

四面八方「千隻眼」 助您監控分析應用品質

林琿錦 (Jerry Lin)

Cisco System

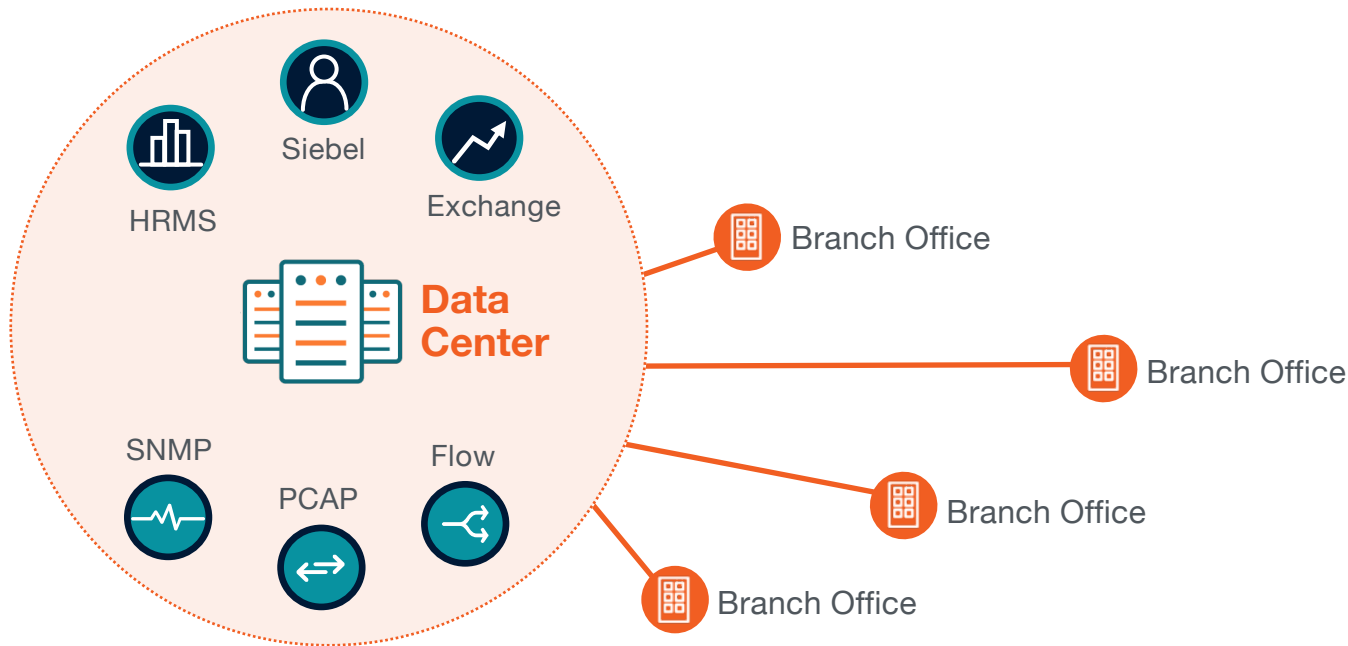


ThousandEyes

ThousandEyes is
now part of Cisco.

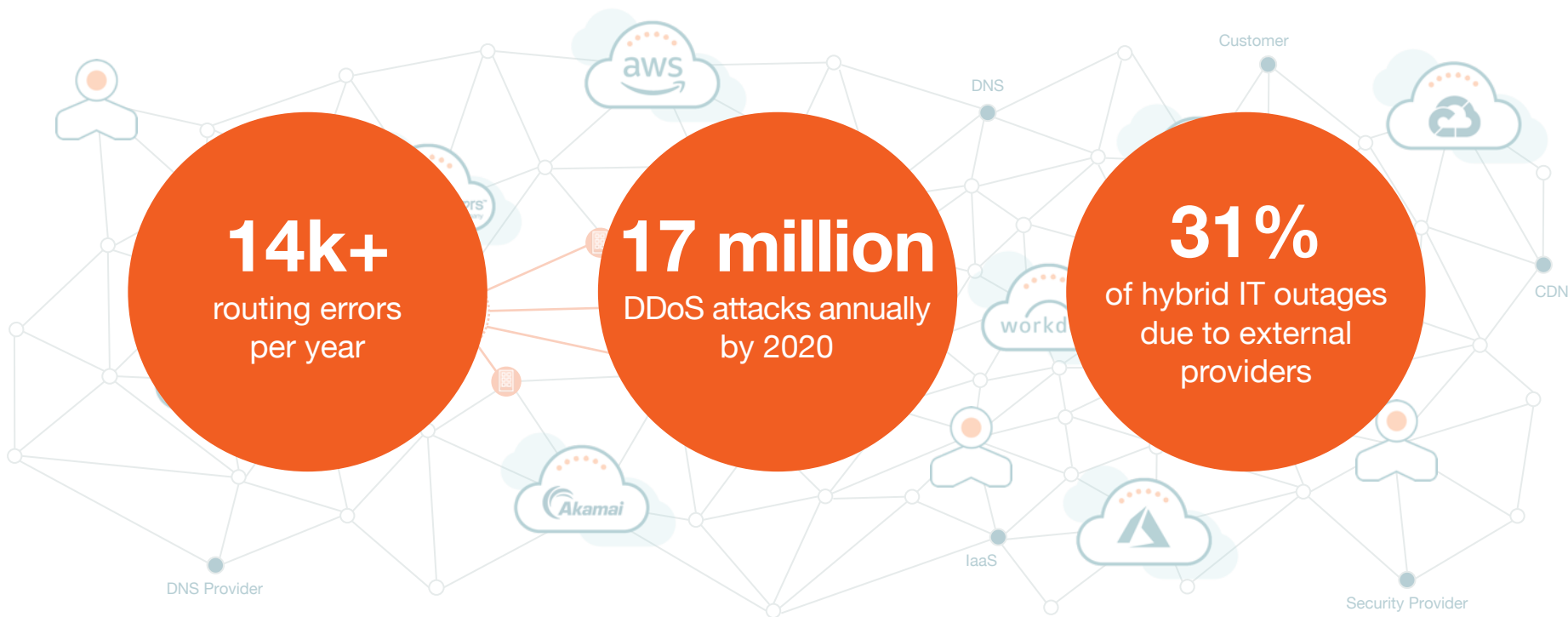


The Digital Experience Visibility Challenge



IT managed digital experience by controlling networks and applications

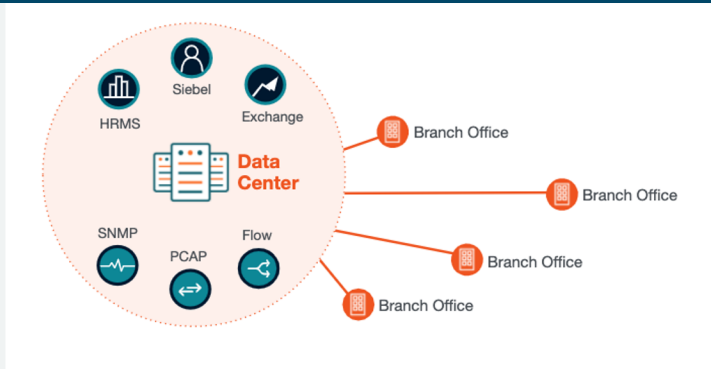
Enterprises Rapidly Losing Visibility and Control



Digital experience relies on many service providers and networks outside of IT's control

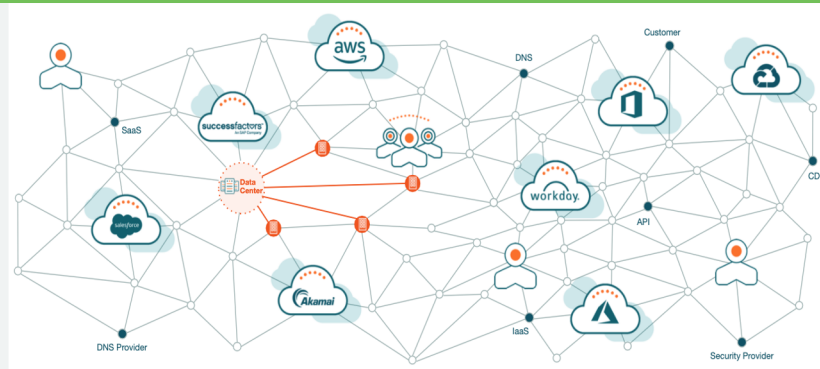
The Importance of Digital Experience Management

THE WAY IT WAS



- Critical applications and services ran in the datacenter
- Control over the app stack, network and infrastructure
- Leased lines and static WAN technologies
- Most employees worked in an office

