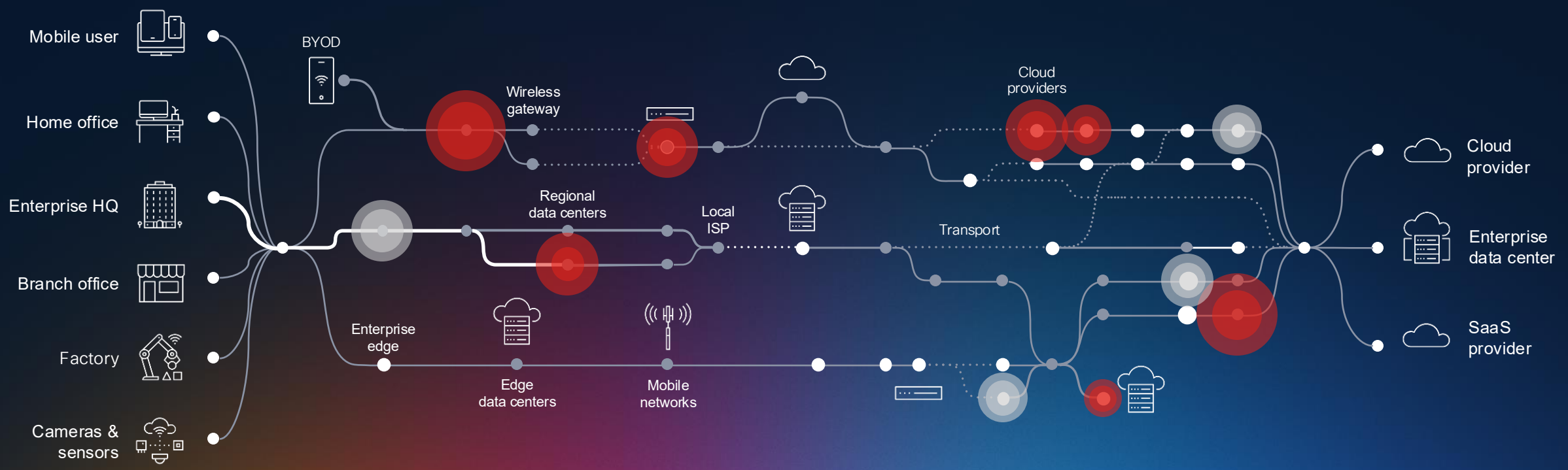
CISCO Connect

The Power of End to End Assurance

Bill Donoghue- Leader, Solutions Engineer

November 19, 2025

Digital Experiences Span Owned and Unowned Networks



Network Visibility with Application Context is Crucial

Cisco ThousandEyes Platform

Experience & Service Assurance

Digital experience

End user | Mobile
IIoT | VoIP

Proactive monitoring

Web | Network
BGP | DNS

Global visibility

On-Prem | Cisco
3rd party

Domain insights

Traffic | WAN
Internet | Cloud

AI-Powered Platform

Automation | Integrations | APIs

Path visualization

Cross-layer correlation

Anomaly detection & alerting

Event summarization

Predictive recommendations

Natural language query

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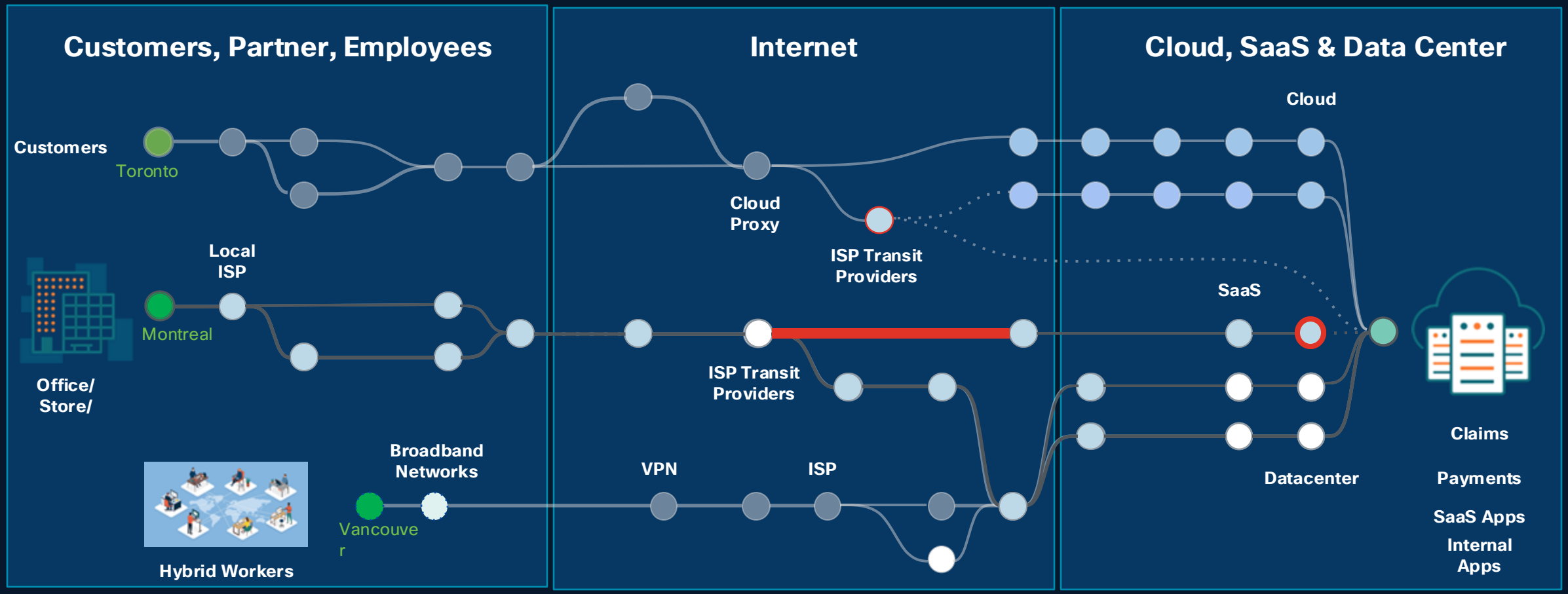
Challenges ThousandEyes Helps Solve



1000+ Points of Presence around the world
Leverage investments in Cisco solutions

Visibility into owned and unowned networks
Understand the impact of macro outages

Extends visibility into the Cloud and SaaS provider networks

Eyes Everywhere

CLOUD AGENT

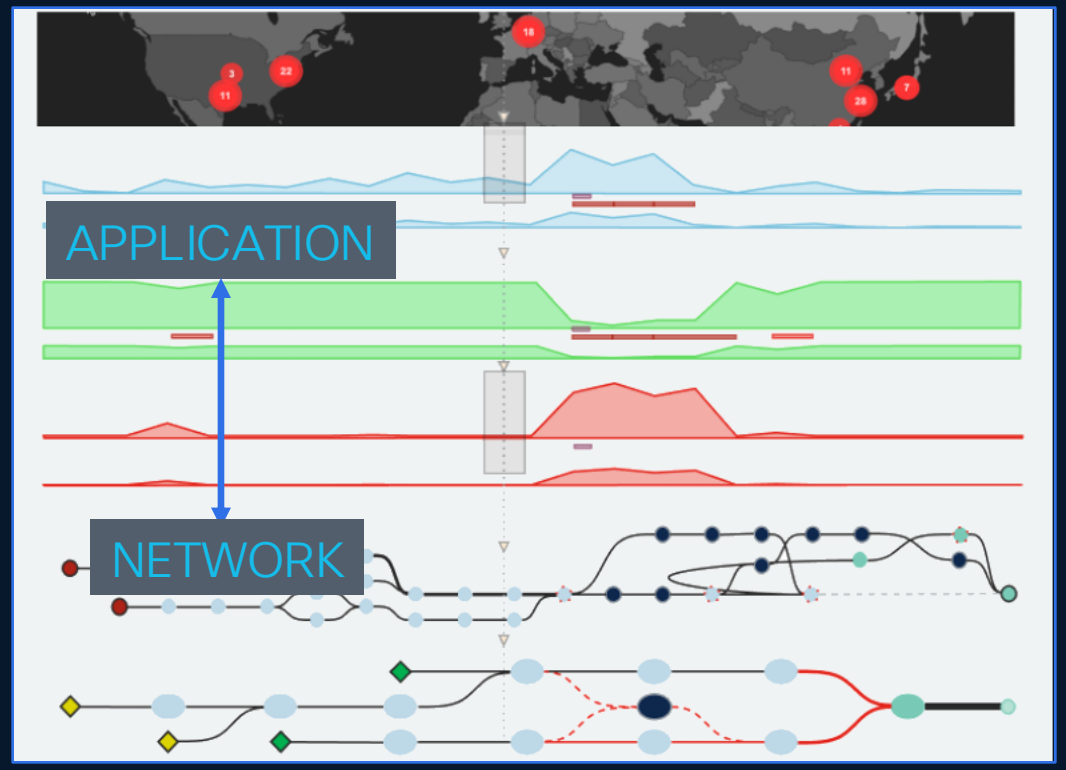
- 400+ ThousandEyes maintained POPs
- Global scale
- T1/2 DCs, Cloud and Broadband providers
- Outside-in visibility
- Public facing sites and APIs
- Customer experience

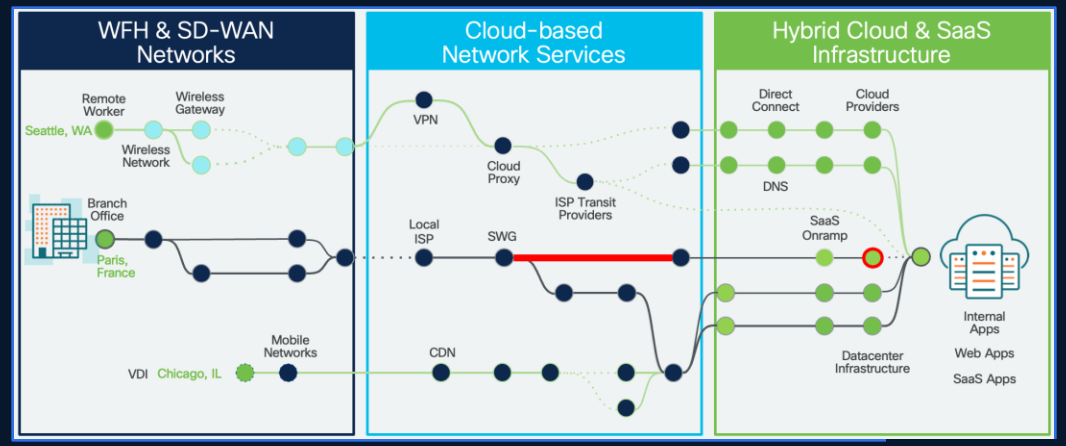
ENTERPRISE AGENT

- Deployed in YOUR environment
- DCs, sites, offices, branches, stores…
- VMs, Servers, Containers, Cisco HW
- Inside-out, inside-inside
- Internal apps, SaaS, network
- Employee / network experience

ENDPOINT AGENT

- Deployed on your employees' devices
- Home, office, anywhere…
- Laptops, RoomOS, Secure Access, Mobile
- Last mile visibility
- Internal/external apps, SaaS, network
- Wi-fi, VPN, ISP, any app





With Cisco, Assurance Is Built-In

Cisco Wireless

Cisco Switching

Cisco Routing / SD-WAN

Cisco Desk Series

Cisco Secure Client / Access

Cisco Phones

PC & Mac Devices

Cisco Room Series

AI-driven Intelligence + splunk> a cisco company integration

cisco

In Action

VISUALIZE

Application and service degradation immediately. Quickly identify the scope of the degradation.

UNDERSTAND

The fault domain instantly (i.e. Application vs. Network). Correlated hop by hop network performance across any network.

ACT

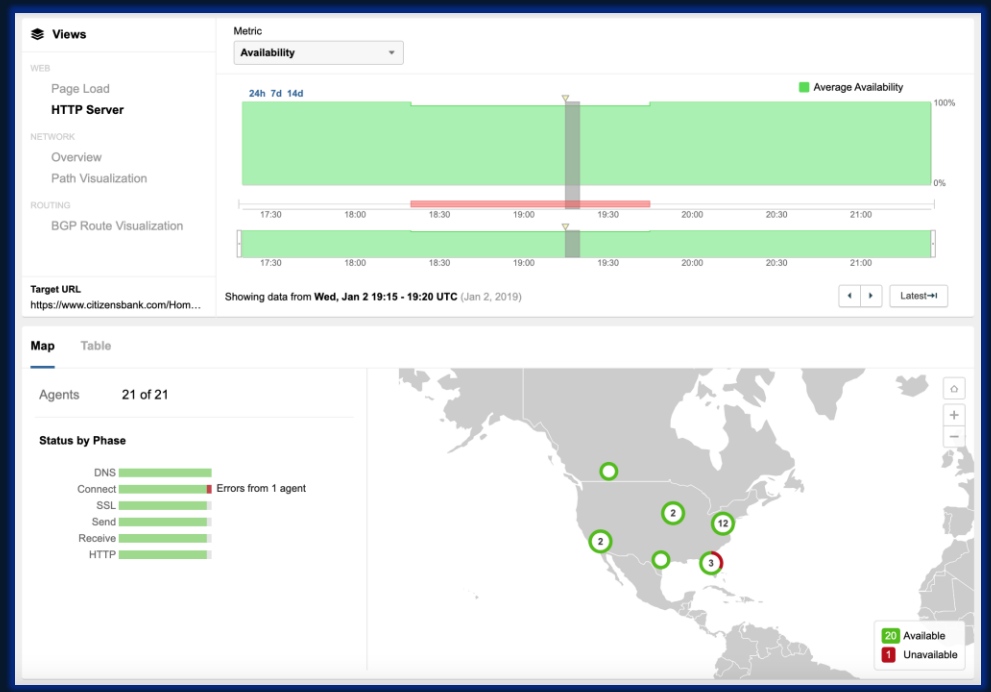
Quickly and easily share data with internal teams, or external providers to improved MTTR

Critical business service is unavailable for >90 minutes in ONE region of the US

Quickly identify impacted regions, and the suspected fault domain (network)

Correlated network packet loss to service disruption, pinpoint exactly where it's coming from.

Share data with external providers to accelerate time to remediation.



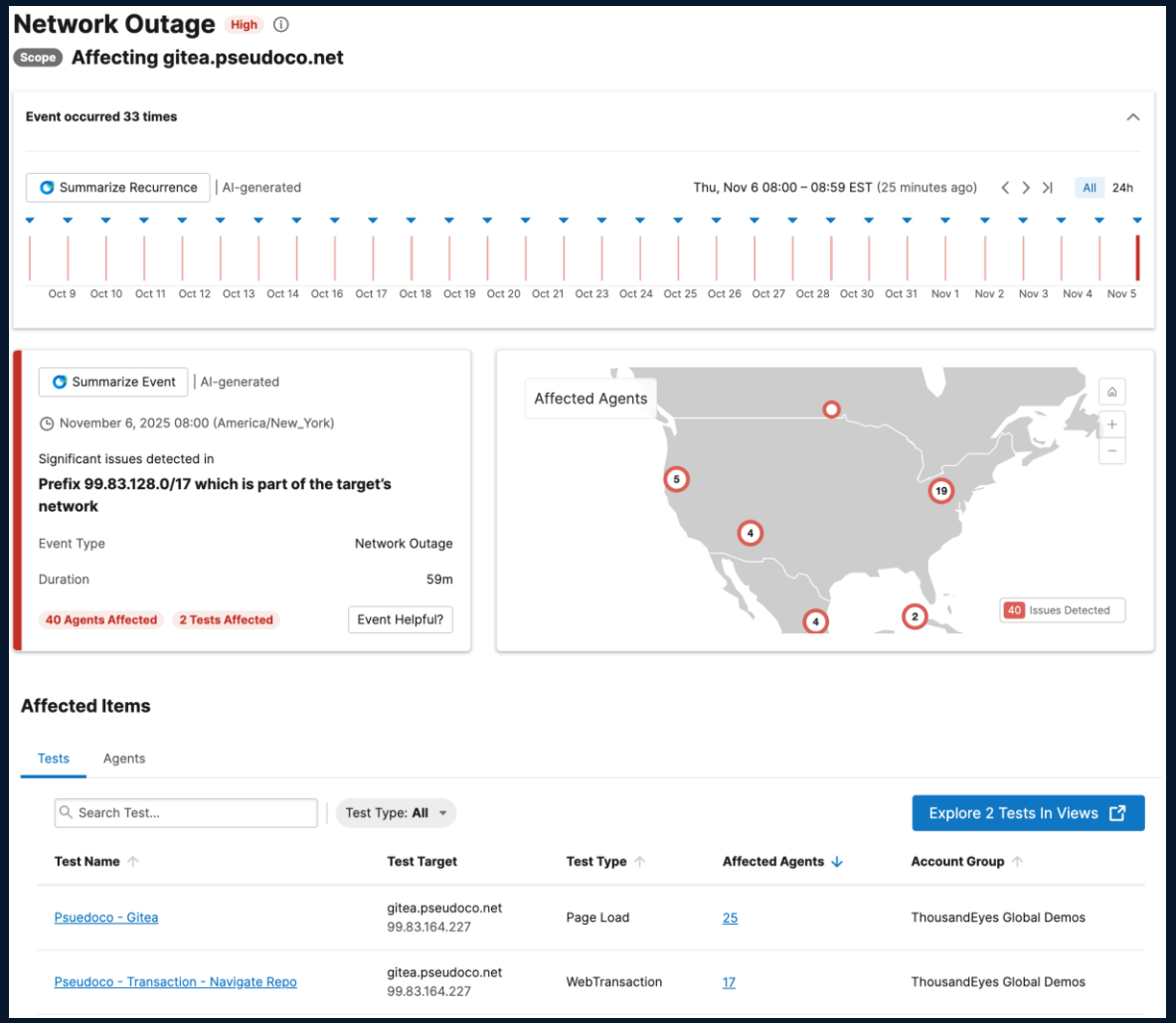
AI-Driven Event Detection

Automatically surfaces meaningful incidents so you can rapidly respond to what matters

Automatically detect & correlate anomalies
Out-of-the-box detection & correlation across tests & test layers

Diagnose & isolate domain
Problem domain determined based on app & network results

Troubleshoot faster
Automated insights from your data to help reduce mean time to resolution



