



IT SECURITY SEMINAR "STALLION 141113"

Security, NGFW fallacy & going Beyond IP?

Juniper Networks - Jaro Pietikäinen



JUNIPER TODAY

2012 Revenue: \$4.4 Billion

Global Presence: Offices In 47 Countries

+9000 Employees



#4 In Ethernet Switching
#3 In Edge Routing



#2 In Core
Routing, SP Routing,
Network Security



#1 In High-end
Firewall

Doing Business With 100% Of Fortune 100

Powering 6 Of The World's 7 Largest Stock Exchanges

Mission: Build the BEST

COMMITTED TO INNOVATION AND INVESTMENT

Security is core to our business at Juniper

\$1B
global
revenue

Market Leader



Remote Access
SSL VPN



High-End
Firewalls



Network
Security

Global Powerhouse

Serving customers in **47 countries**, with a worldwide community of **over 1000 Reseller Partners**

Dedicated Innovator

Juniper R&D is 23% of revenues – a figure no one else in the industry comes close to on a percentage basis

New in 2012: WebApp Secure - A differentiated approach to security with our Intrusion Deception capabilities

New in 2013: Juniper DDoS Secure to prevent volumetric and “low and slow” DDoS attacks

1

Introduction

Securing Web Applications in the Datacenter

Securing Web Applications in the Datacenter

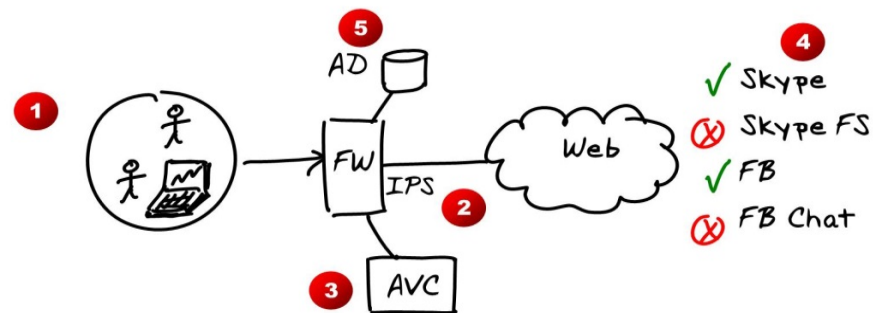
1 Datacenter

2 Campus/Branch

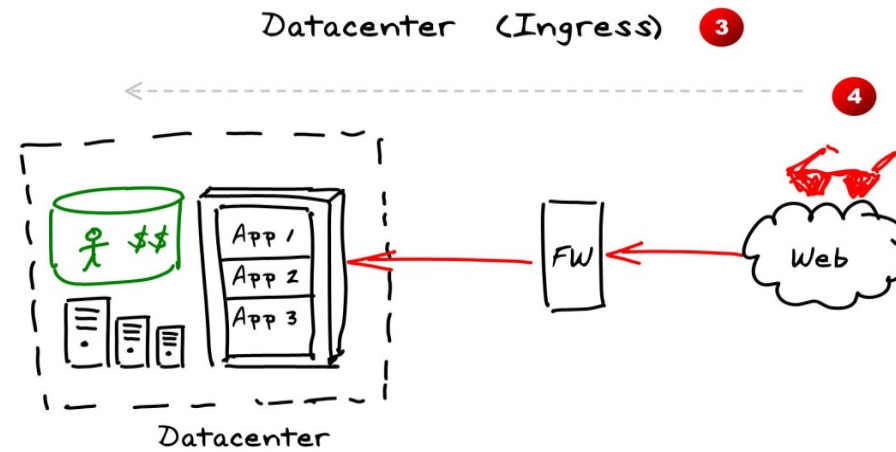
Securing Web Applications in the Datacenter