THE WAY IT IS TODAY



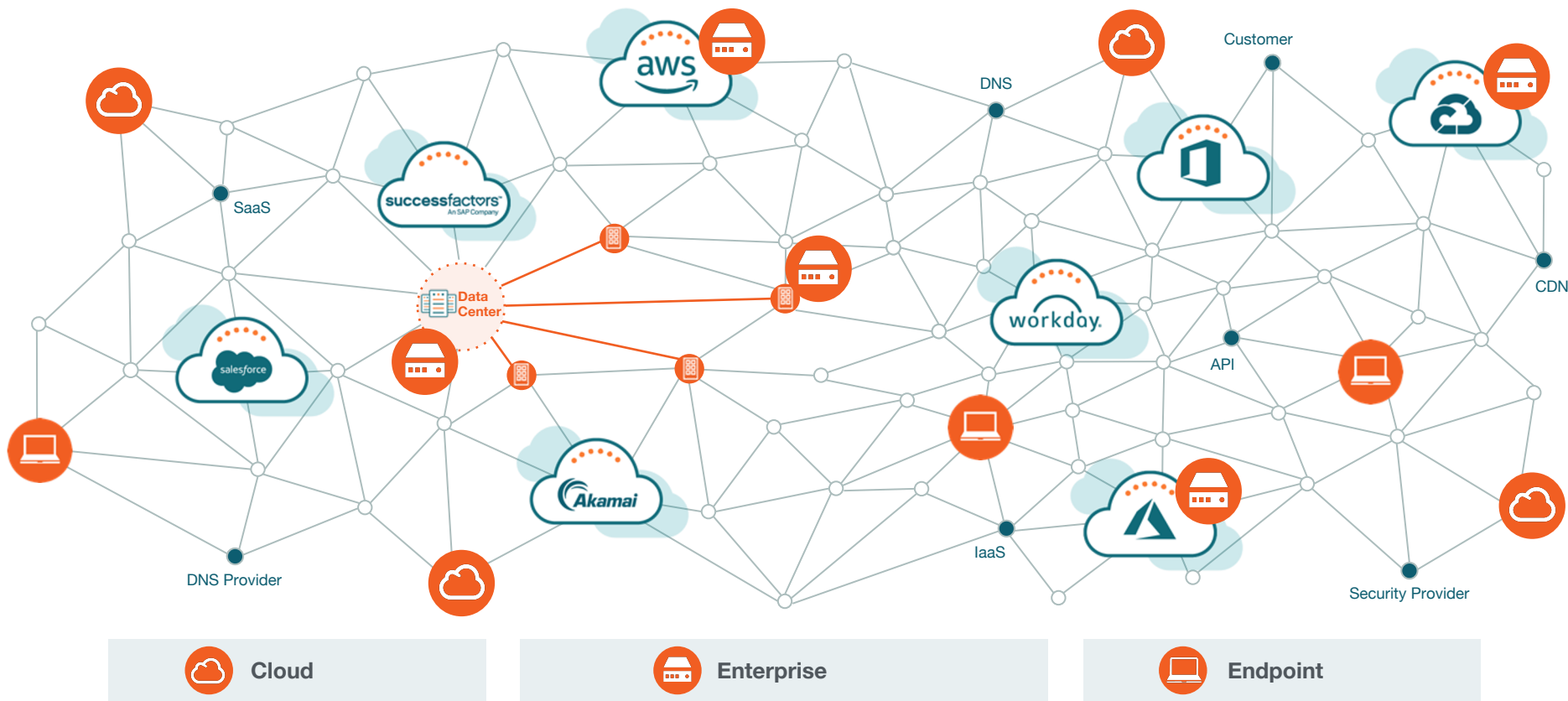
- Applications and services are moving to the cloud
- SaaS applications and cloud infrastructure play critical roles
- Networks are becoming much more dynamic
- Employees are increasingly working remote

