Web Application Firewall

root@presentation:~$ whoami

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- *Co-Lead Global Payments Women's Network*
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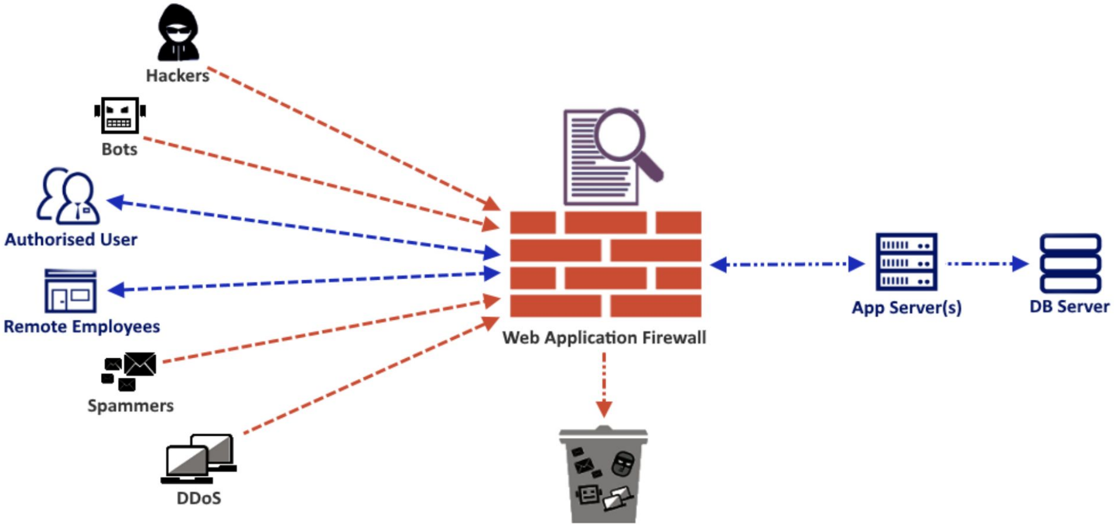
Agenda

