

# NEXT GENERATION APP SECURITY





Paolo Arcagni – <u>p.arcagni@f5.com</u> SE Manager Italy & Malta



# **Maintaining Security Is Challenging**

### Webification of apps



**71%** of internet experts predict most people will do work via web or mobile by 2020.





**95%** of workers use at least one personal device for work.

**130 million** enterprises will use mobile apps by 2014

### **Evolving security threats**

**58%** of all e-theft tied to activist groups.

81% of breaches involved hacking



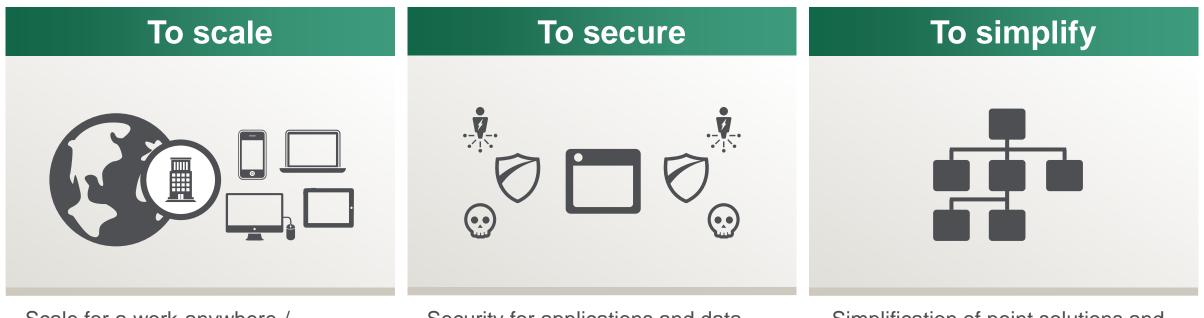
### **Shifting perimeter**

**80%** of new apps will target the cloud.

**72%** IT leaders have or will move applications to the cloud.



### **Your Business Needs**

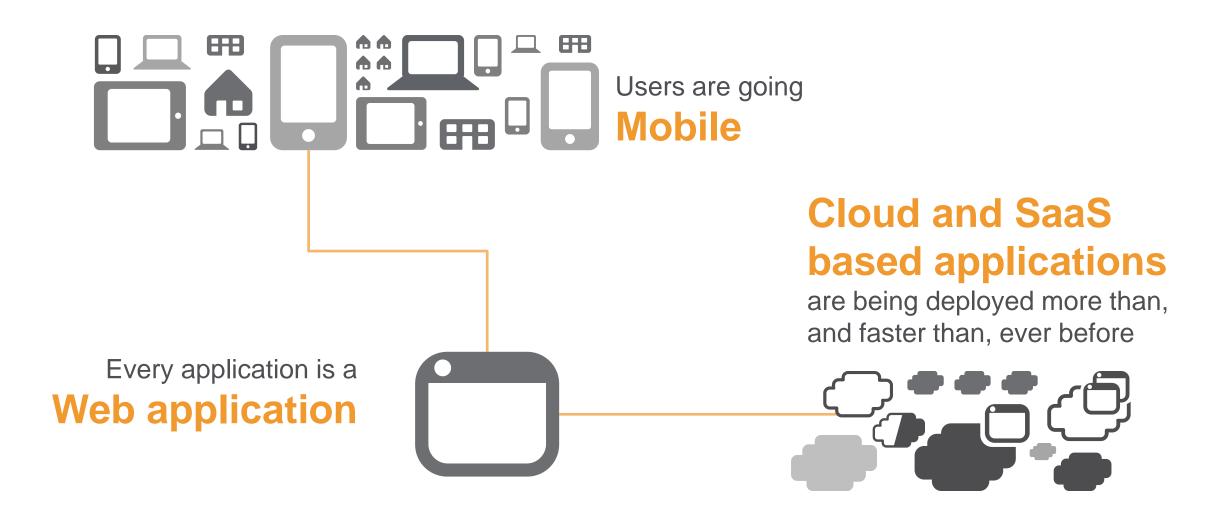


Scale for a work-anywhere / SSL everywhere world.

Security for applications and data against sustained attacks.

Simplification of point solutions and complex firewall configurations.