CLOUD is the new
Data Center

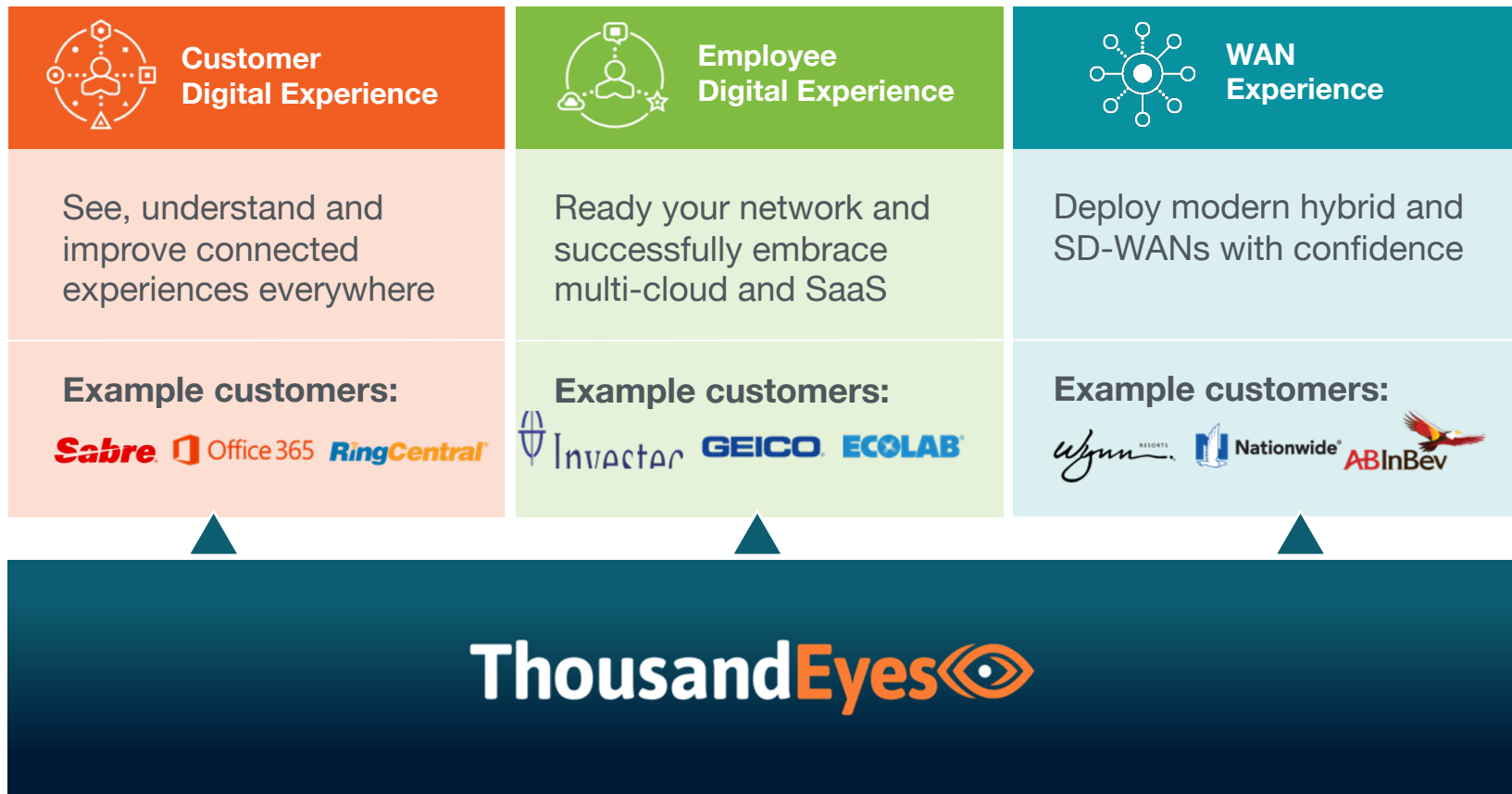
INTERNET is the
new Network

SaaS is the new
App Stack

See Experience from Every Vantage Point



How Customers Gain Value from ThousandEyes

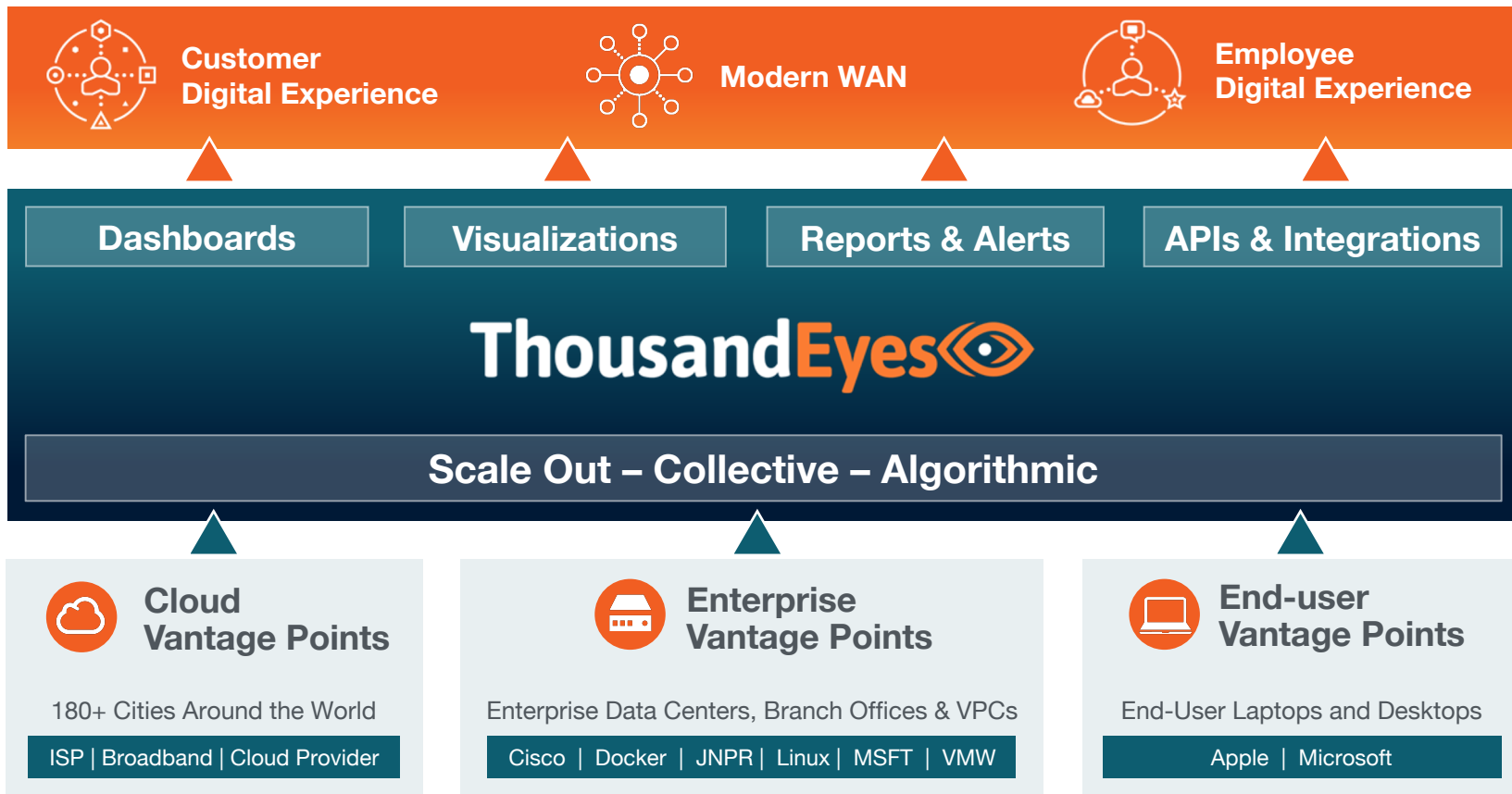


Modern IT Ops Visibility Architecture














Monitoring Category	IT Management Domain
Presentation Layer	All
IT Service Management	All
APM	Internally Developed Apps & Services
ThousandEyes	
Cloud-Specific Mgmt (e.g. CloudWatch)	Digital Experience ISP, DNS, CDN, DDoS. CASB providers SaaS providers SD-WAN Internet transport Internet Routing
IT Infrastructure Mgmt (SNMP)	Cloud Infrastructure
Network Perf Mgmt & Diagnostics (Flow/PCAP)	
Network Capacity Mgmt (Flow)	Internal Data Center & WAN infrastructure
Log Mgmt	All



ThousandEyes Internet and Cloud Intelligence



High Level Agent Comparison

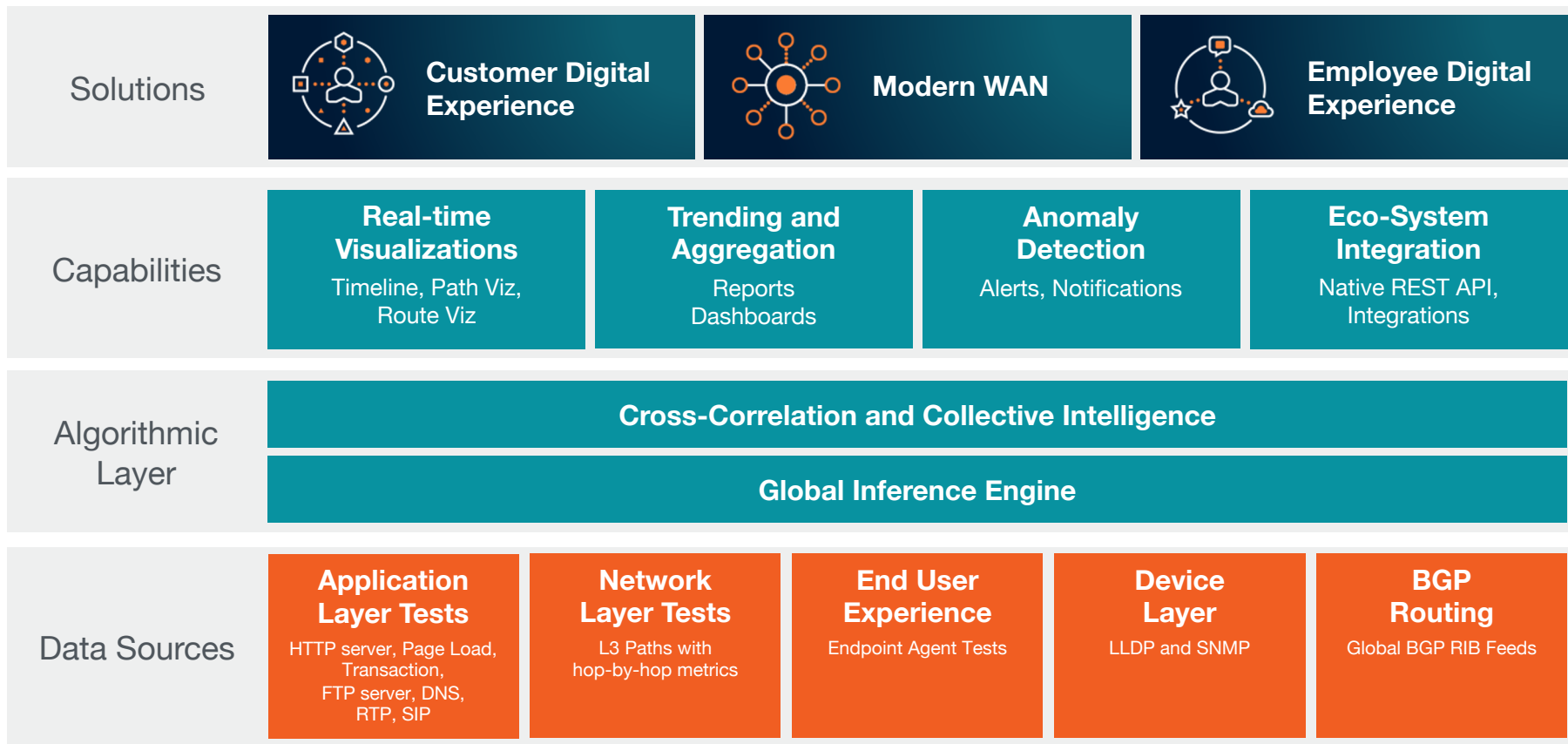
ENTERPRISE AGENT 	CLOUD AGENT 	ENDPOINT AGENT 
<ul style="list-style-type: none"> • Inside-Out monitoring • Deployment Options <ul style="list-style-type: none"> — OVA / Physical Appliance    — Linux Package    — Docker — Cisco 9k, ASR 1k, ISR 4k — Raspberry Pi • Clusters <ul style="list-style-type: none"> — Increase Capacity — Disaster Recovery   	<ul style="list-style-type: none"> • Outside-In monitoring • 390+ Locations <ul style="list-style-type: none"> — Tier 2 and 3 service providers — www.thousandeyes.com/map <div data-bbox="755 511 1213 714">  <p>IPv4</p> </div> <div data-bbox="755 738 1213 936">  <p>IPv6</p> </div>	<ul style="list-style-type: none"> • Last-mile monitoring • Extends visibility in a way that is agnostic to the location of the user • Deployment Options <ul style="list-style-type: none"> — Operating Systems <ul style="list-style-type: none"> • Windows 7/8/8.1/10 • Mac OS X 10.9/10.10/10.11 — Browsers <ul style="list-style-type: none"> • Google Chrome 41+ • Internet Explorer 11+ • Edge 79+

Unmatched Active Monitoring Vantage Points

- Cloud Agents:
 - 187 cities
 - 58 countries
 - Tier 1, 2, 3 and broadband ISPs
 - AWS, Azure, GCP, Alibaba cloud regions



ThousandEyes Internet and Cloud Intelligence



Most Correlated Visibility In One View

Time Correlated

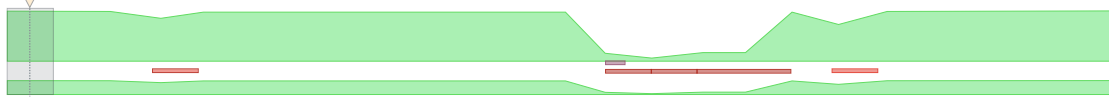
App Experience

- Transaction scripting, page load



HTTP/DNS/RTP Server

- HTTP Availability, response time, throughput



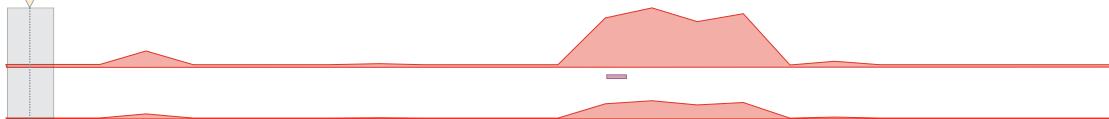
Scope and Domain

- Geo, HTTP phase, errors



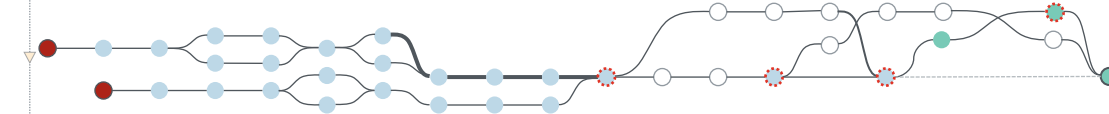
Network Metrics

- Packet loss, latency, jitter



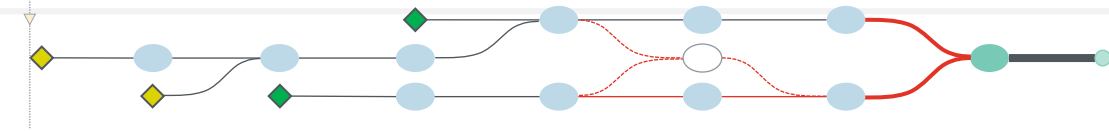
Path Visualization

- Hop-by-hop; multi-point; bidirectional
- Metrics and data per hop
- Integrated Outage Detection



