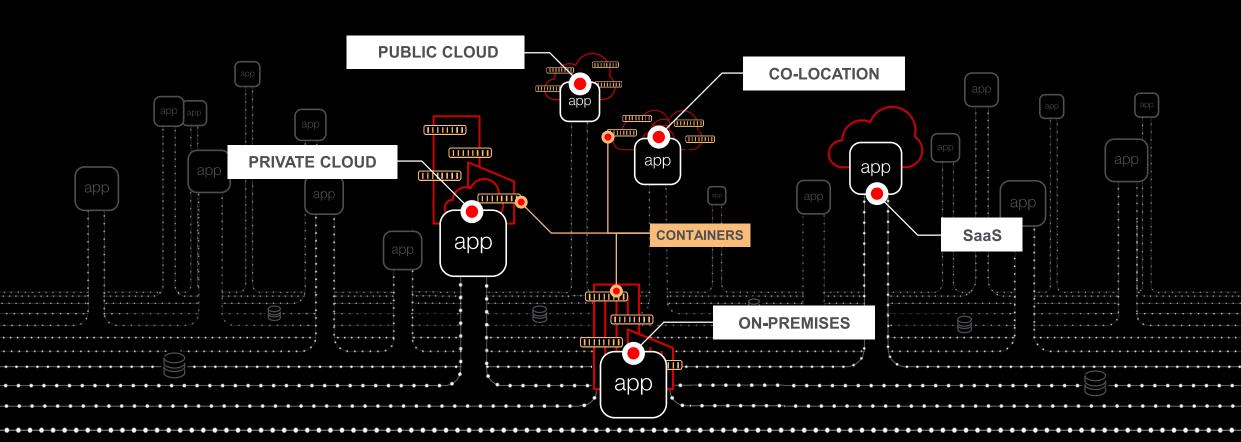
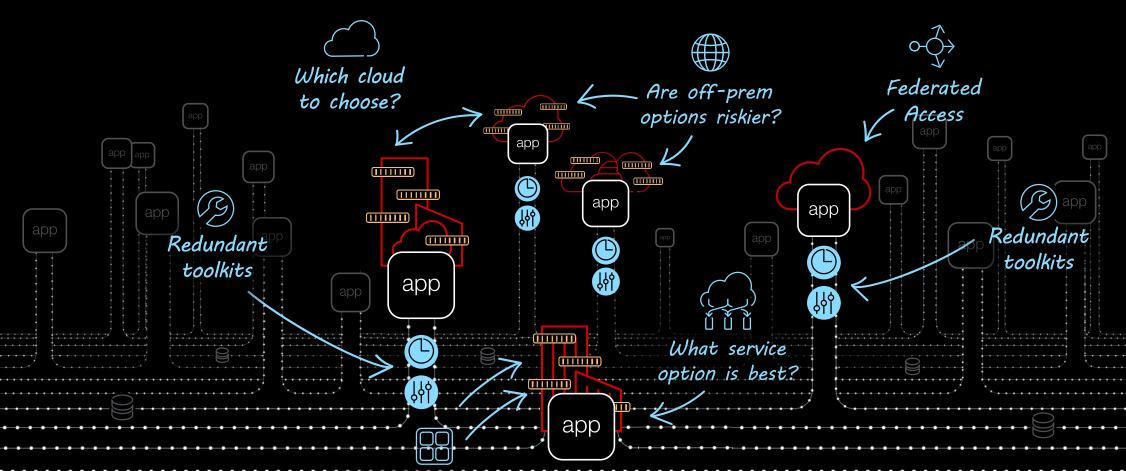


