## Visibility Is Everything

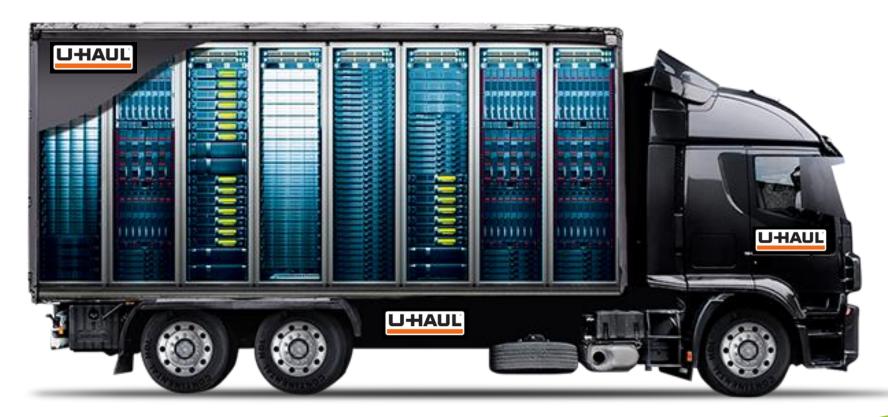
Take control of (and secure) your Cloud computing in 2019



Dave Allen
Vice President
Palo Alto Networks

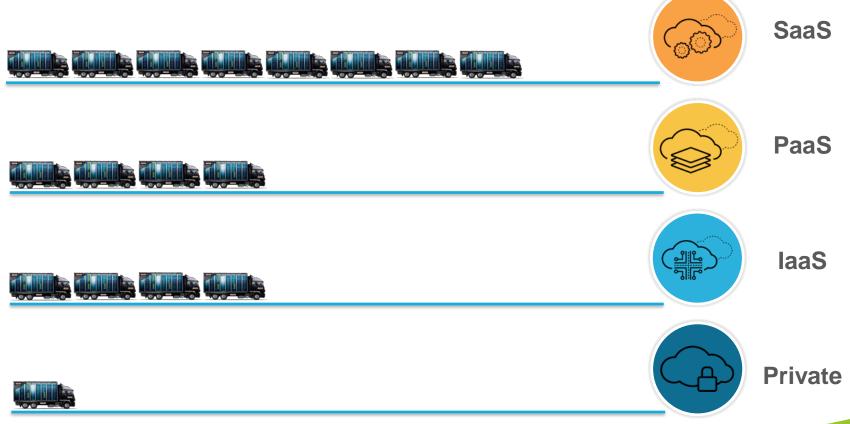


#### DATACENTER PACKED. HEADING TO THE CLOUD?





#### IT'S DIFFERENT FOR EVERY CUSTOMER



# Gartner

"[Enterprise customers are] skipping the years of early getting-their-feet-wet, and immediately jumping in with more significant projects, with more ambitious goals..."

By 2020, a corporate "No-Cloud" policy will be as rare as a "No-Internet" policy is today.



### Attackers Are Location Agnostic







Which data center is in the cloud?



#### THREAT LANDSCAPE CONTINUES TO EVOLVE



Increase in new malware

**Volume of Attacks** 



**Severity of Attacks** 

35% increase in fileless attacks

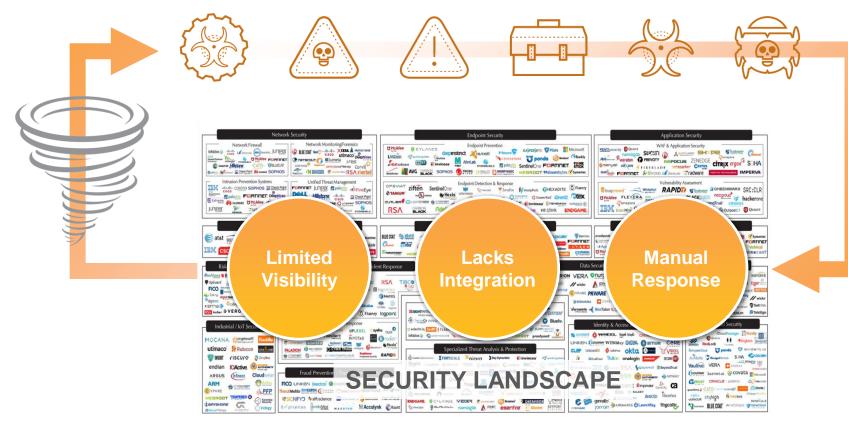


**More Sophisticated** 

Targeted and multi-vector

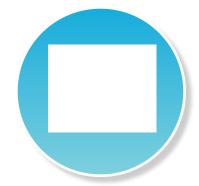


#### Typical Landscape





#### How did we get here?



Together we face a highly automated adversary with asymmetric advantage.



"Best of Breed" is a natural outcome of choices organizations have made.