Datacenter

Campus/Branch

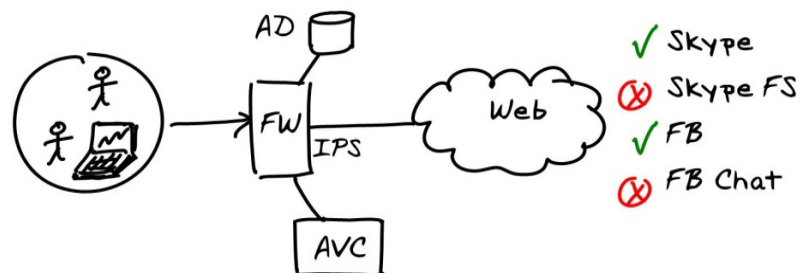


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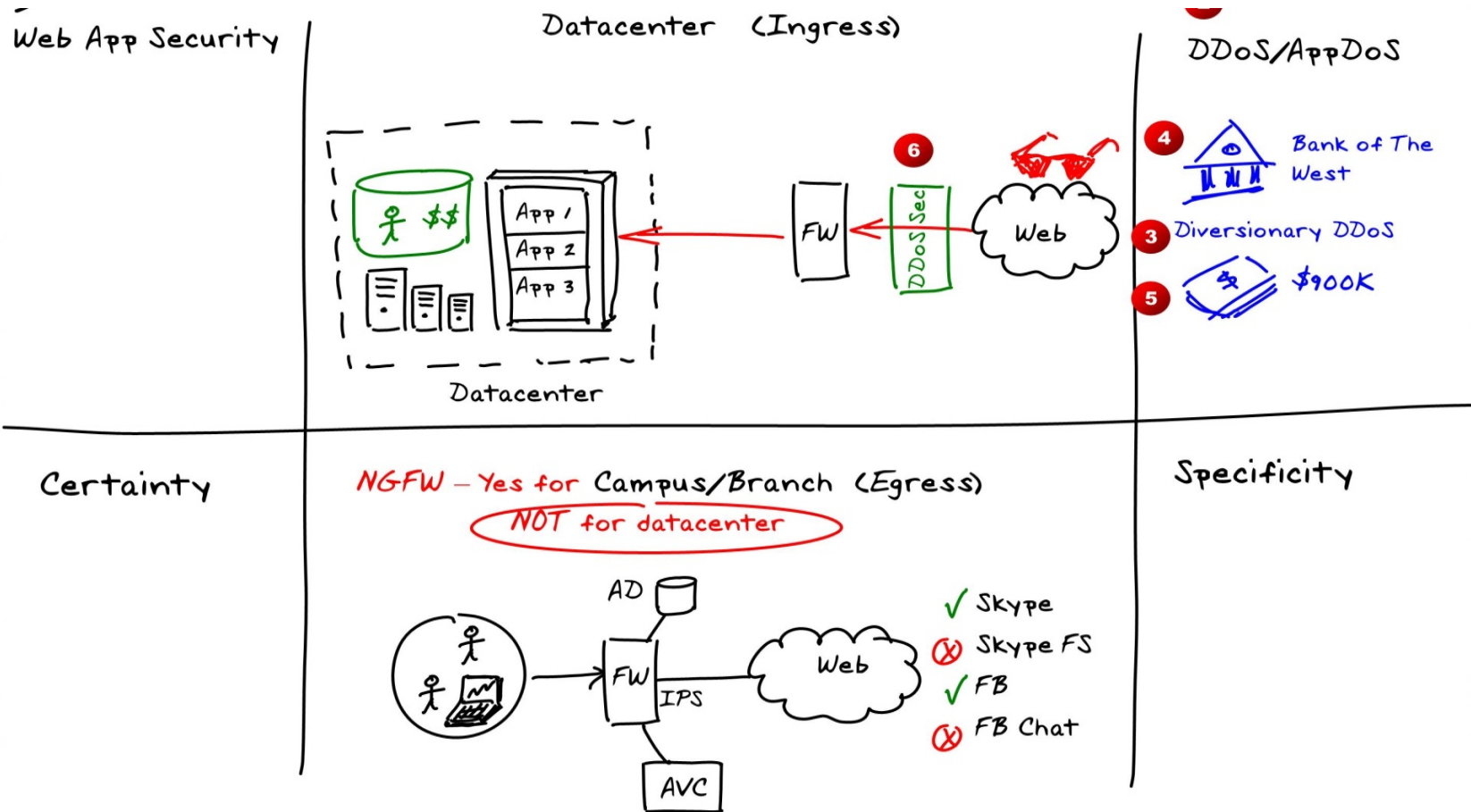


