





















# Bot Management



## Entity Attributes and Behavioral Detection

- Human Interaction



Oracle WAF identifies normal usage patterns based on legitimate user behavior to the site. The WAF will challenge with CAPTCHA or block requests when it detects abnormalities or traffic exceeds defined interaction thresholds.

- Device Fingerprinting (available in the API)

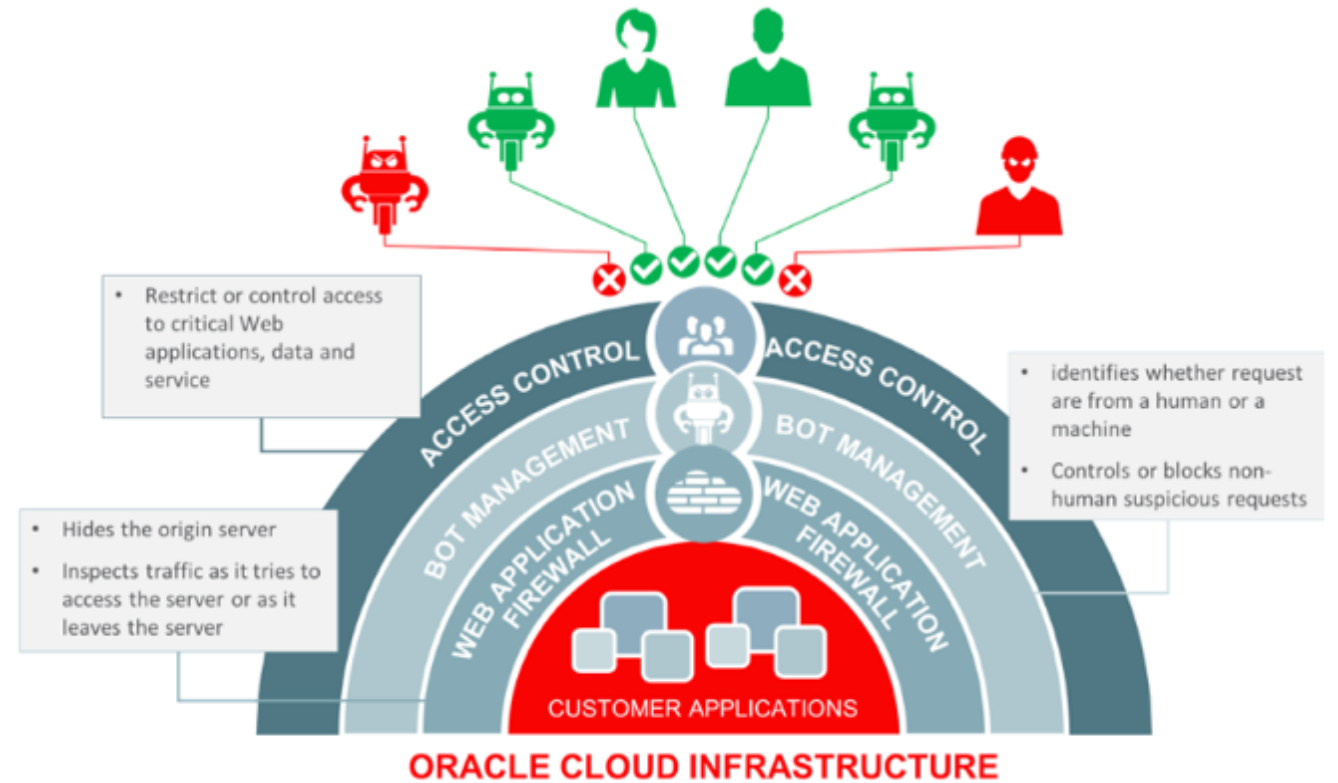


Oracle WAF collects unique various characteristics about a device entity, generating a hashed signature. This hashed signature is then compared to other requests to determine the same signature is being leveraged across different contexts.

# Access Controls

Use the access controls to restrict or control access to your critical web applications, data and services. E.g., in some cases, an offering may need to stay within a specific country. Regional access control can be used to restrict users from certain geographies.

- Control access, based on HTTP header information. Block requests if the HTTP header contains specific names or values or allow traffic with proper HTTP regular expression
- Control access based on URL address matching or partial matching or match proper URL regular expressions



## Safe harbor statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions.

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The background features abstract, textured shapes in shades of grey, red, and teal. The word 'ORACLE' is positioned in the upper left. The main title 'Web Application Firewall' is centered in a large, dark serif font. Below the title, the text 'L100', 'Flavio Pereira', 'Oracle Cloud Infrastructure', and 'October 2019' is aligned to the left. In the bottom right corner, there is a small red square containing a white number '0'. The overall design is clean and professional, with a focus on the Oracle brand and the technical subject matter.