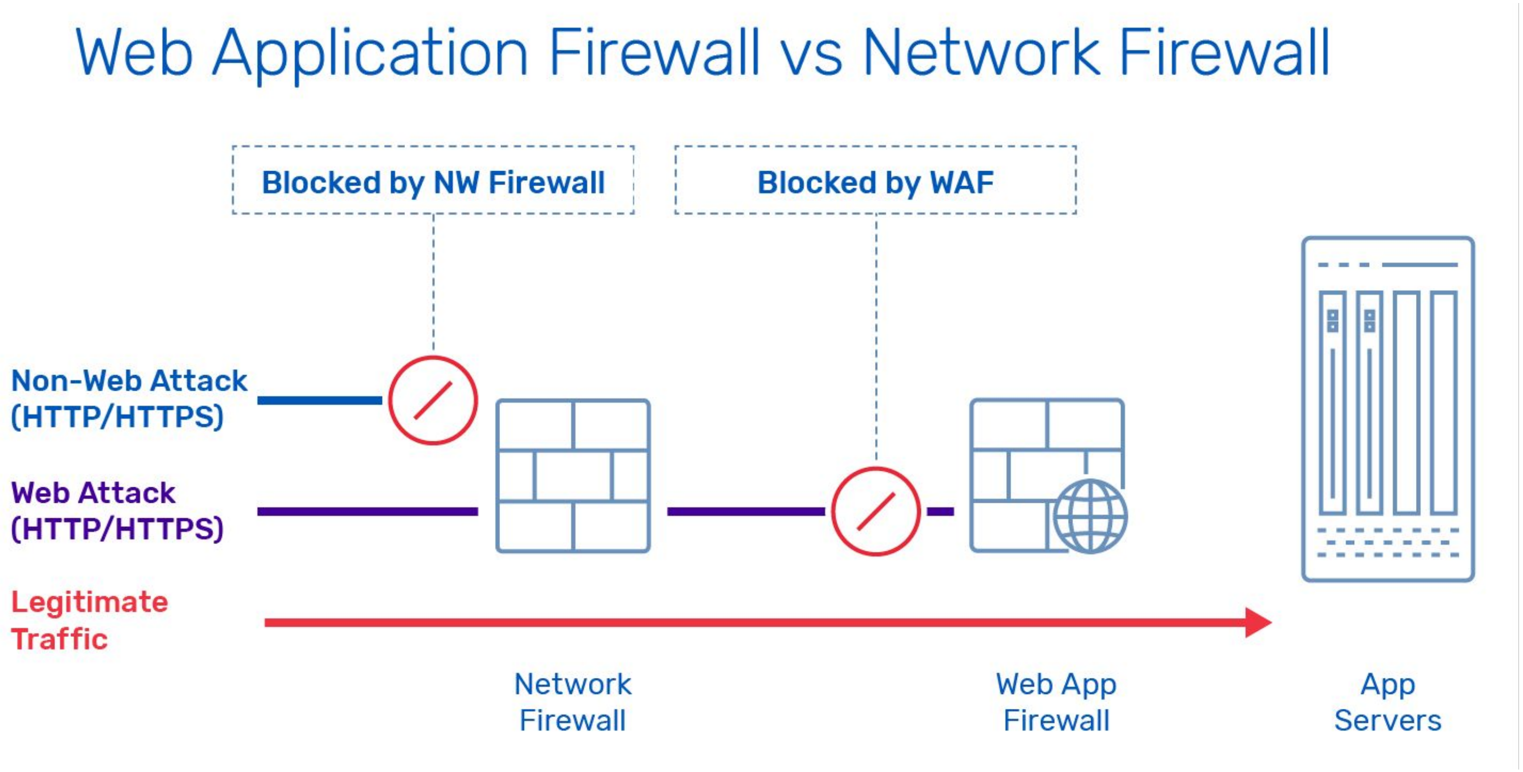
- Web Application Firewall Overview
- On-prem WAF
- Google cloud Armor-WAF
- Q&A

What is a **WAF?**

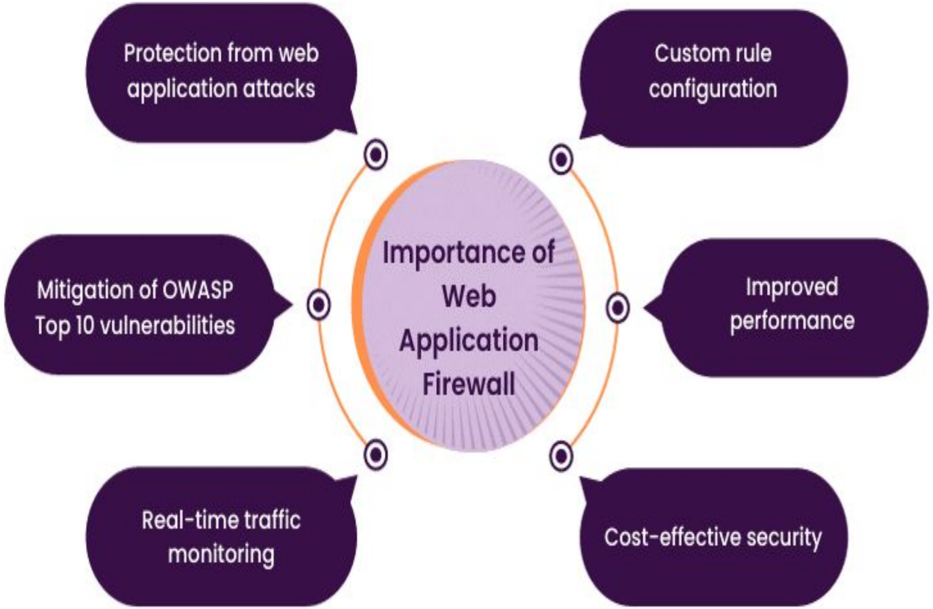
“A web application firewall or WAF protects your web apps by filtering, monitoring, and blocking any malicious HTTP/S traffic traveling to the web application, and prevents any unauthorized data from leaving the app. It does this by adhering to a set of policies that help determine what traffic is malicious and what traffic is safe.”