NGFW - Yes for Campus/Branch (Egress) ②

① NOT for datacenter



Securing Web Applications in the Datacenter



Securing Web Applications in the Datacenter

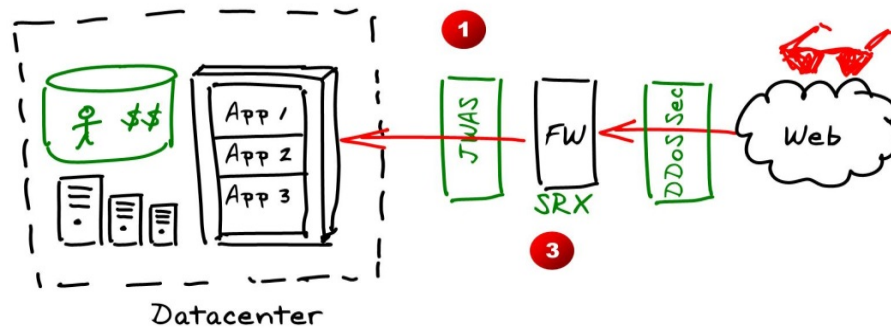
Web App Security

2

Brown Printing

- Up in 20 min.
- 1 mo. - 210 incidents & 5 real-time attacks

Datacenter (Ingress)



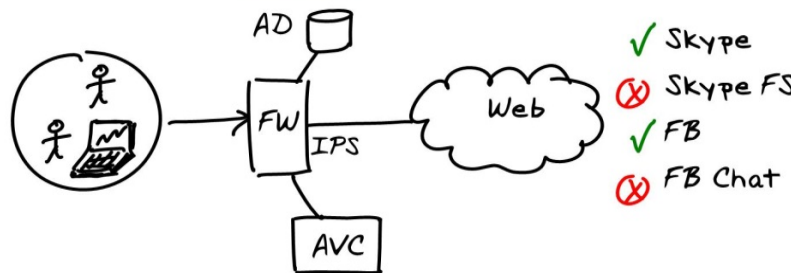
DDoS/AppDoS

Bank of The West
 Diversionary DDoS
 \$900K

Certainty

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NOT for datacenter



Specificity

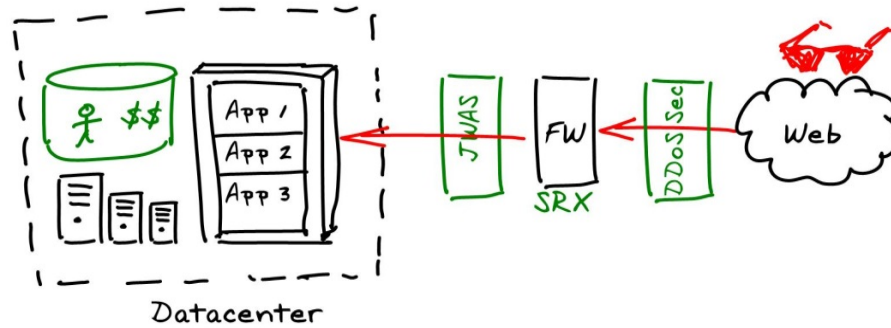
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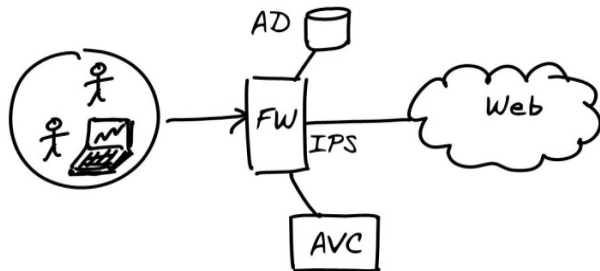
Certainty

2 elle

1 Intrusion Deception

NGFW - Yes for Campus/Branch (Egress)