Cisco AI Assistant Integrated into ThousandEyes

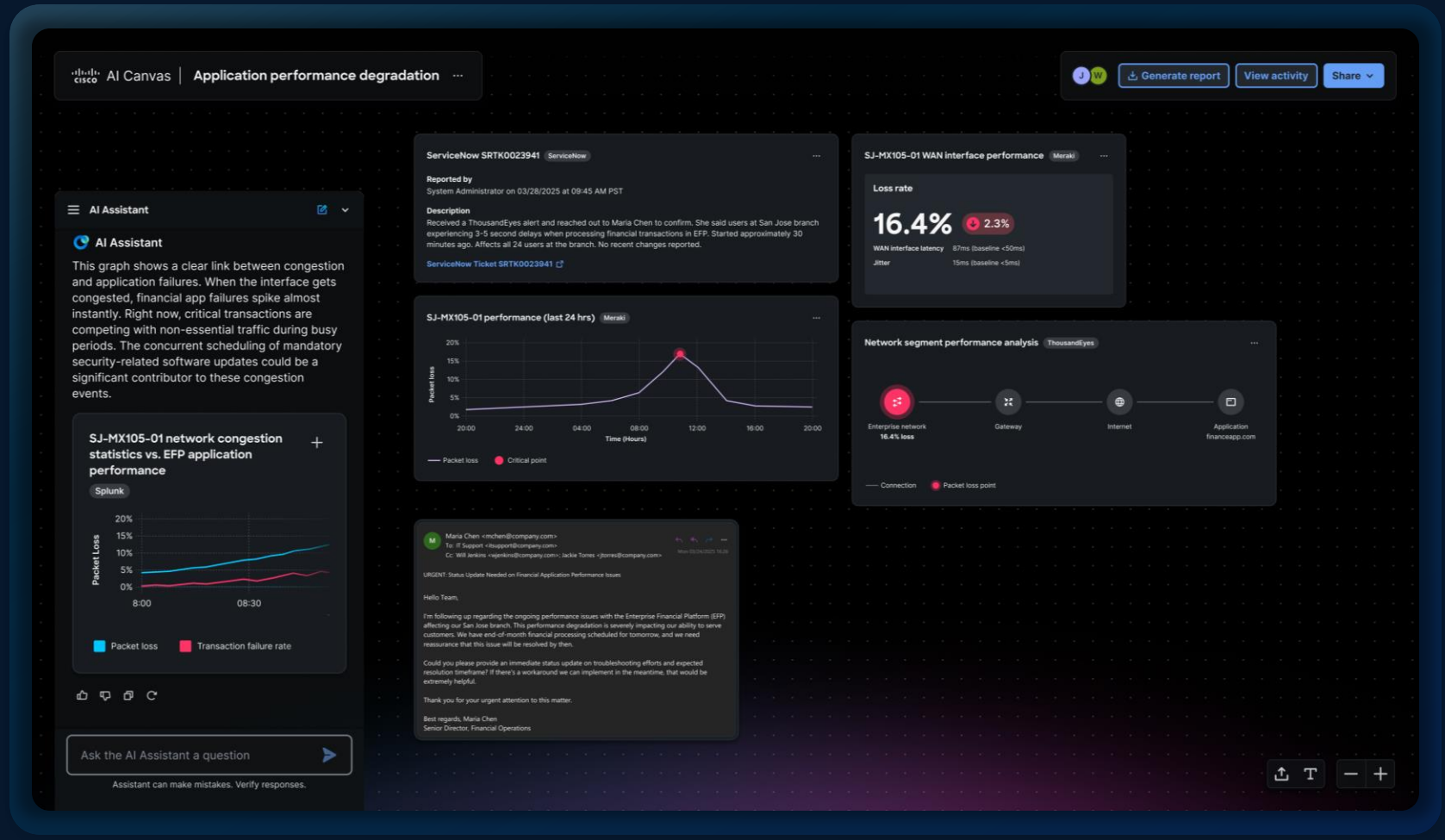
Unlock Assurance for all with everyday language empowering any user to operate like an expert

Instant explanations and guided troubleshooting, accelerate root cause analysis and resolution

Predict and minimize the impact of operational issues before they affect user experiences

AI Canvas

- Troubleshooting and execution across multiple domains
- One shared workspace for NetOps, SecOps, IT, and execs
- Built on the foundation of the Deep Network Model
- Interface to ask and explore in natural language
- Guides you through diagnostics, decisions, and action inside the canvas



ThousandEyes Use Cases

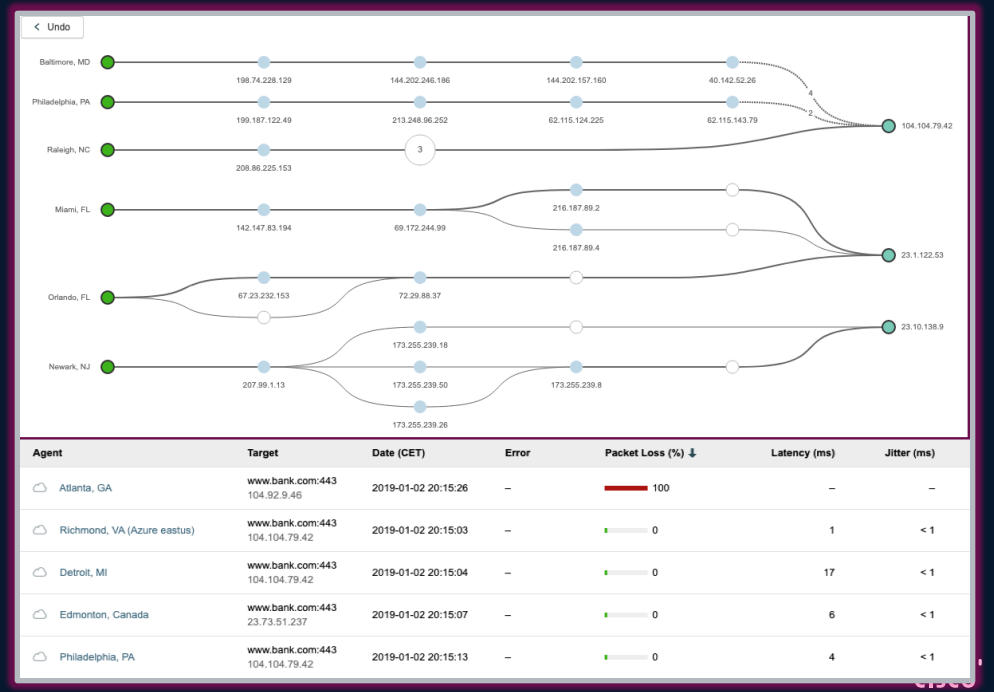
	Use Case	Value	Who (Teams)	What
1	EMPLOYEE DIGITAL EXPERIENCE 	• Identify and fix end user problems faster, down to last mile • Improved productivity • Better WFH Experience	• Workforce Experience, Enduser Compute, Collaboration, Call Center • HelpDesk, Operations, Monitoring	• WiFI • VPN • App monitoring • Employee Last Mile
2	CLOUD/SAAS 	• Visibility into infra you don't control • Quickly identify WHERE problems are and the impact • Ability to escalate with evidence for improved MTTR	• SaaS app owners • Cloud infrastructure owners • App teams with Hybrid apps • HelpDesk, Operations, Monitoring	• Webex/MS Teams/Zoom • MS O365 • Workday/SFDC/SAP • AWS/Azure/GCP
3	ENTERPRISE NETWORK 	• Visualize real-time/historical network paths for traditional and SDWAN networks (overlay/underlay) • Correlated loss, latency and jitter with path and BGP change • Hold ISPs and vendors accountable	• Network Operations/Engineering • HelpDesk, Operations, Monitoring • GNOC, NOC, GIS, Security	• Campus Branch WAN • SDWAN/SASE • ISP Health • Hybrid Cloud • Proxies and Internal Apps
4	CUSTOMER DIGITAL EXPERIENCE 	• Quickly determine fault domain (app/network) when performance or availability problems happen • Understand what impact external networks have on your end users • Measure end user experience consistently from multiple locations	• Application Operations/Dev/Owners • HelpDesk, Operations, Monitoring	• Customer facing apps • APIs and 3rd Party Monitoring • CDN • BGP and DNS

Customer Digital Experience
Cisco Synergies

splunk>
a cisco company

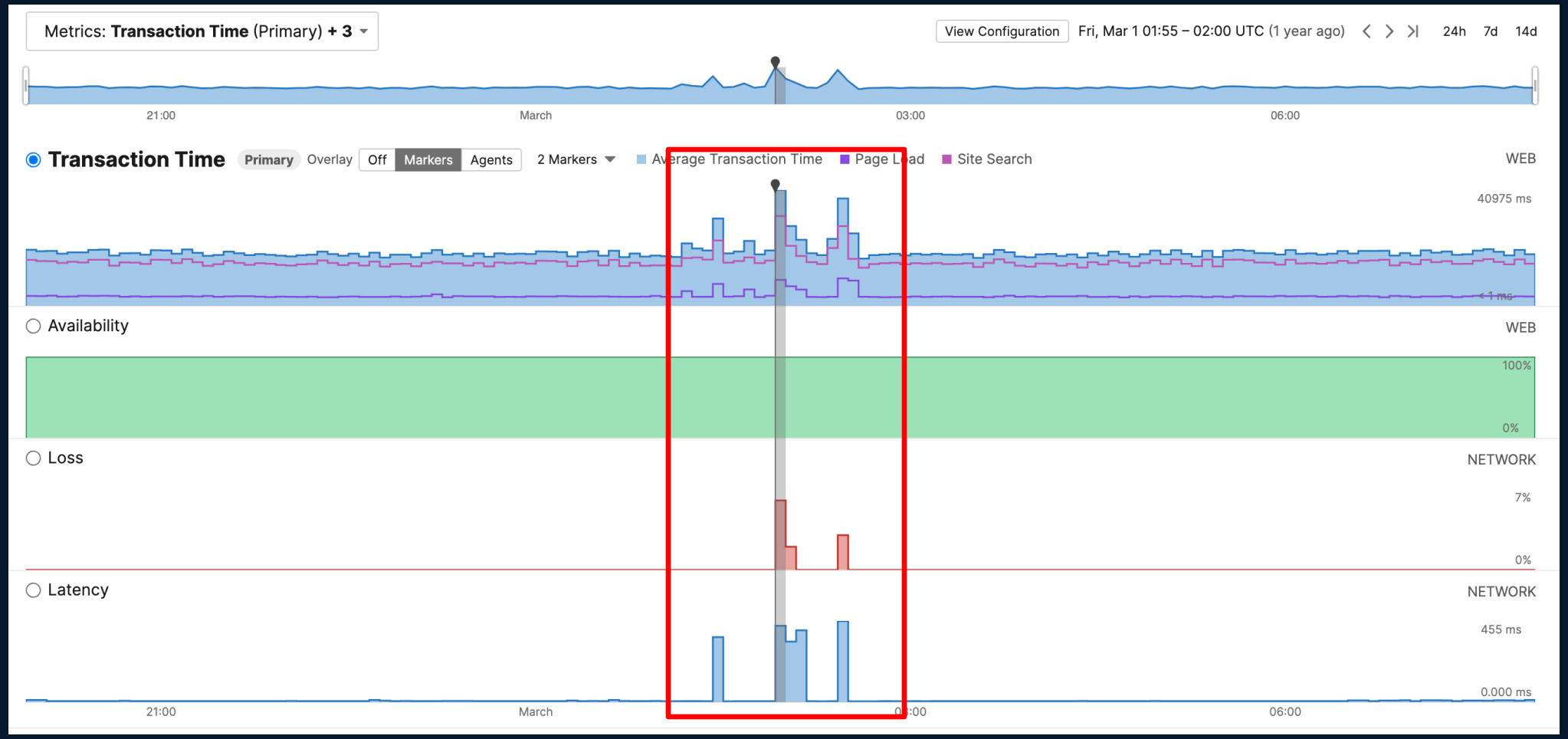
ThousandEyes for CDX

- Synthetic application transaction tests (24/7)
- Easy to use and deploy (zero instrumentation, recorder)
- Hundreds of external points of presence
- Correlated network path visibility
- CDN, API, Cloud and external dependency visibility
- DNS/BGP Visibility and Correlation



Agent	Target	Date (CET)	Error	Packet Loss (%)	Latency (ms)	Jitter (ms)
Atlanta, GA	www.bank.com:443 104.92.9.46	2019-01-02 20:15:26	–	100	–	–
Richmond, VA (Azure eastus)	www.bank.com:443 104.104.79.42	2019-01-02 20:15:03	–	0	1	< 1
Detroit, MI	www.bank.com:443 104.104.79.42	2019-01-02 20:15:04	–	0	17	< 1
Edmonton, Canada	www.bank.com:443 23.73.51.237	2019-01-02 20:15:07	–	0	6	< 1
Philadelphia, PA	www.bank.com:443 104.104.79.42	2019-01-02 20:15:13	–	0	4	< 1

ThousandEyes for CDX



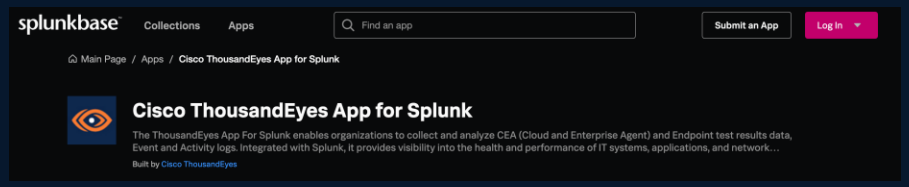
A customer's primary revenue generating app was sporadically have slow downs. A ThousandEyes multi-step transaction test caught this and was able to correlate the increase in transaction time to network latency.

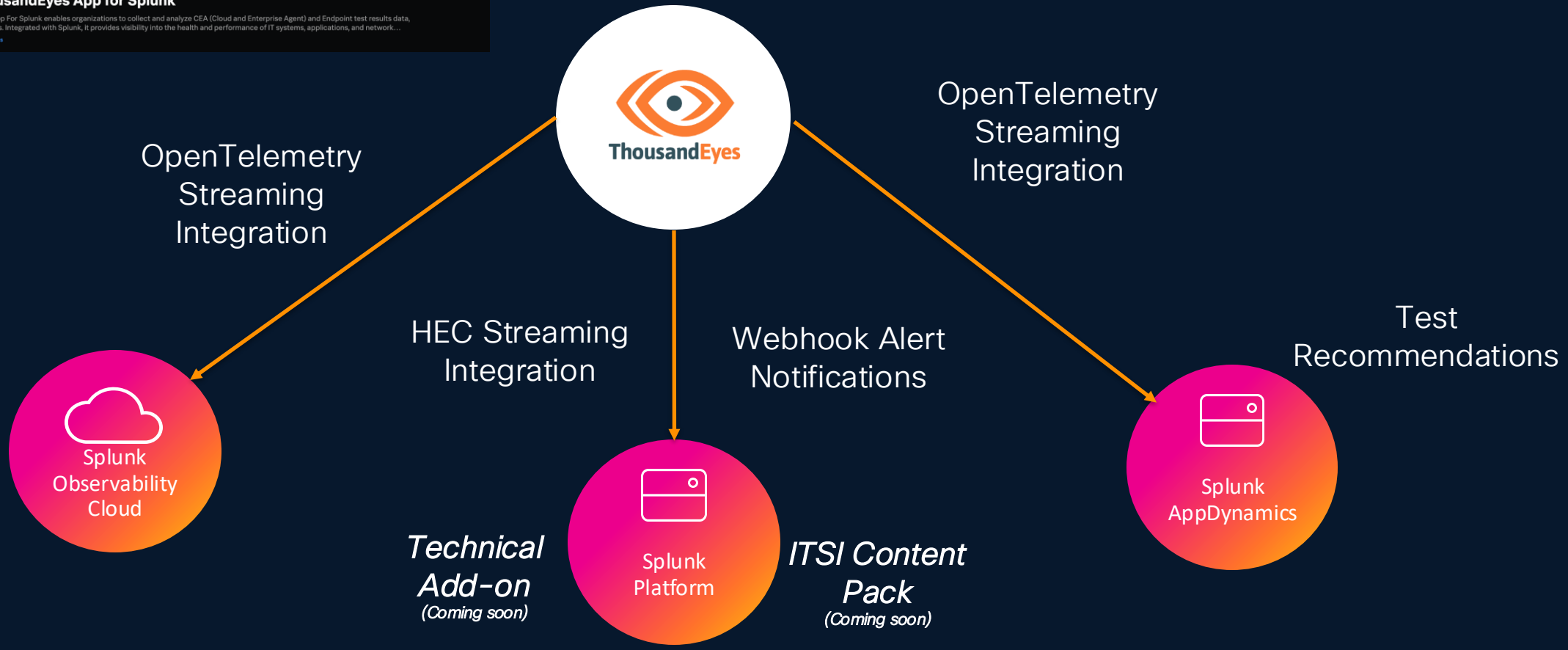
ThousandEyes for CDX

Here we can quickly see that the increase in network latency and therefore increase in transaction time is coming from the CDN provider.

ThousandEyes and Splunk

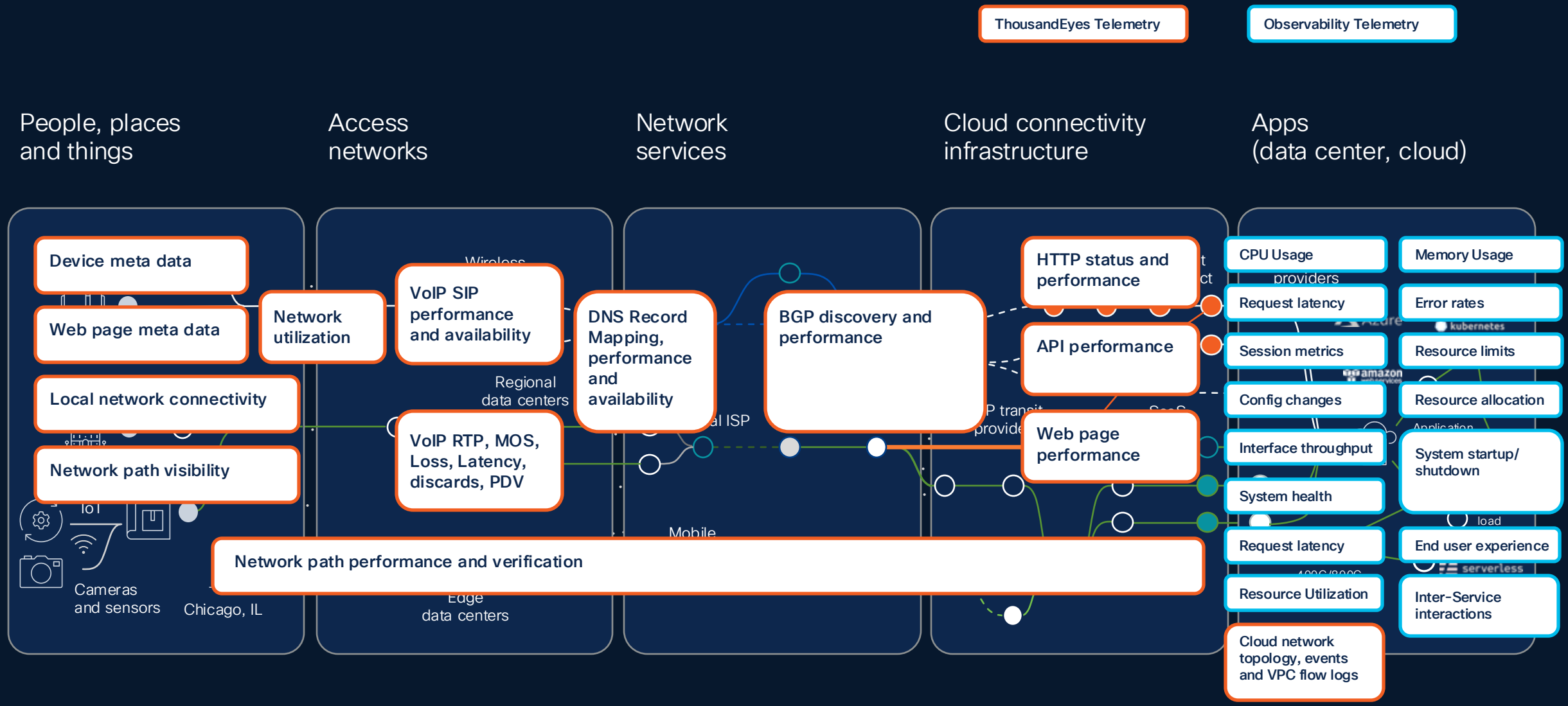
Integrate ThousandEyes with Splunk Platform and Splunk Observability