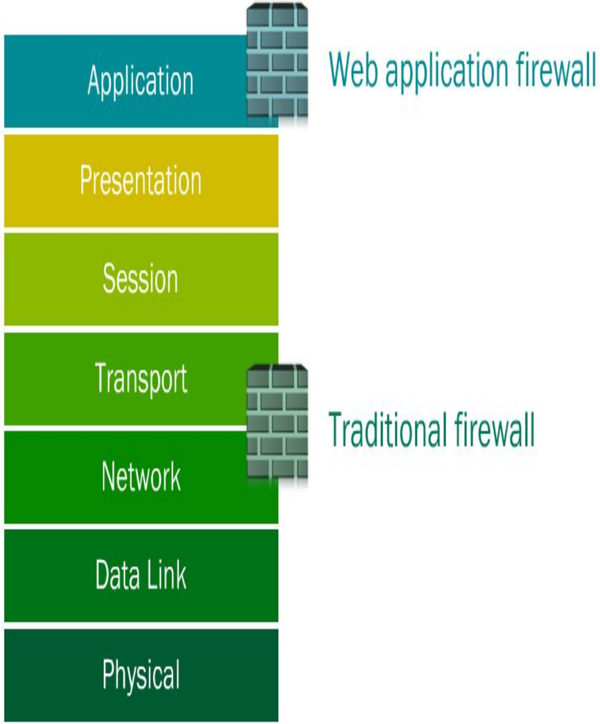


WAF Vs Network Firewall

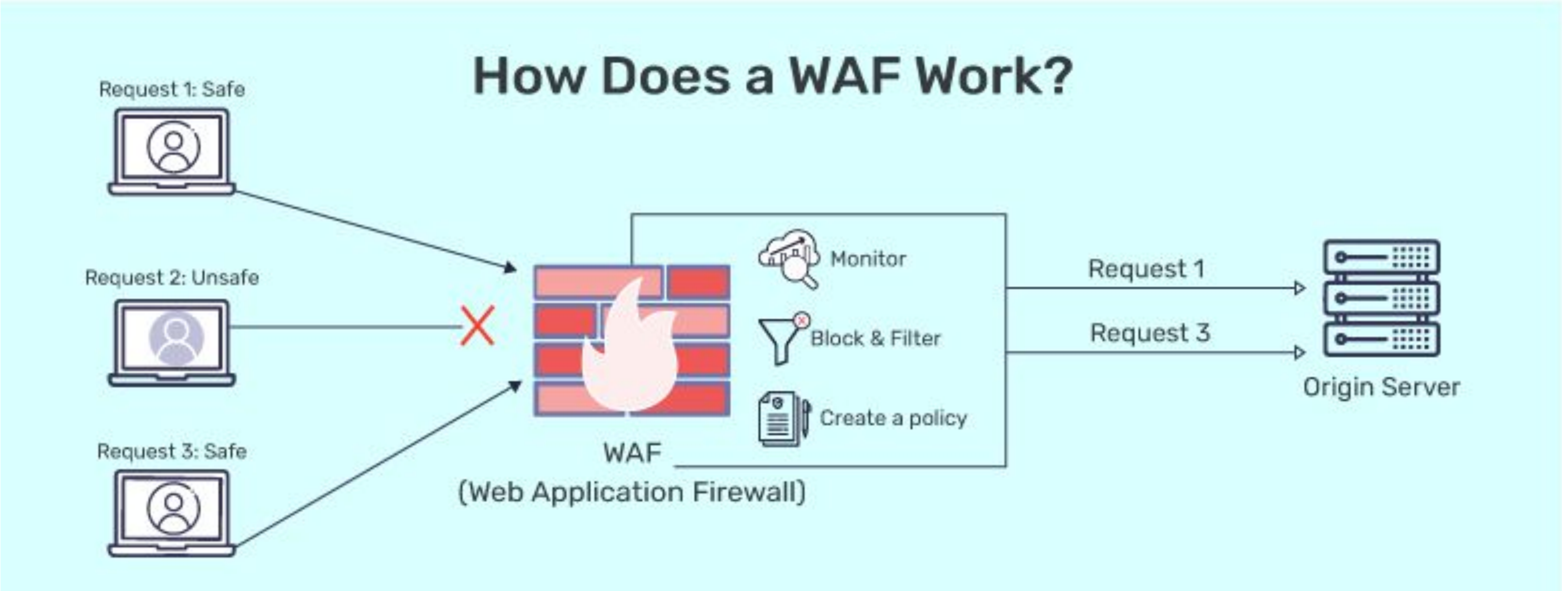


Importance of WAF

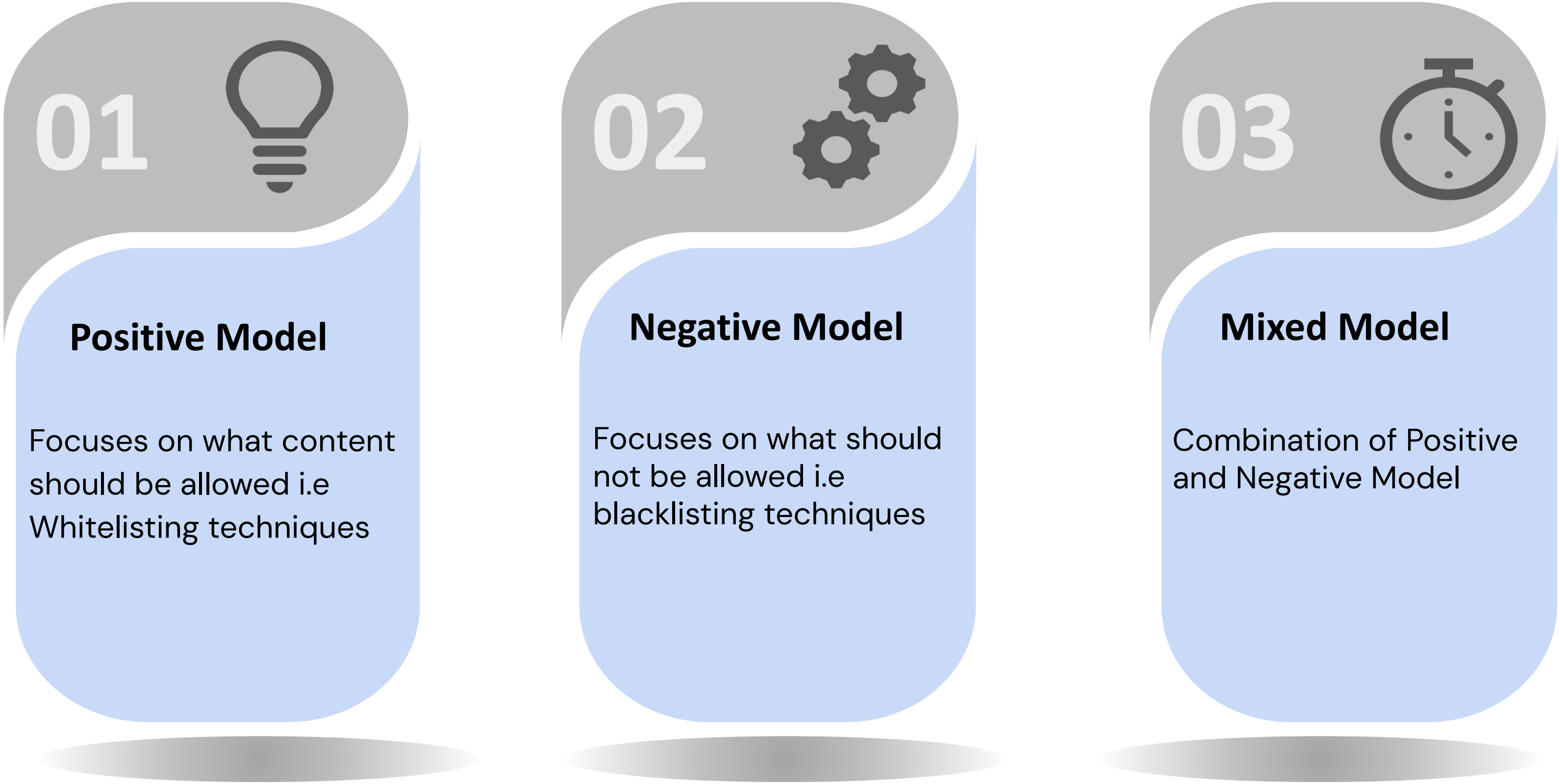

Protection from web application attacks