NOT for datacenter



- ✓ Skype
- ✗ Skype FS
- ✓ FB
- ✗ FB Chat

Specificity



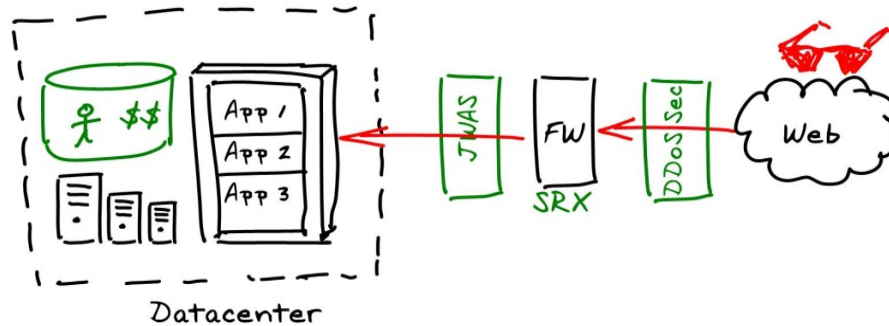
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DDoS/AppDoS

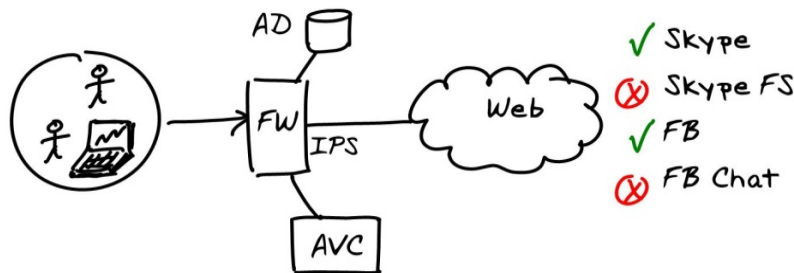
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Intrusion Deception

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Specificity

Qatar (1.8M) ²
 Large Co. (10K)
 Single IP
 Web

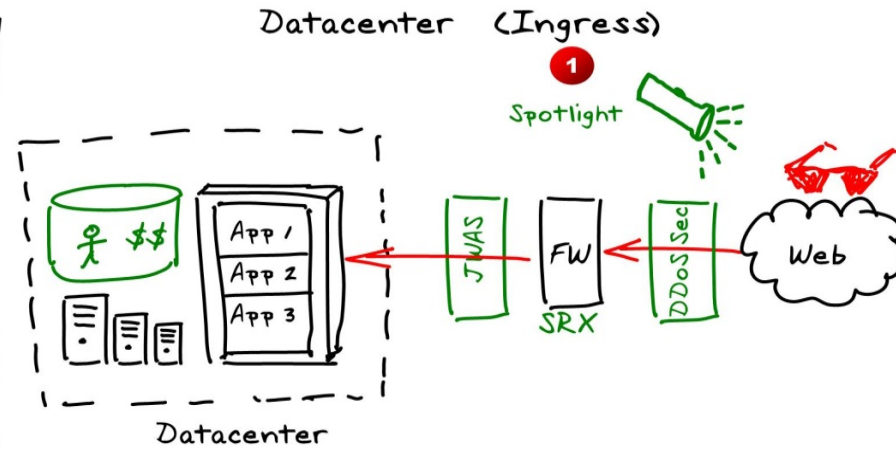
1 Going Beyond The IP Address

Securing Web Applications in the Datacenter

Web App Security

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DDoS/AppDoS

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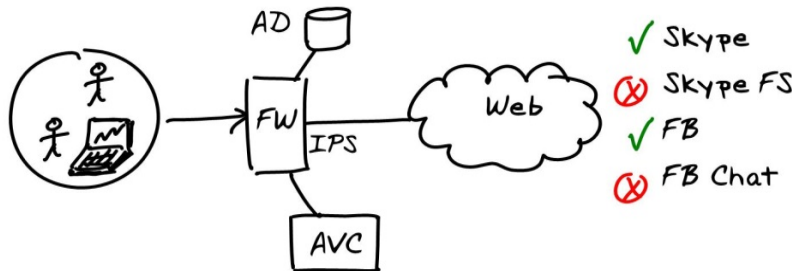
Certainty