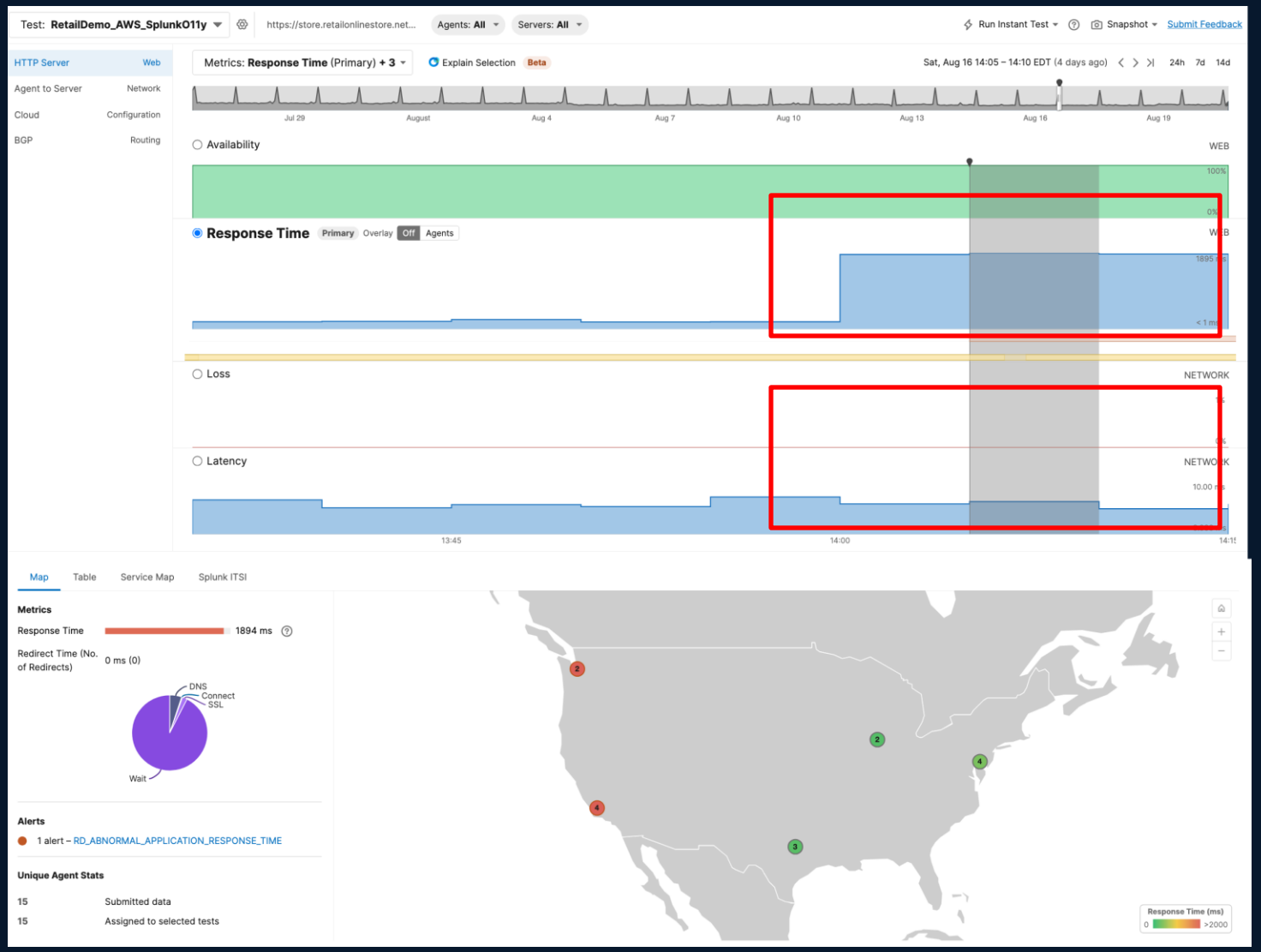
ThousandEyes and Splunk

ThousandEyes Assurance and Splunk Observability

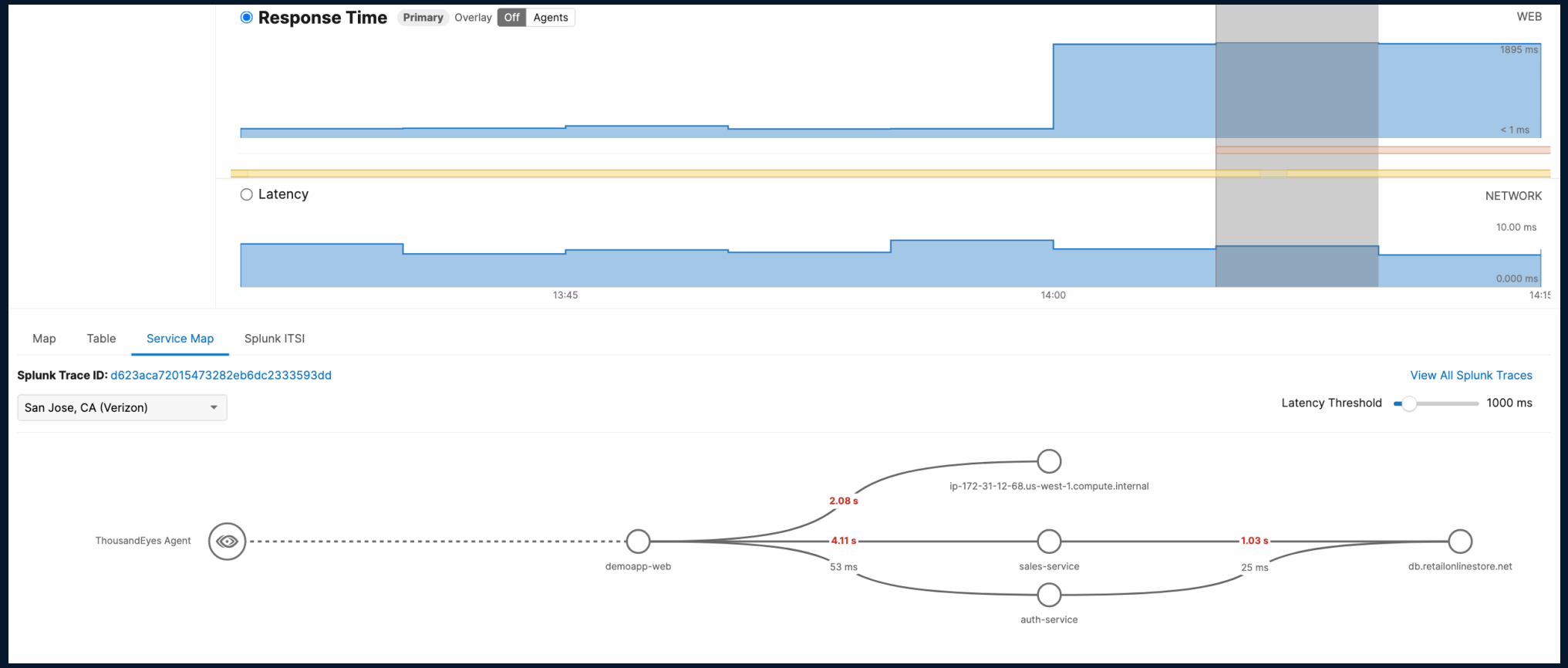


ThousandEyes and Splunk

Here we see increases in application response time. ThousandEyes quickly shows that it does NOT appear to be network related.

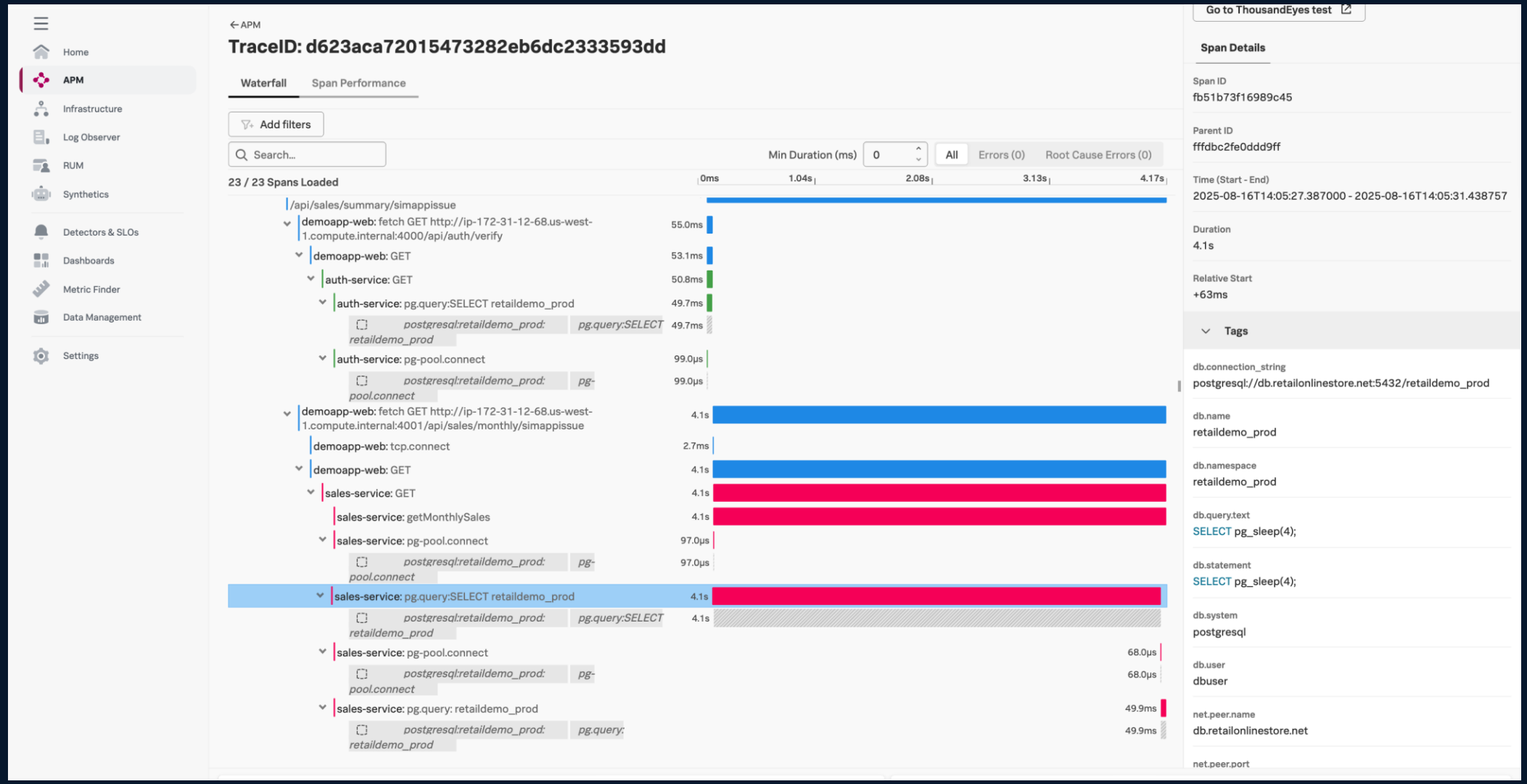


ThousandEyes and Splunk



The Splunk Observability Cloud service map is now available to diagnose backend application problems. We can quickly see high levels of inter-app latency. From here, we can launch in context to the Splunk Observability Cloud transaction trace.

ThousandEyes and Splunk



The Trace shows us exactly where and why the application is slowing down.

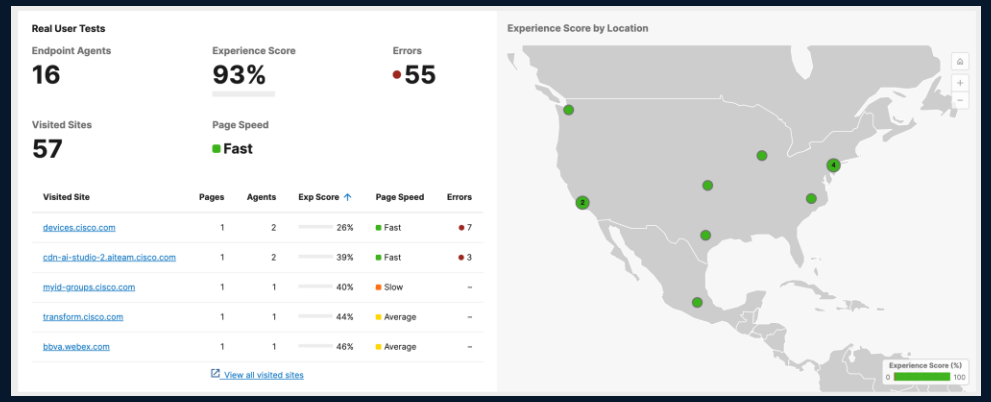
Customer Digital Experience
Cisco Synergies

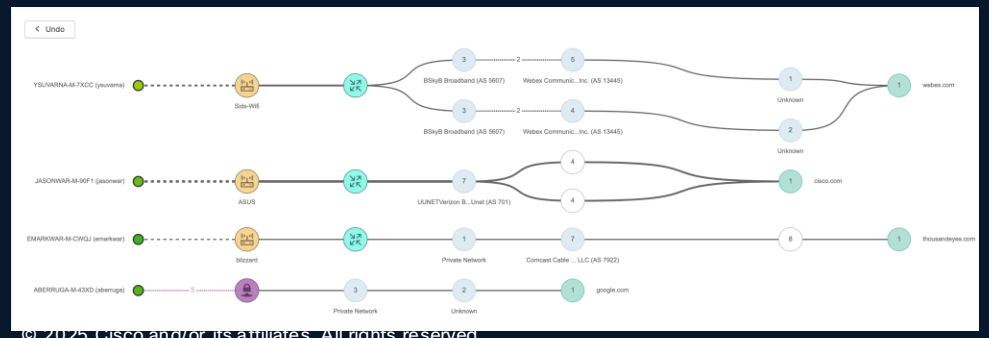
webex by cisco

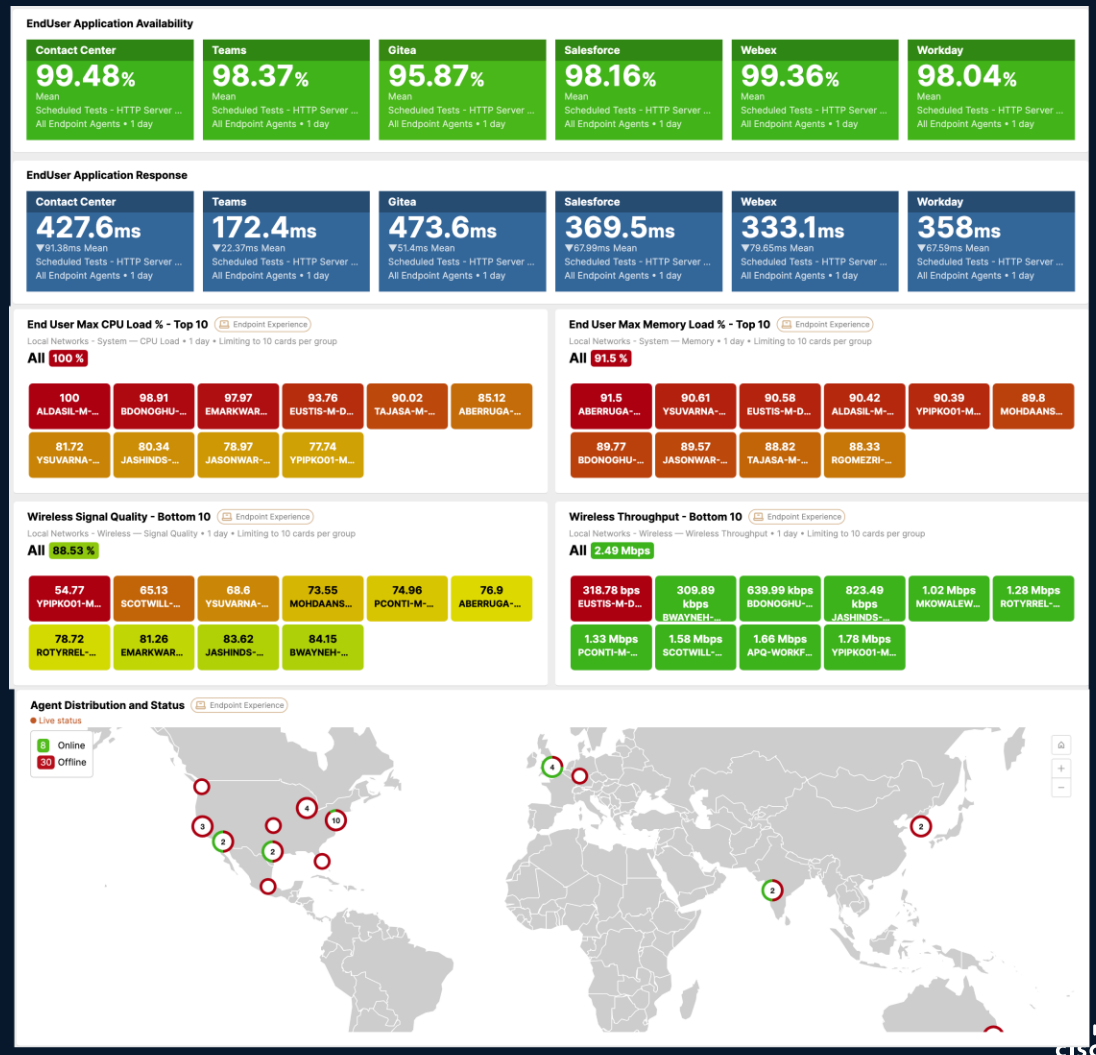
cisco SECURE

Understand Employee Experience *Wherever They Are...*

- App/Service Experience with correlated network visibility
- Last mile insights (WiFi, VPN, Proxy)
- Real User, Scheduled and Dynamic testing