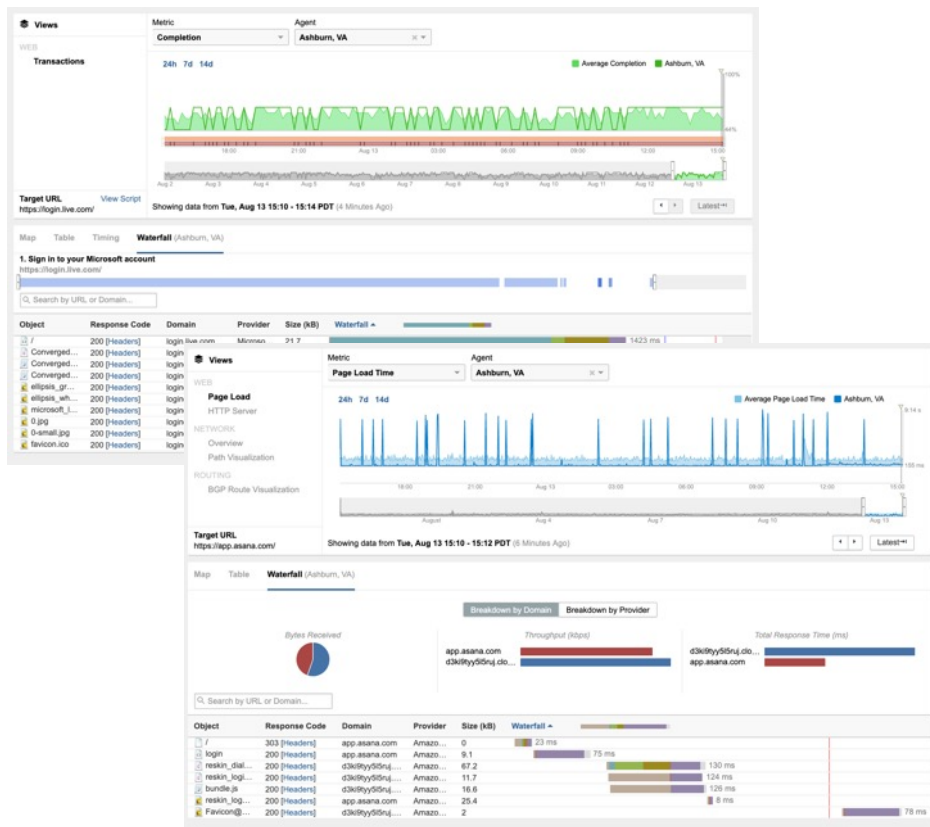
BGP Monitoring

- Reachability, path changes, updates



Understand App Experience with Web Synthetics

- Agent-based measurements of web applications
- Measure entire multi-page workflows simulating a complete user journey
- Multi-layer correlation
 - Transaction scripting
 - HTTP, Path Viz, BGP, Outages
- Baseline and track user experience with page load tests



Programmable Scripting Engine

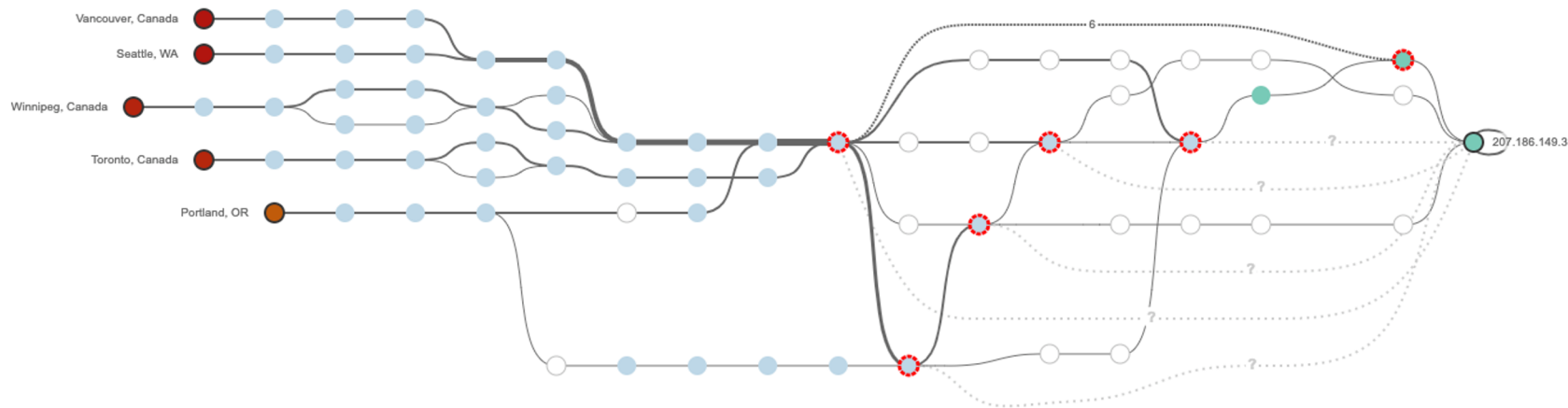
- JavaScript transaction scripting
 - Based on JS bindings for Selenium webdriver 4.x
- Create user journey through an in-built recorder for Chrome
- Logical grouping for multi-step transactions
 - Alert and report on critical business transactions
- Credential handling
 - Command mask & centralized credential storage
- Support for screenshots at any point in the user journey
- Flexible and granular round-robin scheduling



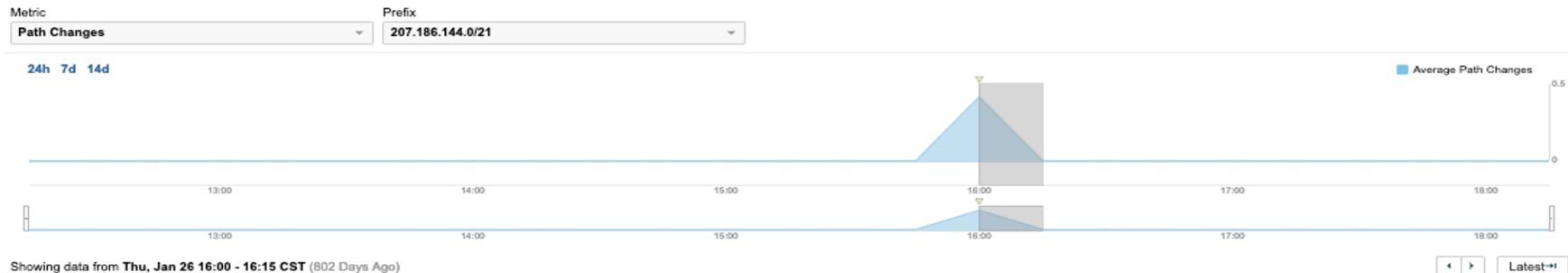
The Gold Standard for Path Visualization

- 16 categories of data and metrics
- Unified, interactive and tune-able visualization
- Hop-by-hop, multi-point, interactive
- Visual error indicators based on multiple metrics