Intrusion Deception

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Going Beyond The IP Address



THE SMARTEST WAY TO PROTECT WEBSITES AND WEB APPS FROM ATTACKS

Junos WebApp Secure
Junos Spotlight Secure

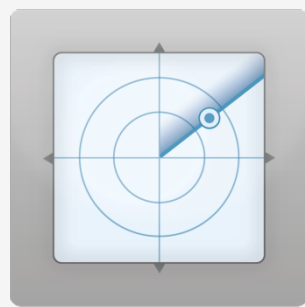


THE JUNOS WEBAPP SECURE ADVANTAGE DECEPTION-BASED SECURITY



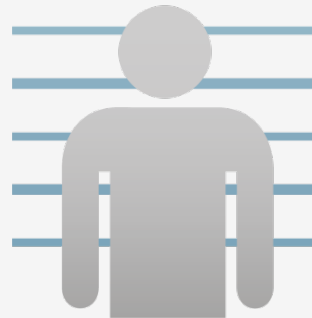
Detect

“Tar Traps” detect threats without false positives.



Track

Track IPs, browsers, software and scripts.



Profile

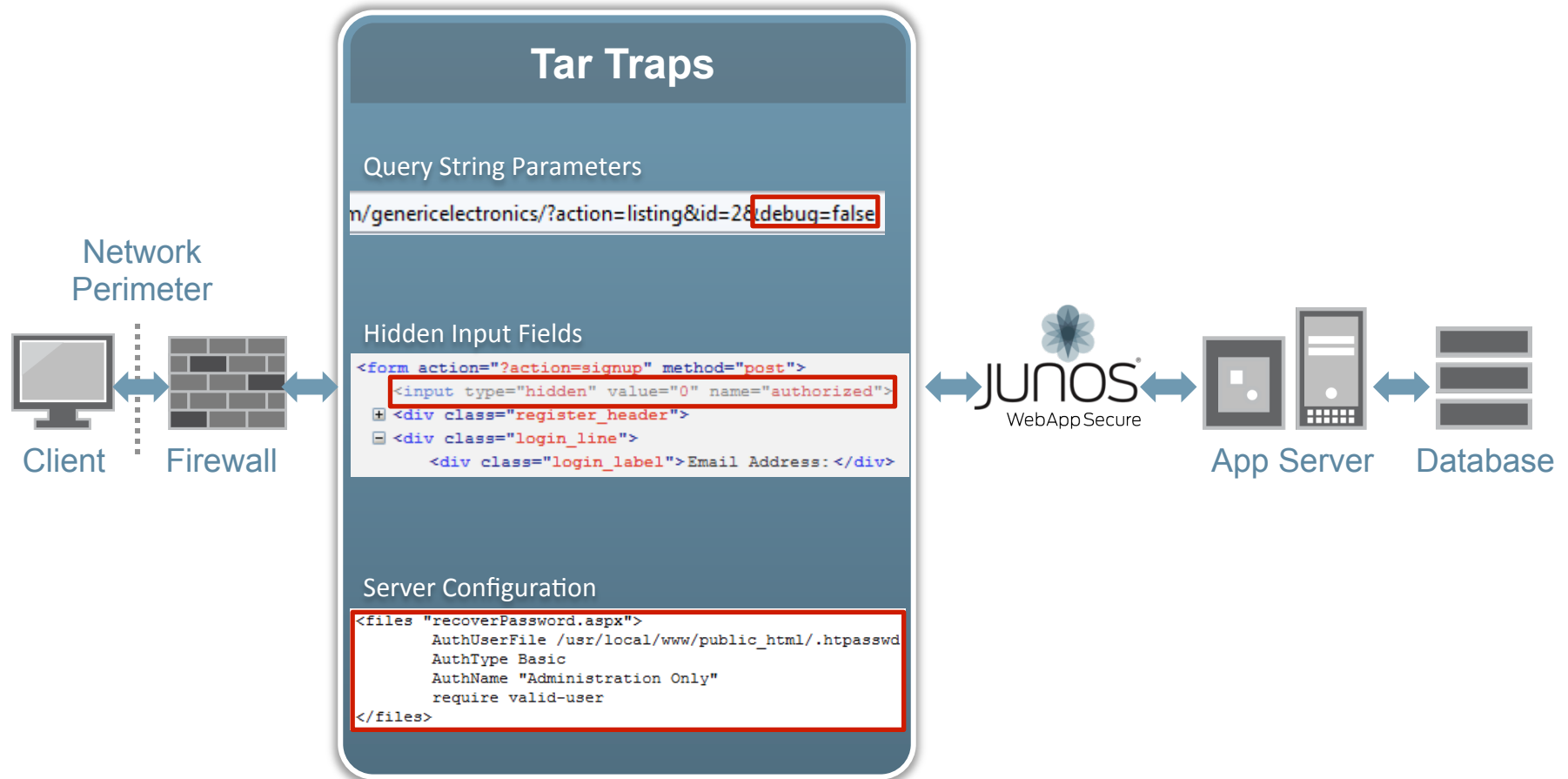
Understand attacker’s capabilities and intents.