### The 21<sup>st</sup> century application infrastructure



20% of F5 customers have a cloud first strategy

The State of Application Delivery, F5 Networks, Jan. 2015

# April - May of 2015: emails sent to legitimate businesses with the threat of massive DDoS

April - May of 2015: emails sent to legitimate businesses with the threat of massive DDoS attacks

Hong Kong Banks Hit By Bitcoin Ransom Demands

DD4BC cyber extortion gang targets key European sectors

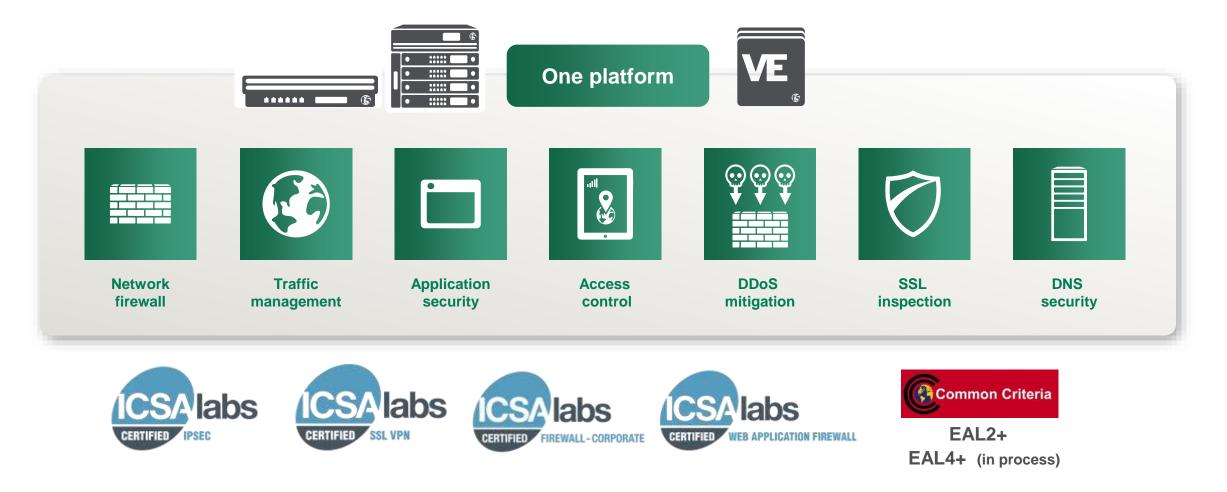
- DD4BC claims ~400 Gbps
- Extortion demands starting at 25 Bitcoins
- Initially targeted Bitcoin, Payment providers, banks and now moving to other targets
- UDP Amplification Attacks (NTP, SSDP, DNS); TCP SYN Floods; and Layer 7 attacks

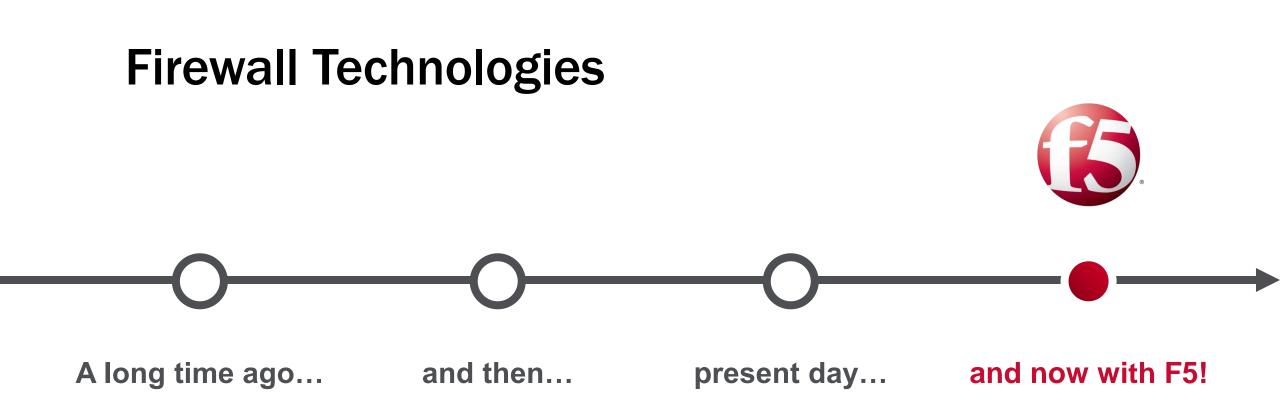
#### Sample from actual email

Please note that it will not be easy to mitigate our attack, because our current UDP flood power is 400-500 Gbps, so don't even bother. At least, don't expect cheap services like CloudFlare or Incapsula to help...but you can try. :)