Custom rule configuration
Mitigation of OWASP Top 10 vulnerabilities
Importance of Web Application Firewall
Improved performance
Real-time traffic monitoring
Cost-effective security



How WAF works



Implementation Models



01

Positive Model

Focuses on what content should be allowed i.e Whitelisting techniques

02

Negative Model

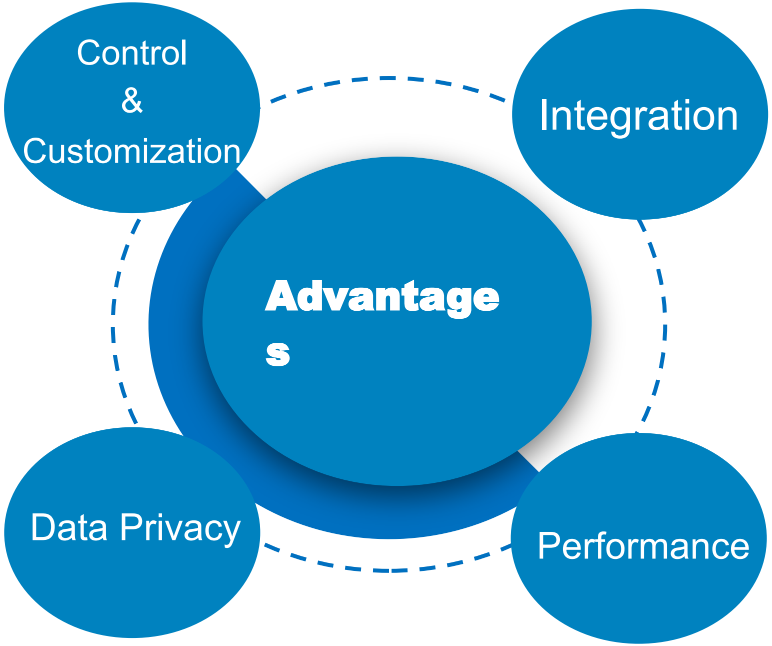
Focuses on what should not be allowed i.e blacklisting techniques

