

The background features a vibrant, abstract design with a color gradient from dark blue on the left to bright yellow and white on the right. The design consists of overlapping, wavy horizontal bands and a radial pattern of lines emanating from a bright white point on the right side, creating a sense of motion and energy.

CISCO *Live!*

Let's go



The bridge to possible

Reimagine Digital Experience Monitoring

Carlos Pereira, Fellow & Chief Architect, Cisco
Emily Wang, Product Management Leader, Cisco



CISCO *Live!*

BRKAPP-2673

Connect with us after Cisco Live Amsterdam!

Want to chat more?

Scan the QR code or visit the link!



cs.co/emea

- 1 Learn more about Cisco Full- Stack Observability
- 2 Go deep with Cisco AppDynamics
- 3 Request a personal demo
- 4 Start a free trial

Agenda

- Cisco Digital Experience Monitoring (DEM) Overview
- End-user journey: Triage and Troubleshooting
- Real User Monitoring (RUM) w/ Session Replay
- Demo
- Q&A
- Conclusion

Cisco DEM Overview

Digital Experience is what your **users** experience

USER

IT

Network

Infrastructure

Services

Security



Business

Revenue

Profit

Growth

Why Digital Experience Monitoring (DEM)

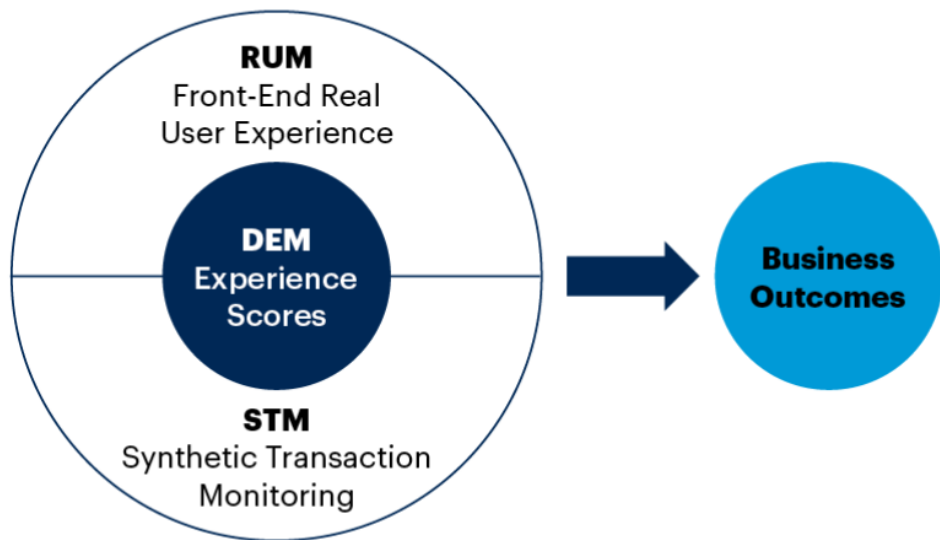
- *Customer satisfaction and user experience remains a priority today*
- *Digital experience has a direct impact on revenue, retention and brand reputation*
- *APIs are very commonly used by developers, but they add security risk, impact performance and affect user-experience, so monitoring APIs performance is now critical*
- *Digitization has made environments complex today, while customers are fully geographically distributed. Because of that, DEM has expanded to gain deep visibility into how access control as well as private networks and public internet impacts business.*

What is expected from DEM solutions

DEM tools are growing despite economic slowdown. I&O leaders can use DEM to identify technology performance issues for the end users and align application performance to support business objectives.