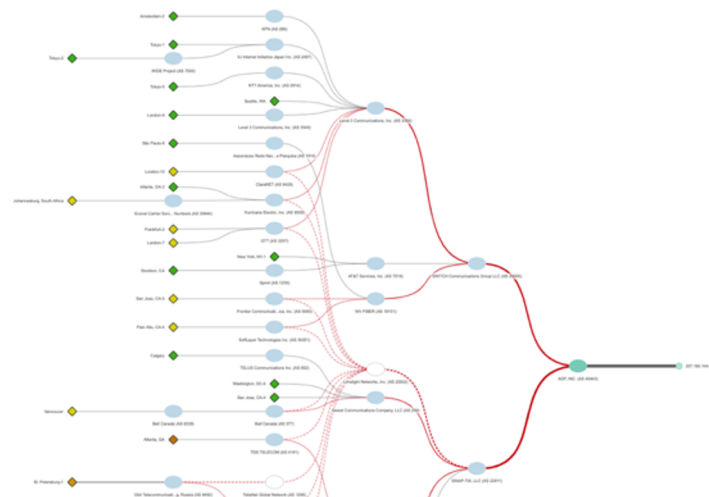
Outage Detected (1 node) ▾



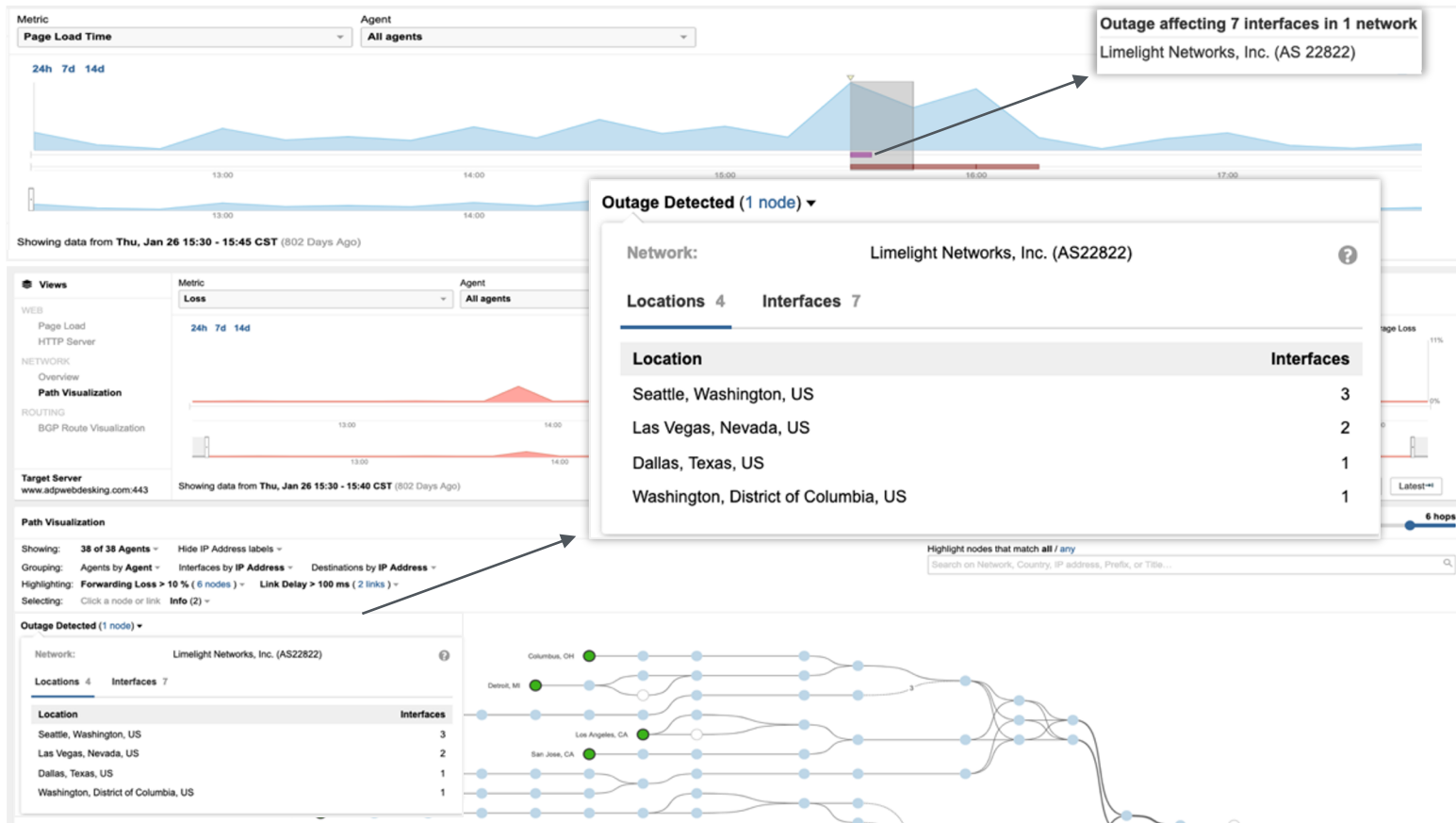
Industry's Leading BGP Monitoring



- Dozens of global BGP feeds for accuracy
- Metric history
 - reachability, path changes, updates
- World-class visualizations