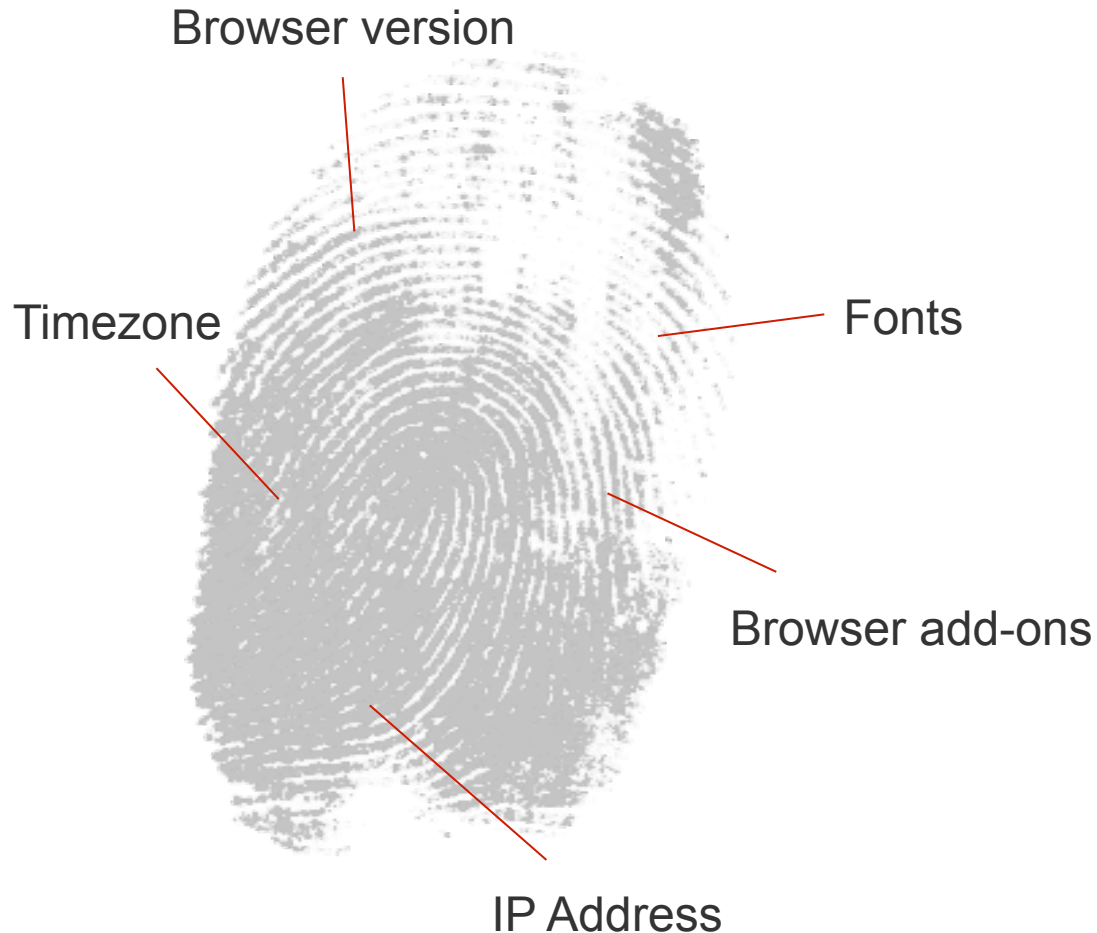
Respond

Adaptive responses, including block, warn and deceive.