Gartner

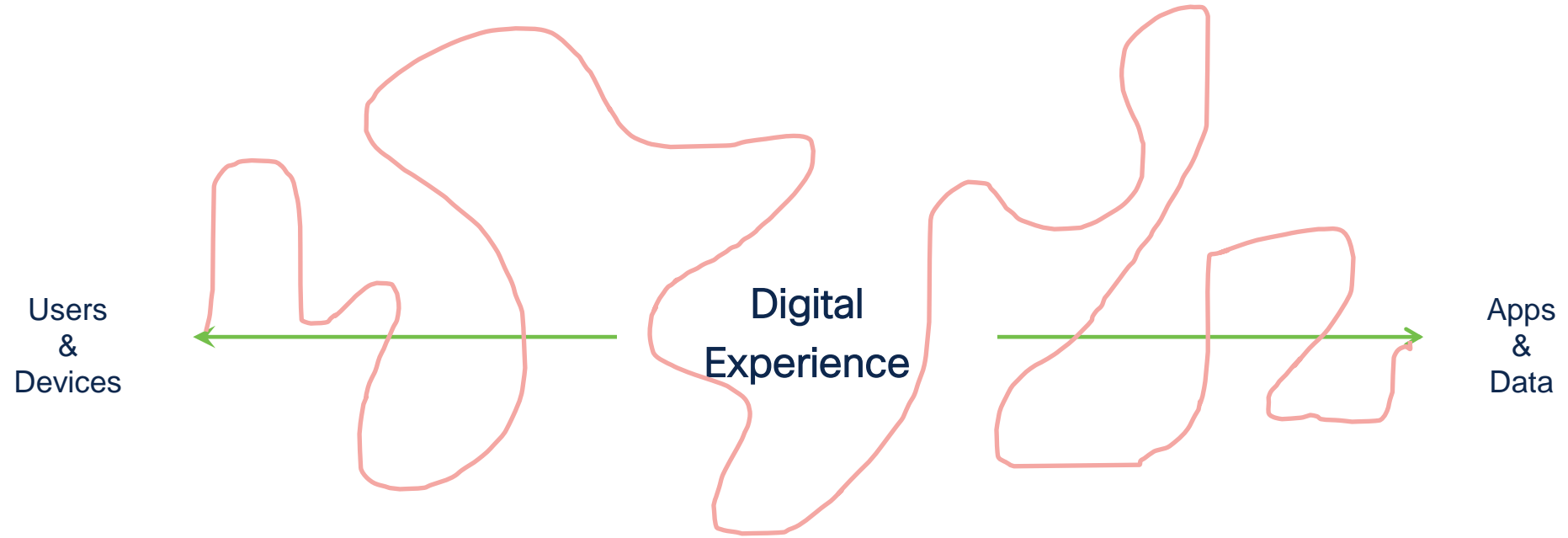
Digital Experience Monitoring Components



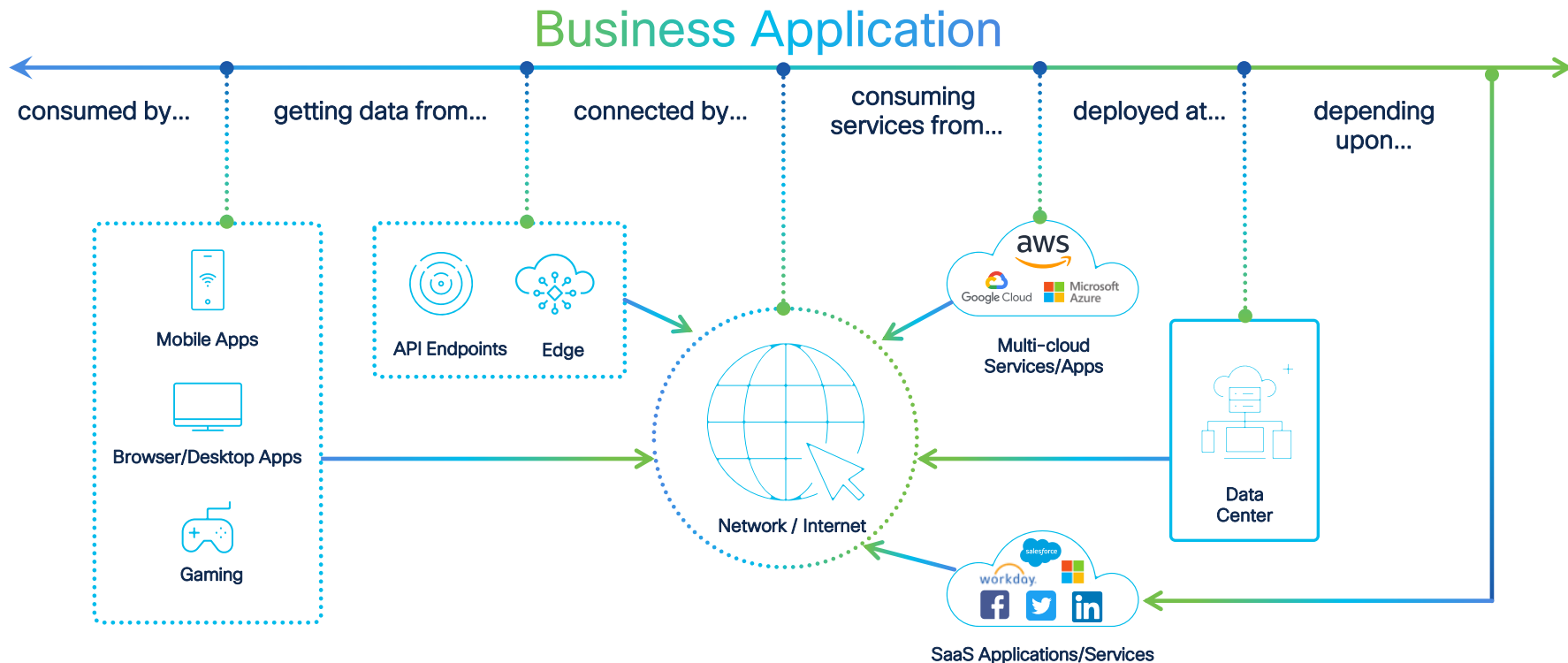
Source: Gartner Market Guide for Digital Experience, Nov 2023