Now, Your Apps Are Everywhere



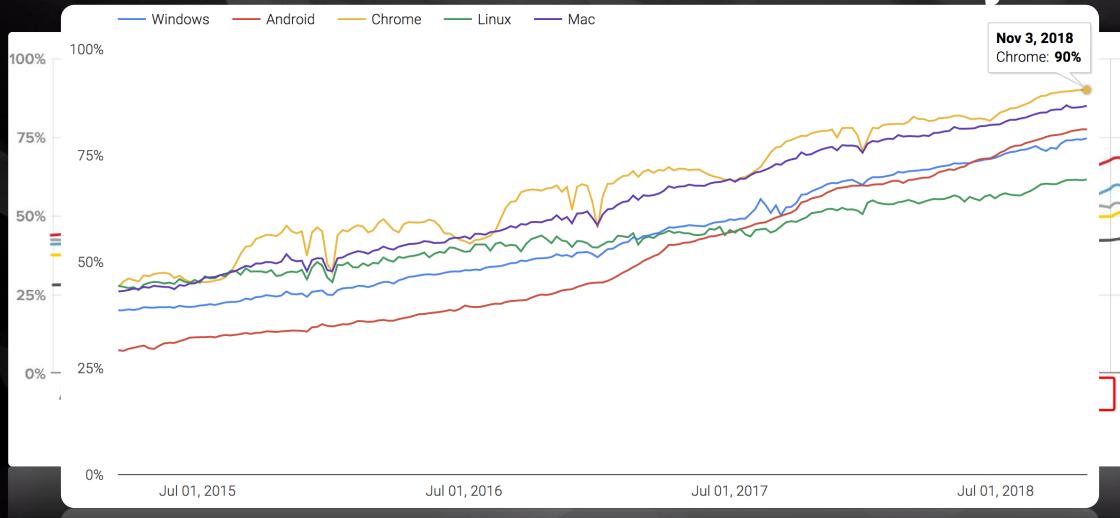
So Are New Challenges



Micro-services in containers

yet profound The quiet revolution

For the first time in human history



the majority of the Internet was encrypted.

High profile vulnerabilities

Prevalence of selected high profile vulnerabilities by industry vertical

VERTICAL	CROSS-SITE SCRIPTING	SQL INJECTION	CRYPTOGRAPHIC ISSUES	CREDENTIALS MANAGEMENT
Manufacturing	20.4%	13.9%	22.9%	14.6%
Healthcare	45 .4%	28.4%	72.9%	47 .7%
Government	68.5%	40.0%	56.1 %	30.8%
Financial Services	51.0 %	31.3%	62.0%	41.2%
Retail & Hospitality	45 .9%	33.5%	68.7%	3 8.6%
Technology	51.1 %	32.4%	67.5%	46.6%
Other	43.4%	27.6%	64.0%	44.2%
Other	19170	271070		112/0

Other 43.4%

Wait, what?





