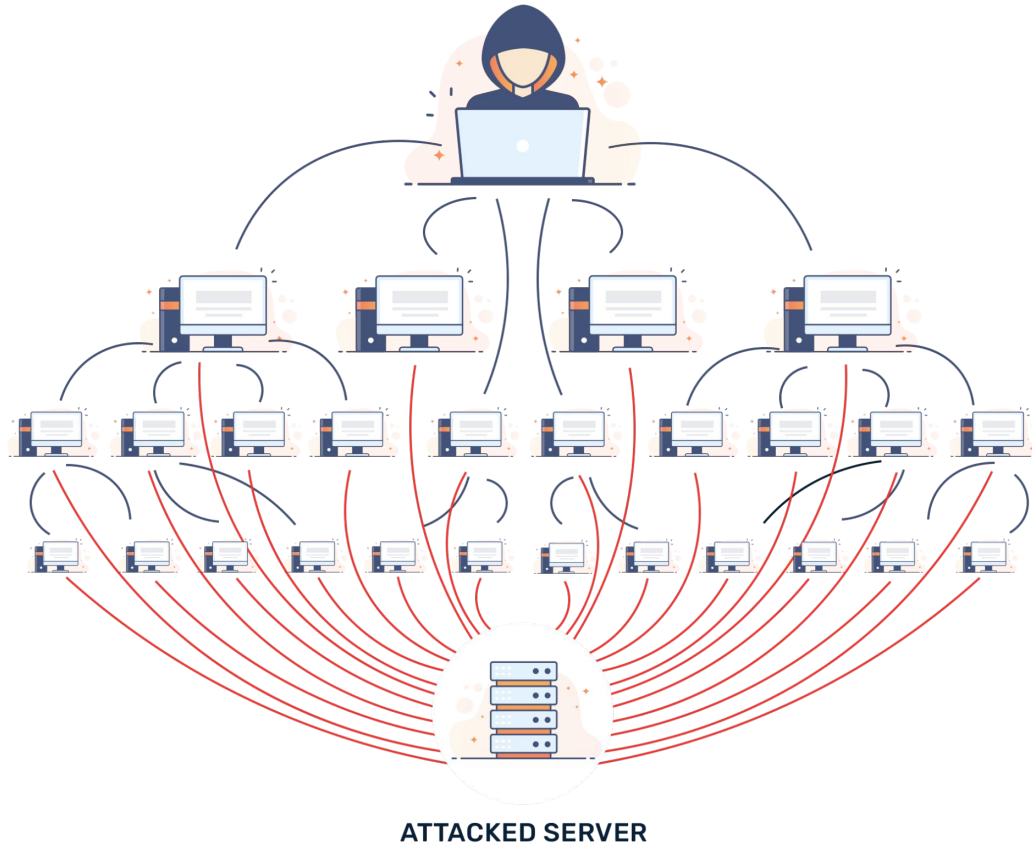


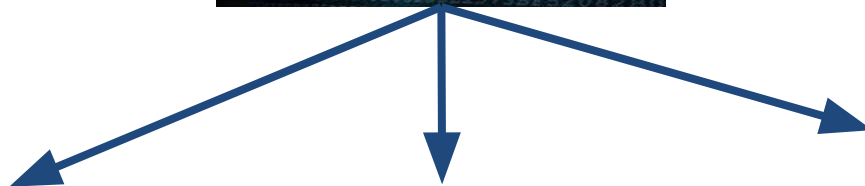
SELECT * FROM USERS WHERE username = 'paul' and password = 'Pl1234'

SELECT * FROM USERS WHERE username = 'administrator' –' and password = ''

UNION SELECT username, password–

DDOS Attack

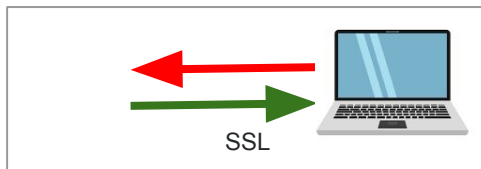




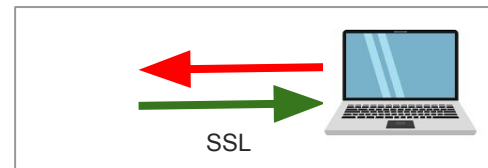
Server Side Encryption (**At Rest**)