DEM Technology	Use Cases
Real User Monitoring	<ul style="list-style-type: none">■ Monitoring performance and quality of user experience for external-facing applications (browser and native mobile app)■ SLA compliance■ Root cause analysis of front-end application performance problems■ User experience analysis through session replay■ Omnichannel user journey and customer experience analysis■ Business outcome analysis
Synthetic Transaction Monitoring	<ul style="list-style-type: none">■ Monitoring SaaS applications by simulating multiple step transactions and monitoring the performance at each step■ Identifying problems across endpoint, local network, internet, application servers■ Testing from remote locations such as last-mile, cloud providers or Tier 1 providers■ Benchmarking website availability and performance■ API monitoring■ Monitoring wireless access points■ Monitoring network and internet user traffic■ Testing performance in preproduction

Customer Digital Experience: Expectation vs Reality



Customer Digital Experience journey



Cisco Digital Experience Monitoring

Correlated user experience and modern application observability



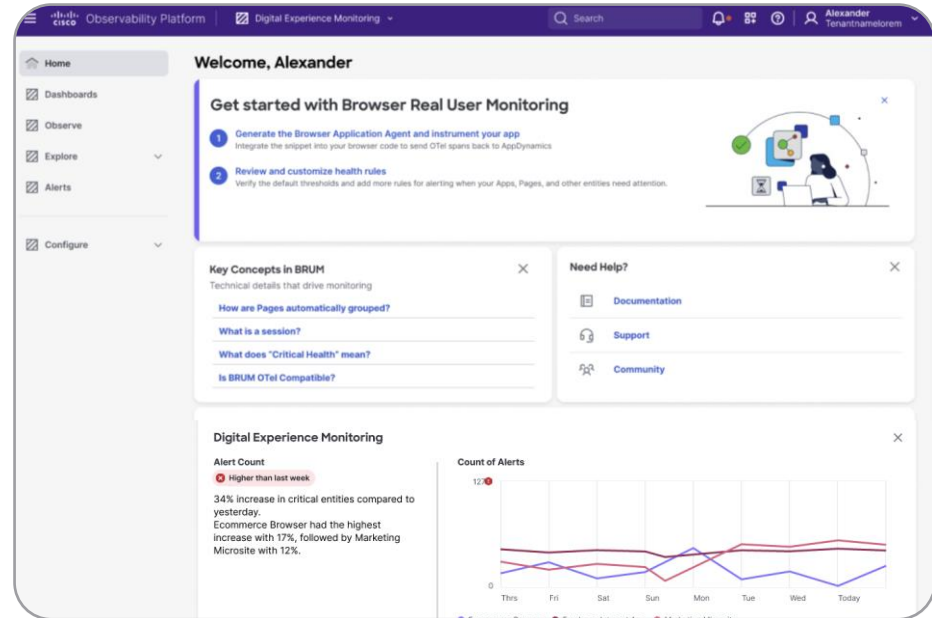
Empowers IT organizations with a holistic view of user experiences, facilitating precise troubleshooting and a proactive approach to performance optimization