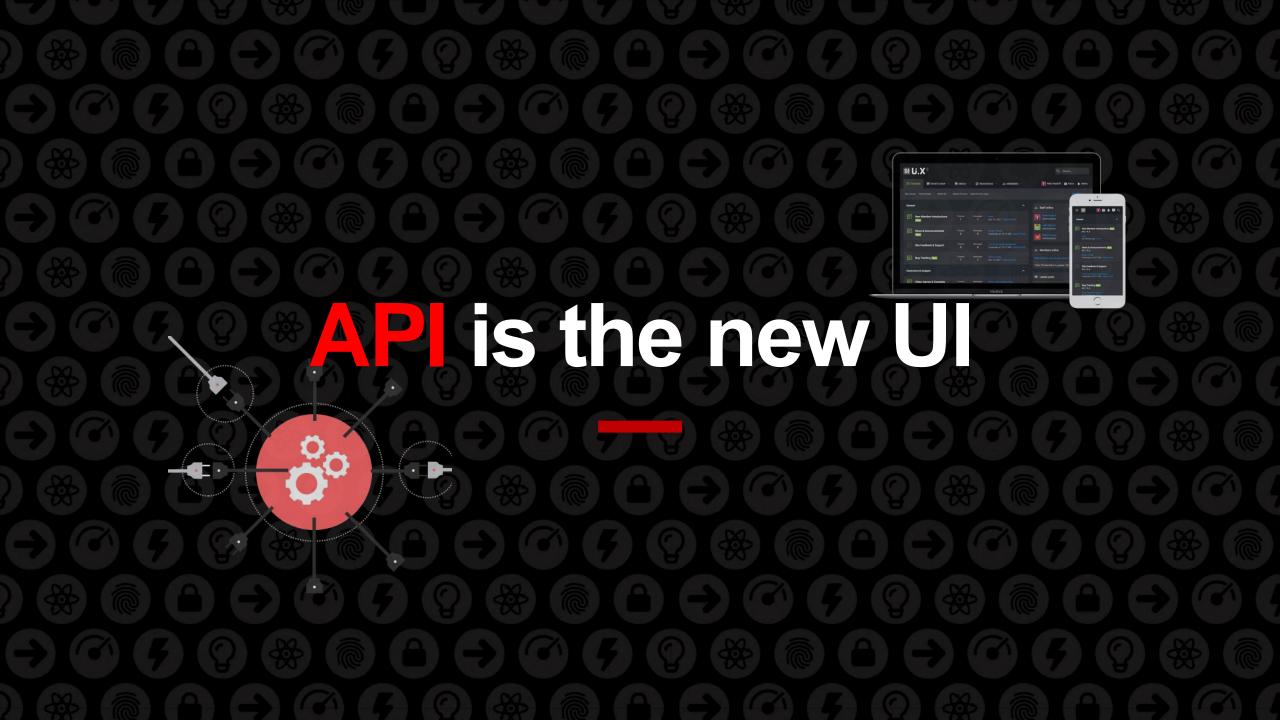




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Innovation and Technology Transformation









TRANSPORTATION



MANUFACTURING



UTILITIES



AGRICULTURE



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WebSocket

- WebSocket provides a simple framing layer on top of HTTP
- Allows "conversational" connection

Key Benefits:

- Two-way communication
- Connections that are persistent
- Full-duplex
- Low HTTP and TCP overhead
- WebSocket protocol is <u>RFC 6455</u>



API flaws said to have left Symantec SSL certificates vulnerable to compromise



Without authentication or verification, attackers could obtain anyone's certificate simply by altering a UID

altering a UID

Security

Facebook: Up to 90 million addicts' accounts slurped by hackers, no thanks to crappy code

Miscreants harvested tens of millions of profiles via 'View as...' feature, dodgy API



ars TECHNICA

BIZ & IT TECH SCIENCE POLICY CARS GAMING & CULTURE

NUMBER PORTABILITY —

T-Mobile customer data plundered thanks to bad API

T-Mobile missed bug that allowed harvesting of IMSI numbers, security question answers.

T-Mobile missed bug that allowed harvesting of IMSI numbers, security question answers



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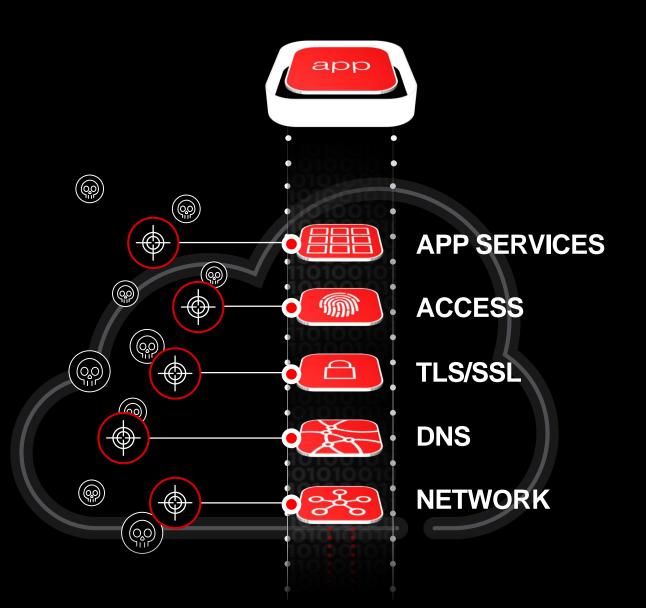
Thingbots Have Been Hiding In Plain Sight



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Increased Complexity Means Increased Risk