DETECTION BY DECEPTION



FINGERPRINT OF AN ATTACKER



200+
attributes used to
create the fingerprint.

~ Real Time
availability of
fingerprints

False Positives
nearly zero

JUNOS SPOTLIGHT SECURE

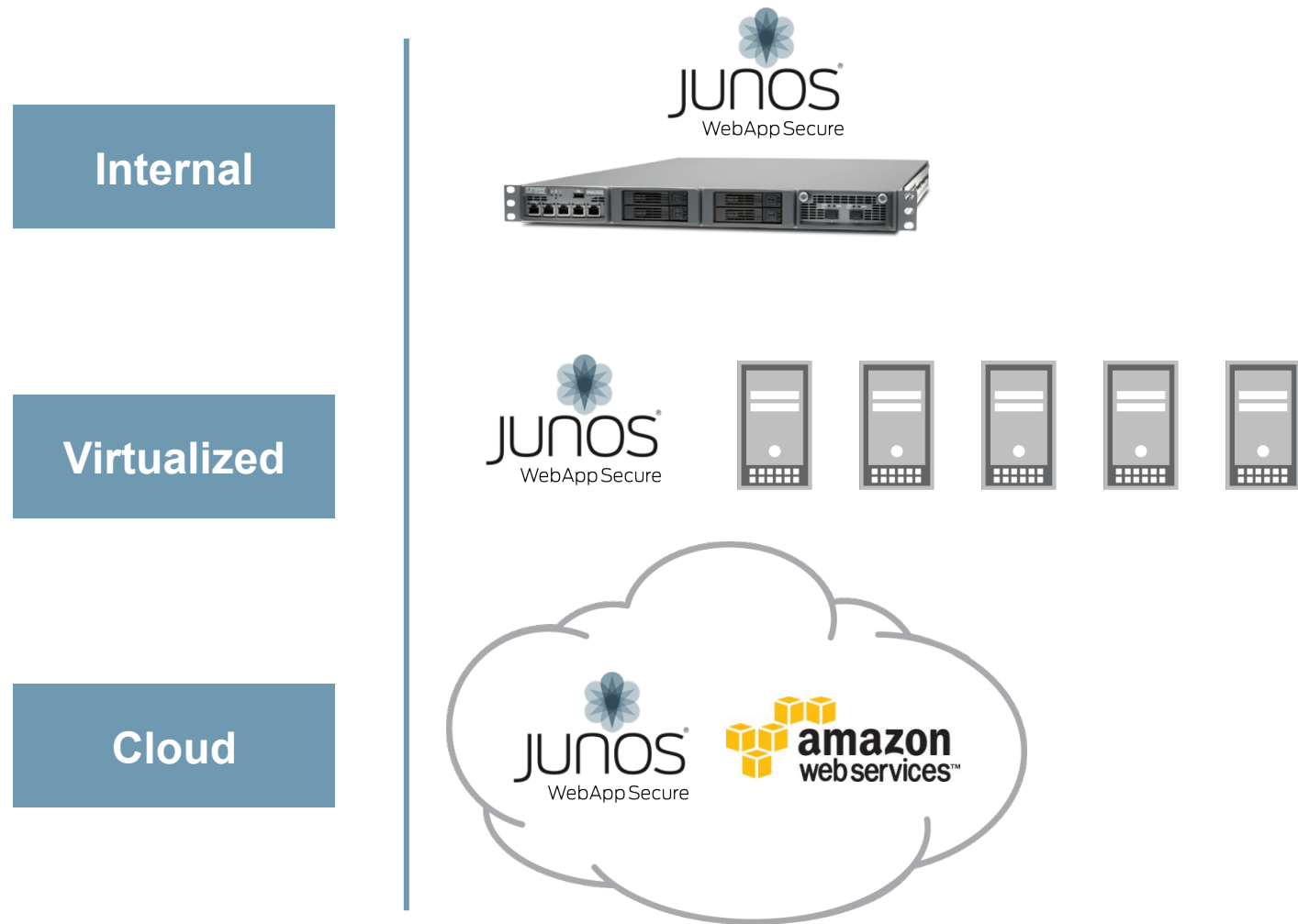


RESPOND AND DECEIVE

Junos WebApp Secure Responses	Human Hacker	Botnet	Targeted Scan	IP Scan	Scripts & Tools Exploits
Warn attacker	●				
Block user	●	●	●	●	●
Force CAPTCHA	●	●	●	●	●
Slow connection	●	●	●	●	●
Simulate broken application	●	●	●	●	●
Force log-out	●	●			●

All responses are available for any type of threat. Highlighted responses are most appropriate for each type of threat.