### **Introducing F5's Application Delivery Firewall**

Aligning applications with firewall security



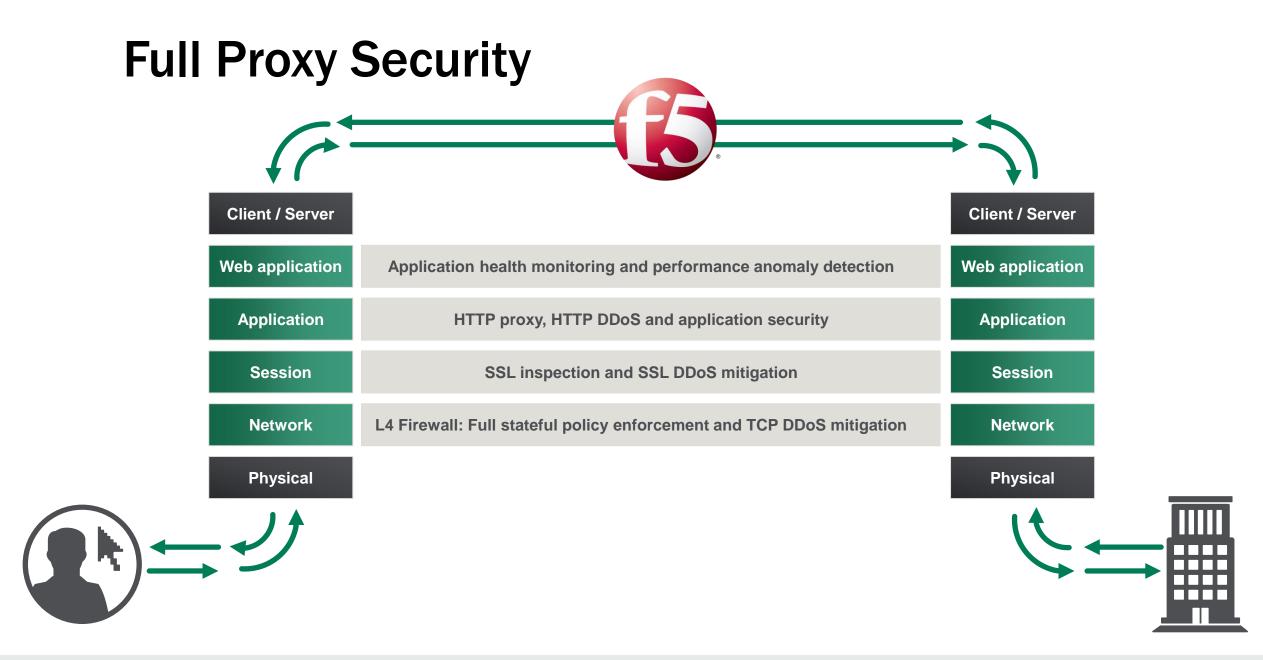


Firewalls started out as proxies to maximize security

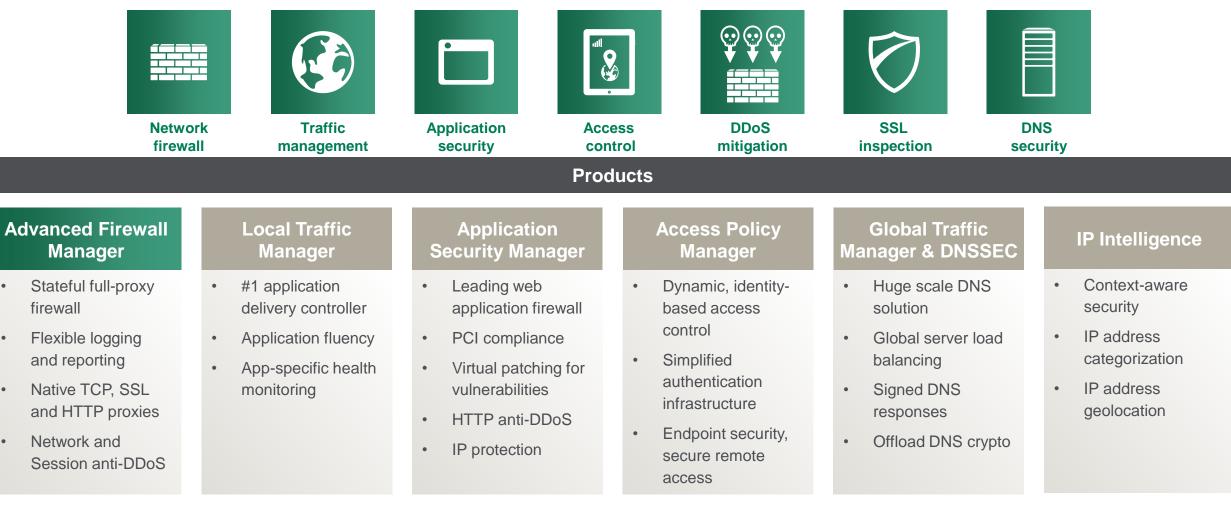
**Stateless filters** accelerated firewalls, but weakened security