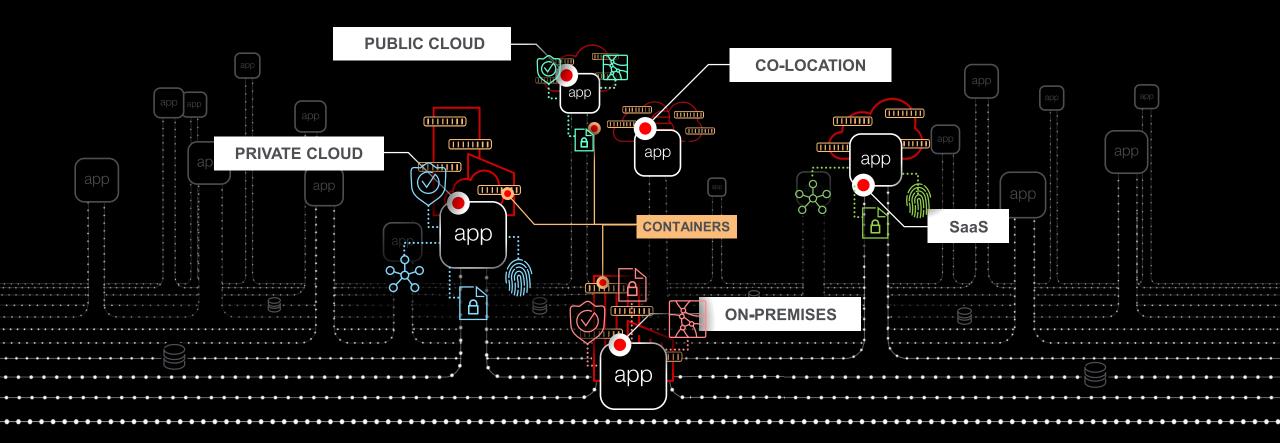
Apps are the gateway to your data.





An Application Services Company

F5 Networks





AWAF ANTI-BOT API FW



APP AWARE LB DDOS



TLS DNS



ACCESS CONTROL



SECURITY POLICIES

How to Secure Apps?