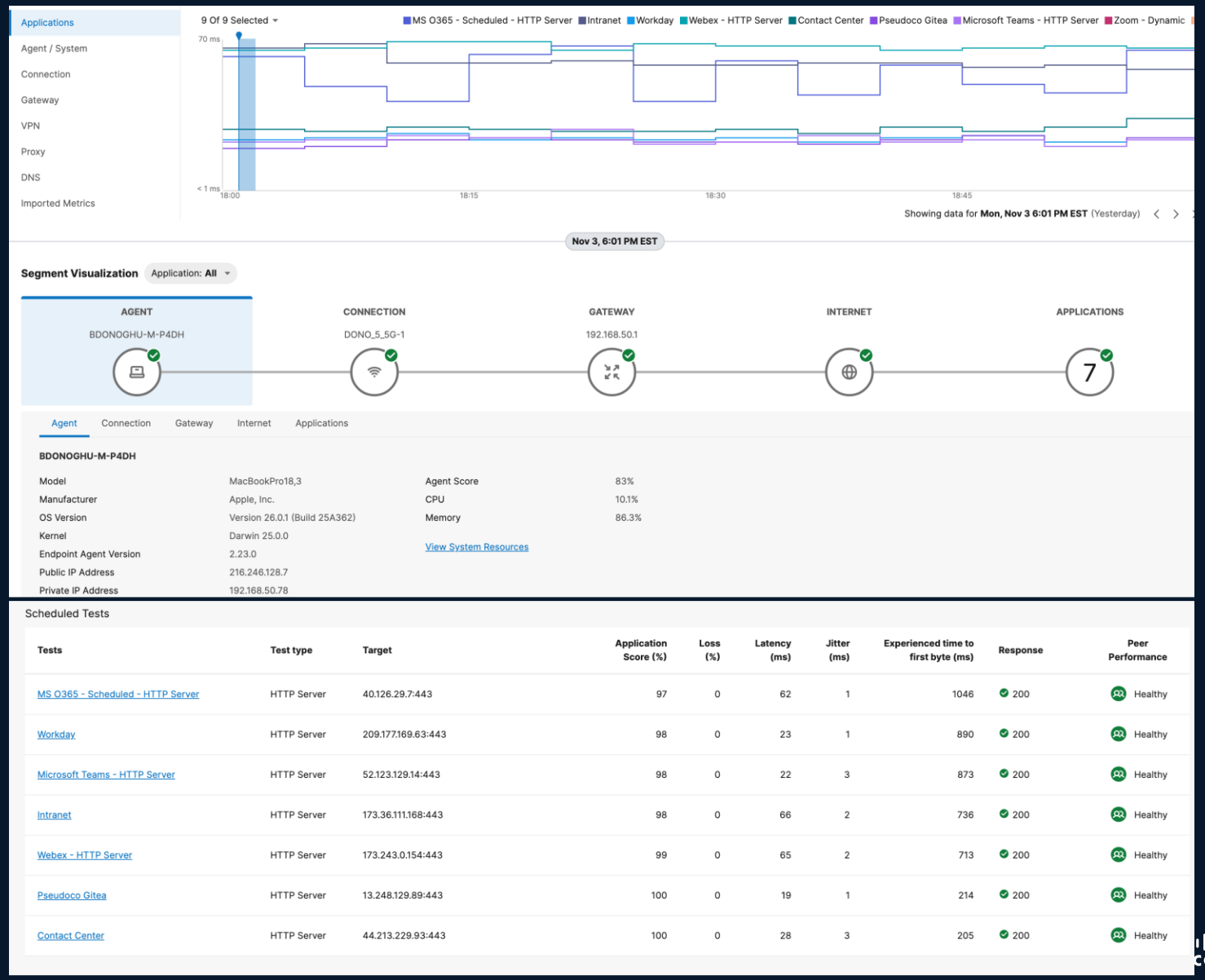






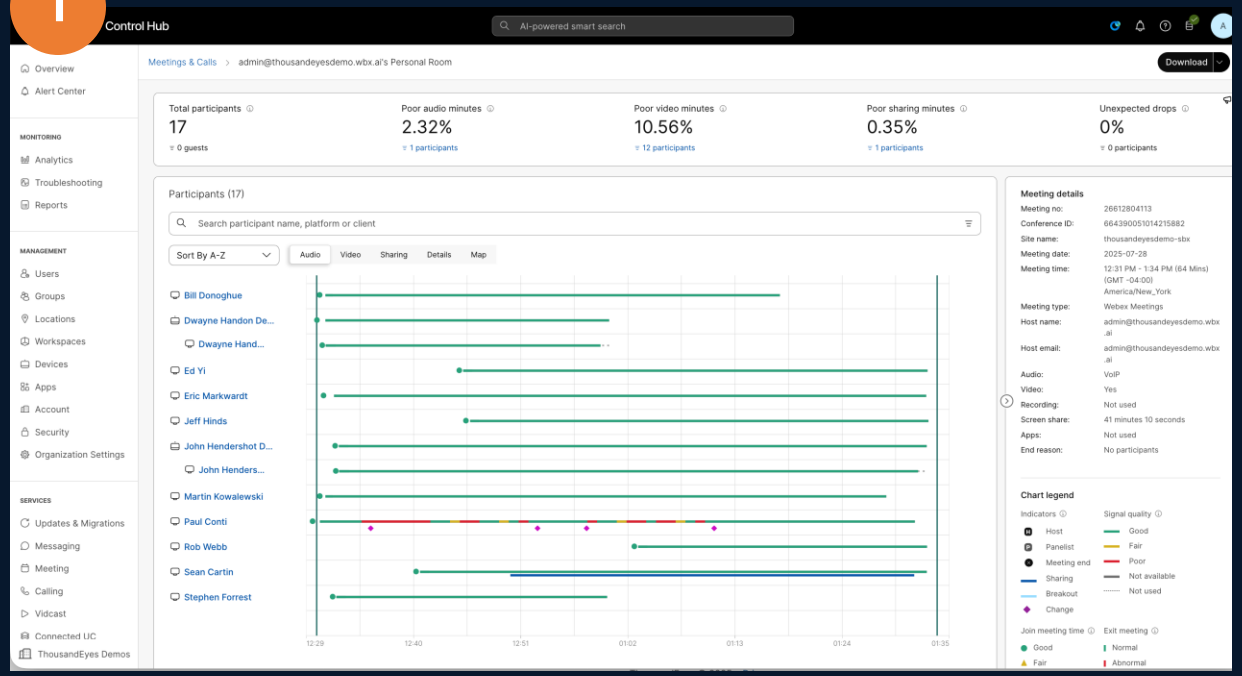
Endpoint - Agent View

- Holistically troubleshoot user experience in real-time or historically
- Proactive insights into service performance
- Simplistic segment visualization to quickly isolate the fault domain



ThousandEyes and Webex

1



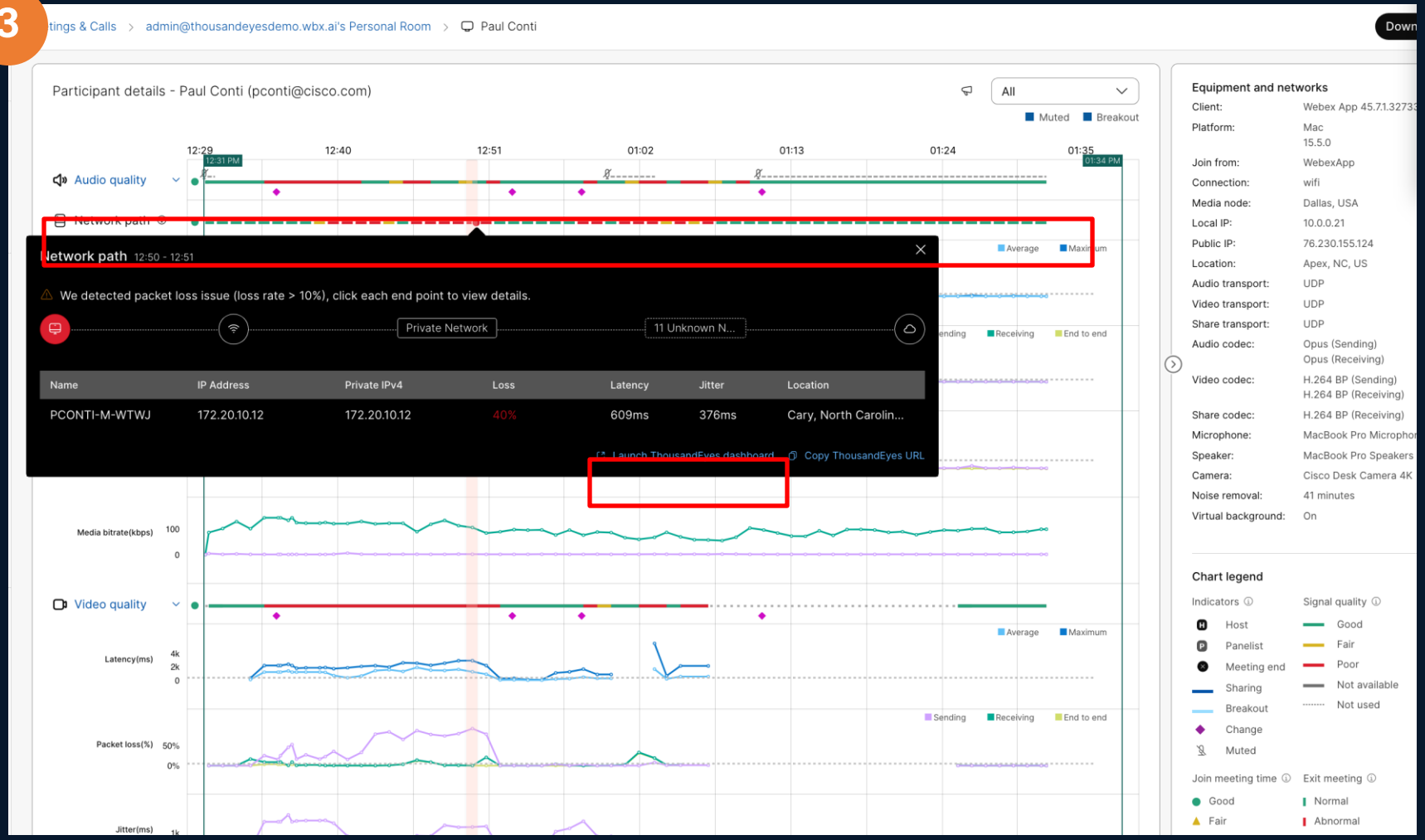
Webex Control Hub shows the status of real-time or historical meetings. Here we can validate that Paul did not have a quality experience.

2

Control Hub shows us that during the meeting, Paul experienced poor audio and video, with elevated levels of packet loss, network latency and jitter.

ThousandEyes and Webex

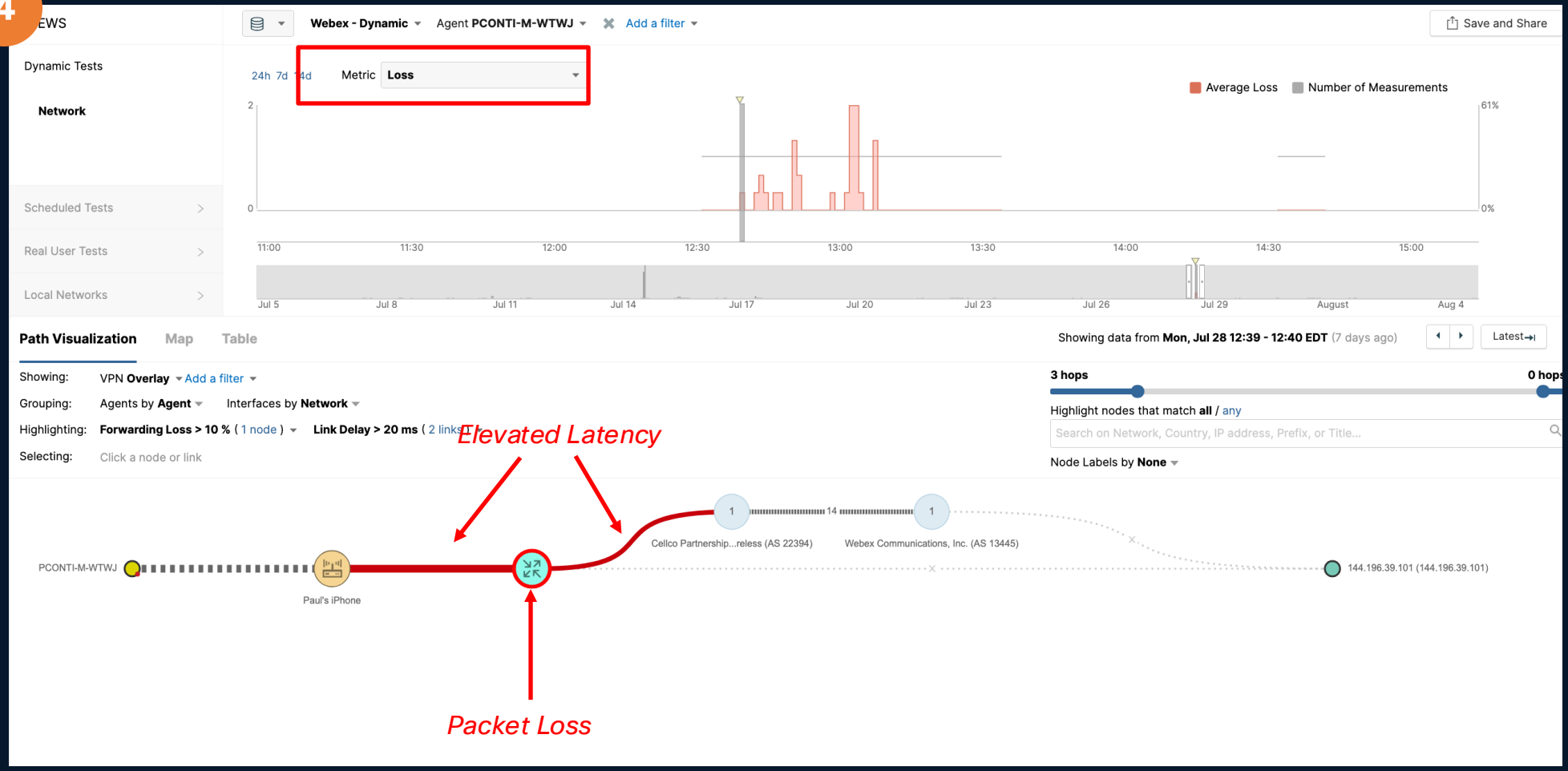
3



With the ThousandEyes integration, Control Hub now has more insight into the health of the actual network path. We can quickly see WHERE the network disruption is coming from and launch in context to ThousandEyes.

ThousandEyes and Webex

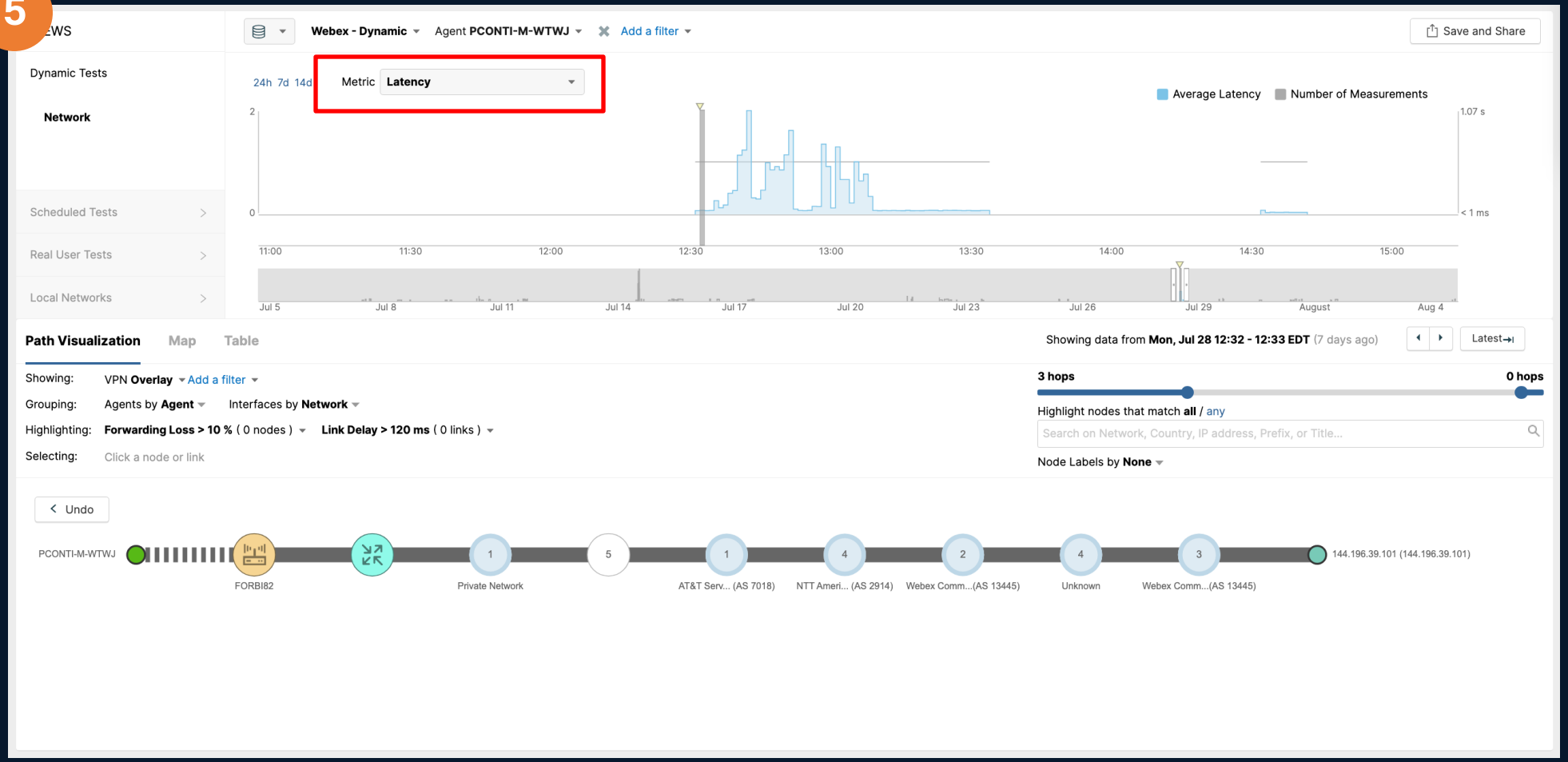
4



ThousandEyes shows us that for the meeting in question, the network latency and loss that is ultimately impacting Paul's experience is coming from his local network.

ThousandEyes and Webex

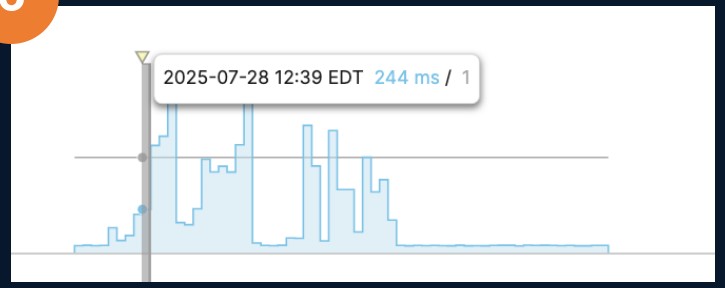
5

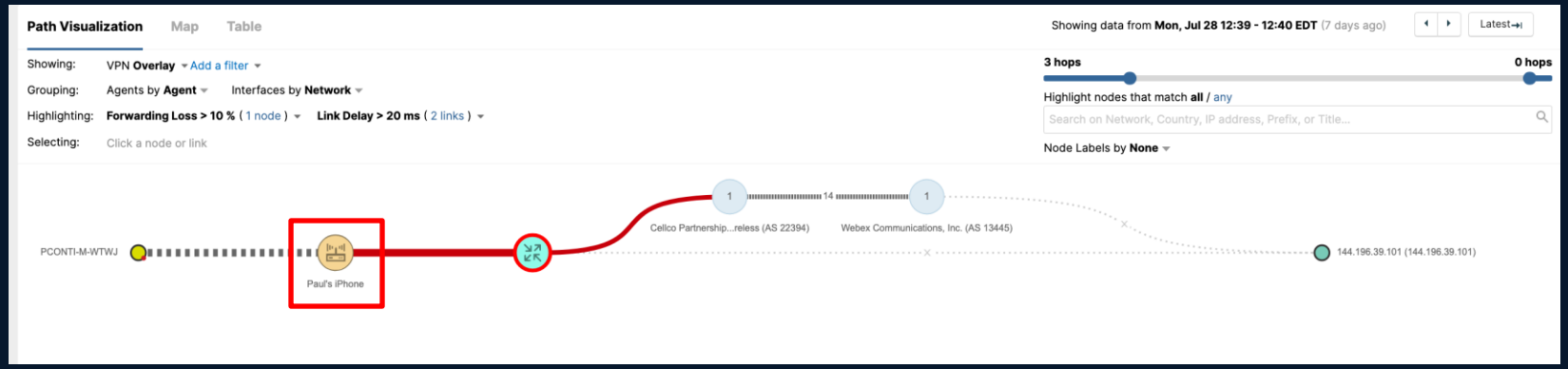


If we look BEFORE (or after) the elevation in latency and packet loss, we can see the network path is much different. Paul is connecting to a completely different network.