Stateful and next-gen firewalls added security with deep inspection, but still fall short of proxies

F5 brings full proxy back to firewalls: highest security matched by a high-scale and highperformance architecture

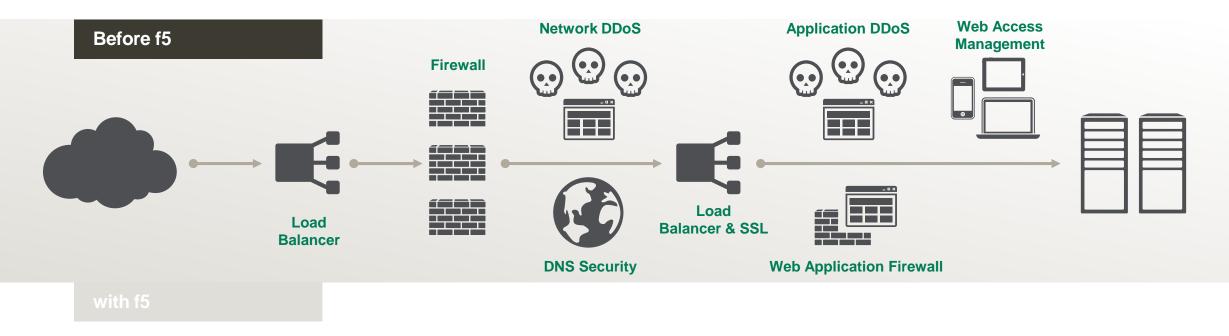


### **Application Delivery Firewall**



#### PROTECTING THE DATA CENTER

Use case

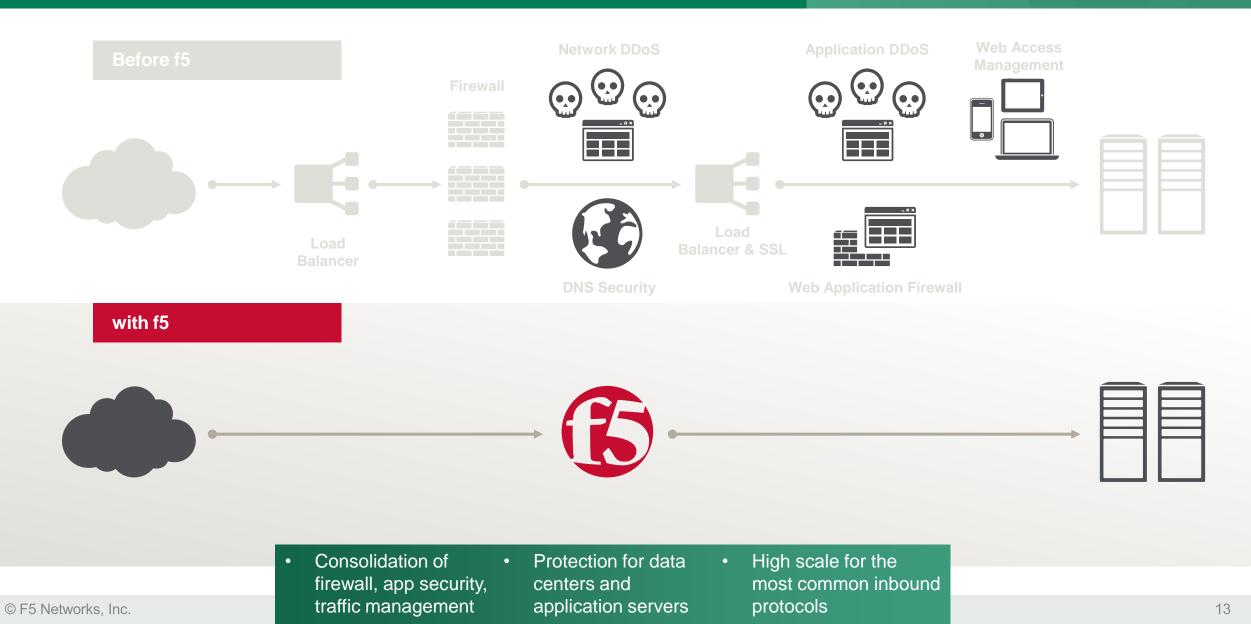




- Consolidation of firewall, app security, traffic management
- Protection for data centers and application servers
- High scale for the most common inbound protocols