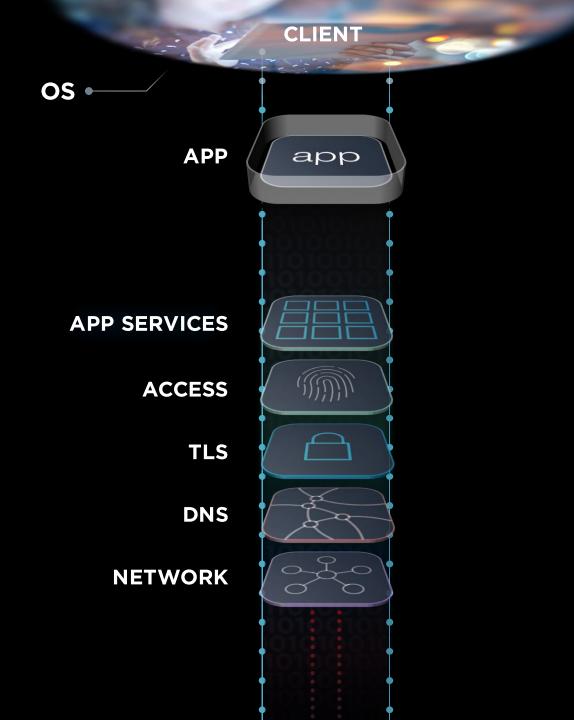


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VISIBILITY

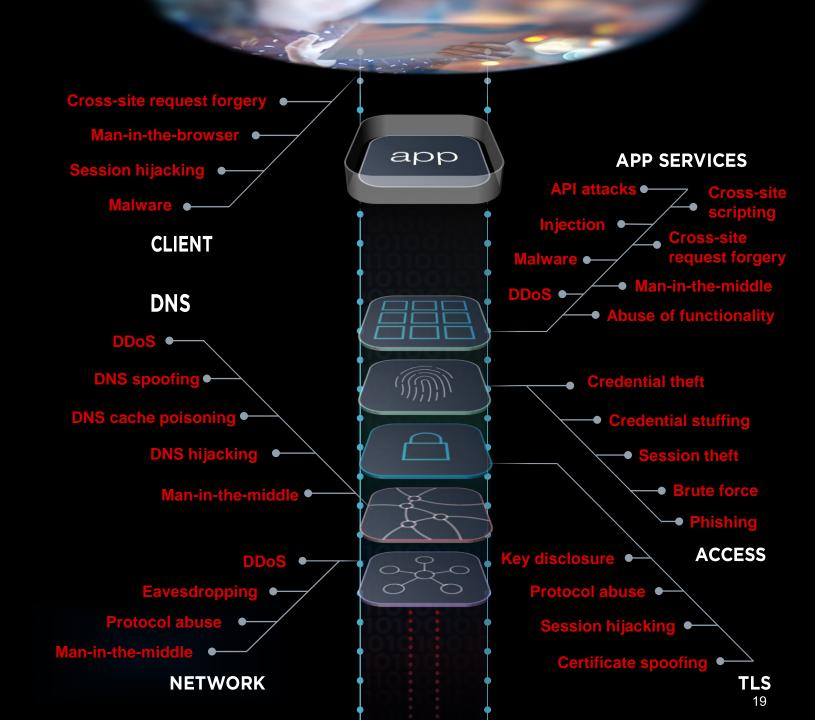
Visibility into the app...





VISIBILITY

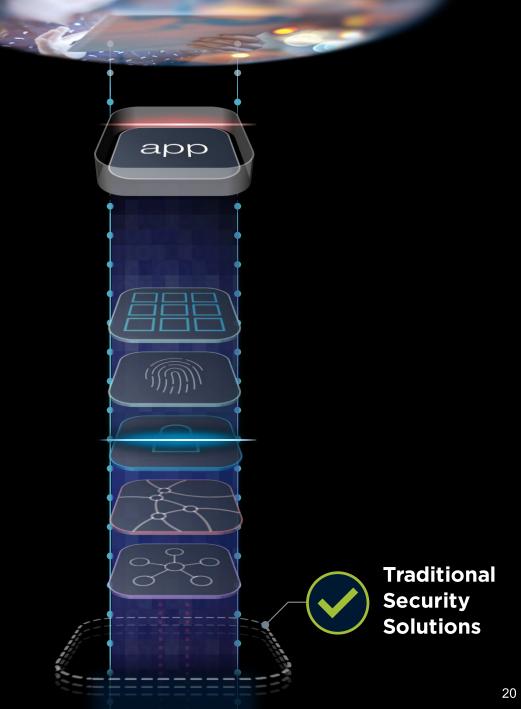
Visibility into threats...





VISIBILITY

Visibility through decryption ...