UNIFIED PROTECTION ACROSS PLATFORMS





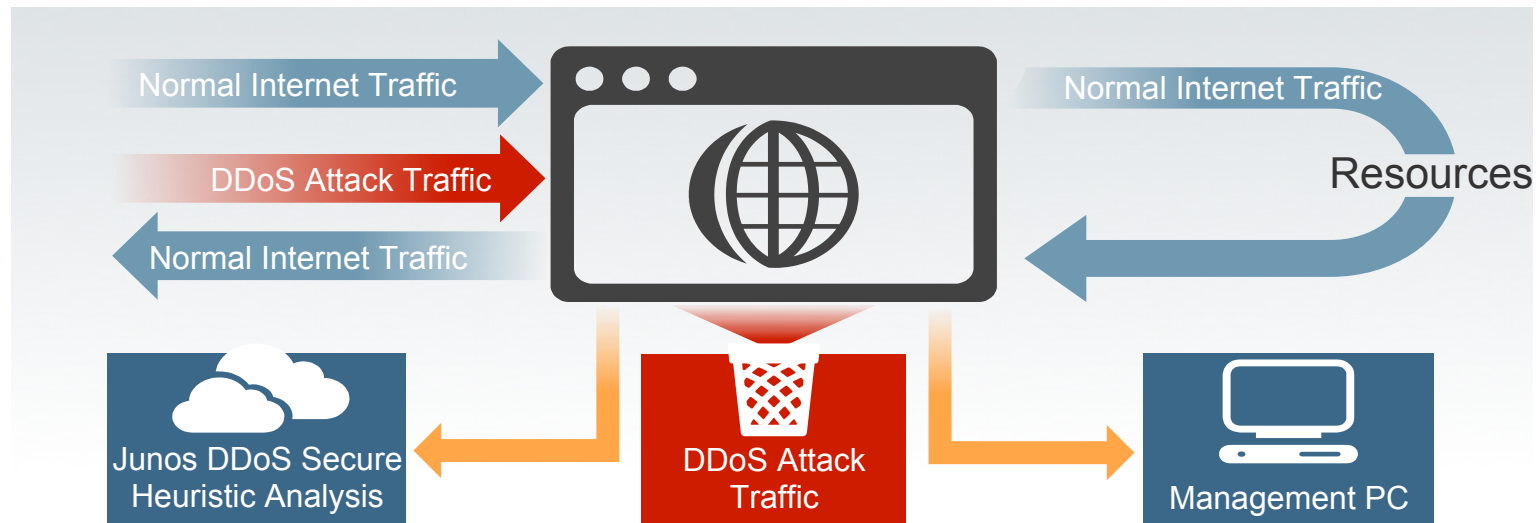
INTRODUCTION TO JUNOS DDoS SECURE

Advanced DDoS Mitigation Technology



DDOS SECURE

Prevents volumetric and “low and slow” DDoS attacks



Comprehensive DDoS prevention

- Identifies and deters DDoS attacks, including those targeting specific apps
- Ensures availability for legitimate users while blocking malicious traffic, even under the most extreme attack conditions

What's unique?

- 80% effective 10 minutes after installation
- 99.999% effective after 6-12 hours
- Dynamic Heuristic Technology
- Delivered in 1Gb to 40Gb HA appliances
- Multi tenanted and fully IPv6 compliant

JUNOS DDoS SECURE VARIANTS

Variants

- 1U 100M/1G/3G/10G
- 10U 40G
- Standalone
- Fail-safe Card
 - Fiber (1G SX/LX 10G SR/LR)
 - Copper (10M/100M/1G)
- Active – Standby
- Active – Active (Asymmetric Routing)
- VMware Instance



everywhere