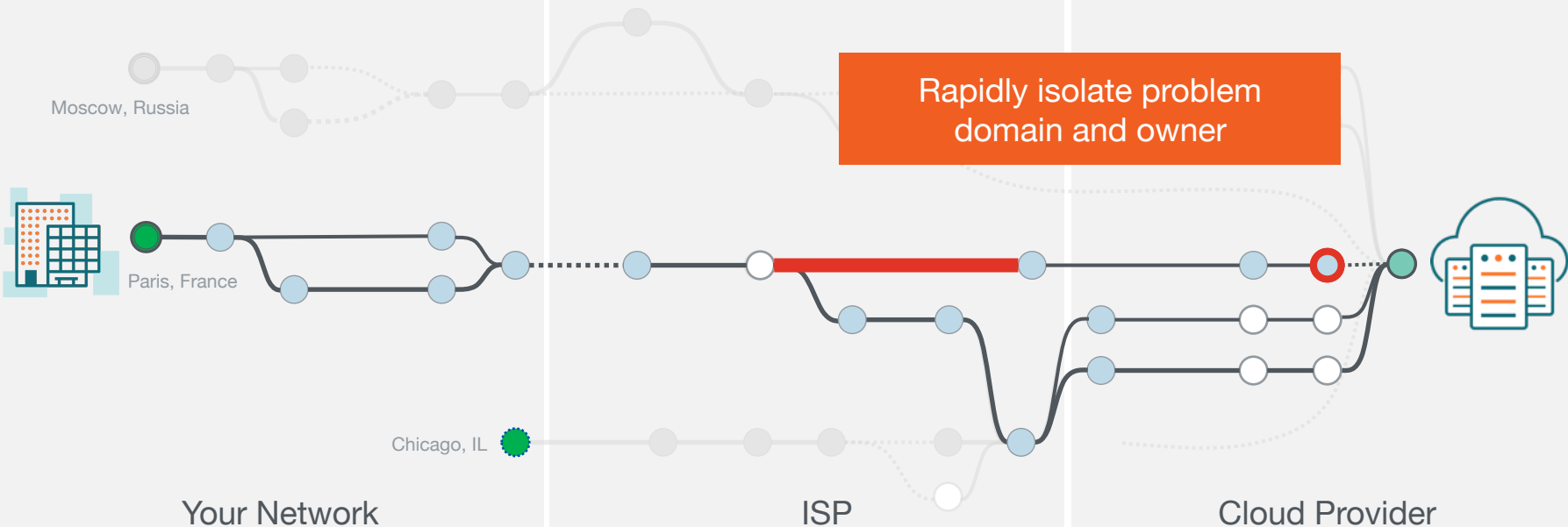


Collective Intelligence: Outage Detection

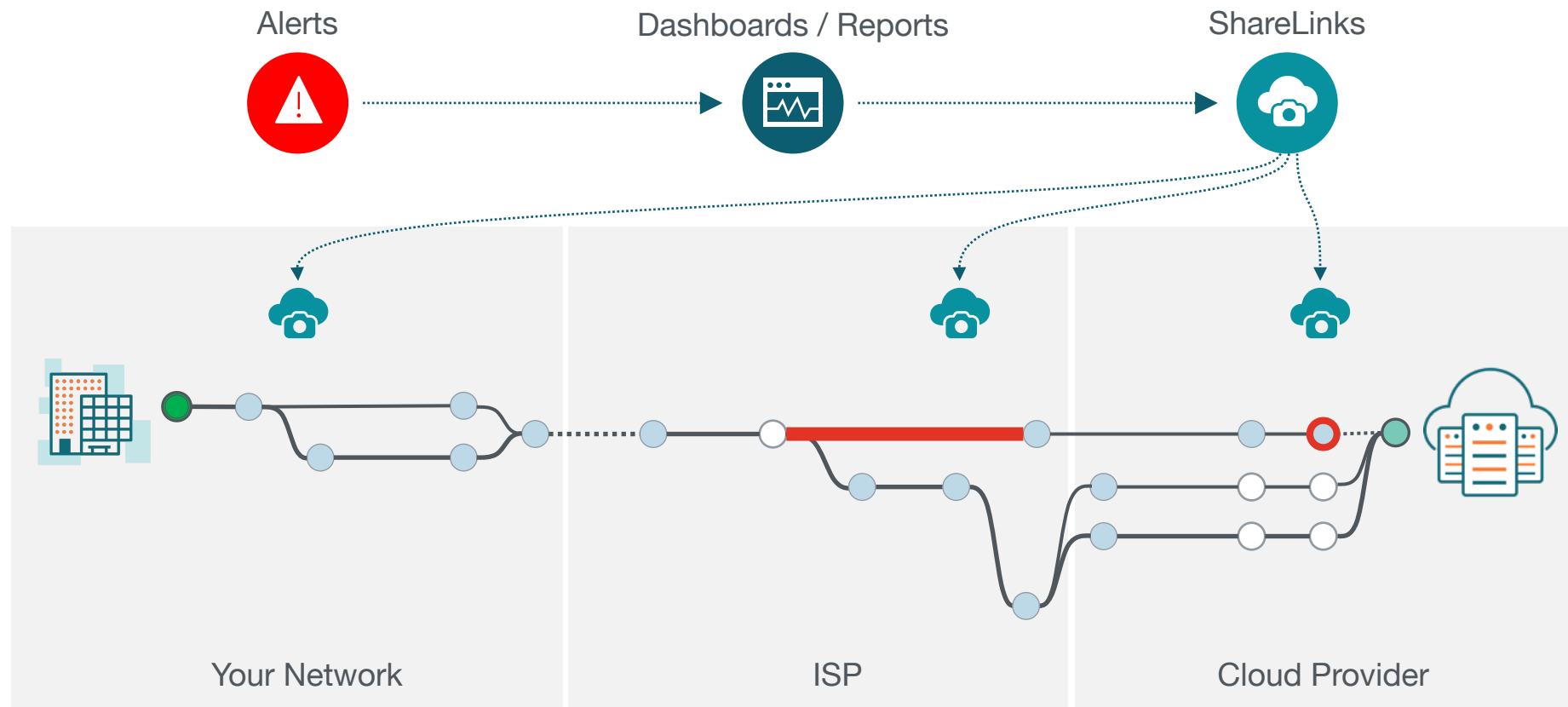


See the Internet Like It's Your Own Network

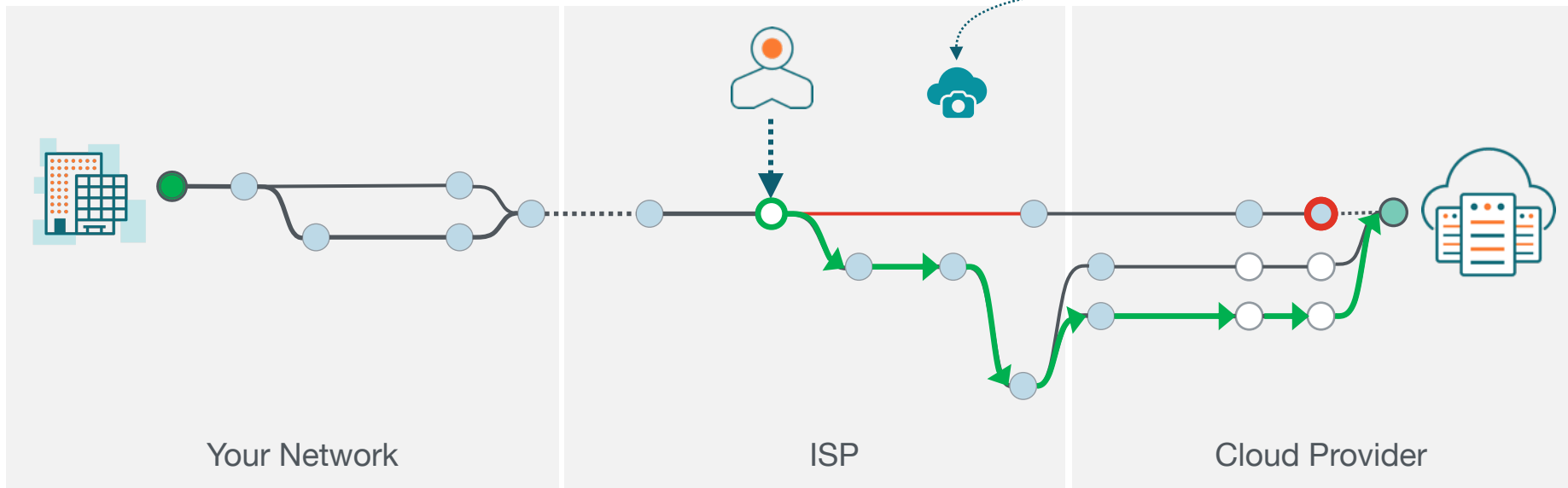
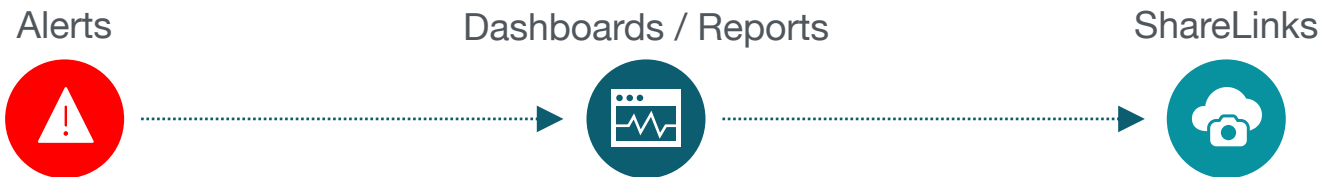
Visualize the link between network topologies and service delivery



Collaborate More Effectively with Shared Data



Manage the Internet Through Your Providers



Automation and Integration

- Open, native REST APIs
- Full automation of configuration, operation and data consumption
- Integrations with popular configuration automation tools, ITSM and data platforms
- [ThousandEyes Github](#)
- developer.thousandeyes.com



Use Cases

Customer DX



Websites & Apps



DNS Services



CDN providers



DDoS Security



BGP Routing



ISP



Modern WAN



SD-WAN



Cloud Security



Network Devices



Endpoints / LAN



Employee DX



IaaS Providers



SaaS Providers



UCaaS/Collaboration



VoIP



Customer Digital Experience



CUSTOMER DX



MODERN WAN



EMPLOYEE DX

ThousandEyes 



Visibility into

- App and service experience
- Hybrid cloud connectivity
- Third party API performance
- BGP and DNS integrity

Expert Research Reports

**DIGITAL EXPERIENCE
PERFORMANCE
BENCHMARK REPORT**

2019 Edition

**CDN PERFORMANCE
BENCHMARK REPORT**

2019 Edition

User Groups

- Digital, Tech and Cloud Ops
- Service Reliability Engineering
- Network Engineering
- Security Ops
- DevOps



Modern WAN



Partnering with Leading Solutions



Visibility into

- SD-WAN, Hybrid WAN, DIA
- Underlay and overlay connectivity
- Cloud security performance

User Groups

- Network Engineering
- Network Operations
- Network Security



Employee Digital Experience



CUSTOMER DX



MODERN WAN



EMPLOYEE DX

ThousandEyes 



Visibility into

- Branch and remote employee experience
- SaaS and multi-cloud
- Internal data center apps

Expert Research Reports

**PUBLIC CLOUD
PERFORMANCE
BENCHMARK REPORT**

2018 Edition

**PUBLIC CLOUD
PERFORMANCE
BENCHMARK REPORT**

2019 Edition

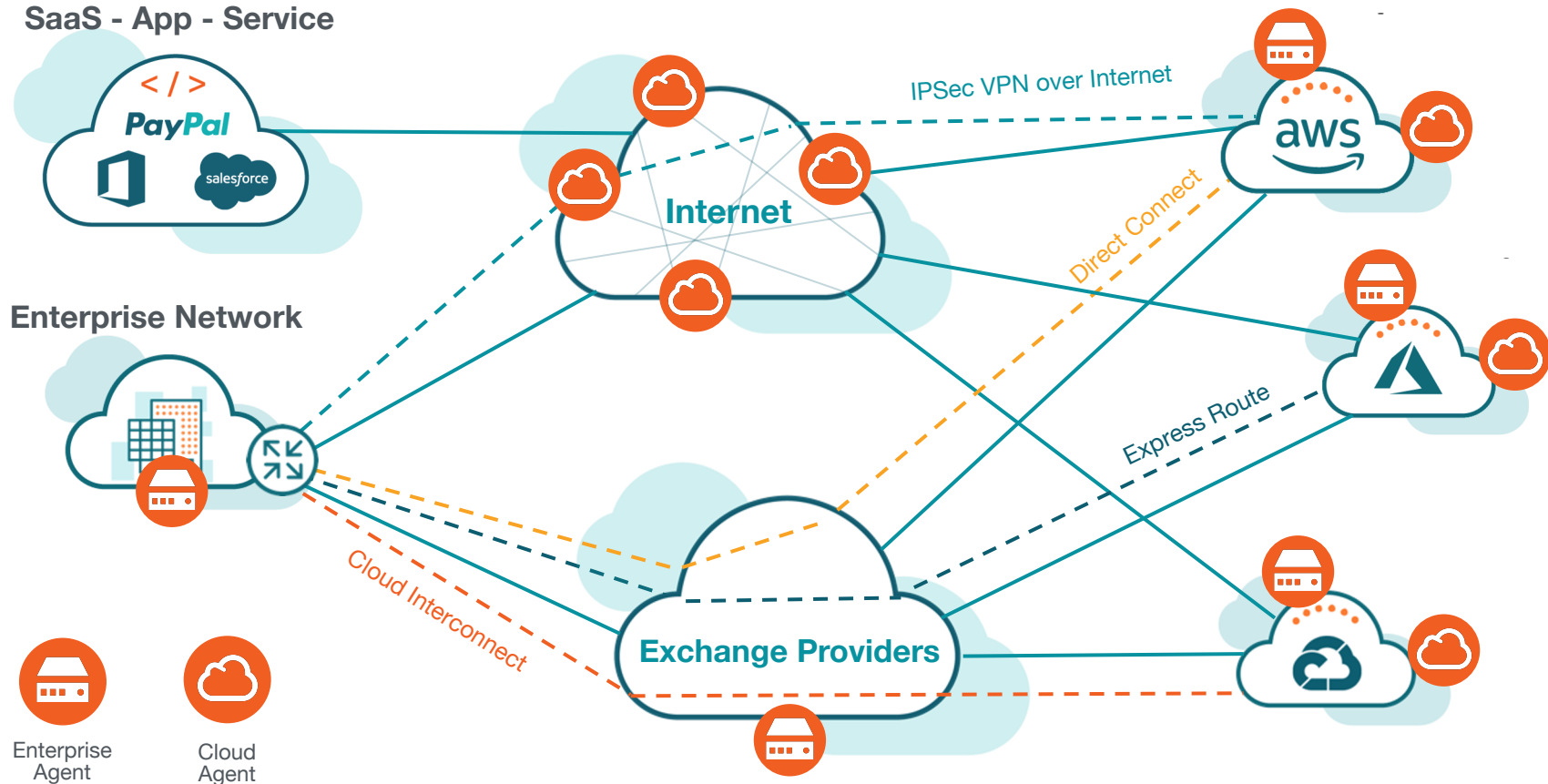
User Groups

- Infrastructure & Cloud Operations
- Service Delivery
- IT Operations
- Enterprise Architecture