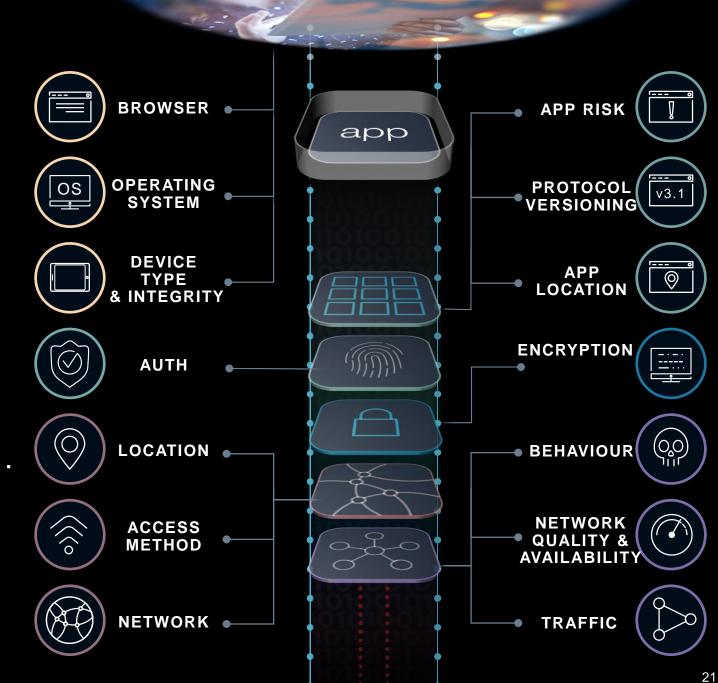




CONTEXT

Understand

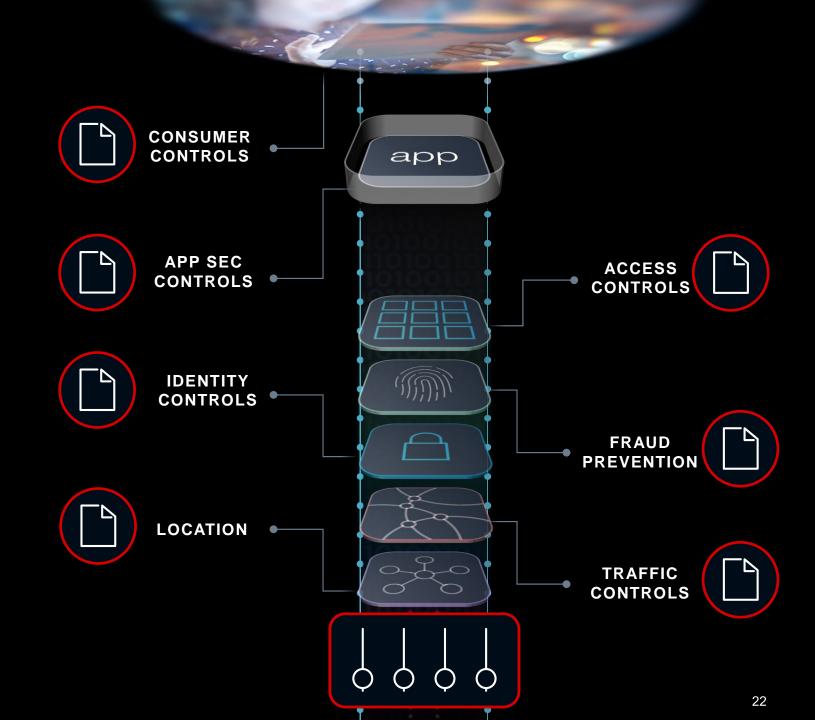
- who, how, where, when...
- usage, behaviour, abnormal ...
- risk, protocol, app...





CONTROL

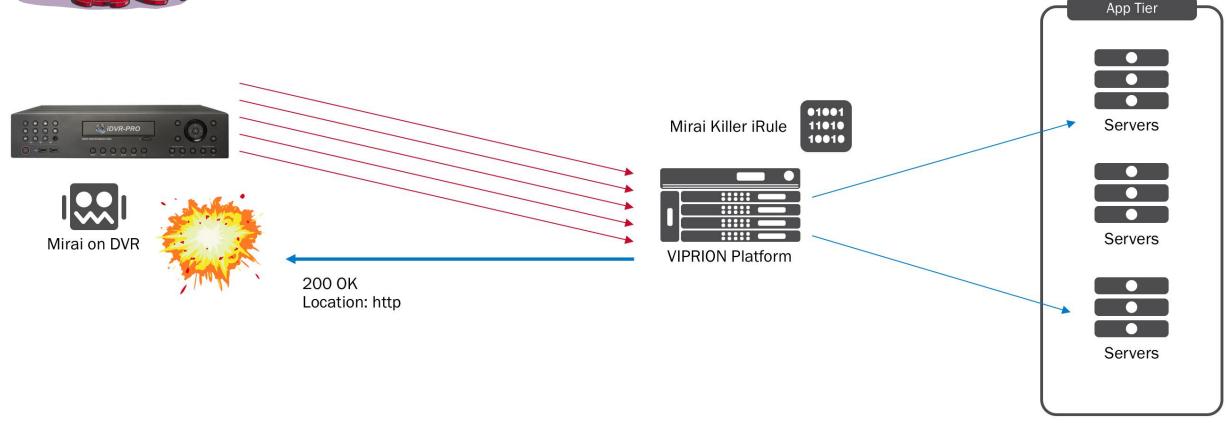
Asses risk and make informed decisions about security controls to protect your apps and data while automating provisioning