#### **PROTECTING THE DATA CENTER**

Use case





OSI stack	Physical (1)	Data Link (2)	Network (3)	Transpo	ort (4)	Session (5)	Presentat	ion (6)	Application (7)	OSI stack
F5 mitigation technologies	Network attacks				Session attacks			Application attacks		
	SYN Flood, Connection Flood, UDP Flood, Push and ACK Floods, Teardrop, ICMP Floods, Ping Floods and Smurf Attacks			S,	DNS UDP Floods, DNS Query Floods, DNS NXDOMAIN Floods, SSL Floods, SSL Renegotiation			Slowloris, Slow Post, HashDos, GET Floods		chnologies
	<b>BIG-IP AFM</b> SynCheck, default-deny posture, high-capacity connection table, full- proxy traffic visibility, rate-limiting, strict TCP forwarding.				<b>BIG-IP LTM and GTM</b> High-scale performance, DNS Express, SSL termination, iRules, SSL renegotiation validation			<b>BIG-IP ASM</b> Positive and negative policy reinforcement, iRules, full proxy for HTTP, server		F5 Mitigation Technologies
	hardware solution th	acket Velocity Accelerator (PVA) is a purpose-built, customized ardware solution that increases scale by an order of magnitude above oftware-only solutions.							performance anomaly detection	

Withstand the

largest attacks

Gain visibility and

detection of SSL

encrypted attacks

14

Protect against DDoS

at all layers – 38 vectors

covered

# **Introducing F5 Silverline**

### **F5 Silverline**

#### **Enterprise-grade application services in minutes**

Rapidly deploy enterprise-grade application services across hybrid environments with 24x7x365 support from F5 experts.



### **F5 Silverline: Key Benefits**



#### Cloud based, enterprise-grade

Built on F5's industry leading BIG-IP solutions, Silverline application services are enterprise-grade, highly programmable, and can be configured to maintain consistency with your existing BIG-IP implementations.



# Drive operational and cost efficiencies

Improve operational efficiency and decrease IT overhead by rapidly deploying Silverline services in minutes and outsourcing support to F5 experts offering the highest level of 24x7x365 service.



#### Deliver app services, anywhere

Ensure your applications are available and secure no matter where they reside. Enable cloud migration by deploying Silverline application services across hybrid environments in conjunction with existing BIG-IP deployments.

### **F5 Silverline Services**



Defend against DDoS attacks and keep your business online with the Silverline DDoS Protection cloudscrubbing service to detect and mitigate even the largest of volumetric DDoS attacks before they reach your network.



Protect web applications and data, and enable compliance, such as PCI DSS, with the Silverline Web Application Firewall service which is built on BIG-IP® Application Security Manager™ (ASM) with expert policy setup and fine-tuning.

### **Global Coverage**



#### 24/7 Support

F5 Security Operations Center (SOC) is available 24x7x365 with security experts ready to respond to DDoS attacks and build WAF policies within minutes

