可测量的安全为企业数字化转型保驾护航

安全创新技术沙龙

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KEYSIGHT TECHNOLOGIES

是德科技（Keysight)：我们的测试 圆您的梦想
致力于帮助客户加速创新，创造一个安全互联的世界。

1939-1998 The Hewlett-Packard Years

A company founded on electronic measurement innovation

1999-2013 The Agilent Technologies Years

Spun-off from HP, Agilent becomes the world’s premier measurement company

KEYSIGHT TECHNOLOGIES

2014 Keysight Technologies is launched

Focused singularly on electronic design and measurement solutions

ixia | A Keysight Business

2017 Keysight acquires Ixia

数字化经济时代应用为王

7 x 24
数字生活

900 每个企业平均使用的应用种类数目

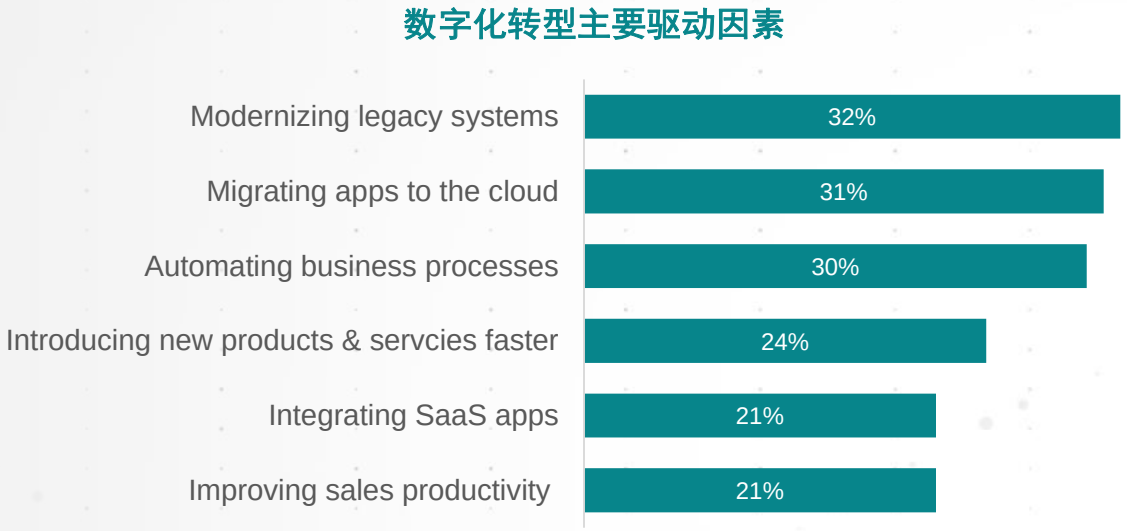
50% 未来两年应用种类的增长速度

3 in 4 预期如果在未来的12个月中无法进行数字化转型将会导致业务的负增长的企业的比例