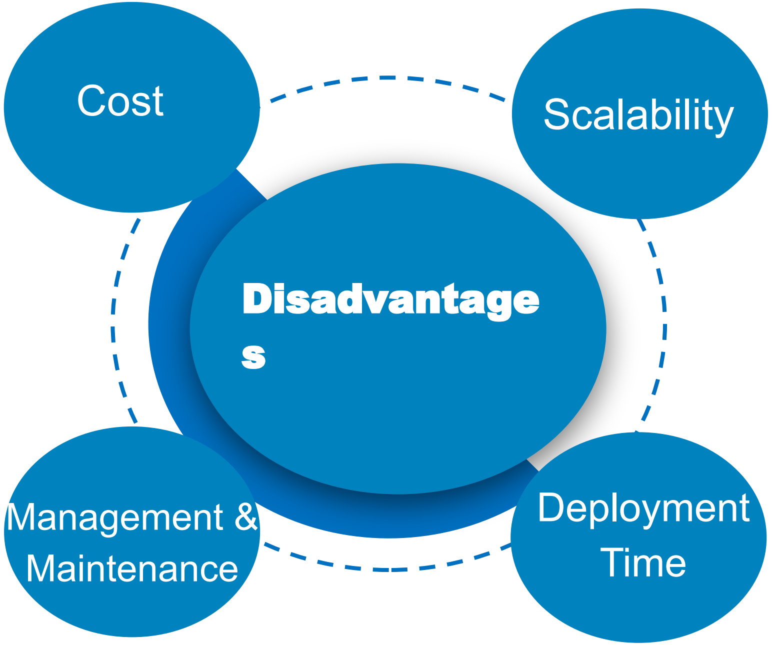
03

Mixed Model

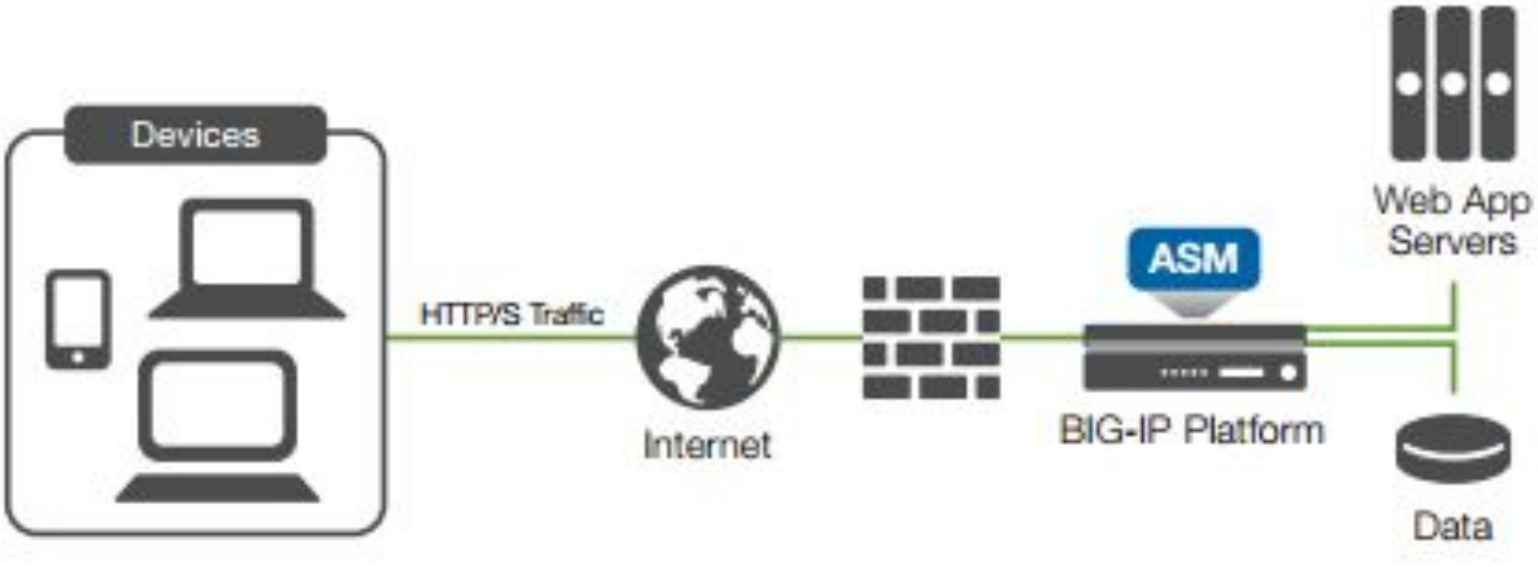
Combination of Positive and Negative Model