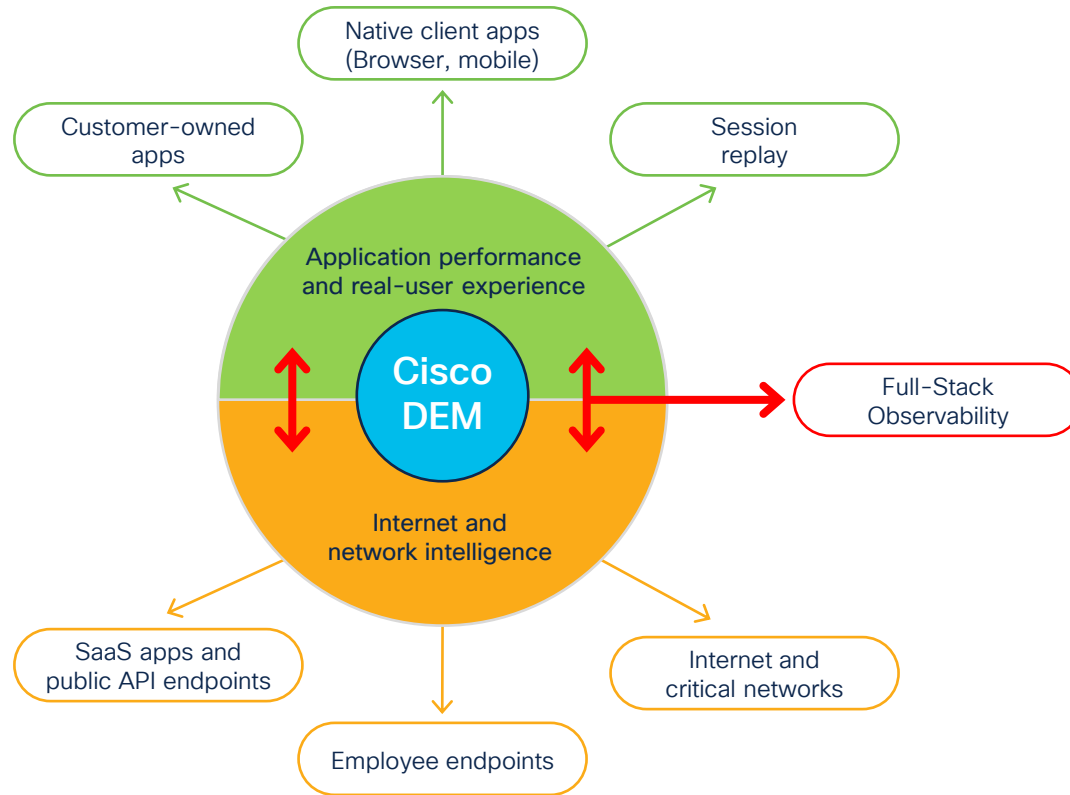
Troubleshoot poor user experience with detailed analysis to quickly identify root cause and correlate with backend and network performance



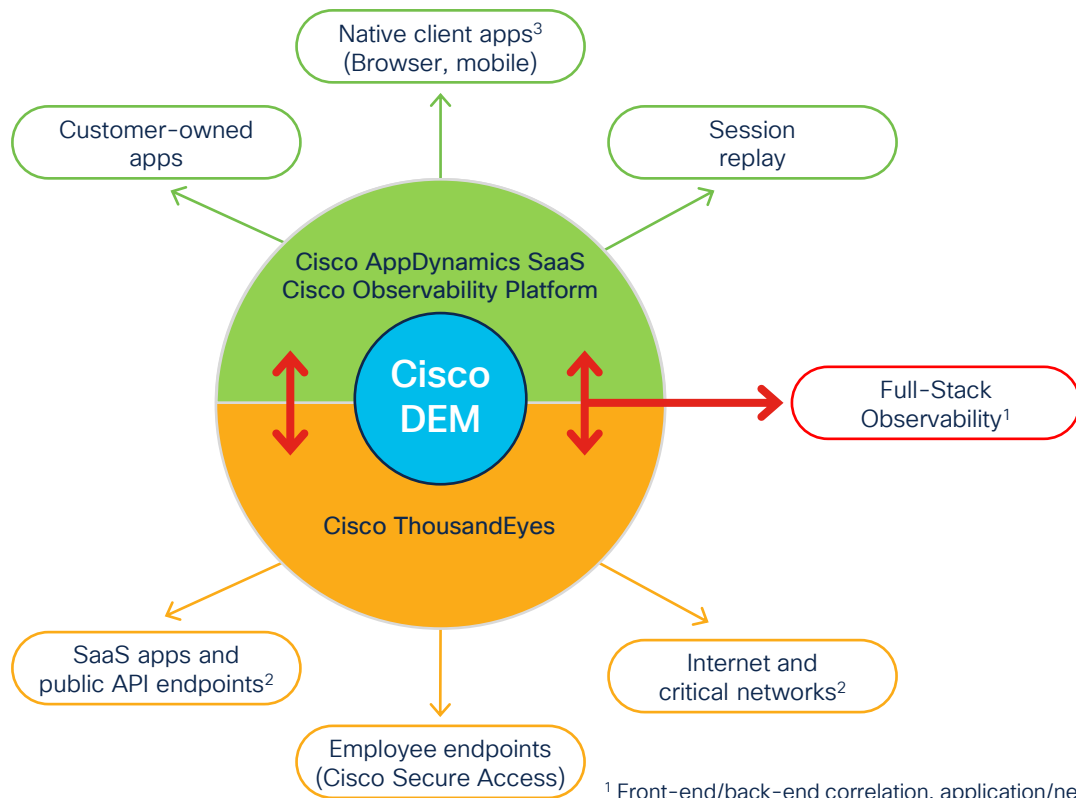
Utilize Core Web Vitals and Android Vitals to evaluate health based on granular benchmarks, and monitor baseline and standard deviation for proactive issue identification