ThousandEyes and Webex

6





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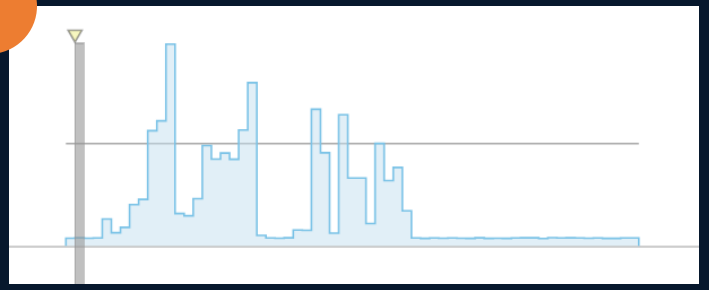
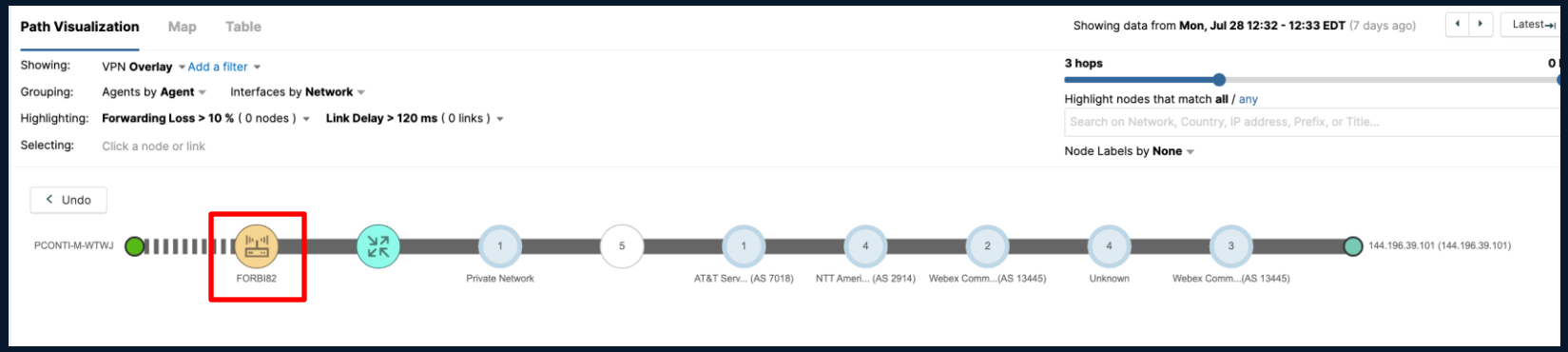


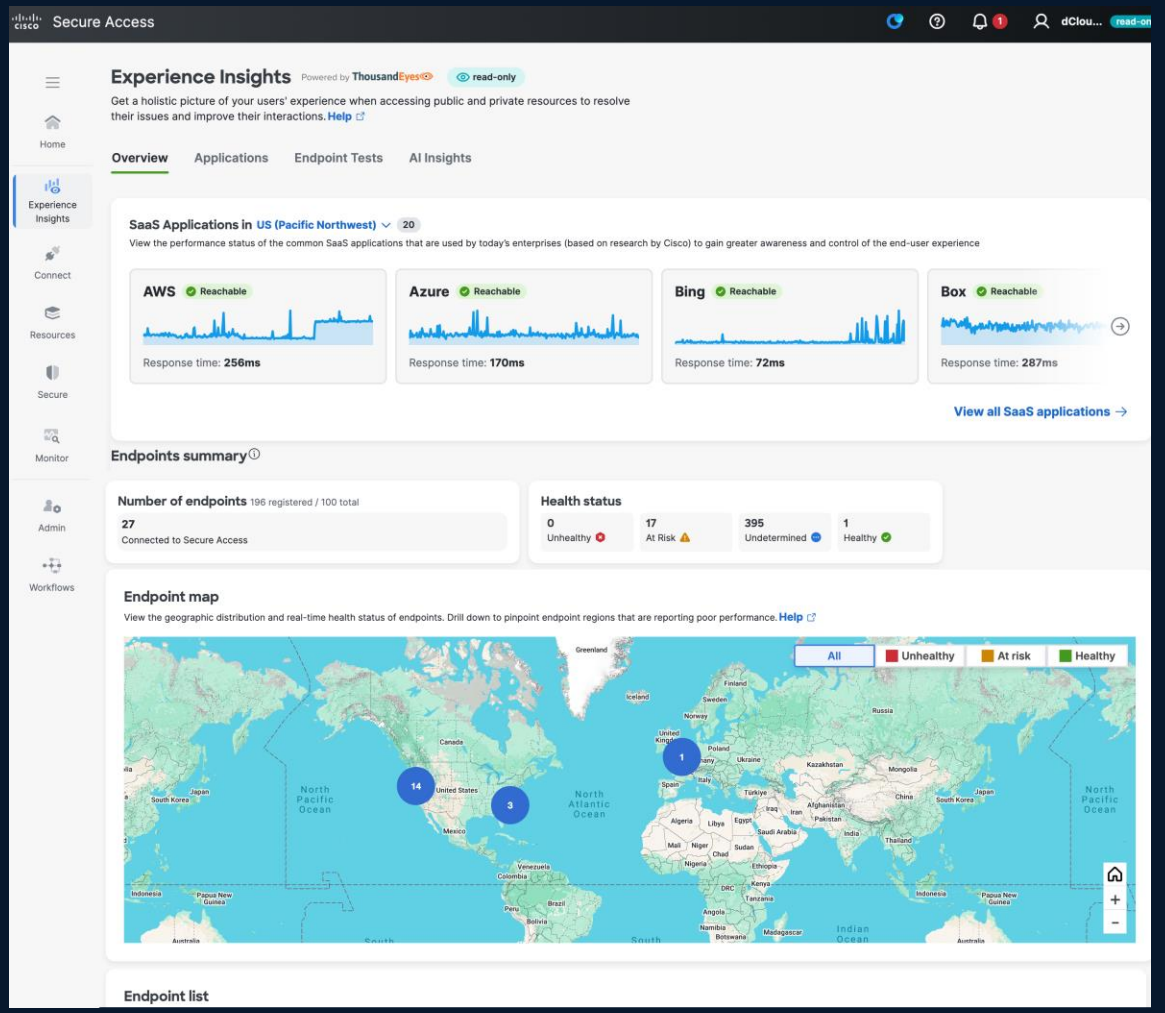


ThousandEyes sees that Paul bounces from his home wifi (good) to his iPhone (bad).
This was the cause of his poor experience.

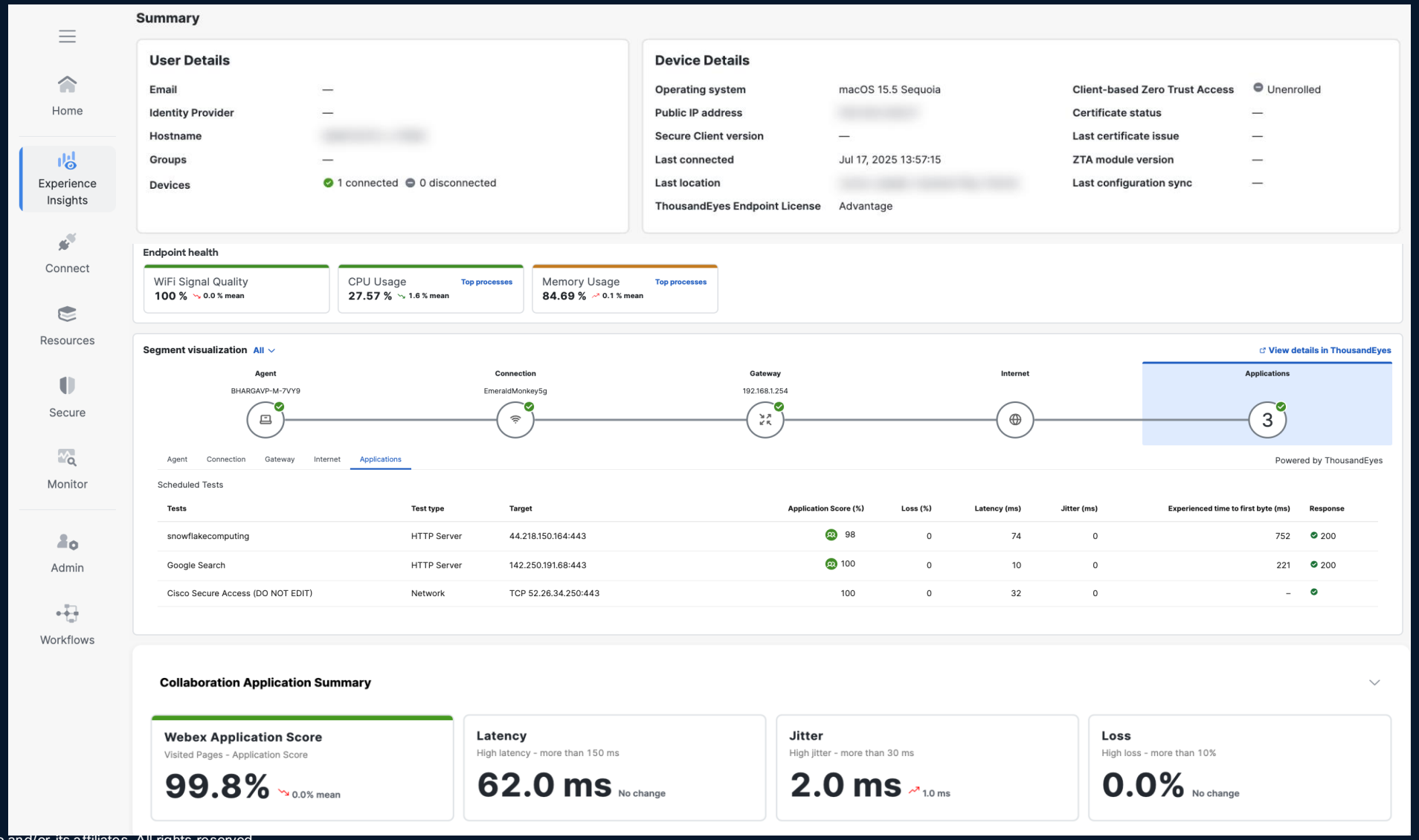
ThousandEyes and Secure Access

CISCO SECURE

- Integrated ThousandEyes end-user experience/performance data into Secure Access Dashboard
- Validate VPN traffic and network performance to secure access env
- Package ThousandEyes agent with Secure Access config for simple deployment



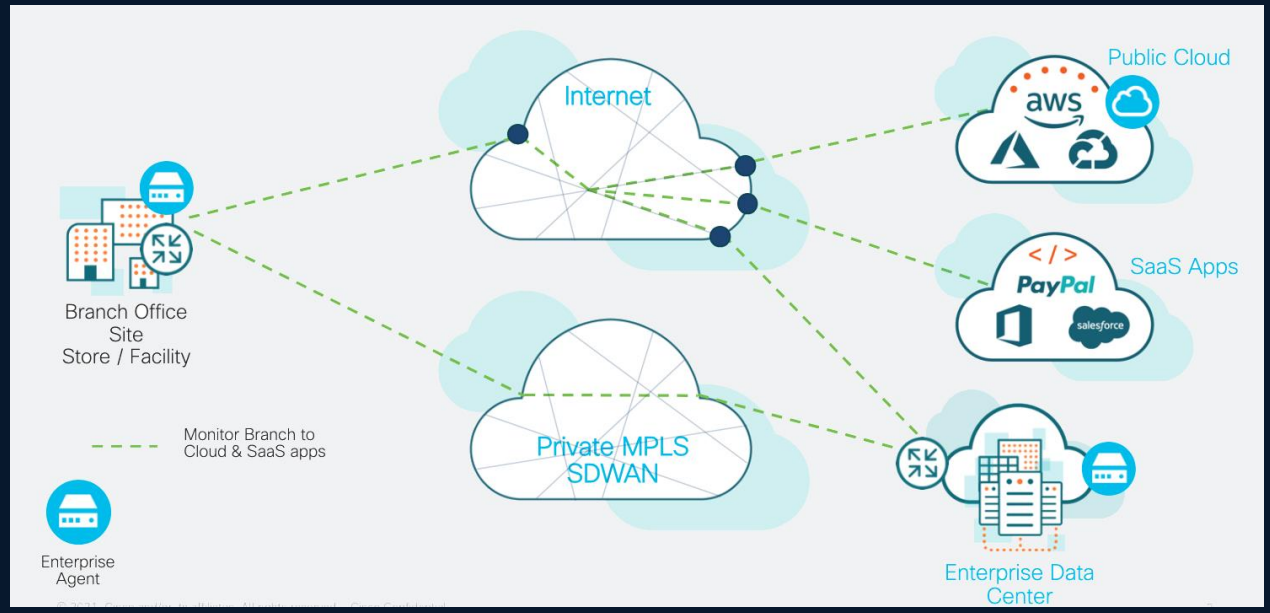
ThousandEyes and Secure Access

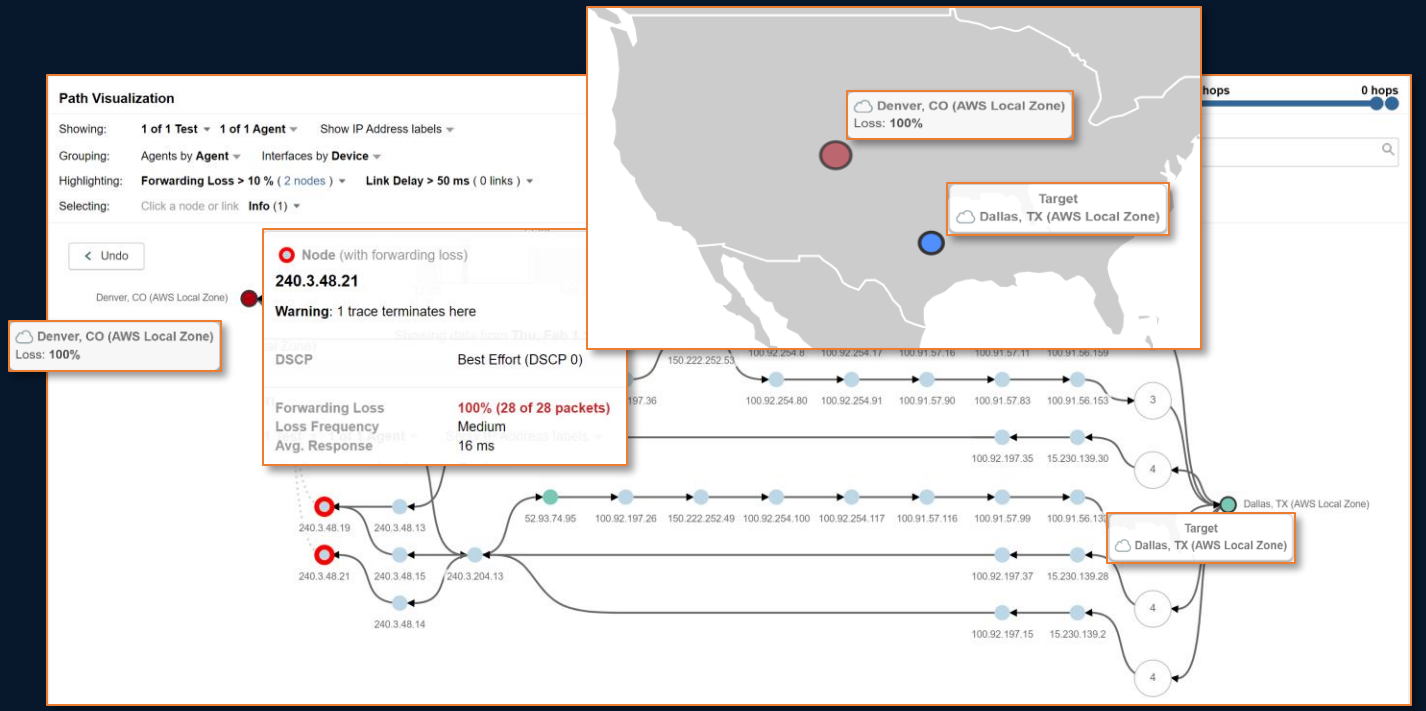


Enterprise Network Datacenter, Campus, and Branch Assurance

Network Visibility

- Measure packet loss, latency and jitter across network paths, hop by hop visibility
- Validate change, understand historical traffic flows
- Measure and validate ISPs at DCs and Sites
- Site-to-site, SaaS and application performance, SDWAN (overlay/underlay)