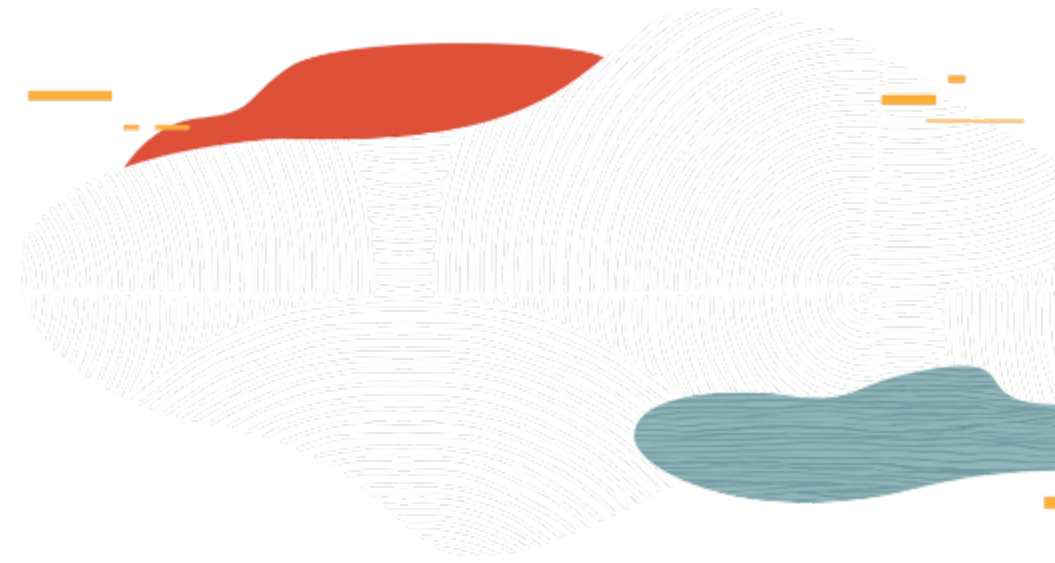
# Web Application Firewall

**L100**

Flavio Pereira

Oracle Cloud Infrastructure

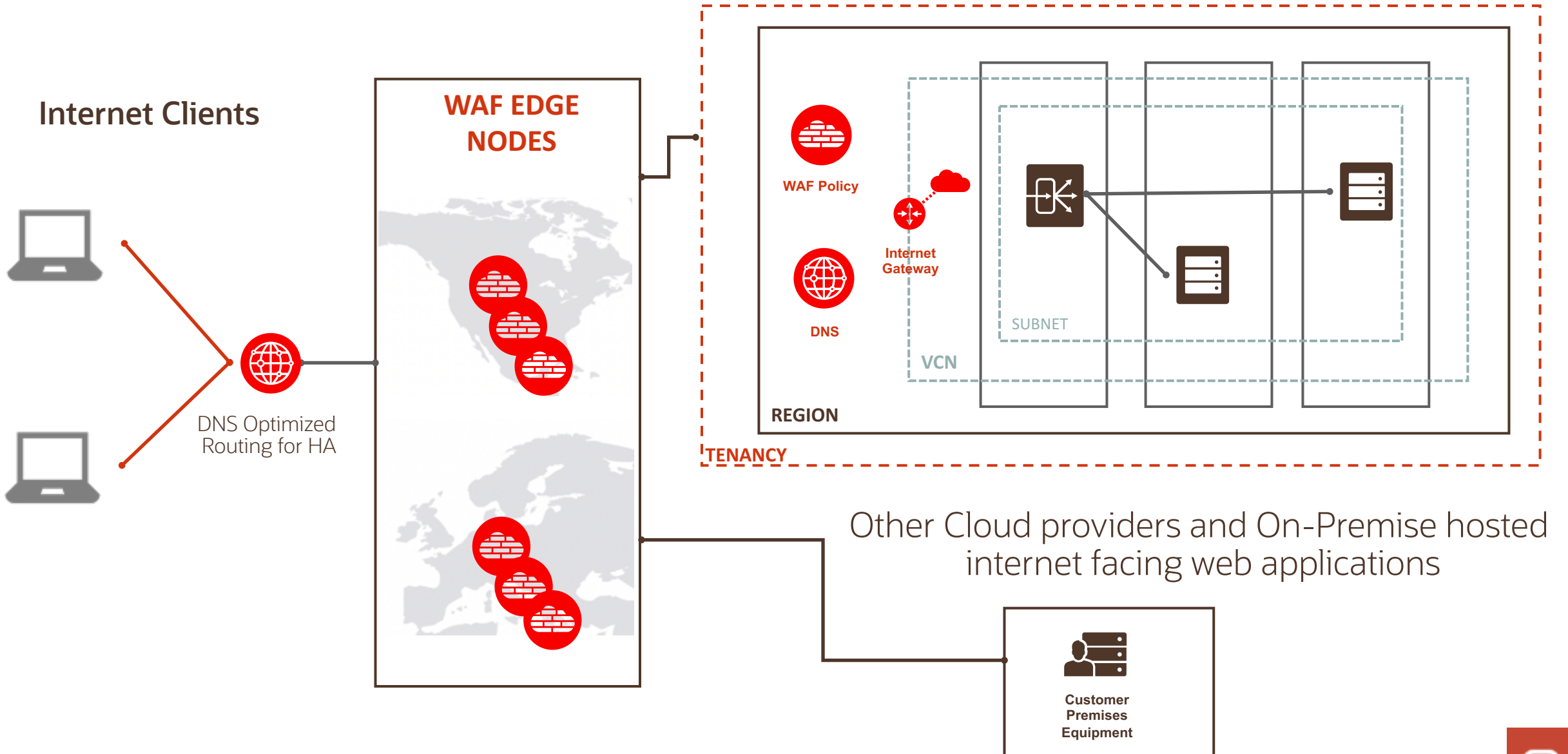
October 2019



# WAF Architecture and Benefits



# Oracle Cloud Infrastructure WAF Architecture



# WAF Point of presences (PoPs)





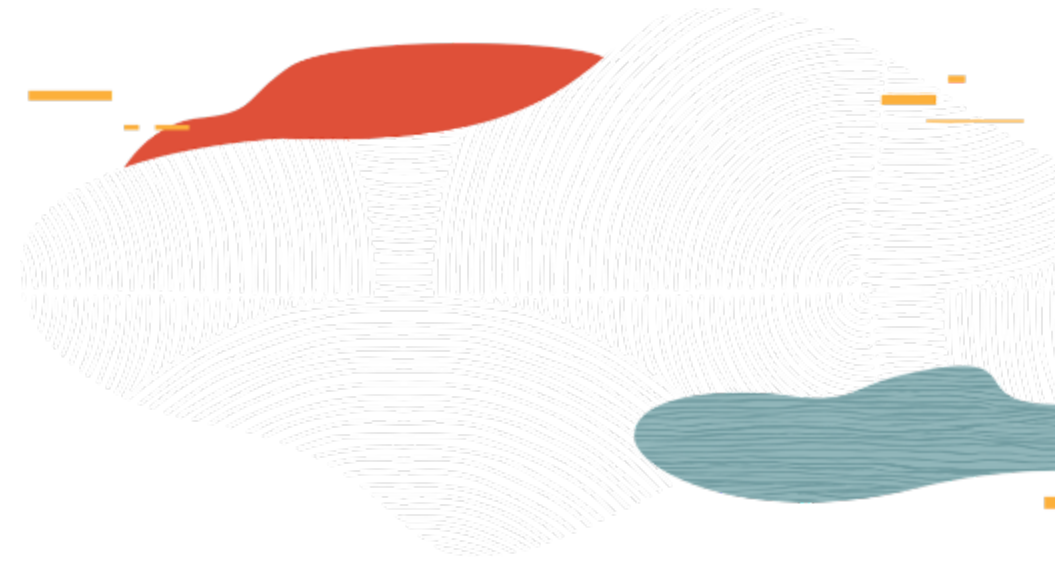
# Shared Responsibility Model for WAF

Responsibility	Oracle	Customer
Configure WAF on-boarding dependencies (DNS, Ingress rules, network)	No	Yes
On-board/Configure the WAF policy for the web application	No	Yes
Construct new rules based on the new vulnerabilities and mitigations	Yes	No
Review and accept new recommended rules	No	Yes
Keep WAF infrastructure patched and up-to-date	Yes	No
Monitor data-plane logs for abnormal, undesired behavior	Yes	Yes
Monitor for Distributed Denial of Services (DDoS) attacks	Yes	No
Provide High Availability (HA) for the WAF	Yes	No
Tune the WAF's access rules and bot management strategies for your traffic	No	Yes

# Benefits of Oracle Cloud Infrastructure WAF

- Consolidate threat intelligence
- Push malicious traffic farther away from your origin
- Augment your Security Operations Center (SOC)
- Better Visibility into internet traffic metrics
- Consolidate governance through policies, audit, and tagging
- Off-load patching and maintenance of Web Application Firewall
- Global traffic management and optimization
- Consolidate WAF policy for OCI and non-OCI applications
- Low cost

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# Demo: Web Application Firewall



# Summary

- OCI WAF is a cloud-based Web Application firewall and PCI compliant
- Offer granular access control, geo blocking and URL blocking
- Protect any internet-facing endpoint from cyberattacks and malicious actors
- All traffic flows through the OCI WAF edge nodes before arriving at your application server

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