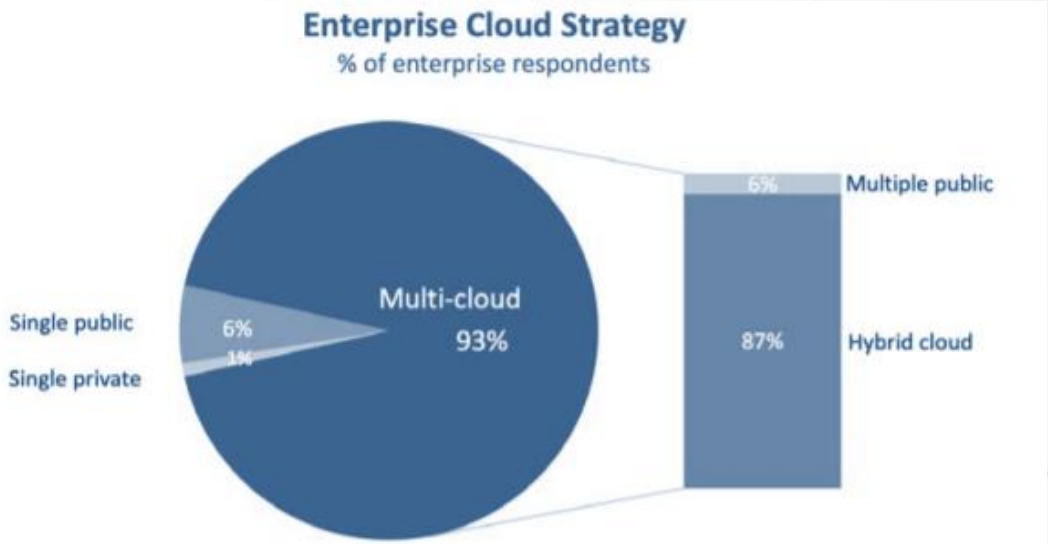
数据引用自：

1. MuleSoft 2020 Connectivity Benchmark Survey
2. Cisco Annual Internet Report (2018–2023)

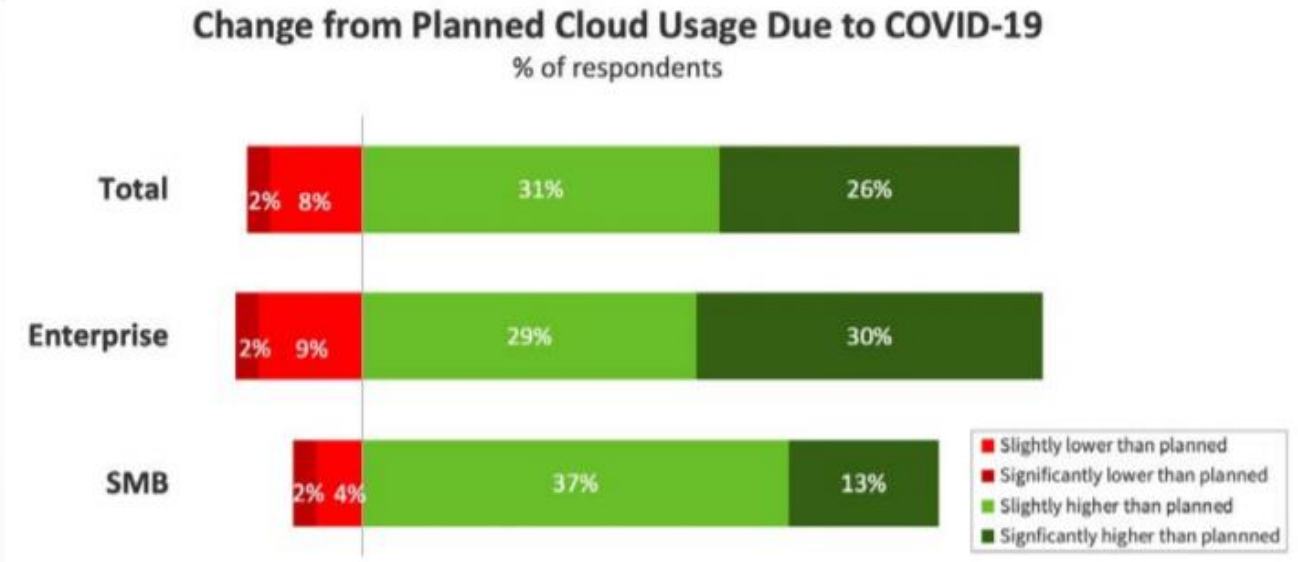
企业加速拥抱数字化转型



Source: MuleSoft 2020 Connectivity Benchmark Survey

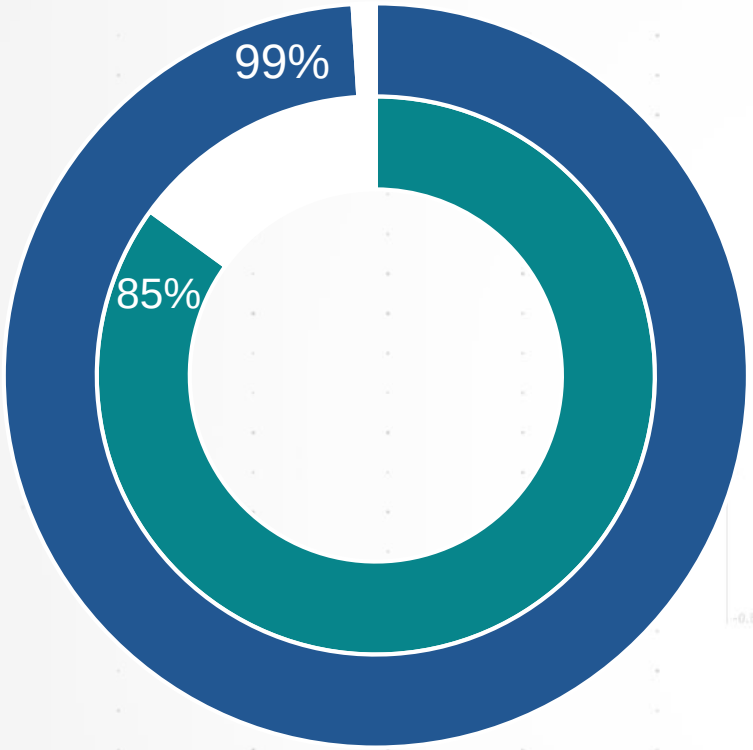


Source: Flexera 2020 State of the Cloud Report

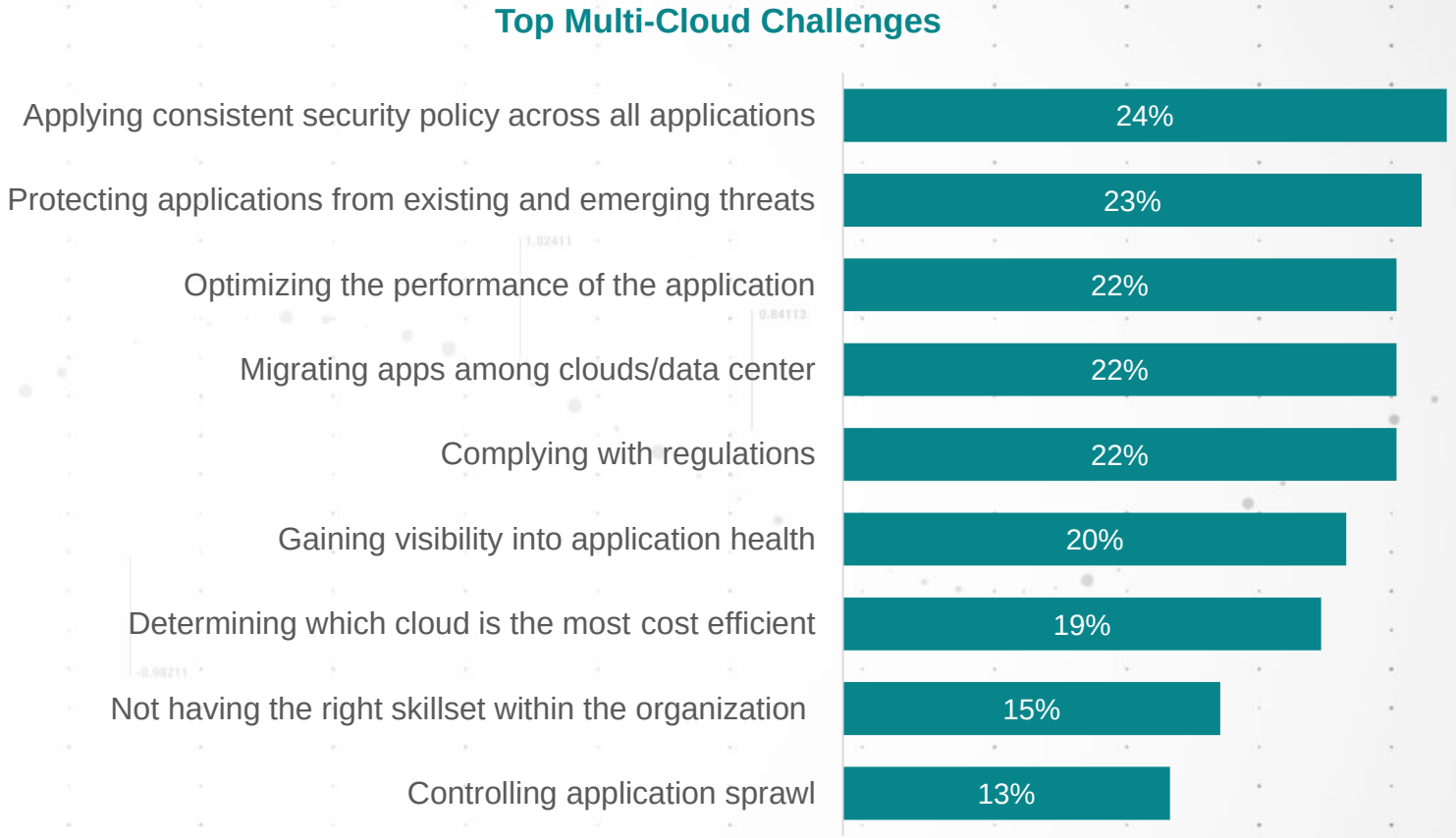


Source: Flexera 2020 State of the Cloud Report

数字化转型需要面对的挑战–安全保障和性能优化



Source: MuleSoft 2020 Connectivity Benchmark Survey



Source: F5 The State of Application Services in 20202

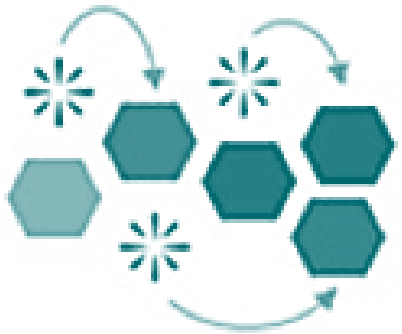
应用的演进趋势
Digital Transformation Influence

DISAGGREGATED

模块化，应用微服务

DISTRIBUTED

分布式，应用上云