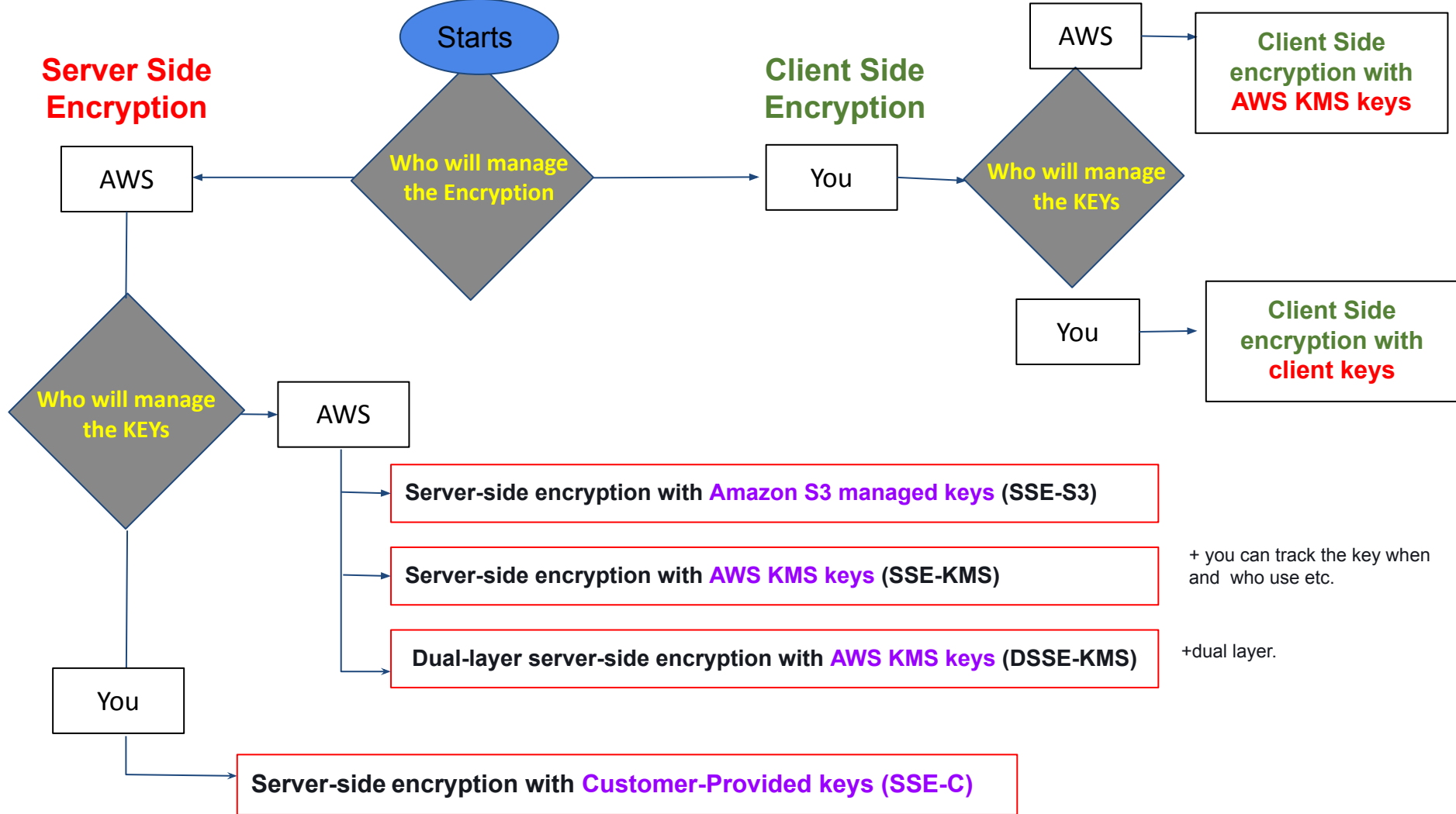


Encryption in **Transition**



Client Side Encryption
(**Transition+At Rest**)