Cisco Digital Experience Monitoring: detailed



Cisco Digital Experience Monitoring: Products



¹ Front-end/back-end correlation, application/network correlation, session replay

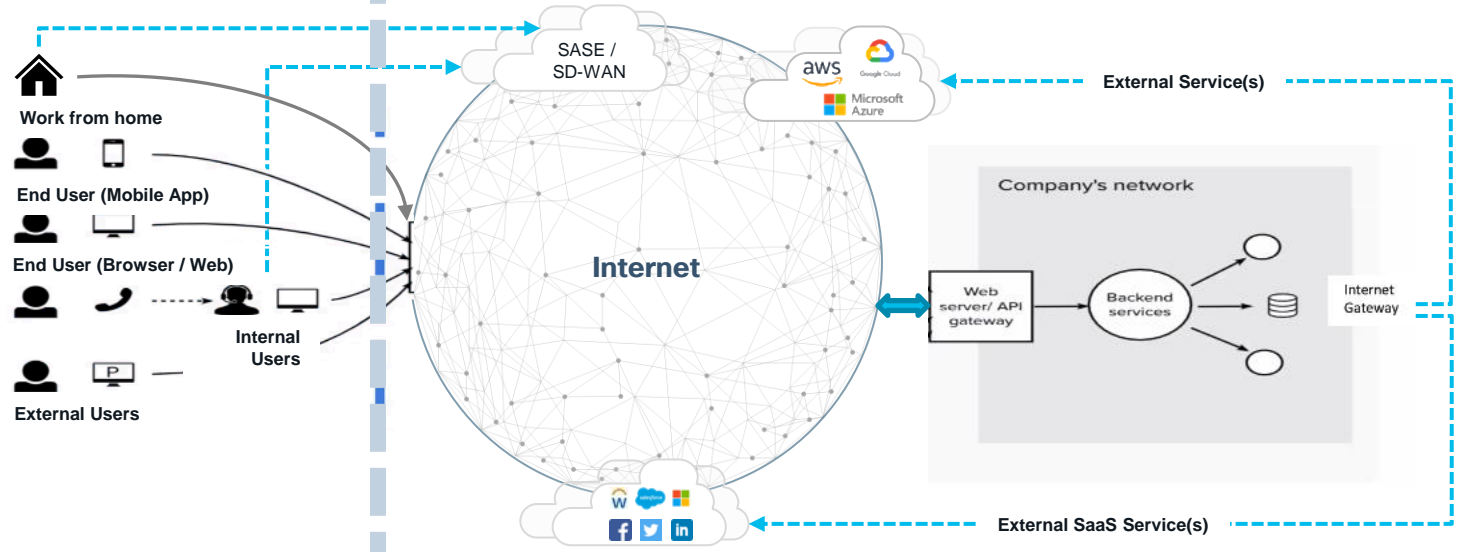
² Powered by synthetics

³ Powered by real-user monitoring (RUM)

Cisco Digital Experience Monitoring: scope

Front-end Application (mobile / browser): RUM + Session Replay

Back-end Application + Internet: APM + Network Intelligence



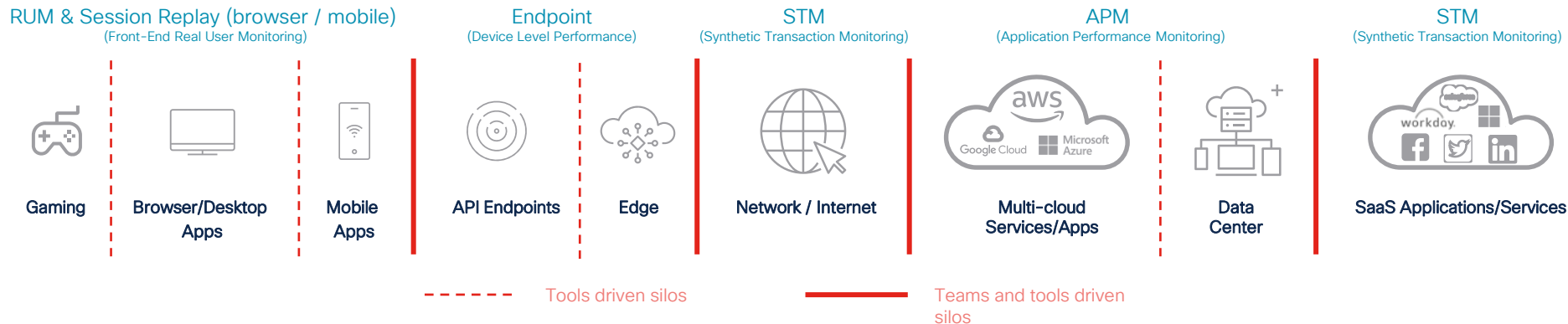
Client (laptop / cell phone): Security Access + Network Experience

SaaS applications + Internet: Synthetics + Network

End-user journey: Triage and Troubleshooting



Customer Digital Experience Monitoring challenge



5 hours to triage and recover from an end-user experience incident !