On-Premise WAF

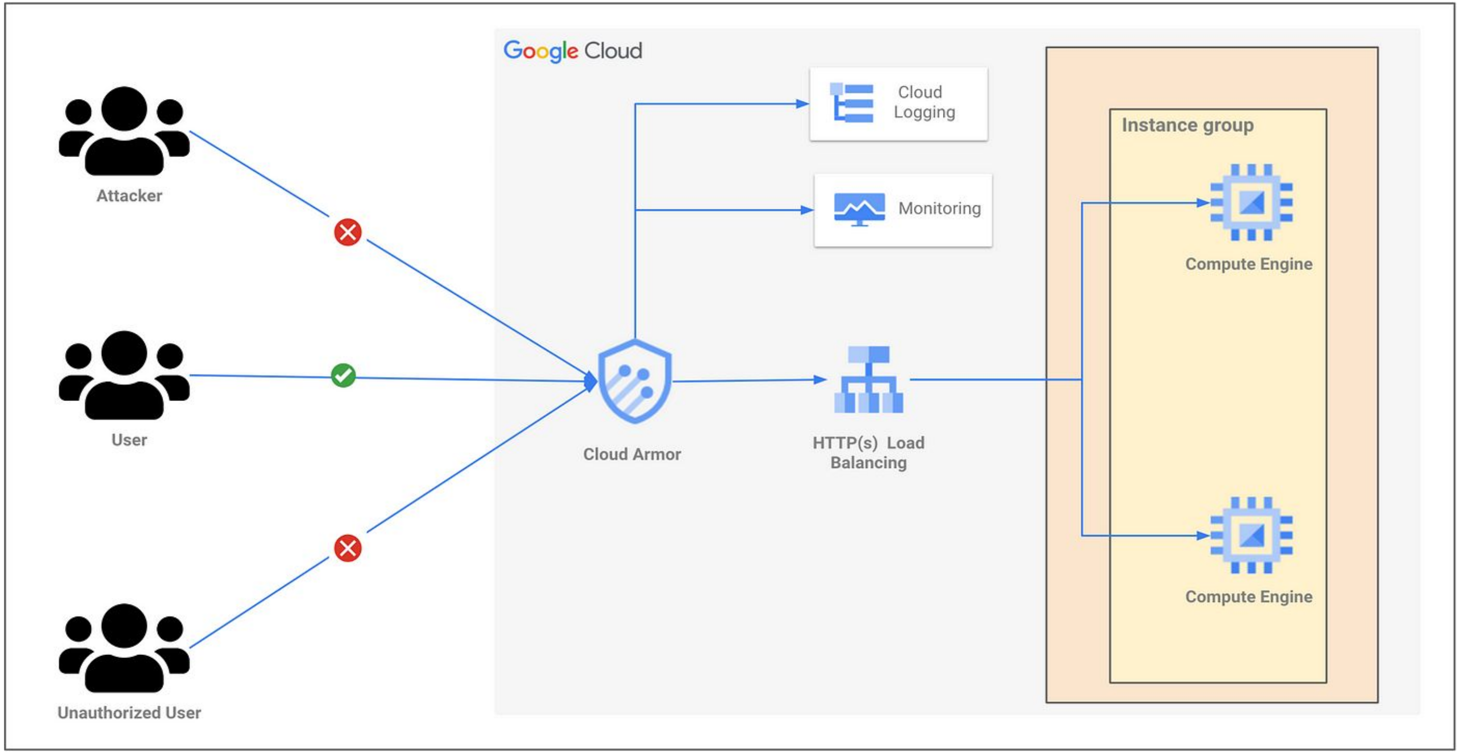




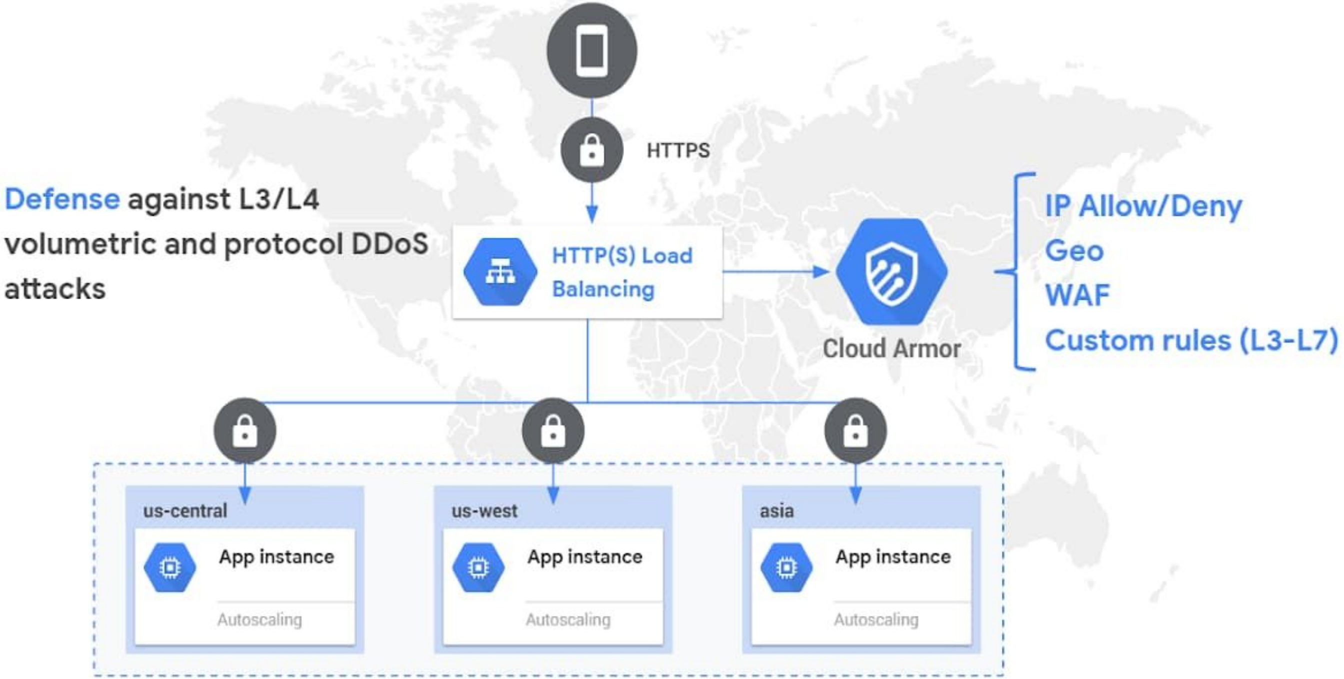
On-Premise WAF Setup



Google Cloud Armor



Cloud Armor: DDOS protection and WAF



Defense against L3/L4 volumetric and protocol DDoS attacks

- IP Allow/Deny
- Geo
- WAF
- Custom rules (L3-L7)

Cloud Armor: Features

- Pre-defined WAF rules to mitigate OWASP Top 10 risks
- Rich rules language for web application firewall
- Visibility and monitoring
- Logging
- Preview mode
- Policy framework with rules
- IP-based and geo-based access control
- Support for hybrid and multi-cloud deployments
- Named IP Lists

WAF Technologies

F5

Akamai

Cloudflare

AWS WAF

Distributed Cloud Services

Microsoft Azure

Imperva

NGINX App Protect.

Thank You