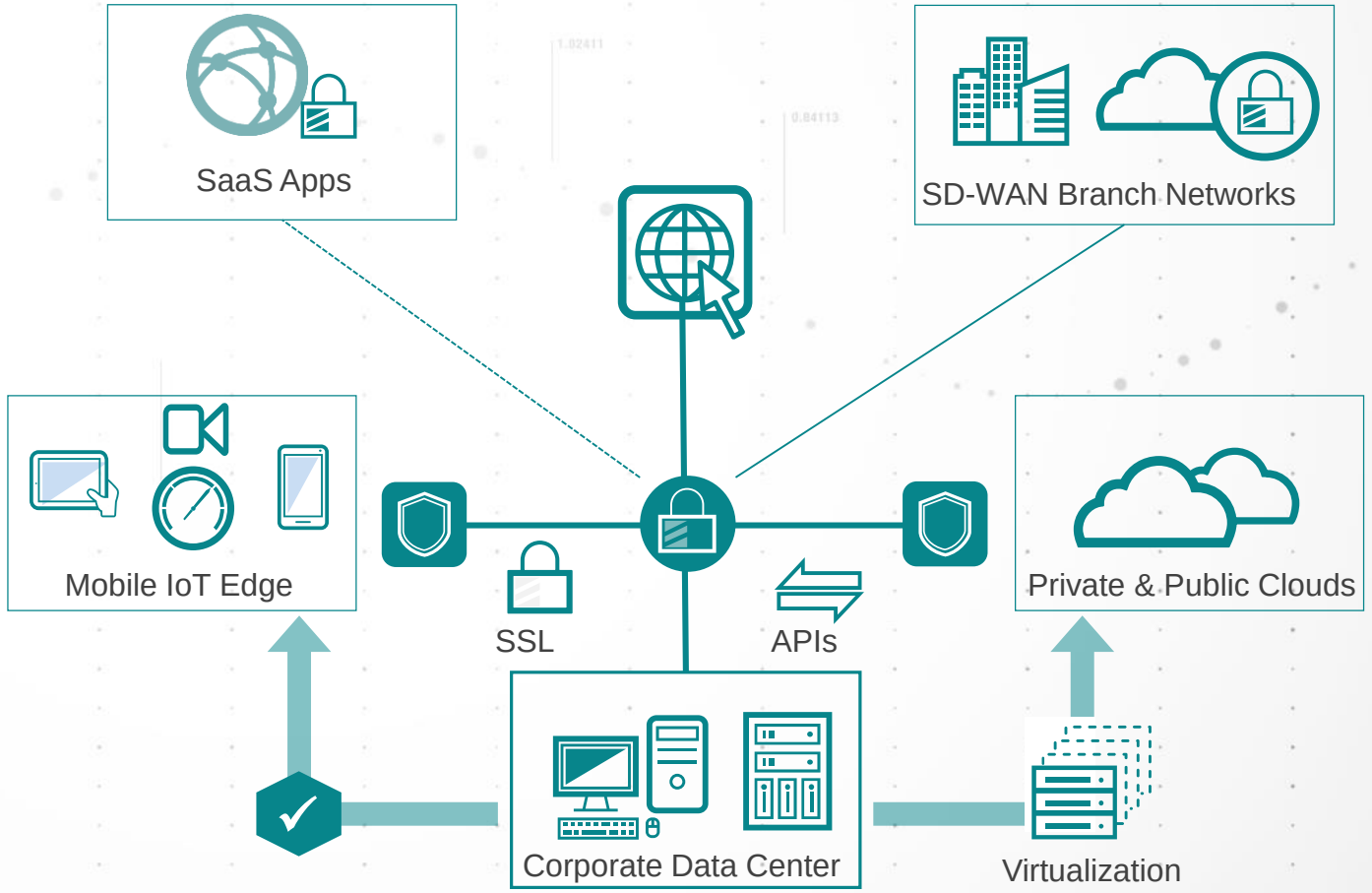
DYNAMIC

动态化，敏捷开发

网络和安全架构的重大变化
Paradigm Shift in Network and Security

过去 – 本地部署

未来– 分布式零信任



分布式架构的挑战-太多的未知

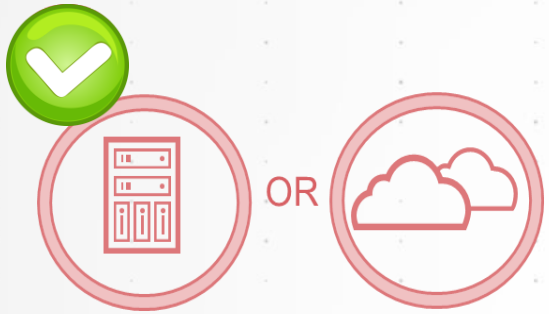
分布式的工作负载横跨
异构的环境

不可见的
基础网络环境

更加复杂的
动态环境

如何在分布式的混合环境中平衡业务的发展和安全性

混合架构对测试的挑战



One tool to validate across distributed, hybrid deployments

Applications and threats agnostic to the network in-between

Dynamic scale to validate the elasticity of the infrastructure and policies

Emulate a variety of expanding client types

Emulate a variety of web technologies and infrastructure

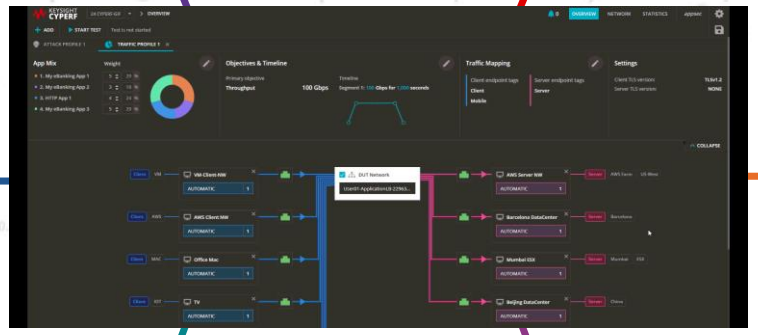
Emulate globally distributed clients, BOTs and servers to assess the security and user experience