Cisco Digital Experience Monitoring: AFTER

< 15 min to triage and recover from the same incident !

Cisco Digital Experience Monitoring

(Real-time, data-driven contextualized and correlated: RUM, session replay, synthetics, application dependency mapping, APM, root-cause analysis, etc.)



Gaming



Browser/Desktop
Apps



Mobile
Apps



API Endpoints



Edge



Network / Internet



Multi-cloud
Services/Apps




Data
Center



SaaS Applications/Services

Adding Internet Intelligence to Cisco DEM

A Cisco Full-Stack Observability (FSO) use-case

 AppDynamics
Cisco Observability
Platform



Users
and devices

Browser, mobile
(iOS and Android)



←.....Network telemetry

.....App dependency map

ThousandEyes




Internet

Latency, jitter,
packet loss



.....Network telemetry

←.....App dependency map

 AppDynamics
Cisco Observability
Platform



Applications
and services

Application backend
and external
dependencies
(IaaS/SaaS)

Customer Digital Experience Monitoring (CDEM)

AppOps perspective

Real-time ingestion of OTEL-based network metrics and integration of Network Intelligence from ThousandEyes into AppDynamics



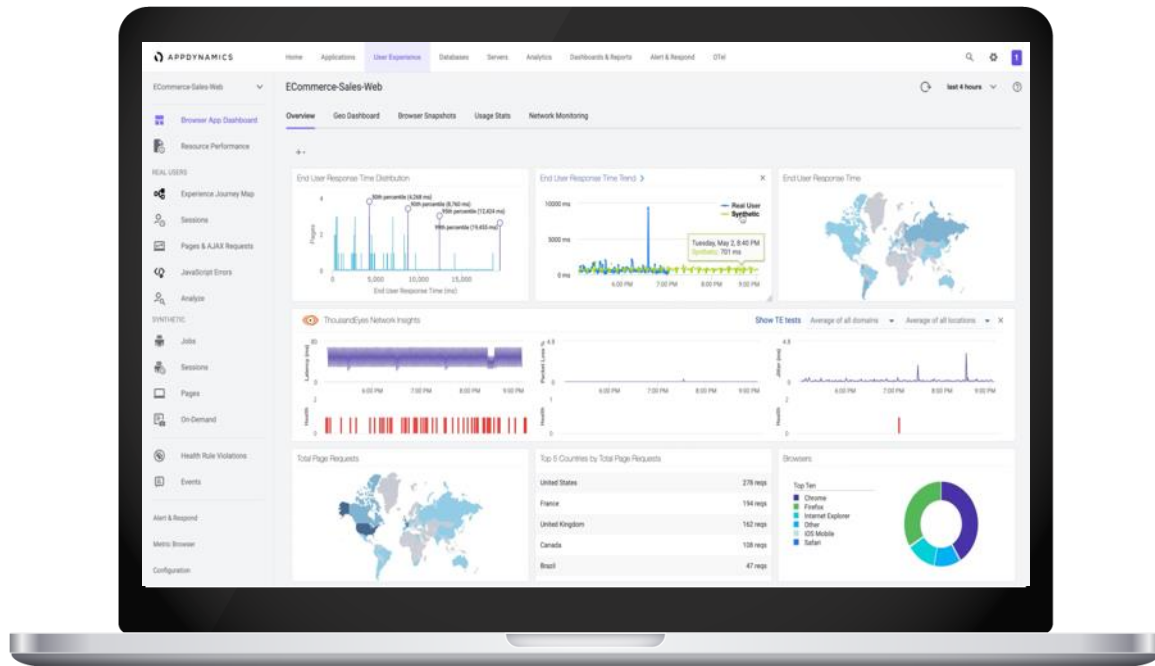
Correlate business results with application, network, and internet performance



Understand how application, hybrid cloud, and internet performance affect user experience



Triage workflows across AppOps and NetOps seamlessly



Customer Digital Experience Monitoring (CDEM) NetOps perspective

Real-time Application Dependency mapping from AppDynamics sent to ThousandEyes for recommending test templates and providing visibility of application health