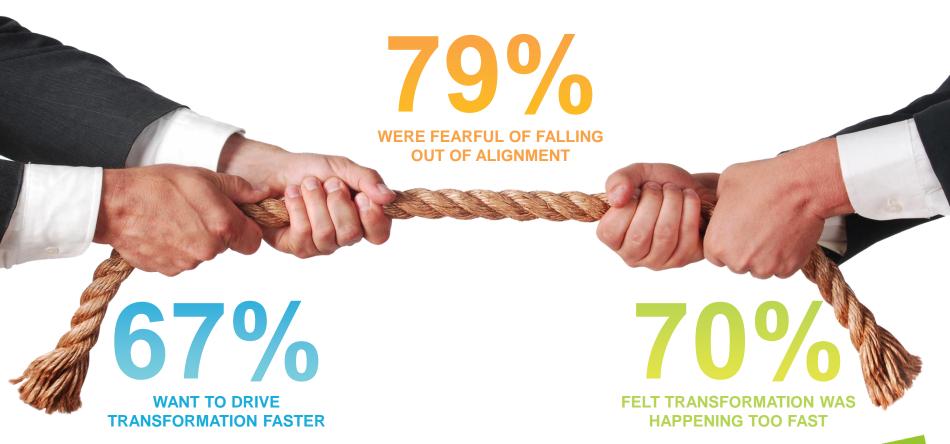
OPEX/CAPEX intensive and not economically sustainable for most organizations.



Moore's Law confronts People & Process.



#### THE CHALLENGE FOR LEADERS









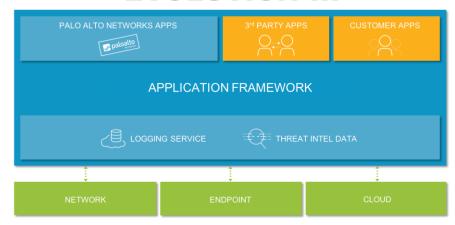
#### The Operating Platform



#### **EVOLUTION II**



#### **EVOLUTION III**





#### COMMON POLICY CONTROL, GOVERNANCE/REPORTING

#### **SMART SECURITY ALGORITHMS**

APPLICATION FRAMEWORK

#### NORMALIZED SECURITY ARTIFACTS/INTELLIGENCE

**SENSORS/ENFORCEMENT POINTS** 



#### Public Cloud Security: A Shared Responsibility

#### **Customer content**

Data | Intellectual Property | Source Code

Platform, Applications, Access Control

Operating System, Networking, Security

Security: **YOUR** responsibility

Global Infrastructure

Compute | Storage | Database | Networking

Security: THEIR responsibility



#### **OVER FIVE YEARS OF CONTINUED INVESTMENTS**

#### **Cloud Infrastructure Support**



aws













2013

**vm**ware ESXi

2014

2015

2016

2017

2018

NSX

**Orchestration and** 

**Automation Integration** 





MIRANTIS









Balancer









aws











Heat



Stackdriver



openstack.





**AWS ELB** 

Azure App Gateway

Azure ARM

Azure App Insights

Templates



#### **DEVOPS REVOLUTION - CHANGING THE WHERE AND THE HOW!**



Continuous discovery and monitoring



Comprehensive storage security



Complete and continuous compliance reporting

**58%** 

UNSECURED VPC

55%

POOR PASSWORD POLICY

48%

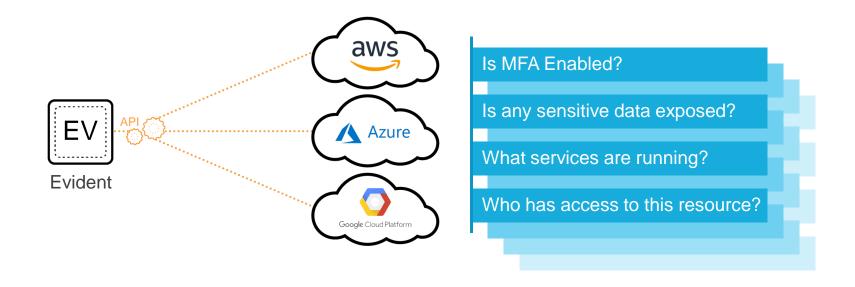
MFA NOT ENABLED

29%

UNPROTECTED ROOT



## CONTINUOUS MONITORING AND COMPLIANCE EVIDENT



Discover and Monitor Resources

Compliance Reporting Secure Storage Services



#### FRICTIONLESS SECURE CLOUD OPERATIONS

#### Build



Bootstrapped Configuration

Embed Agent into Workloads

#### **Operate**

Segment Based on Apps & Attributes

Orchestrate Policy via XML API

Continuously Monitor Resources & Storage

#### Scale



Auto-scale Based on Triggers



Policies Updated Automatically



Integration into Native Services

### **Automation Tools**









AWS Lambda



Azure ARM



Azure Security Center



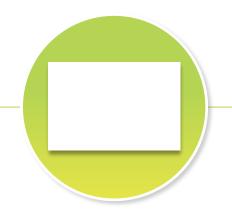
GCP Cloud Manager



#### CONSISTENT & FRICTIONLESS PREVENTION EVERYWHERE

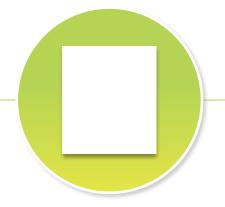


#### PALO ALTO NETWORKS SECURITY OPERATING PLATFORM



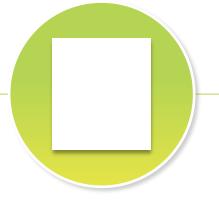
#### PREVENT SUCCESSFUL CYBERATTACKS

Operate with ease using best practices



## FOCUS ON WHAT MATTERS

Automate tasks using context and analytics



## CONSUME INNOVATIONS QUICKLY

Palo Alto Networks, 3<sup>rd</sup> party, and customer delivered

#### **BUILT FOR AUTOMATION**



# Thankyou paloalto perpendicular paloalto perpendicular paloalto perpendicular paloalto perpendicular p