Cisco Device Support

DC/Campus/Branch/IoT/Wireless

Catalyst 9300/9400 Switching

Catalyst 8300/8200 Series Edge Platforms

Meraki MX Security Appliances

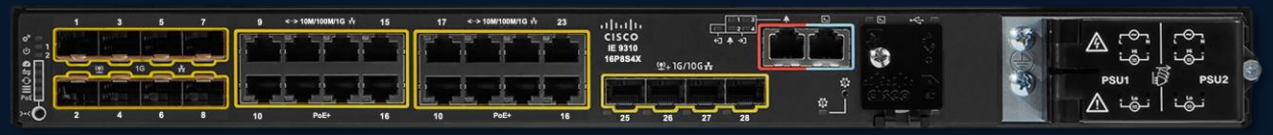
Nexus 9500/9300

Catalyst 8500/ASR1k Platforms

Cisco 9172H AP

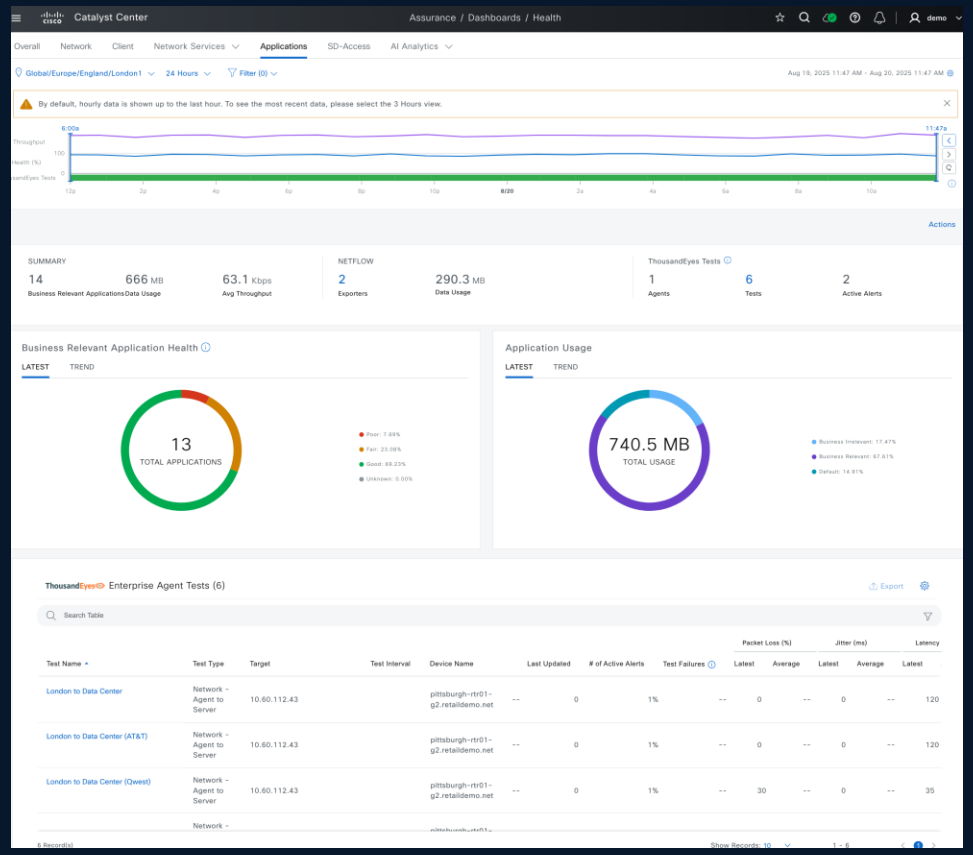
ISR 4000 Series & ISR 1100 X-6G

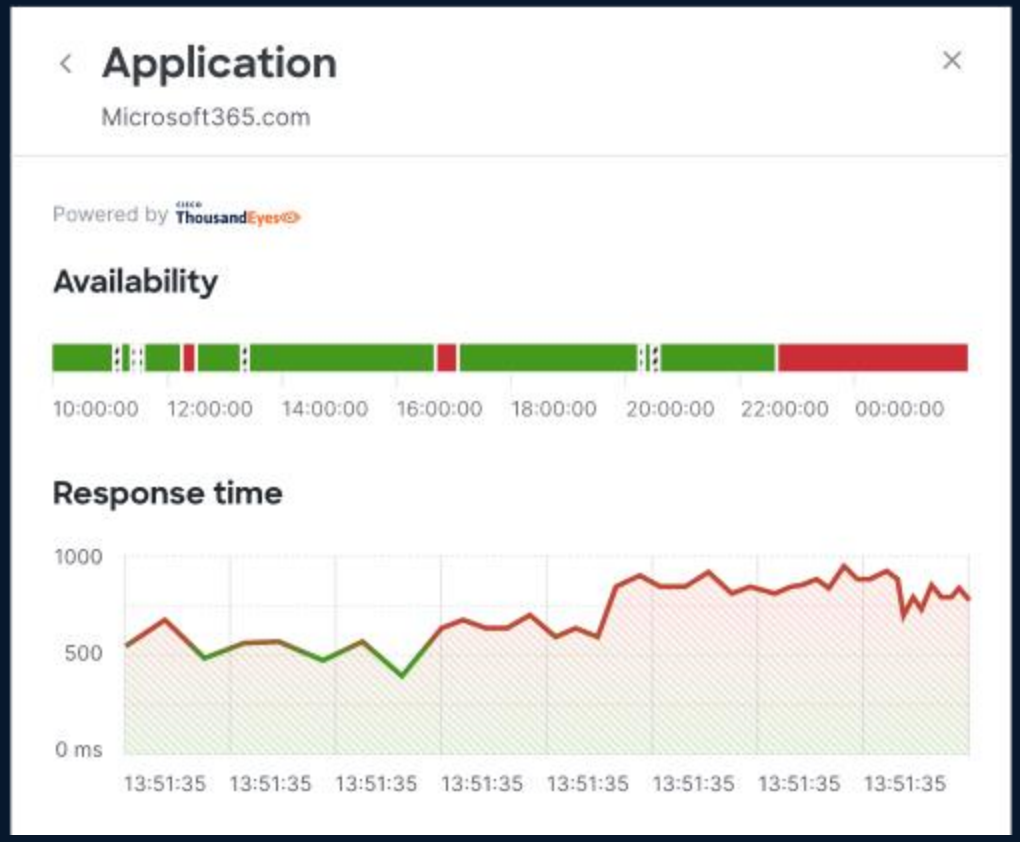
IE3500 Rugged Series Switches



cisco

Catalyst and Meraki Integrations

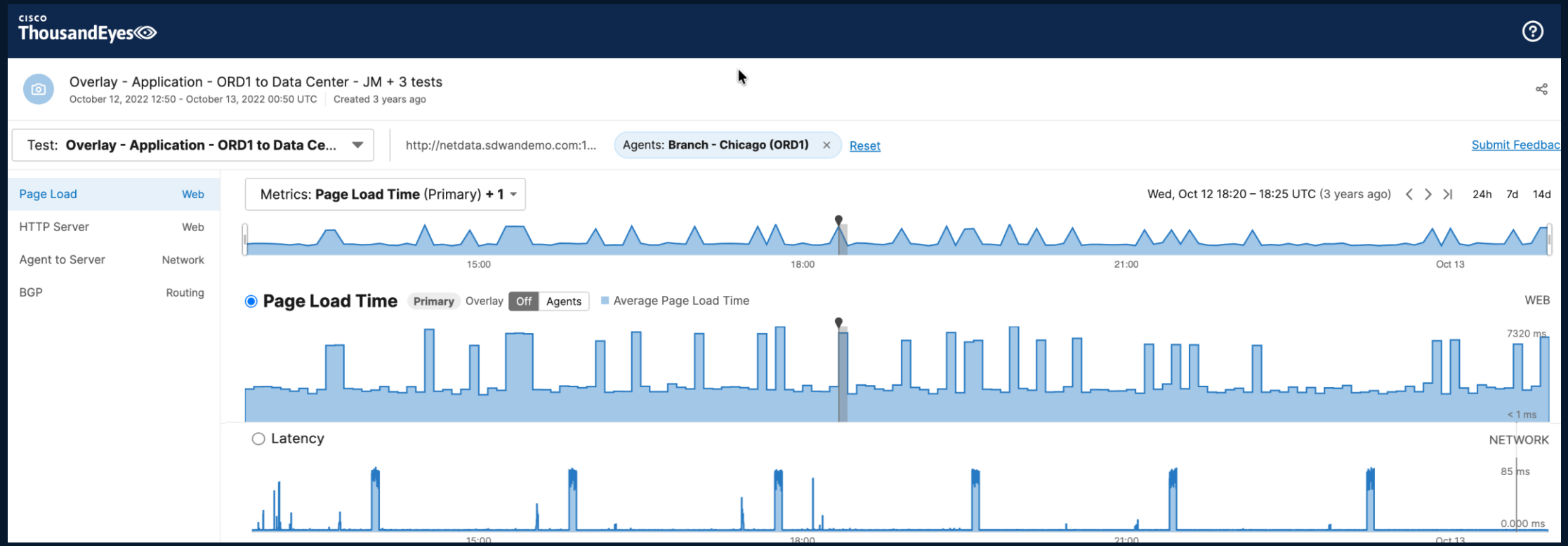




Cisco Networking

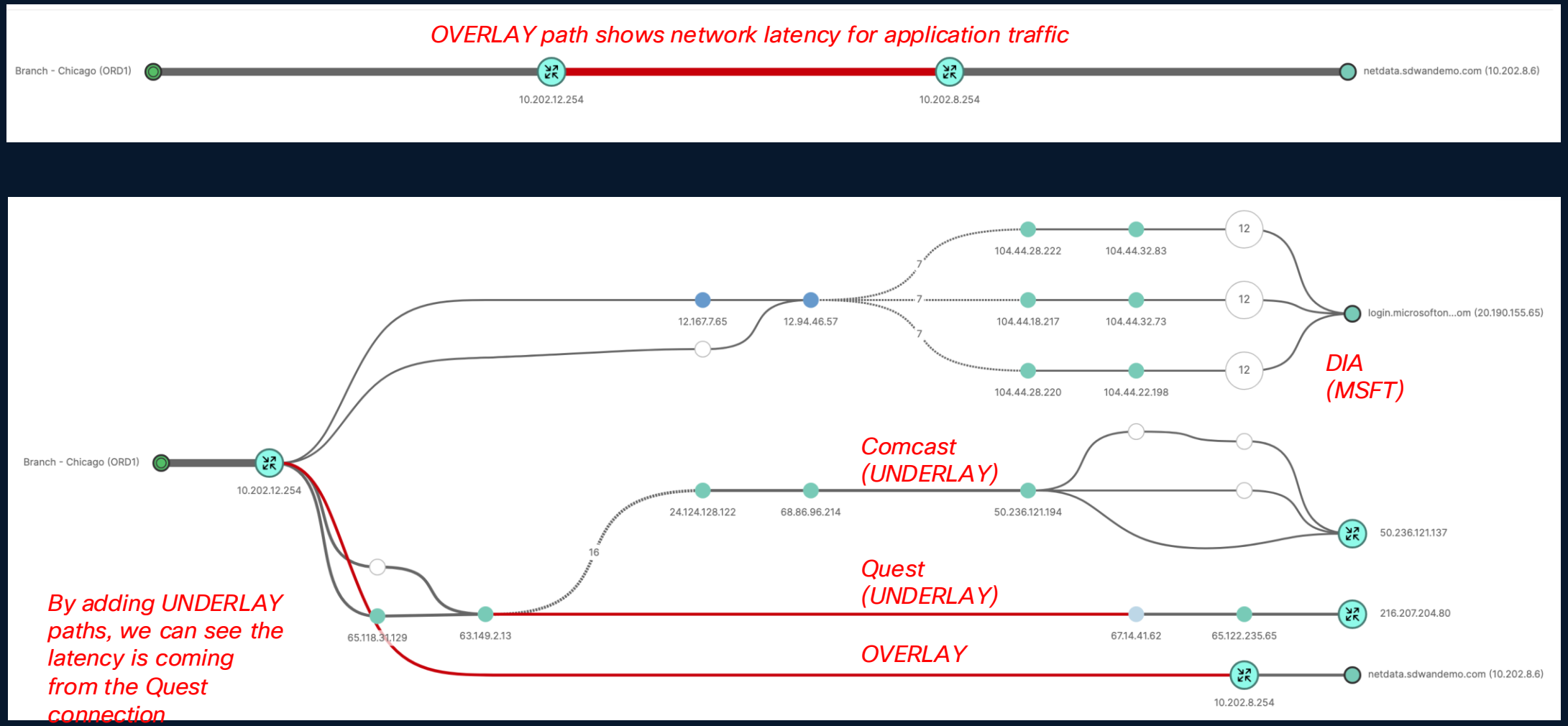
Here we see tests access to MS O365 was interrupted from a branch site. We are testing from a Cat9K and can quickly isolate the problem is access being one of a MSFT network issue. This data can be shared directly with MSFT to speed remediation.

SDWAN



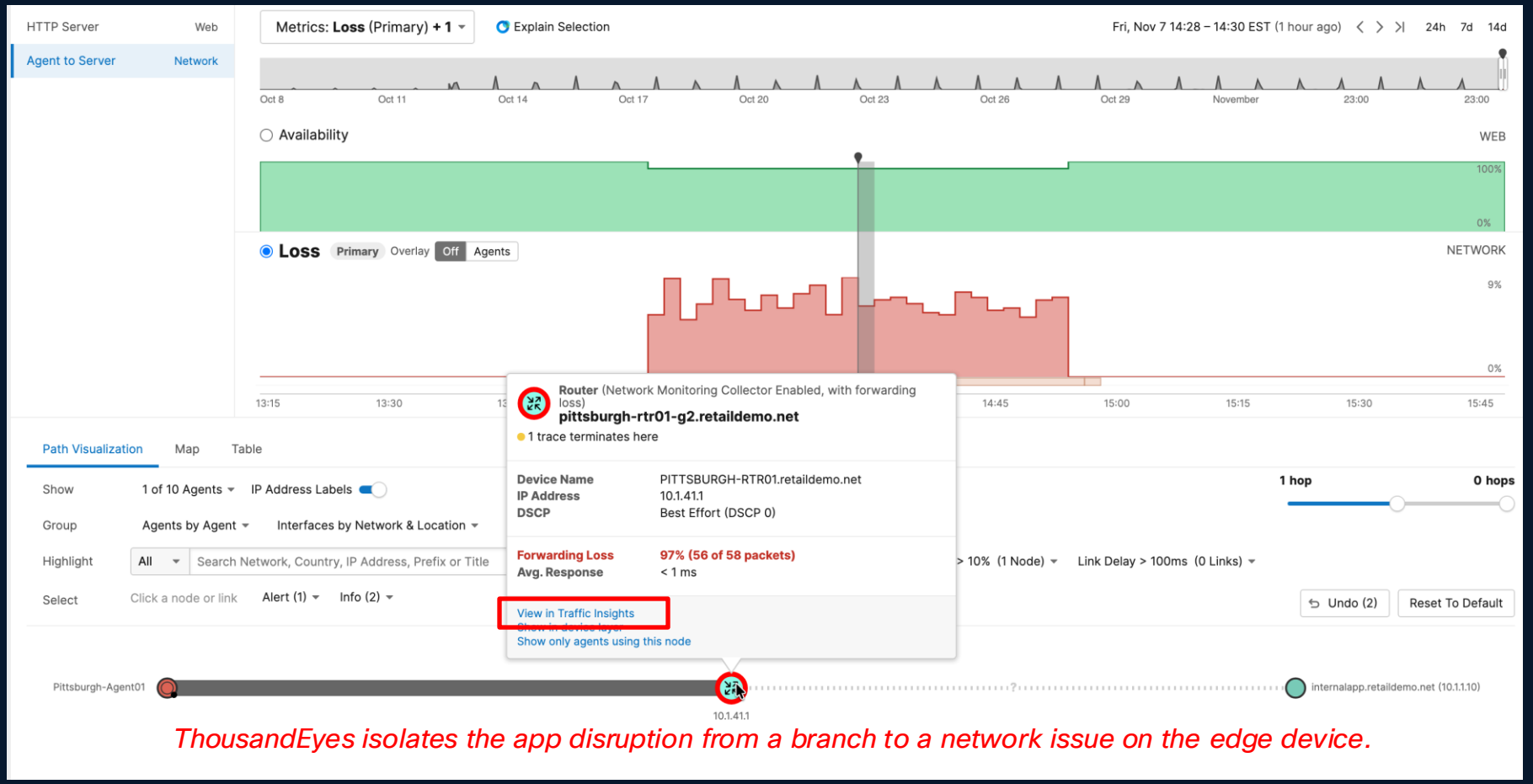
DC hosted application is accessed from branch sites via SDWAN. We can see periodic spikes in application page load time, additionally, spikes in network latency.

SDWAN



ThousandEyes gives you visibility into both UNDERLAY and OVERLAY paths, as well as DIA traffic to validate your deployment.

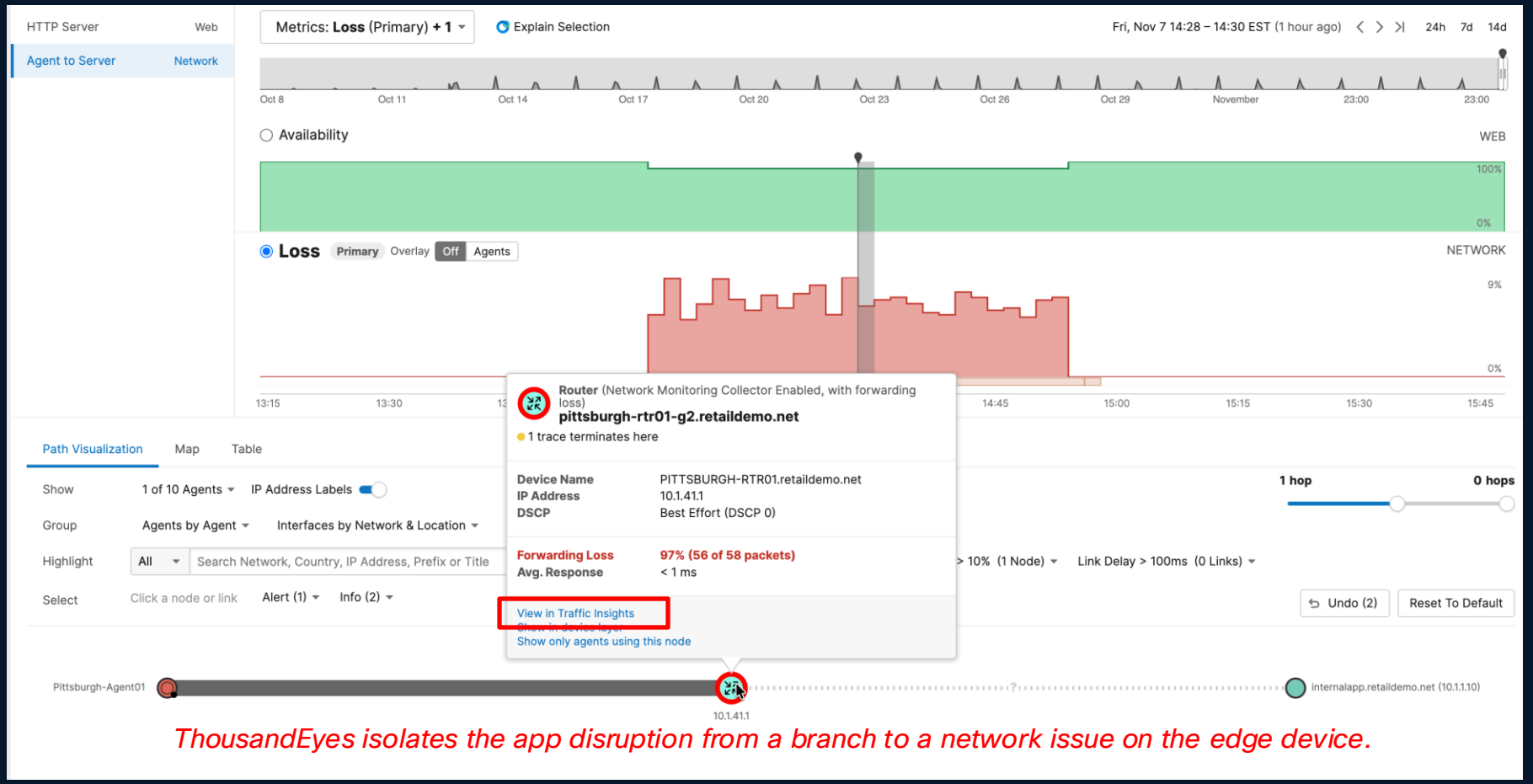
Traffic Insights



ThousandEyes isolates the app disruption from a branch to a network issue on the edge device.

ThousandEyes detects an application outage from the Pittsburgh branch. We quickly isolate this to a network issue and identify that there is packet loss at the site edge device.

Traffic Insights



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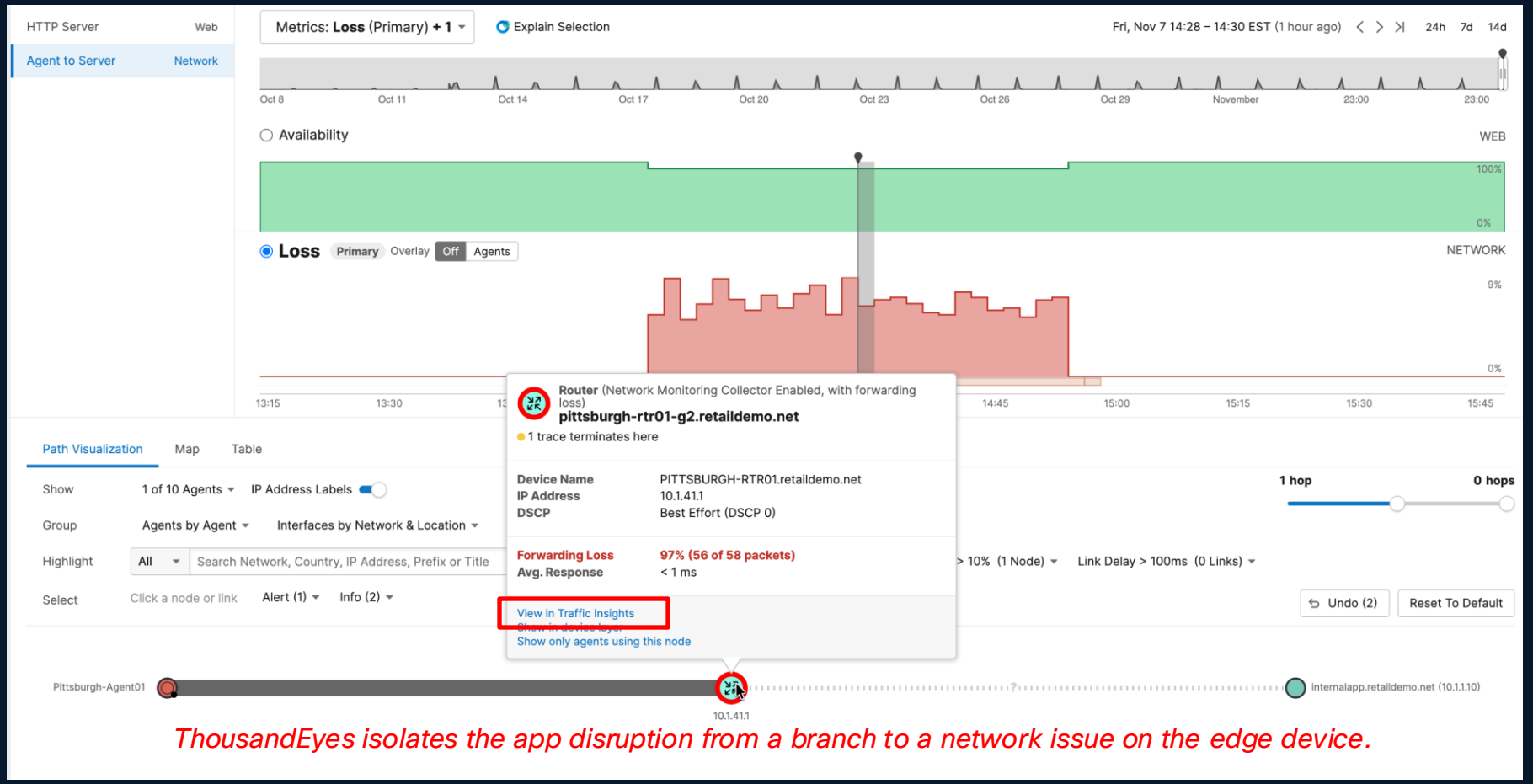