CyPerf 的创新 - 业界第一个云原生的弹性测试解决方案

超真实
Simulates real user/app behavior and kill chains by interleaving attacks into app workloads

高性能
Determines app performance in any environment (Intel QAT)

云原生
Elastically scales, easily portable, highly resilient with modern, cloud-native UI



CyPerf
Management Dashboard

分布式
Validates multi-cloud, hybrid, and on-prem deployments via light-weight software test agents

弹性化
Spawns & tears-down test agents dynamically during a test to validate elasticity

健壮化
Continues to execute tests even if test agents disappear, IPs change, or agents are quarantined

CyPerf的功能和特性–分布式环境下的性能和安全测试

Test Agents

- Lightweight agents
- Installation in various distributions
- Support for bare metal, VM, or AWS
- Elastic and auto-scalable agents
- Agnostic to underlying DUT/SUT
  - Reverse/transparent proxy
  - ALB/ELB
  - NGFW/IPS

Application and Attacks

- Comprehensive application and attack support
- Emulate apps + attacks interleaved together
- Parameterize apps and attacks (tagging, etc.)
- Powered with enterprise-grade threat intelligence form Keysight ATI team
- Highest application performance - Support for DPDK and QAT
- Scalability
  - Concurrency
  - Throughput

Deployment

- Traffic Scenarios
  - On premises
  - Cloud
  - Hybrid (Cloud to cloud, on-prem different locations, on-prem to cloud)
- Agent
  - OVA
  - AMI
  - Debian package
- UI Application
  - OVA
  - AMI

覆盖从开发到运维的全部阶段

业务上线

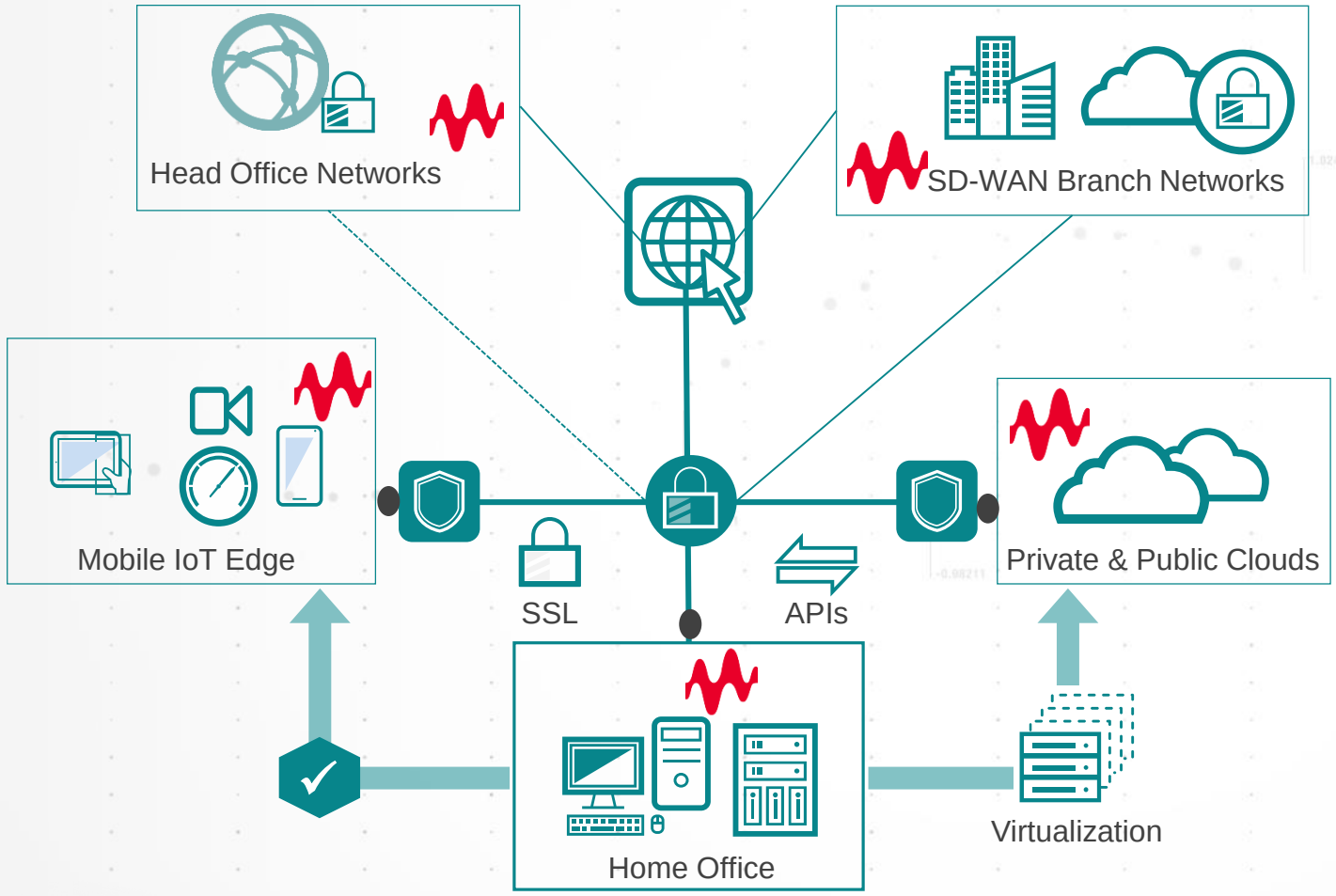
运维优化

- Understand the limits of your network & security tools
- Right-size cloud investments
- Speed time to market with fully-vetted solutions