© F5 NetworksSeattle, WA US

#### **Global Coverage**

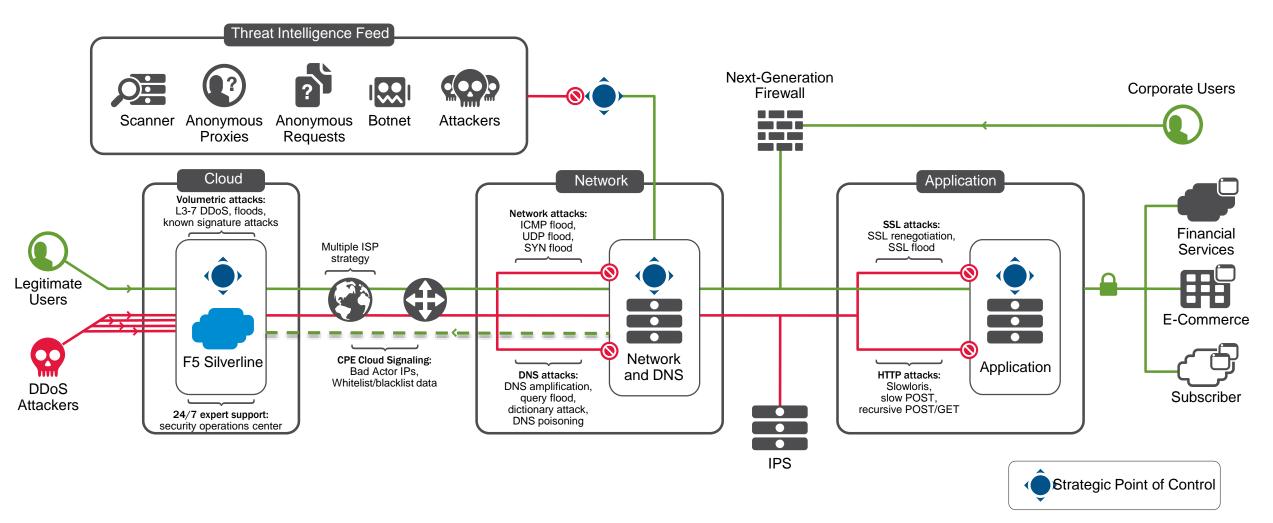
Fully redundant and globally distributed data centers world wide in each geographic region

- San Jose, CA US
- Ashburn, VA US
- Frankfurt, DE
- Singapore, SG

#### **Industry-Leading Bandwidth**

- Attack mitigation bandwidth capacity over 2.0 Tbps
- Scrubbing capacity of over 1.0 Tbps
- Guaranteed bandwidth with
  Tier 1 carriers

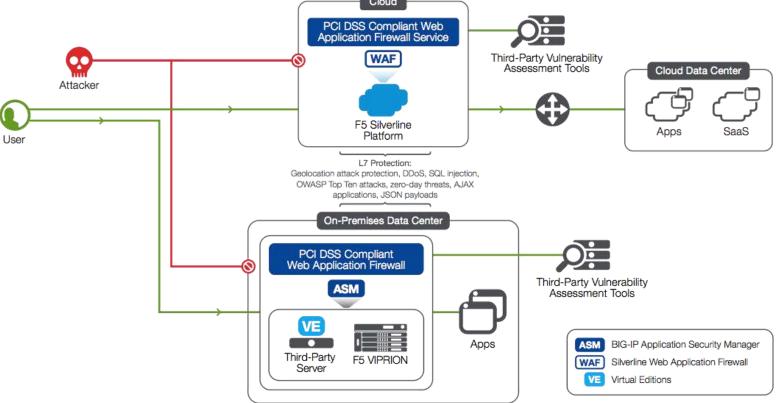
### **F5 Offers Comprehensive DDoS Protection**



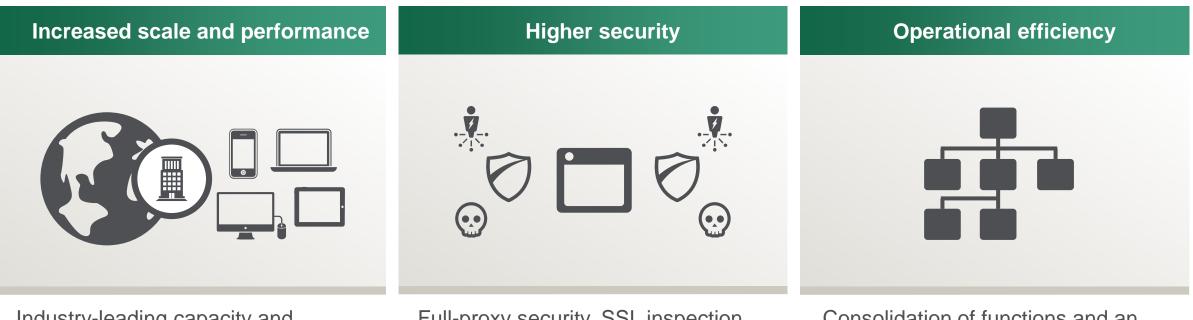
## Protect web apps, anywhere

#### **Easily extend WAF protections to SaaS and cloud apps**

Protect web apps, no matter where they reside with consistent policies and compliance across hybrid environments, in conjunction with BIG-IP deployments.



### **F5** Delivers to Support Your Needs



Industry-leading capacity and throughput.

Full-proxy security, SSL inspection, and extensibility with iRules.

Consolidation of functions and an application-centric security model.



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