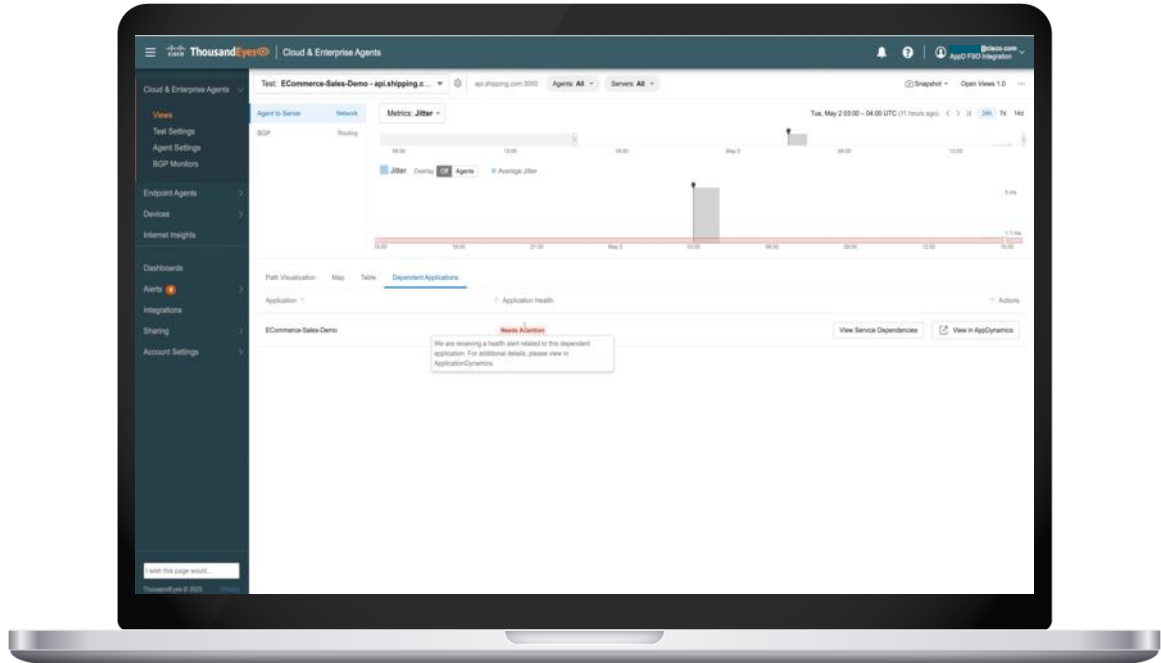
Gain end-to-end visibility across your enterprise, Internet, and end-user devices



Streamline workflows by providing actionable recommendations with pre-configured test templates



Prioritize network remediation based on business impact by providing visibility of application health data



User Experience



last 4 hours



Browser Apps

Mobile Apps

Connected Devices

API Monitoring

Details

Add App

Actions

View Options

Sync with ThousandEyes

<

FSO for Critical Networks

Measuring "critical networks" where milliseconds and microsecond accuracy is required



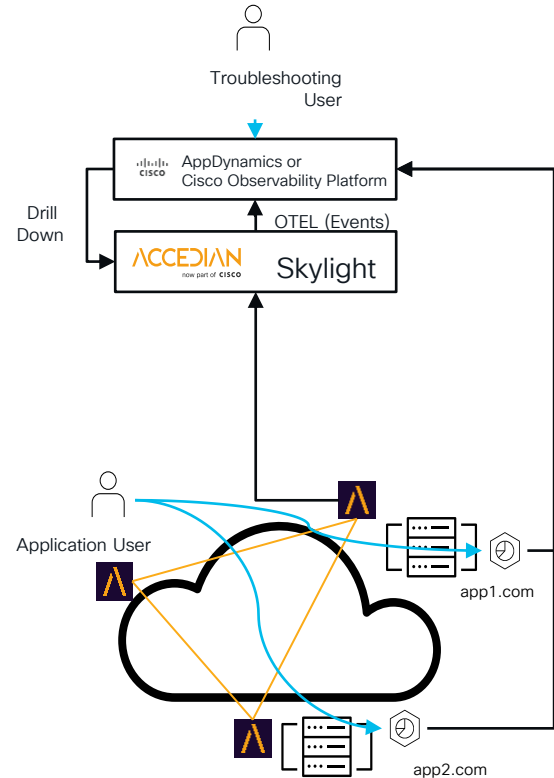
Integration of Accedian metrics and events into Cisco AppDynamics and Cisco Observability Platform




Network probes can measure KPIs (like latency) on private enterprise networks and service provider connectivity services




Observability for applications that are extremely sensitive to latency



FSO for Critical Networks

 Observability Platform

 Cisco Cloud Observability ▾

Observe / Critical Networks

Overview

Dashboards

Observe

Explore >

Configure >

Tools >

Critical Networks3

1

2

Critical Connections3

1

2

Hosts3

1

2

Cluster1

AWS-fso-clou...