- Tune & optimize your networks
- Maximize network performance & user experience
- Ensure smooth network & service roll-outs with robust testing

- Verify change management for your NetOps
- Optimize disaster recovery practices & processes
- Validate SLAs & user experience continuously

CyPerf的架构简介



1 AGENTS ARE DEPLOYED

2 AGENTS SEND APPS & ATTACKS

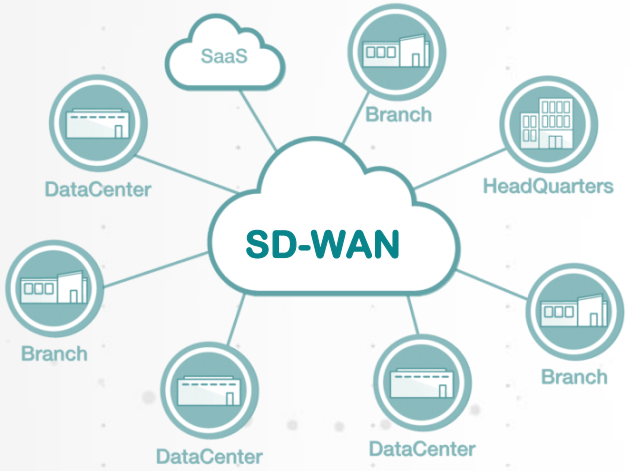
3 VALIDATE RESULTS

- App performance
- Security efficacy
- Latency, jitter, packet drops

助力企业IT部门:

1. 简化部署前的规划选型和验证
2. 快速发现部署后的问题
3. 可量化的平衡安全和性能

SD-WAN/SASE迁移面临的挑战

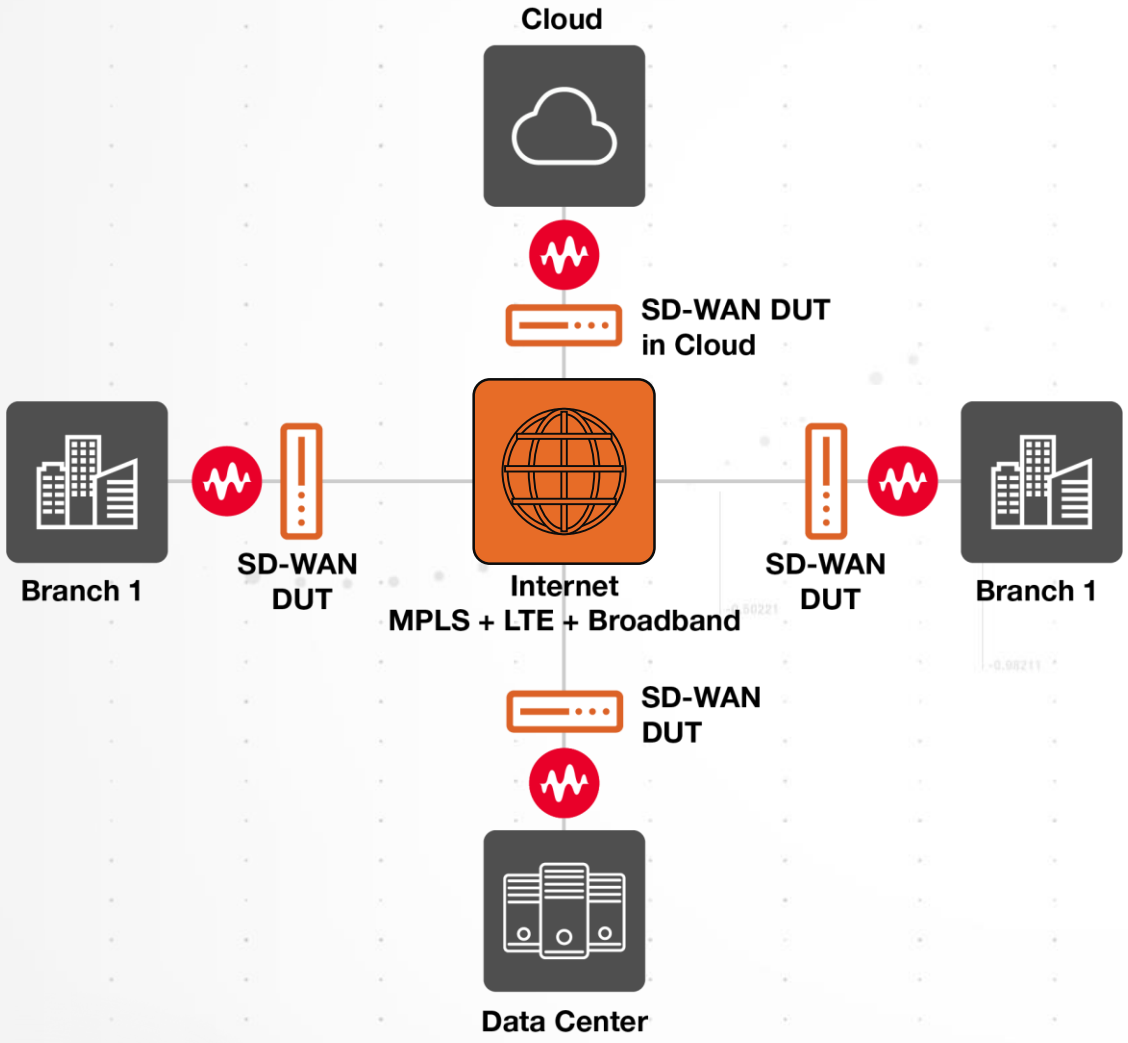


Realistically Recreating Distributed Environments

Balancing QoE, Performance, & Security

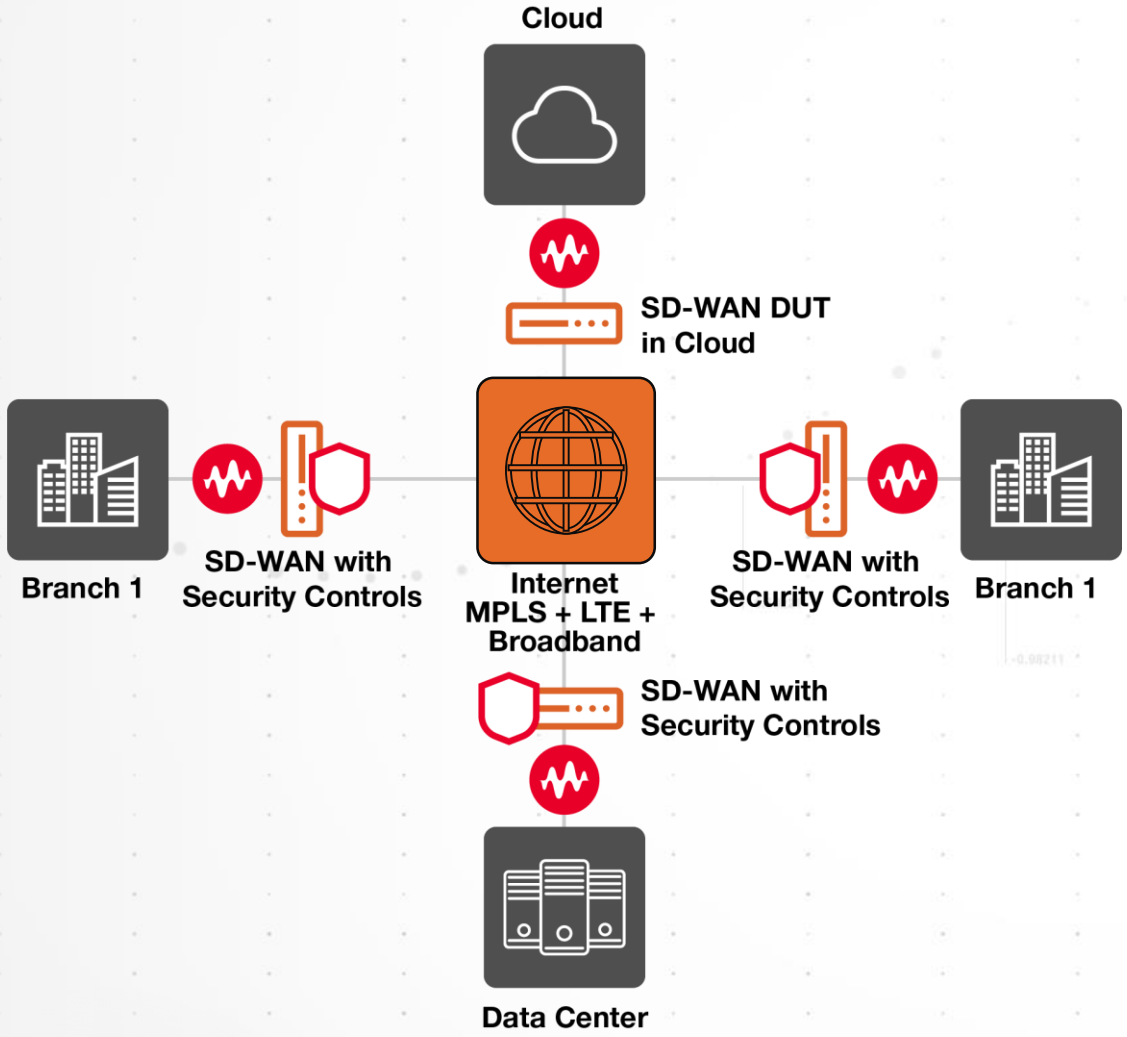
Isolating Complex Pre- & Post-Deployment Issues

性能和QOE验证



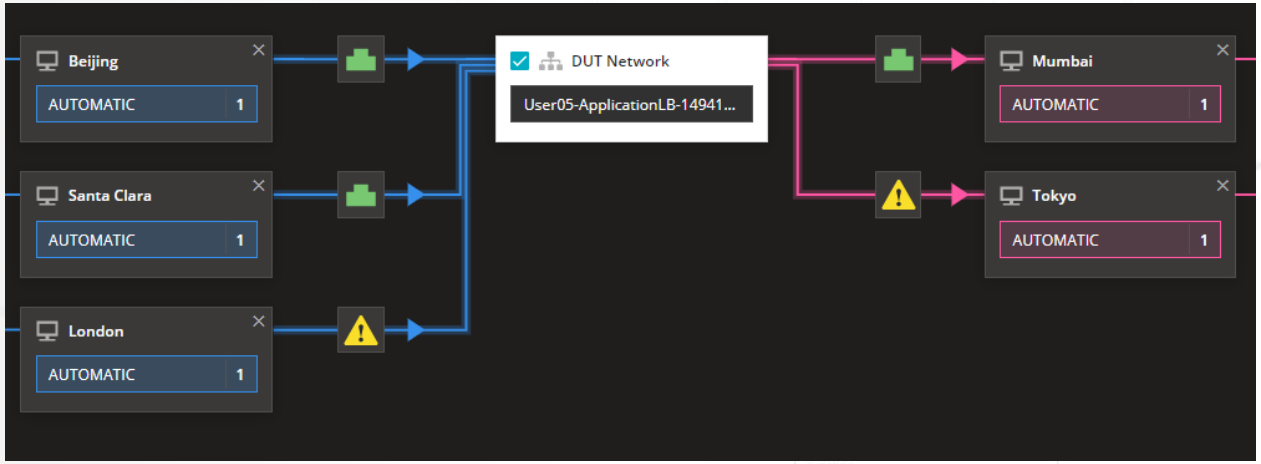
1. Characterization of application performance by emulating workloads between branches, datacenter, & cloud
   - Raw performance
   - HTTP & TLS1.2 /1.3 performance
   - Application mix performance
2. Measure latency and packet drop impacts on distributed deployments
   - Time to first and last byte latencies and spikes
   - Failures and Resets