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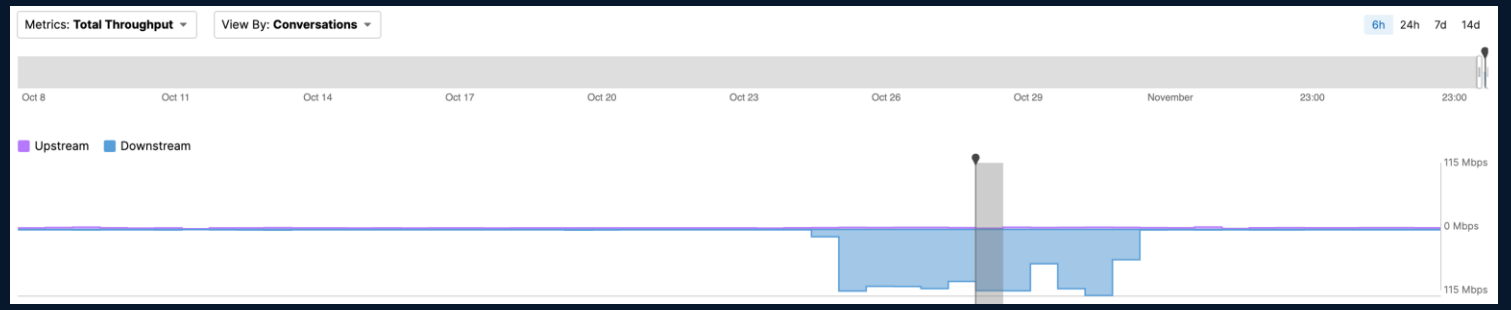
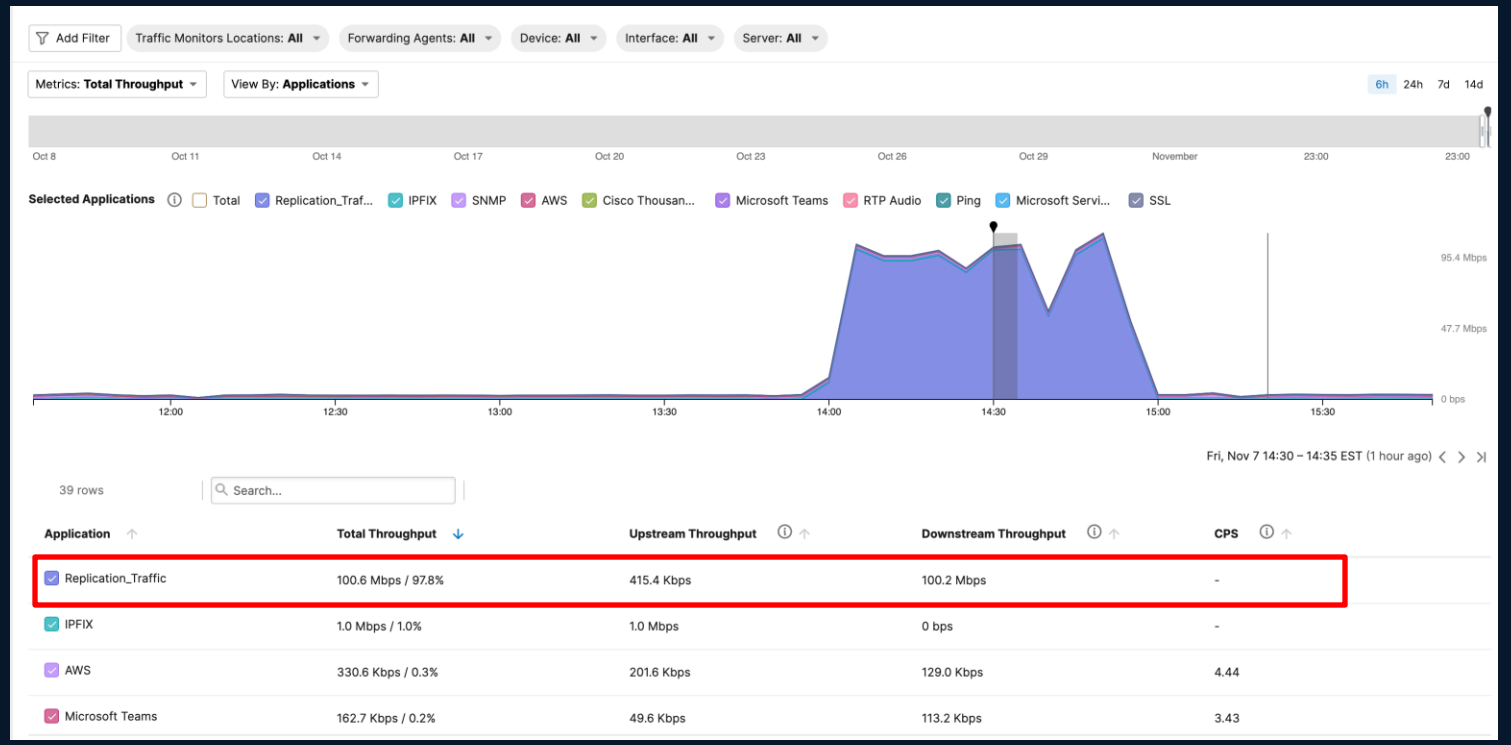
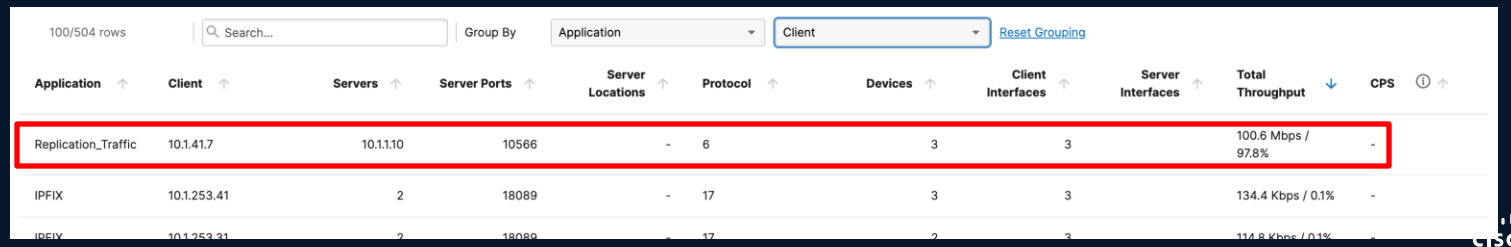
Traffic Insights

Traffic Insights gives an extra layer of visibility into YOUR network. ThousandEyes now collects network flow data (Netflow, IPFIX) and correlates that with application and network performance.

Not only can we point you to exactly where in your network the problem is coming from, but also why!



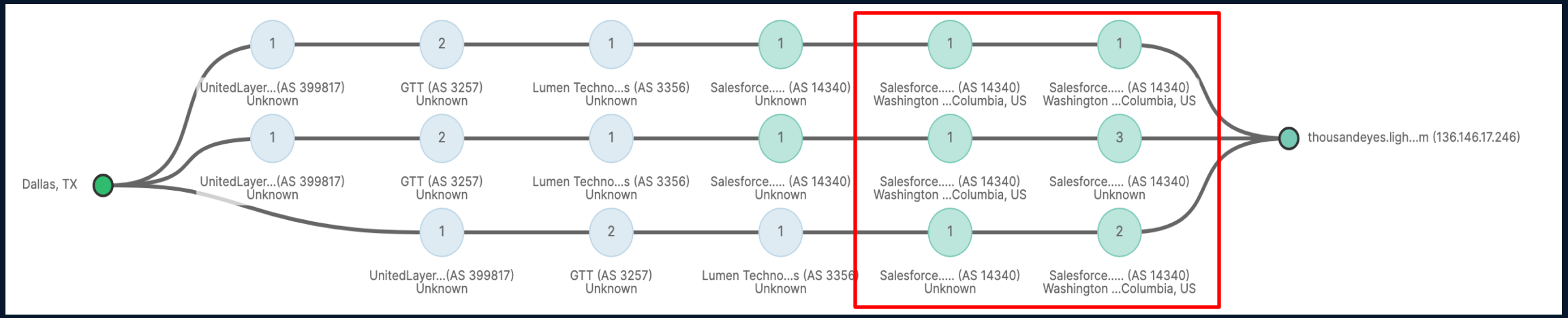




CLOUD/SAAS
Public Cloud Providers and SAAS Apps

ThousandEyes for Cloud and SaaS

- *CONTEXTUAL* Cloud-based infrastructure services, inventory and topology
- SaaS applications
- Hybrid App components living in the cloud (3rd party, API..etc)
- Visibility into provider network to isolate fault domain, and escalate with evidence



ThousandEyes Cloud Insights

Key Capabilities

1. Cloud Inventory

Automatically creates an inventory of all elements and services across the entire cloud infrastructure.

2. Cloud Path Enrichment and Topology Visualization

Auto discover cloud provider resources to understand every service dependency

3. Correlated Cloud Infrastructure Changes

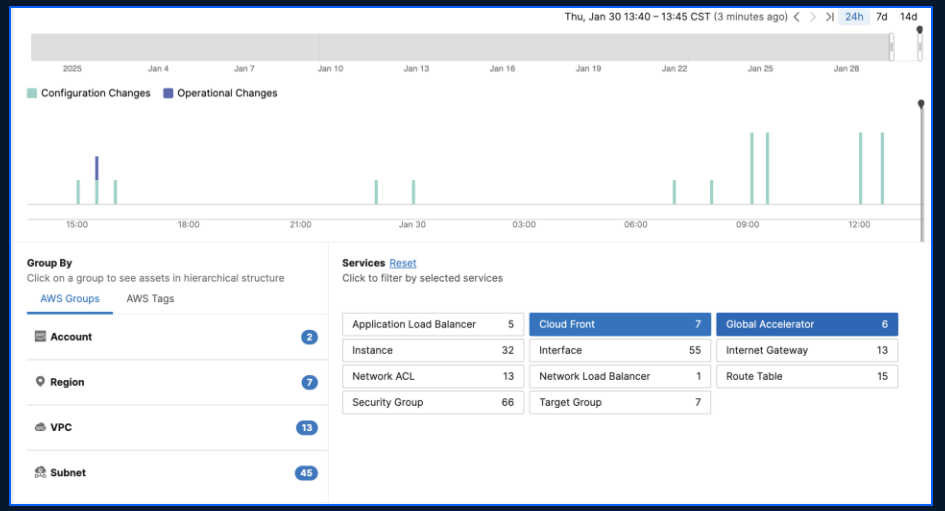
Append config changes and events to time-correlated views of experience so you can isolate root-cause faster

4. Cloud Traffic Views

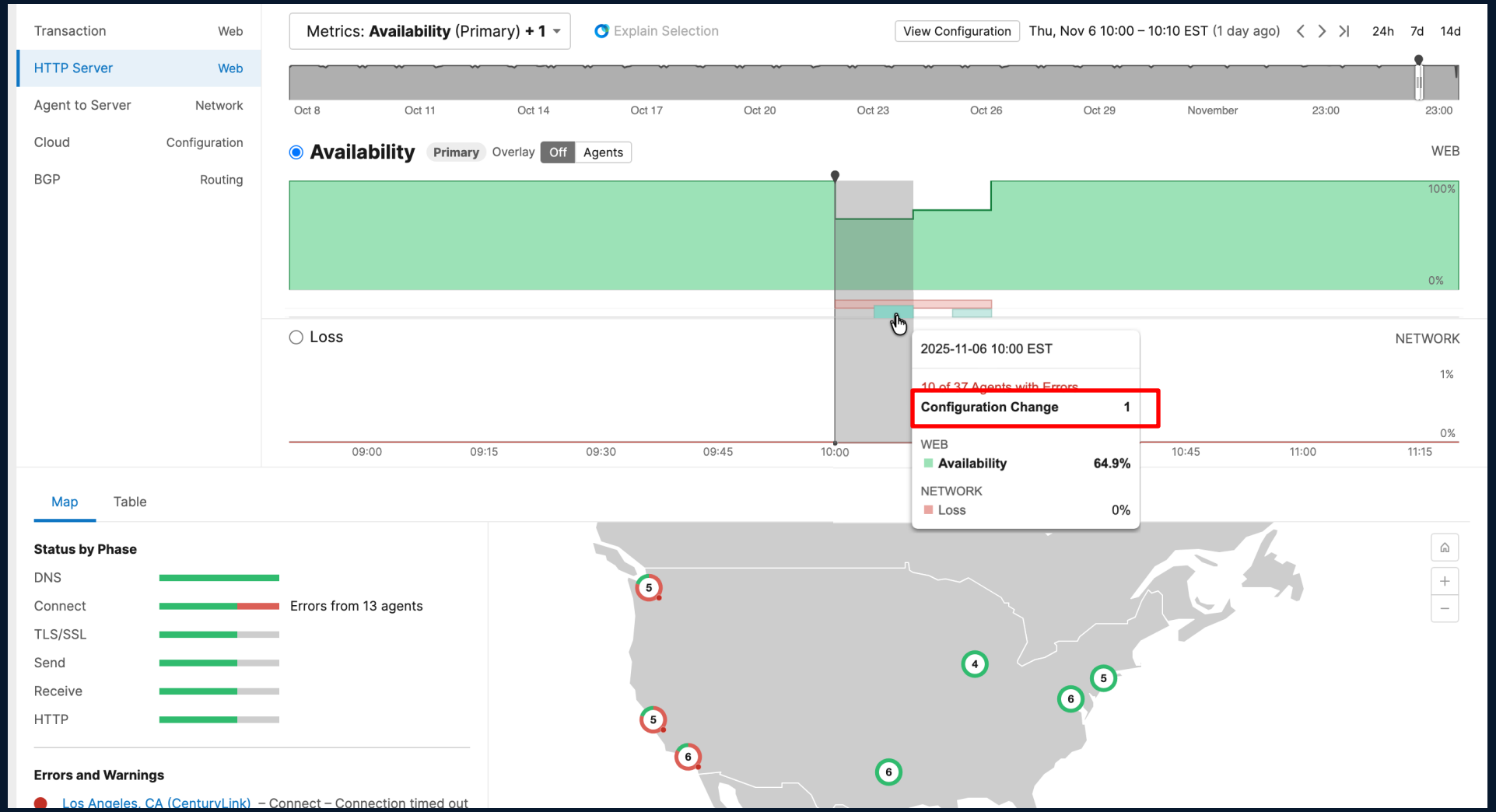
View traffic patterns so you can efficiently architect and troubleshoot your cloud network

Value

Deep visibility into public cloud infrastructure and service dependencies that impact digital experiences to dramatically reduce MTTR

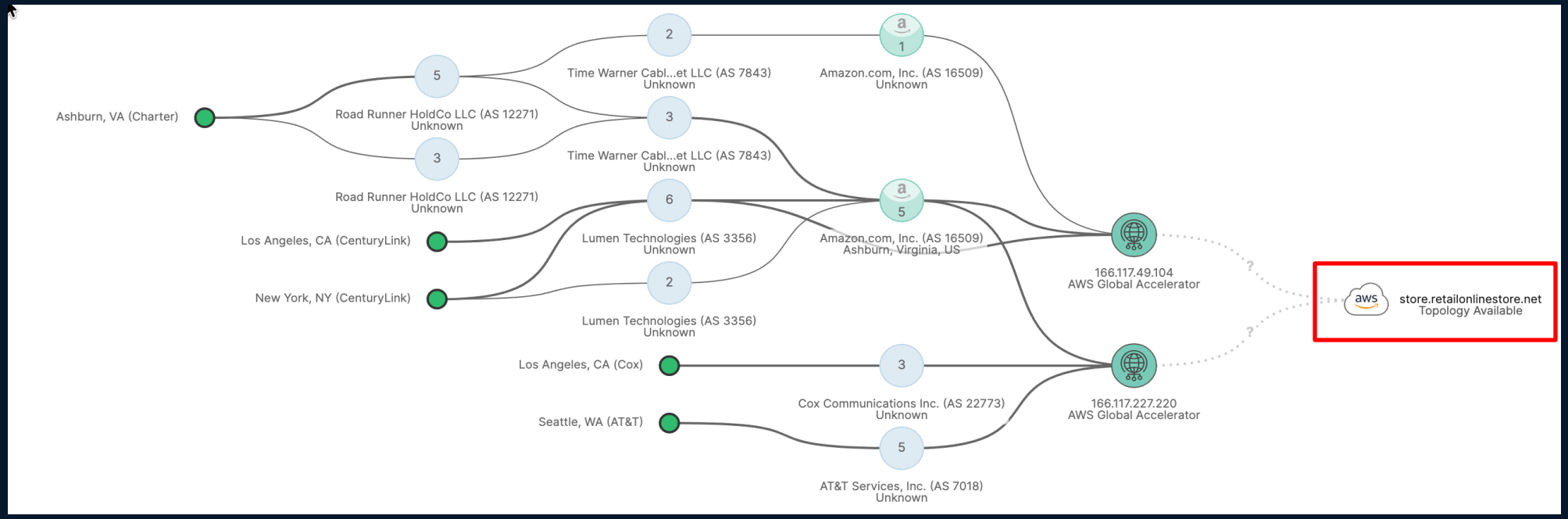


ThousandEyes for Cloud Hosted Apps



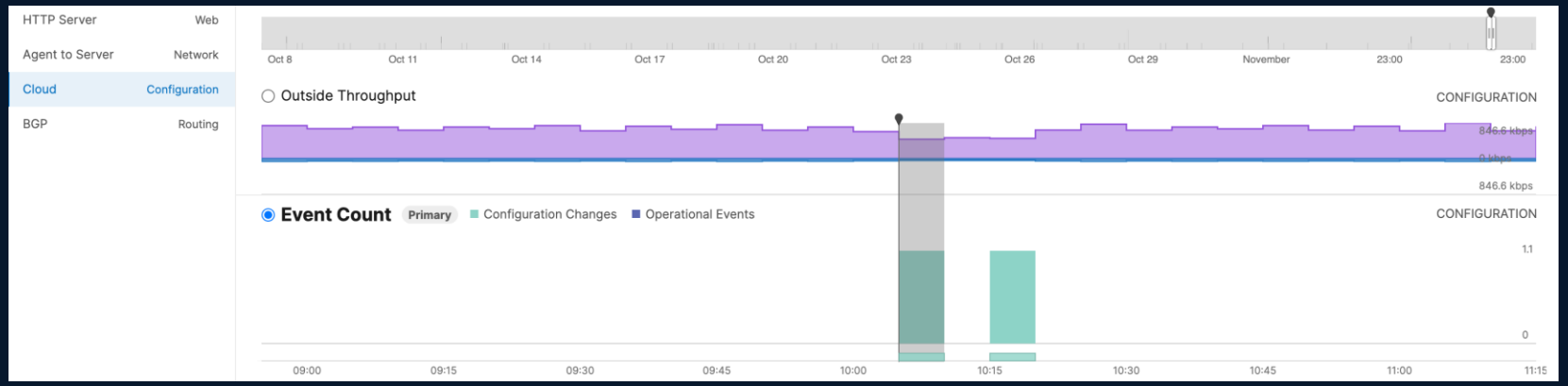
Critical customer facing application (hosted in AWS) has degraded availability impacting only the US West Coast. Does NOT appear to be a network issue.