aws



External



**Custom key store
(CloudHSM)**

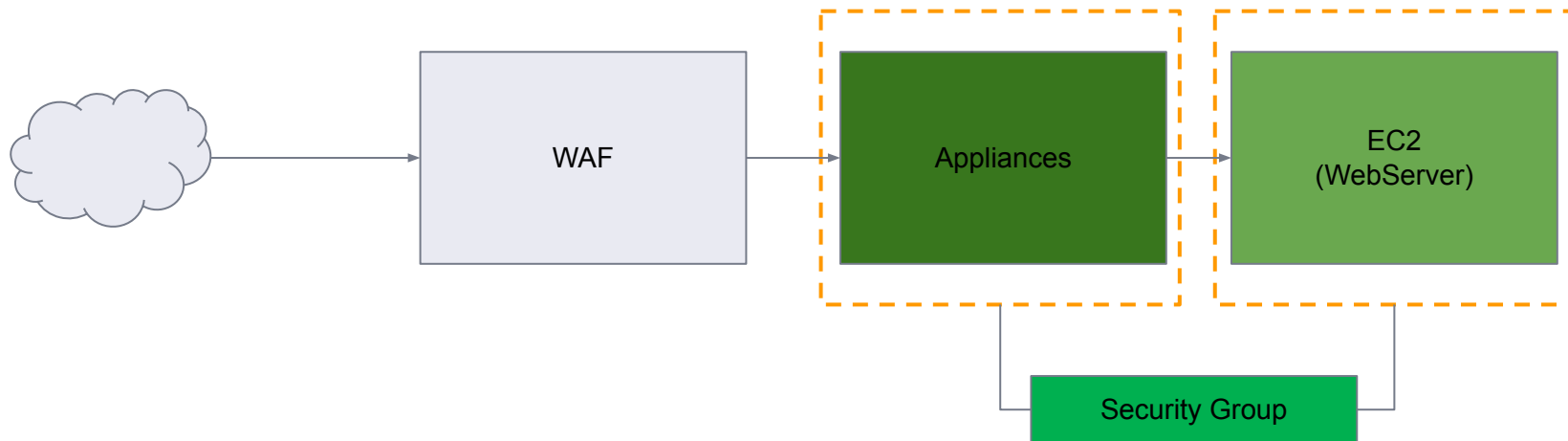
AWS CloudHSM

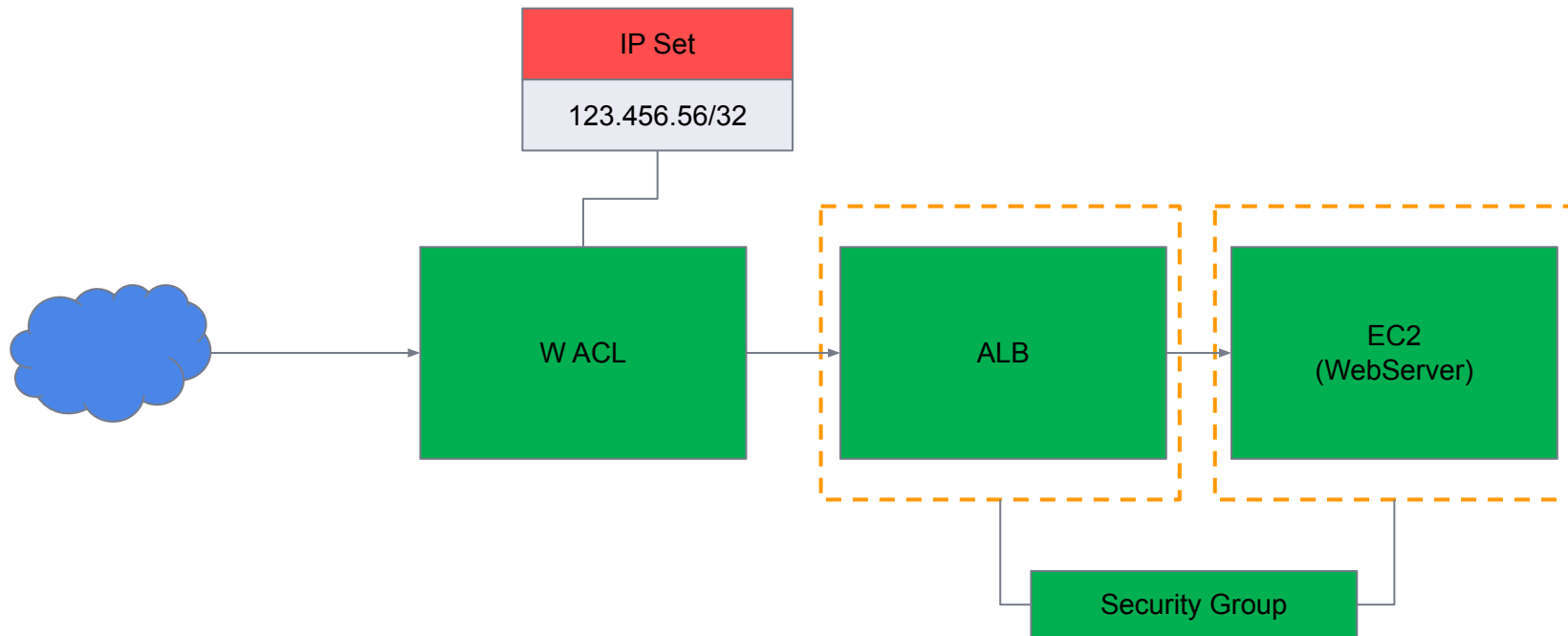
Customer managed keys

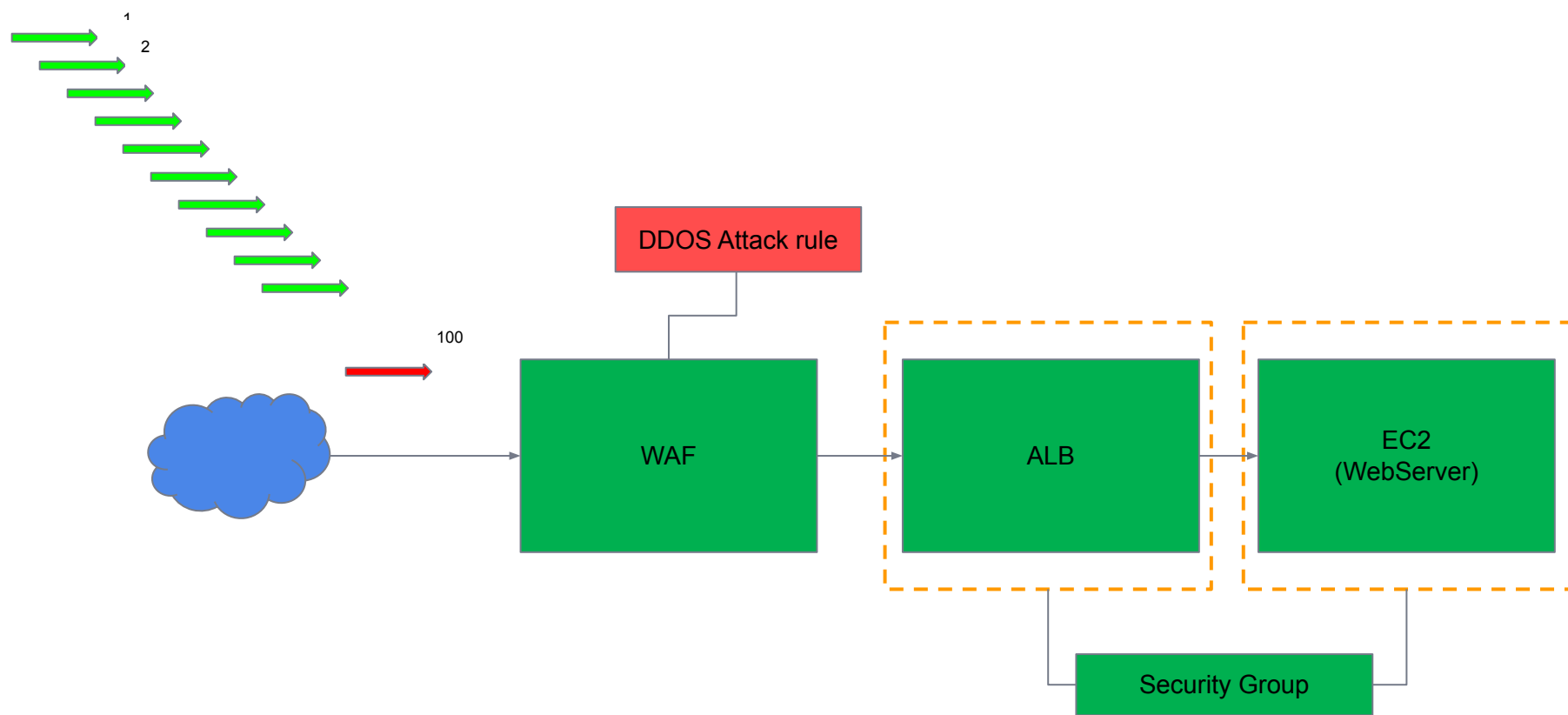
AWS managed keys



AWS KMS









DDoS attacks cost business between
US\$20,000 and US\$40,000 per hour

(Source: Cox BLUE)

32% of serious DDoS coincided with a
network intrusion

(Source: Cox BLUE)

Q1 2020 reported a 542% increase in
DDoS activity compared to Q4 2019

(Source: Nexus Guard)