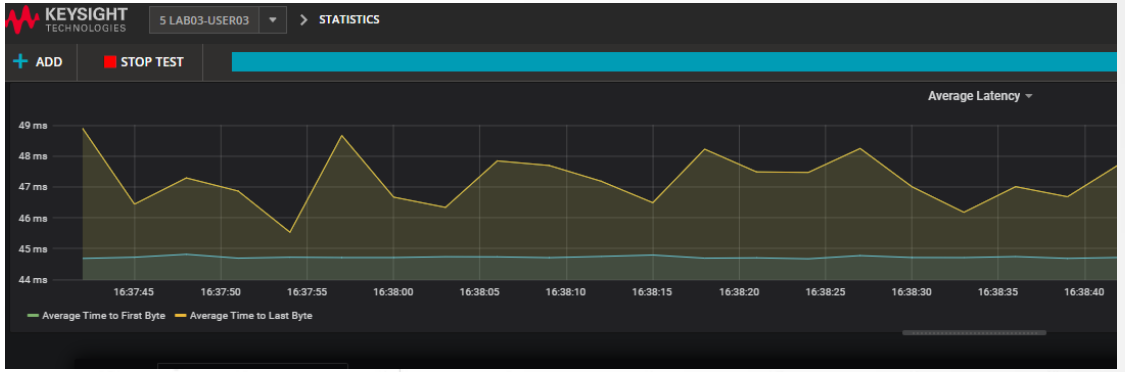
安全功能验证

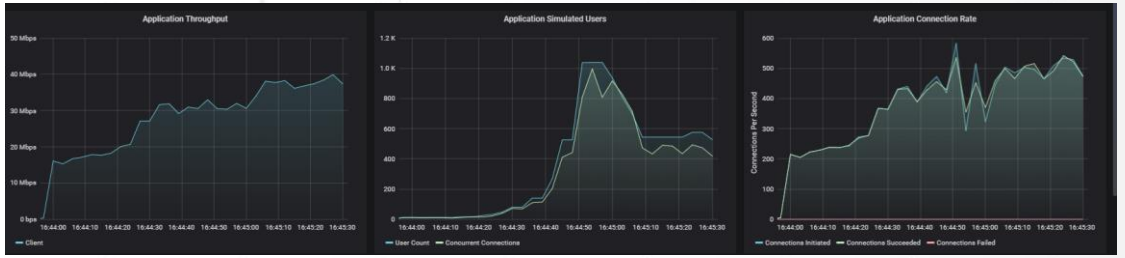


- SD-WANs are increasingly offering security services. Use CyPerf's attack emulation capability to validate security features like:
  - Application profiling and blocking
  - Malware mitigation
  - Exploit detection and blocking
  - URL filtering
  - File inspection
- Measure SD-WAN deep packet inspection, TLS inspection performance with mix of encrypted traffic
- Validate performance impacts of security features by emulating application traffic in conjunction with security attacks

CyPerf 助力SD-WAN/SASE的部署







Deploy CyPerf Agents in various branches, data centers and AWS clouds to easily replicate your distributed environment