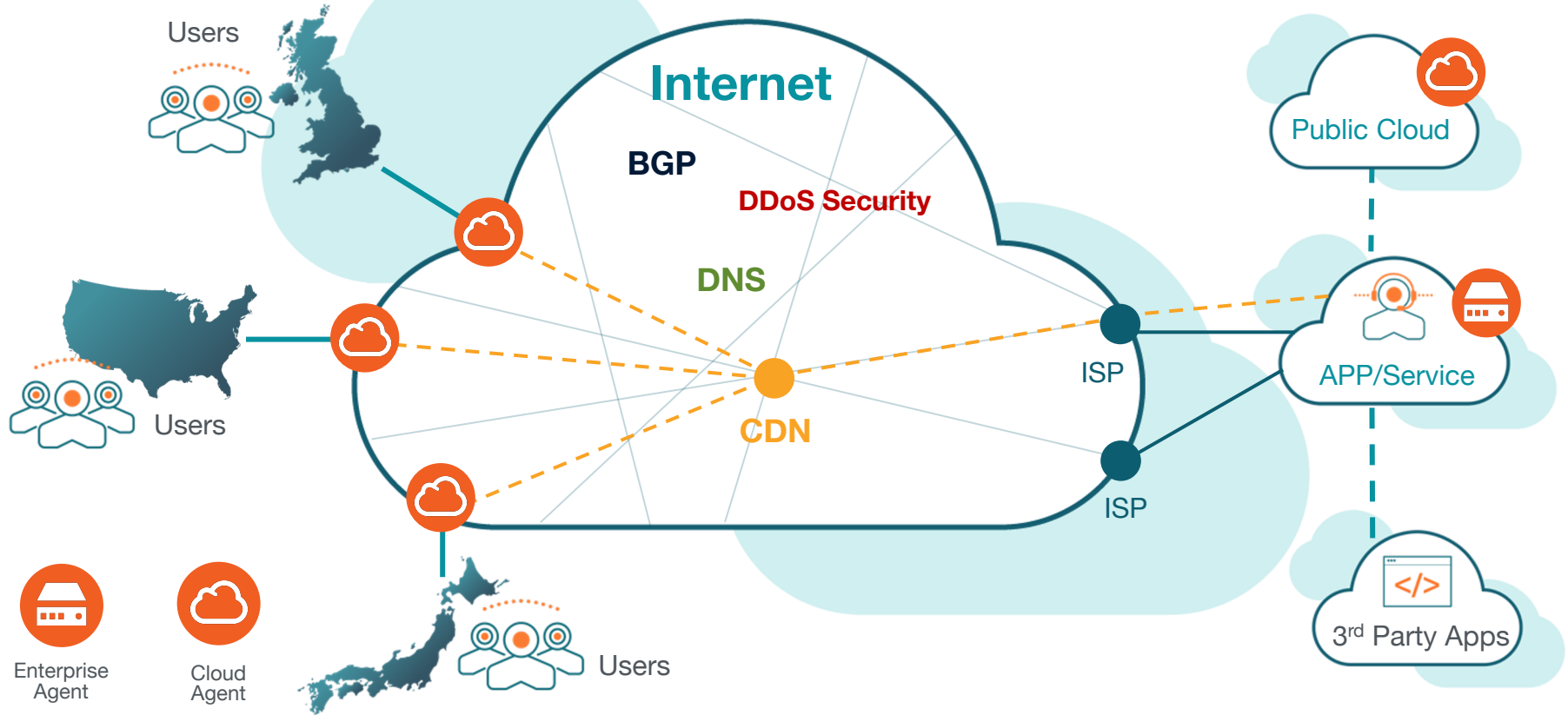


Multi-Cloud Visibility

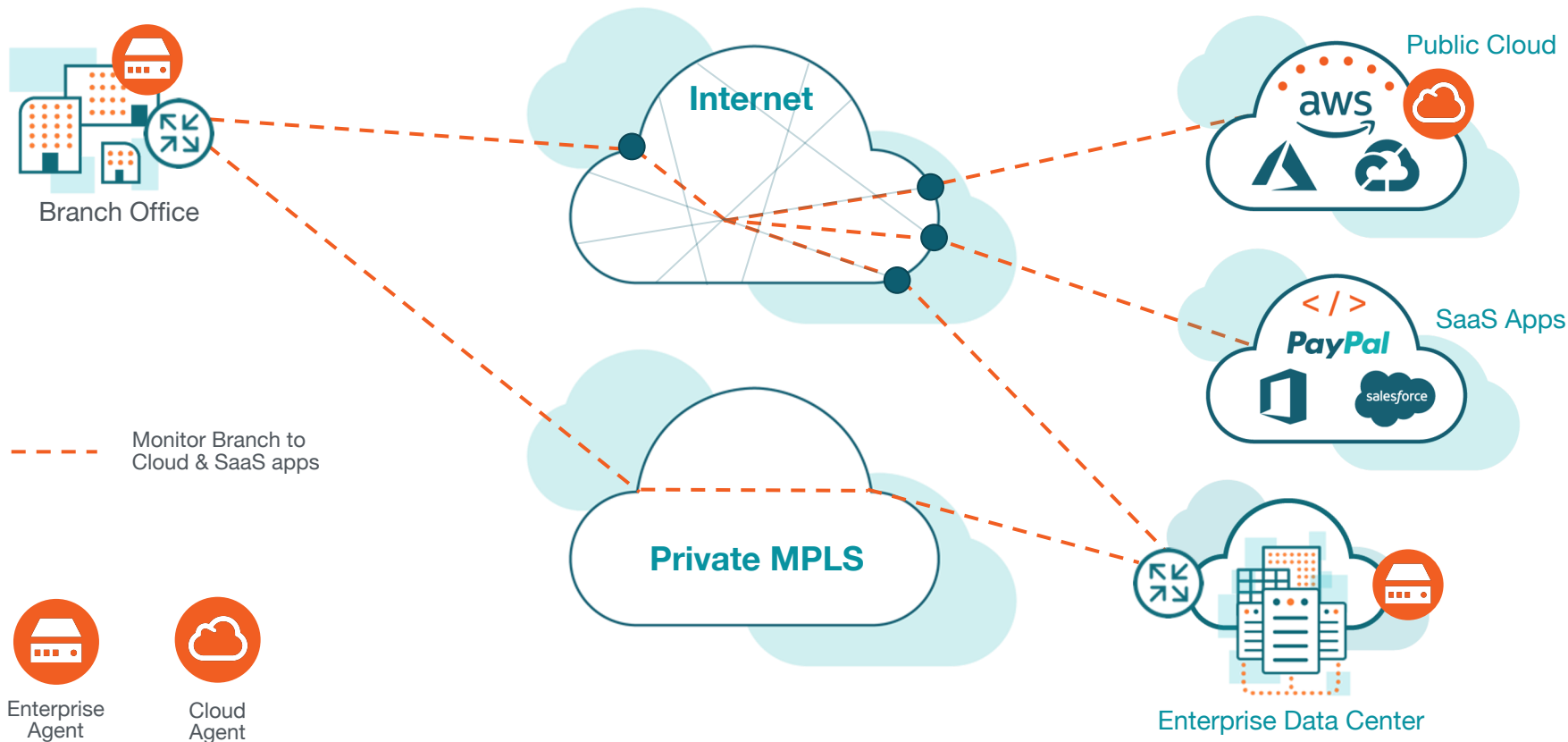
SaaS - App - Service



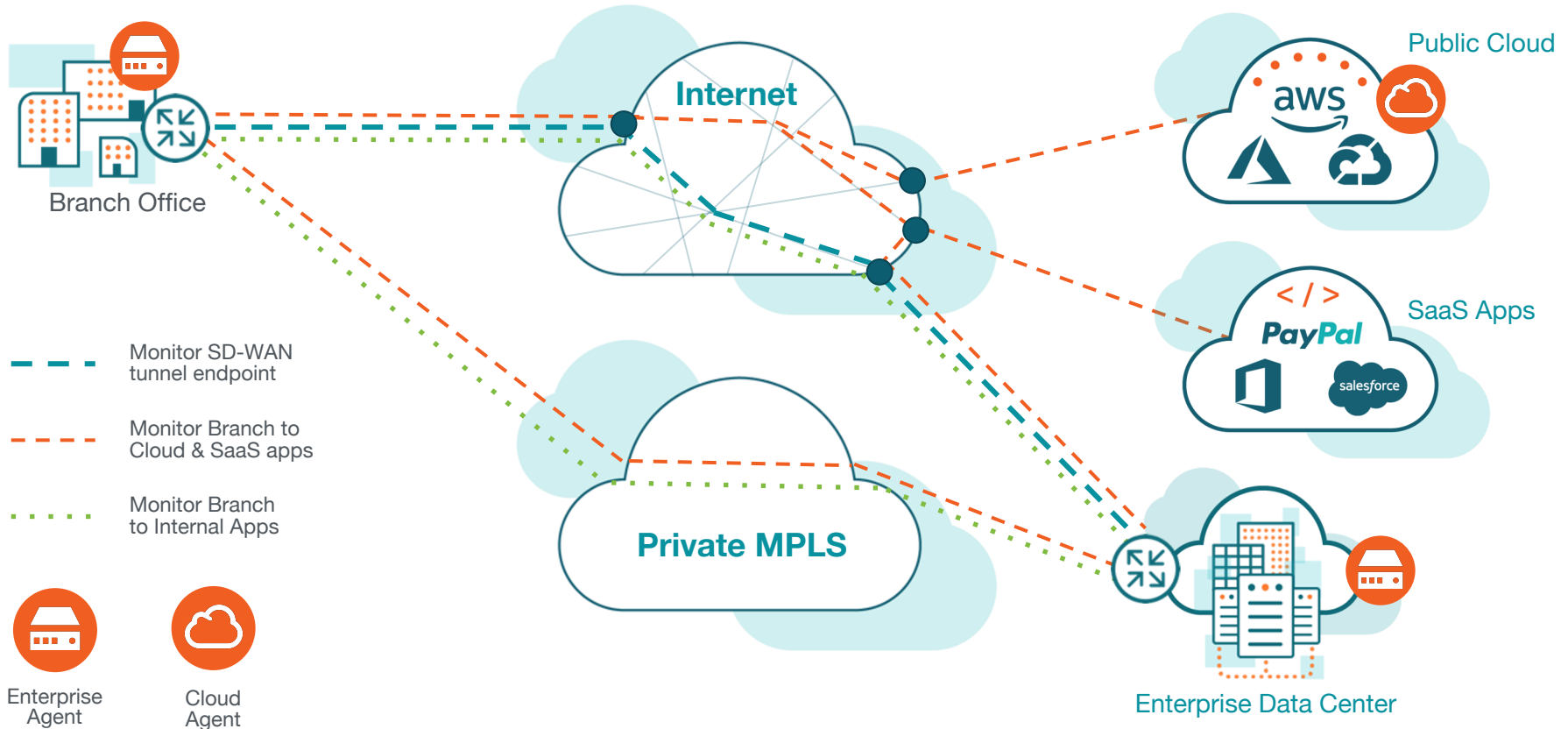
Customer Digital Experience



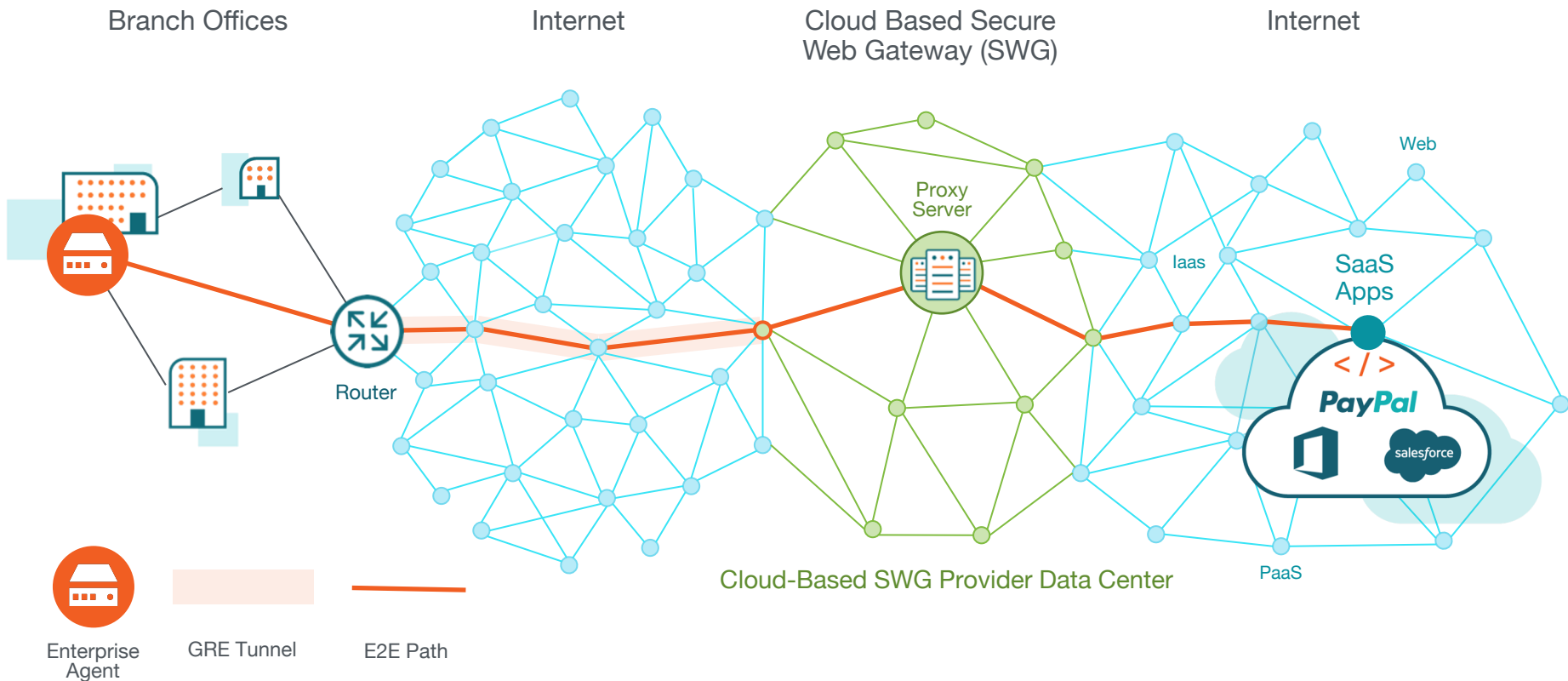
Monitoring for Cloud/SaaS Adoption



Hybrid/SD-WAN Monitoring



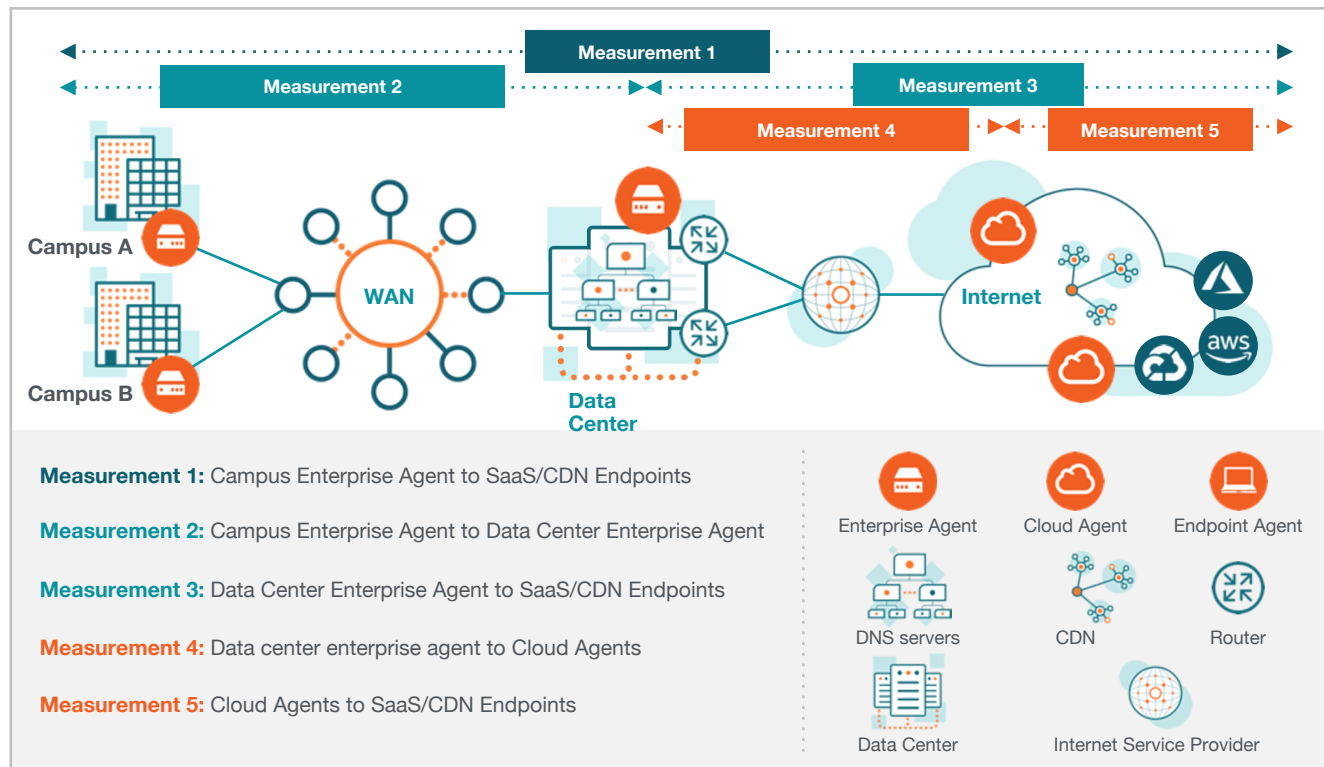
Monitoring Cloud-Based Secure Web Gateways



Monitoring External Service Dependencies

Example: Media company monitors streaming services to customers, plus SaaS/cloud services delivered to employees

- Streaming service to CDN providers
 - Public DNS
- SaaS and public cloud consumption
 - Web conferencing services
 - IT service management systems
 - Office productivity
 - Apps and services from public cloud



We Help Companies Like These Manage Digital Experiences

SOFTWARE AND SERVICES



FINANCIAL SERVICES



RETAIL AND ECOMMERCE



HEALTHCARE



MEDIA AND ENTERTAINMENT



EDUCATION



COMMUNICATIONS



CLOUD INFRASTRUCTURE



TECH HEAVYWEIGHTS



ThousandEyes

Thrive in a connected world™

ThousandEyes is
now part of Cisco.