ARTICLE

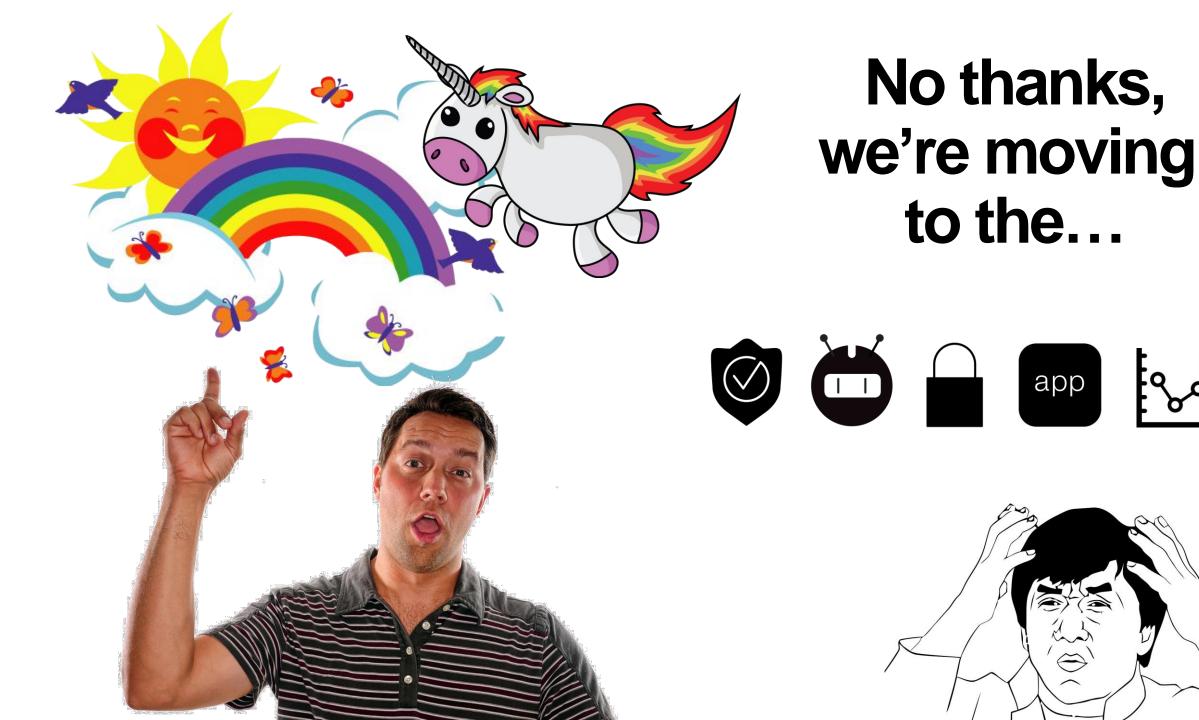
Mirai Strikeback - an iRule to kill IoT Bot Processes from your F5

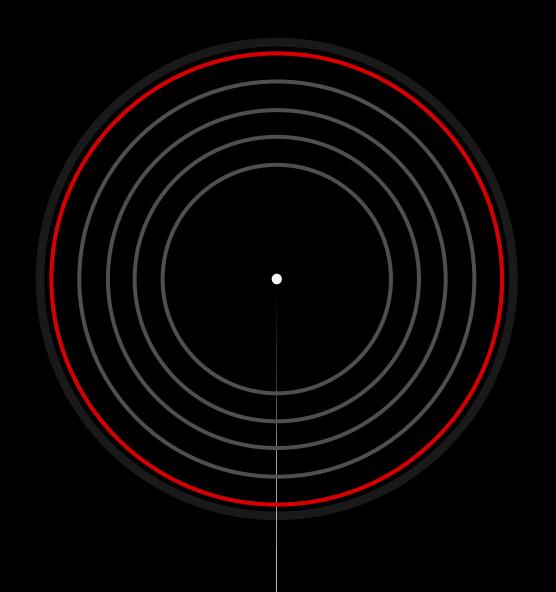




Clientless Fraud Protection







Multi-Cloud













On-prem

Private Cloud

Public Cloud

Co-located

SaaS

Containers



SOLUTIONS FOR AN APPLICATION WORLD