Statistics provide performance, latency, and attacks allowed/blocked

转型过渡期如何快速提升安全现状？

相对

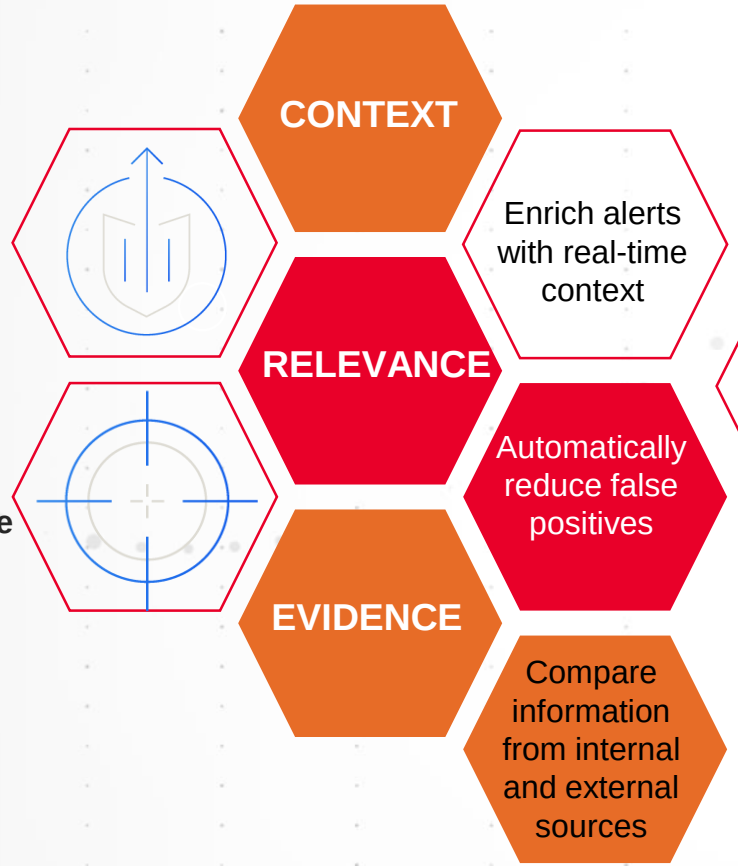
不影响业务的前提下相对的提高安全防护

合适

甄别安全建议，挑选合适的安全方案

安全运维团队一直处于防守状态：

主动演习加固安全：持续地模拟网络入侵与攻击



Block, Detect, Remediate

Threat Hunting & Incident Response

Breach & Attack Simulation

Simulate the entire kill chain

Dynamic gap analysis & step-by-step remediation

Real-world proof of detection & blocking

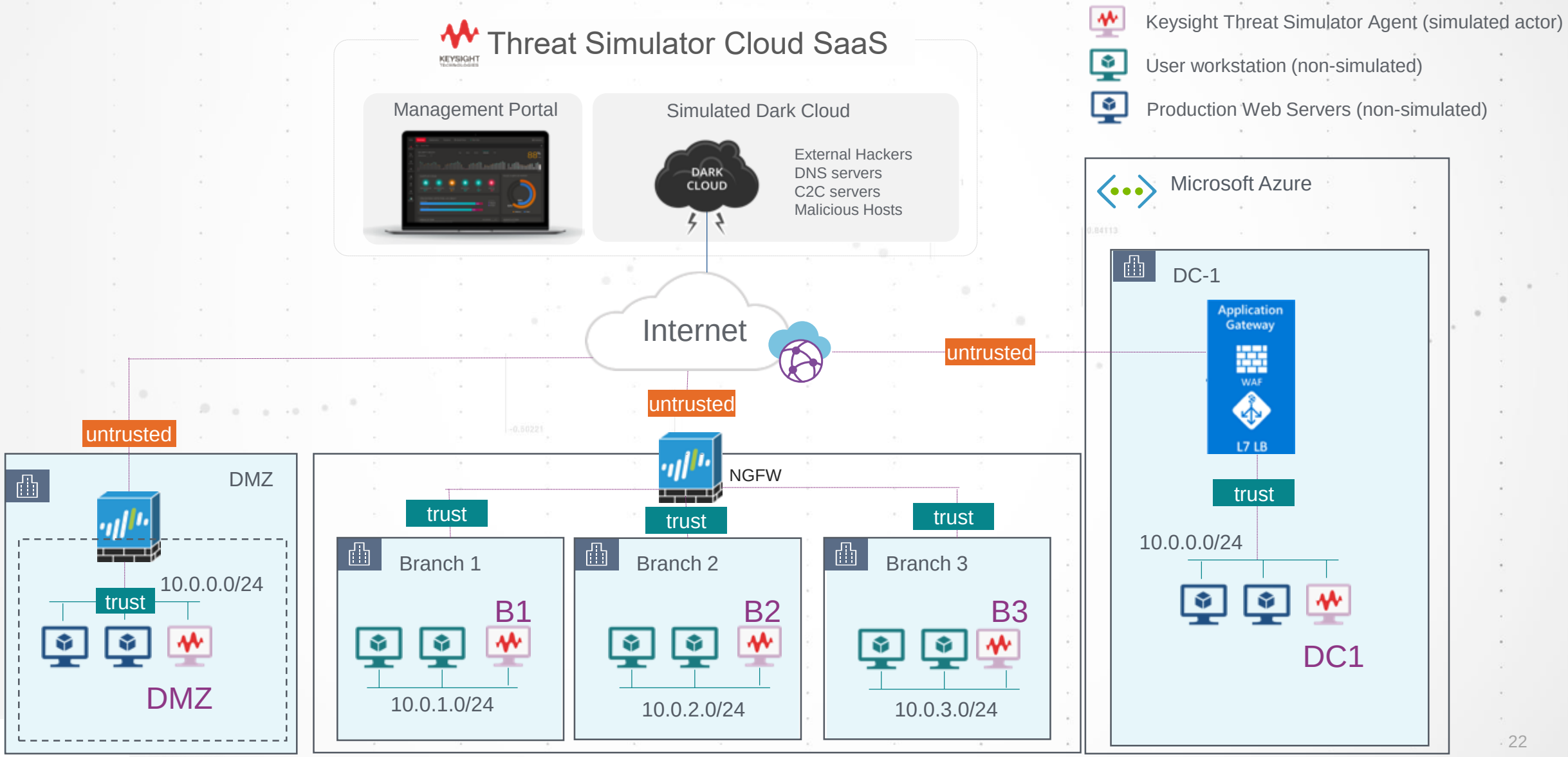
Maximize existing tools & measure impact of new ones

Measure and maximize security spend

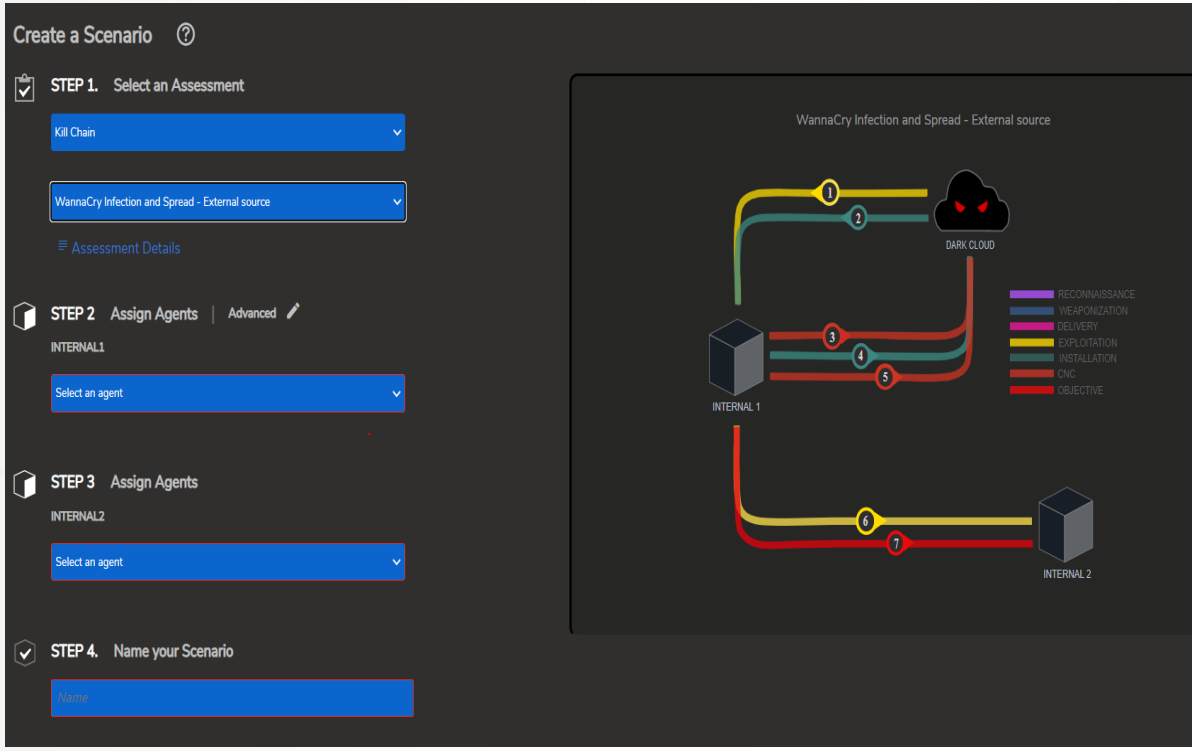
Stay in front of new attacks with continuous audits

模拟攻击的完整过程，量化评估验证安全能力，提供修复和优化建议

入侵与攻击仿真：识别企业安全风险



ThreatSimulator助力安全加固



更有效的利用威胁情报：领先一步保障安全

是德科技拥有全球化的安全研究人员和应用协议工程师的团队：

15年以上的威胁情报，研究和应用协议开发经验。

管理持续更新的数据库，对数百万种已知和新出现的威胁进行分类

顶级NEM，服务提供商，政府和企业的可信赖合作伙伴。

真实世界：Keysight安全团队在攻击发生前17天发布了WannaCry评估工具！

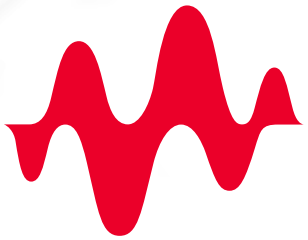
Keysight CyPerf/ThreatSimulator
主动测量帮助企业更好的数字化转型

Gain Control | Play Offense, Not Defense | Stay Current | Make Good Choices

平衡性能和安全

优化客户体验

提高运维效率



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