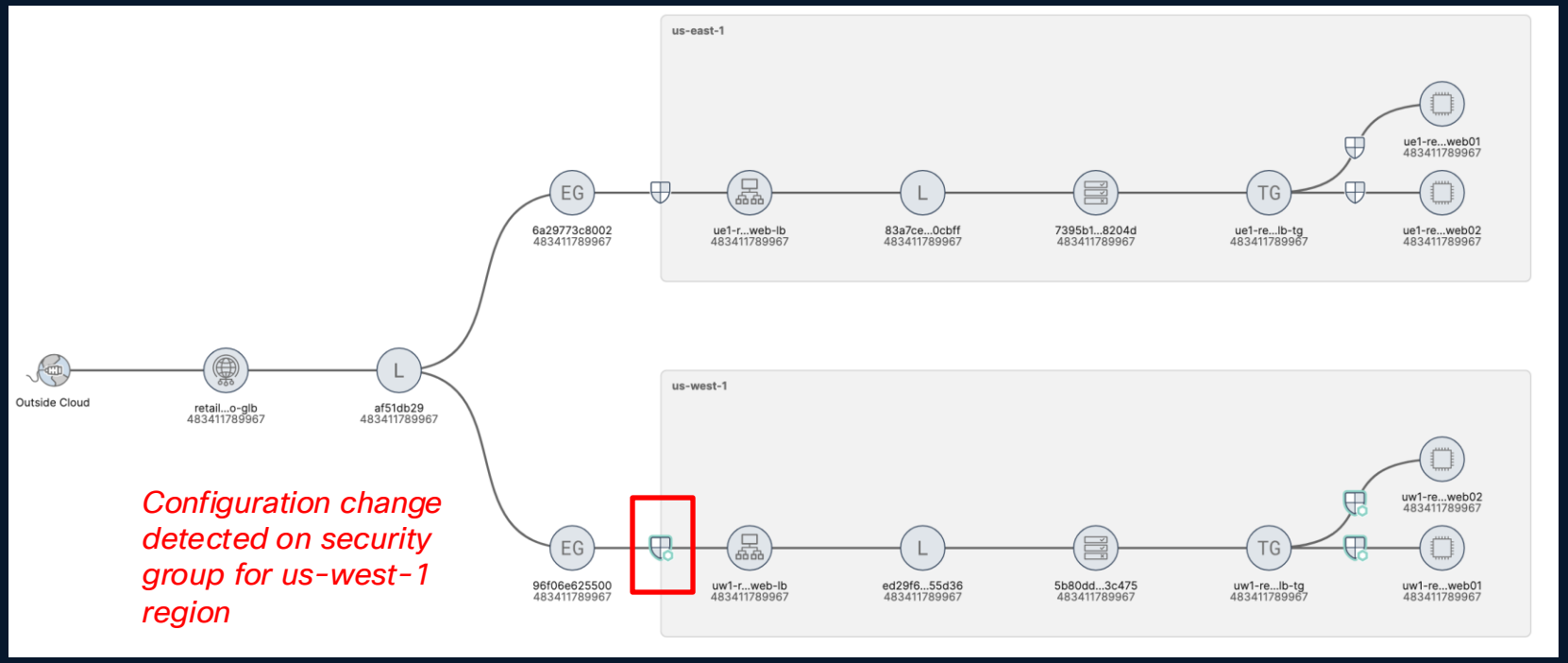
ThousandEyes for Cloud Hosted Apps



Our path visualization validates there is no disruption to network delivery. With Cloud Insights, we can go deeper into the Cloud Service Topology.

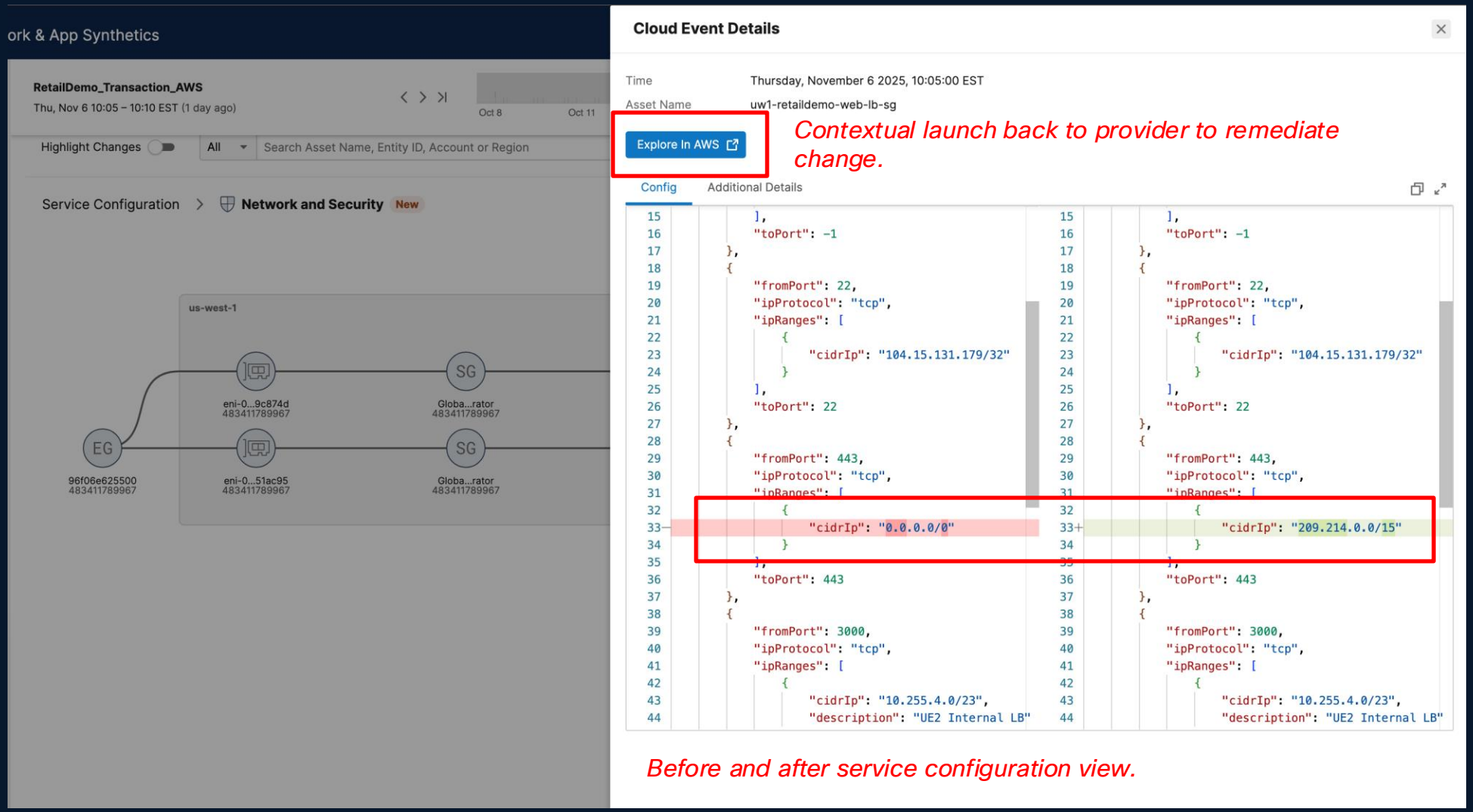
ThousandEyes for Cloud Hosted Apps





Now we can see different cloud services leveraged by our application (security groups, load balancers, FW, compute..etc) and understand where changes are happening.

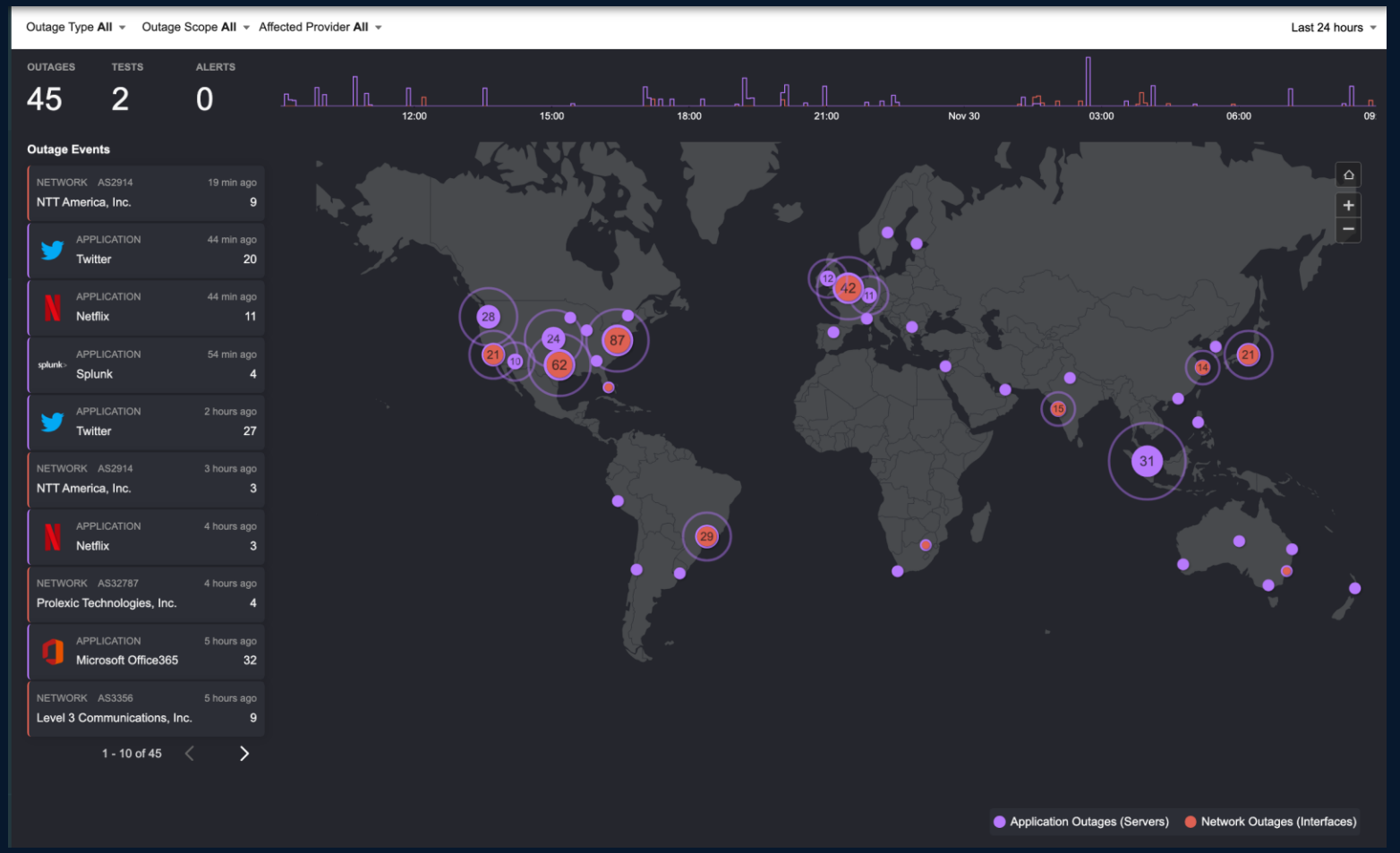
ThousandEyes for Cloud Hosted Apps



Cloud Insights gives you the ability to correlate application performance degradation directly cloud provider service configuration change. Dramatically reducing MTTR!

ThousandEyes Internet Insights

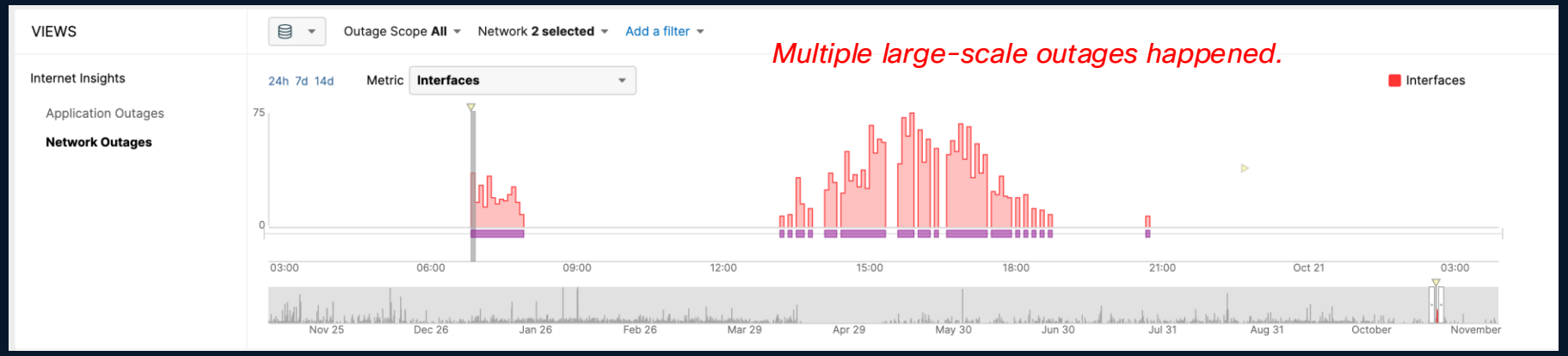
Global View of SaaS App Availability



Quickly identify ISP outages and impact

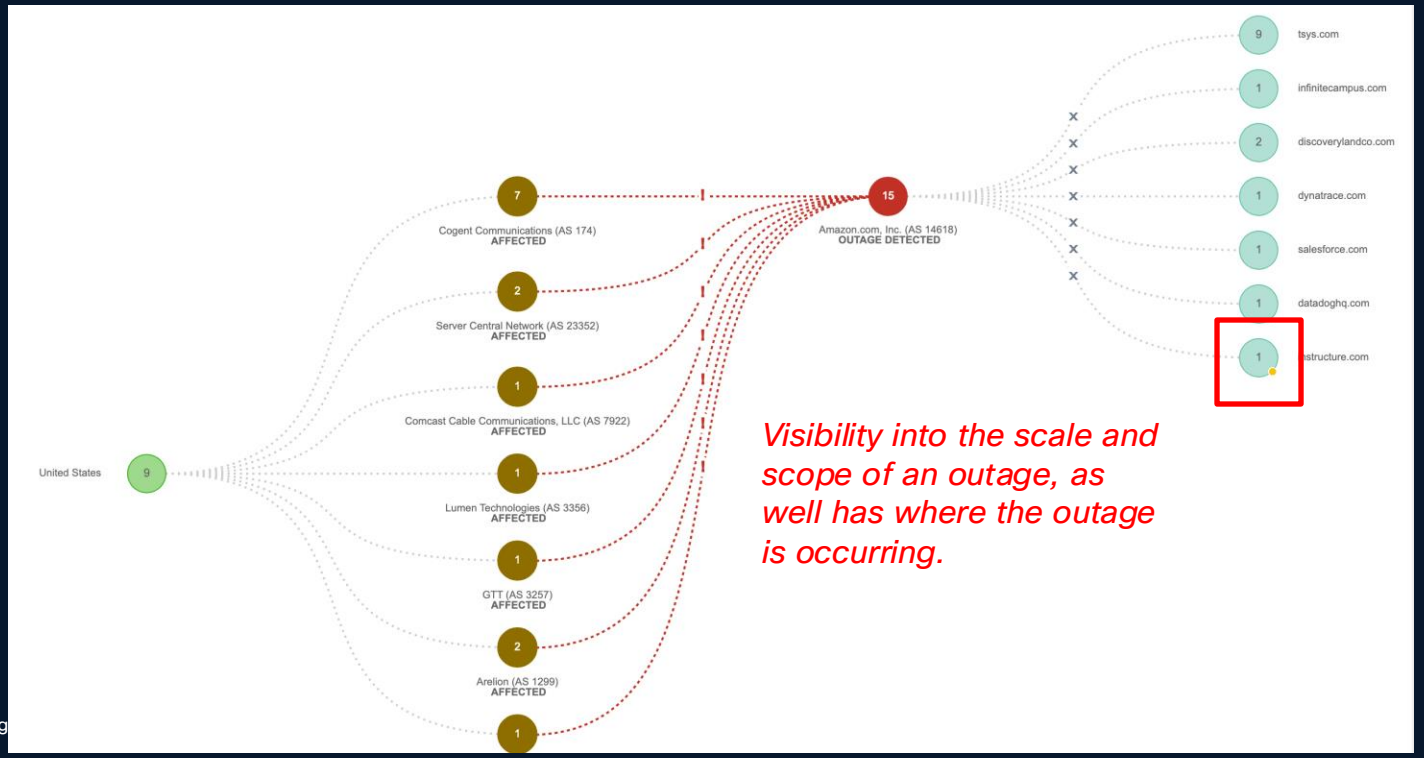
Rapid time to value | Faster incident response | Provider-focused insights | Save Time and Resources

AWS Outage 10/20



Multiple large-scale outages happened.

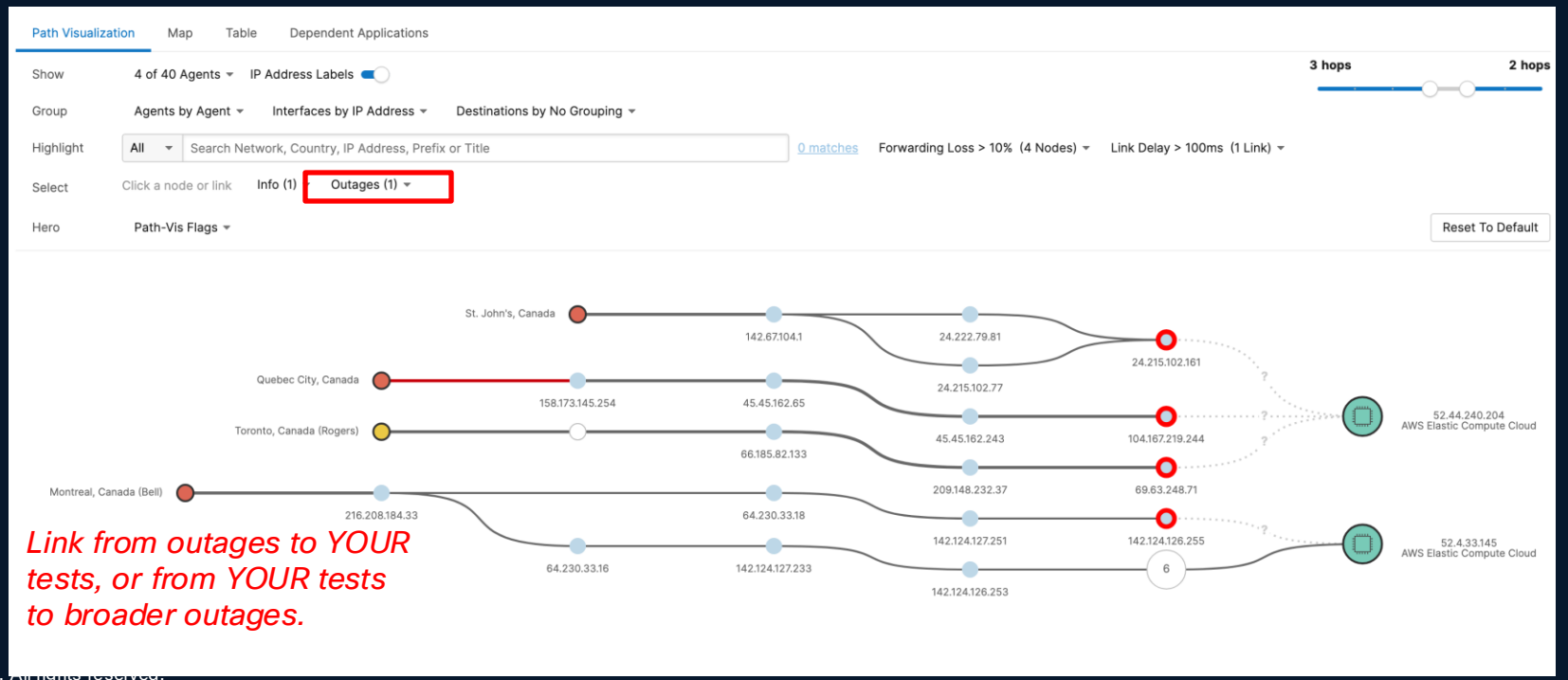
Stop wasting time with triage because a vendor has not posted that they are having an issue.



Visibility into the scale and scope of an outage, as well has where the outage is occurring.

Internet Insights allows you to understand global ISP or SAAS outages based on real data. Even if YOU are not testing those services.

AWS Outage 10/20



Link from outages to YOUR tests, or from YOUR tests to broader outages.

AWS Outage 10/20

www.thousandeyes.com/blog/

CISCO Connect

Thank you