Namespaces3

3

Services2

2

Critical Networks (3)

Filter View




EntityStatus = 'active'

Apply

Group View (up to 2 levels of tags)

Add Group

Apply

Health	name	description
	demo2-pacific_rim_net	This is the Demo2 Pacific Rim Region Critical Network
	demo2-emeai_net	This is the Demo2 EMEA Region Critical Network
	demo2-nato_net	This is the Demo2 Pacific Rim Region Critical Network

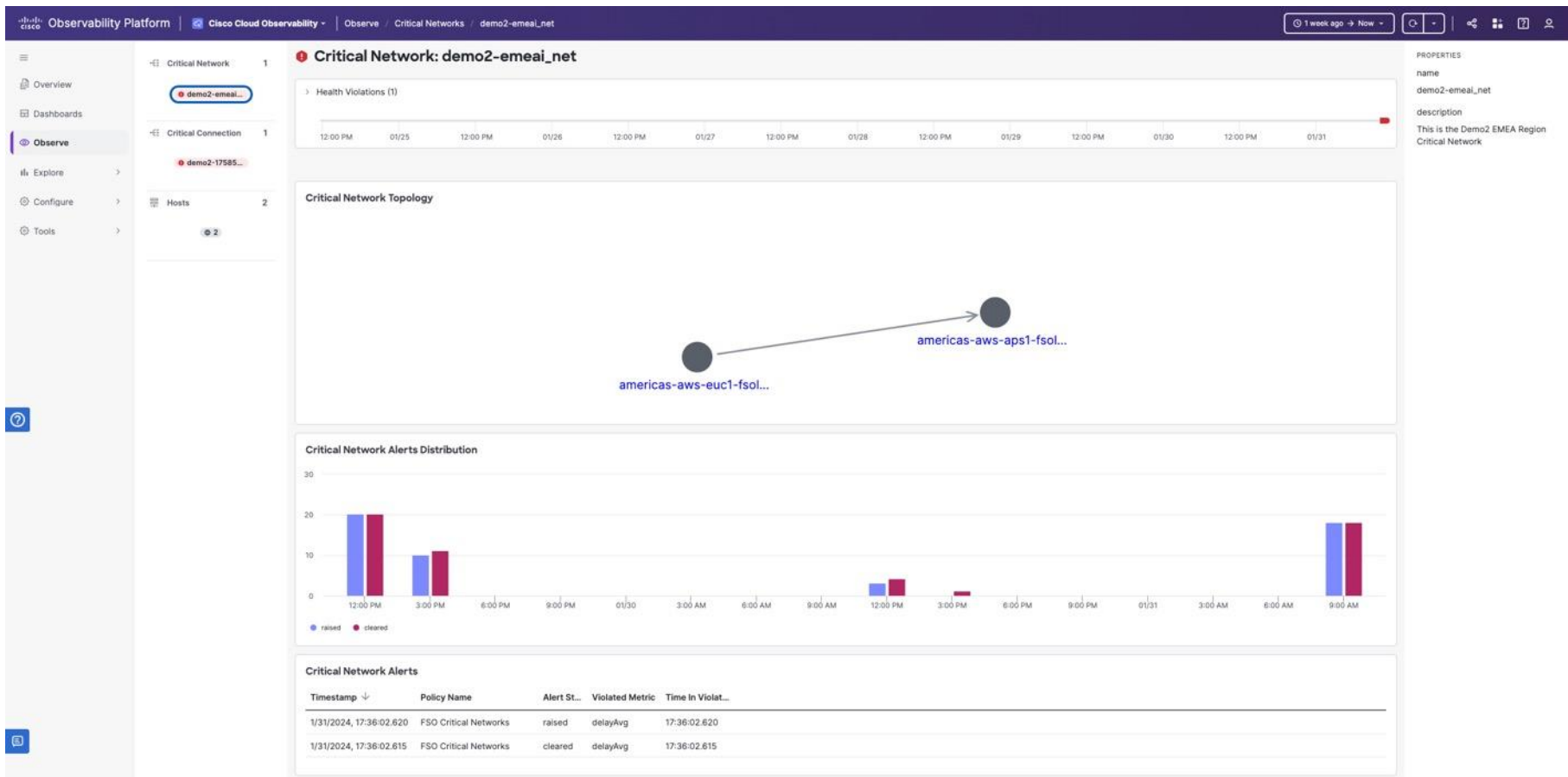
CISCO *Live!*

BRKAPP-2673

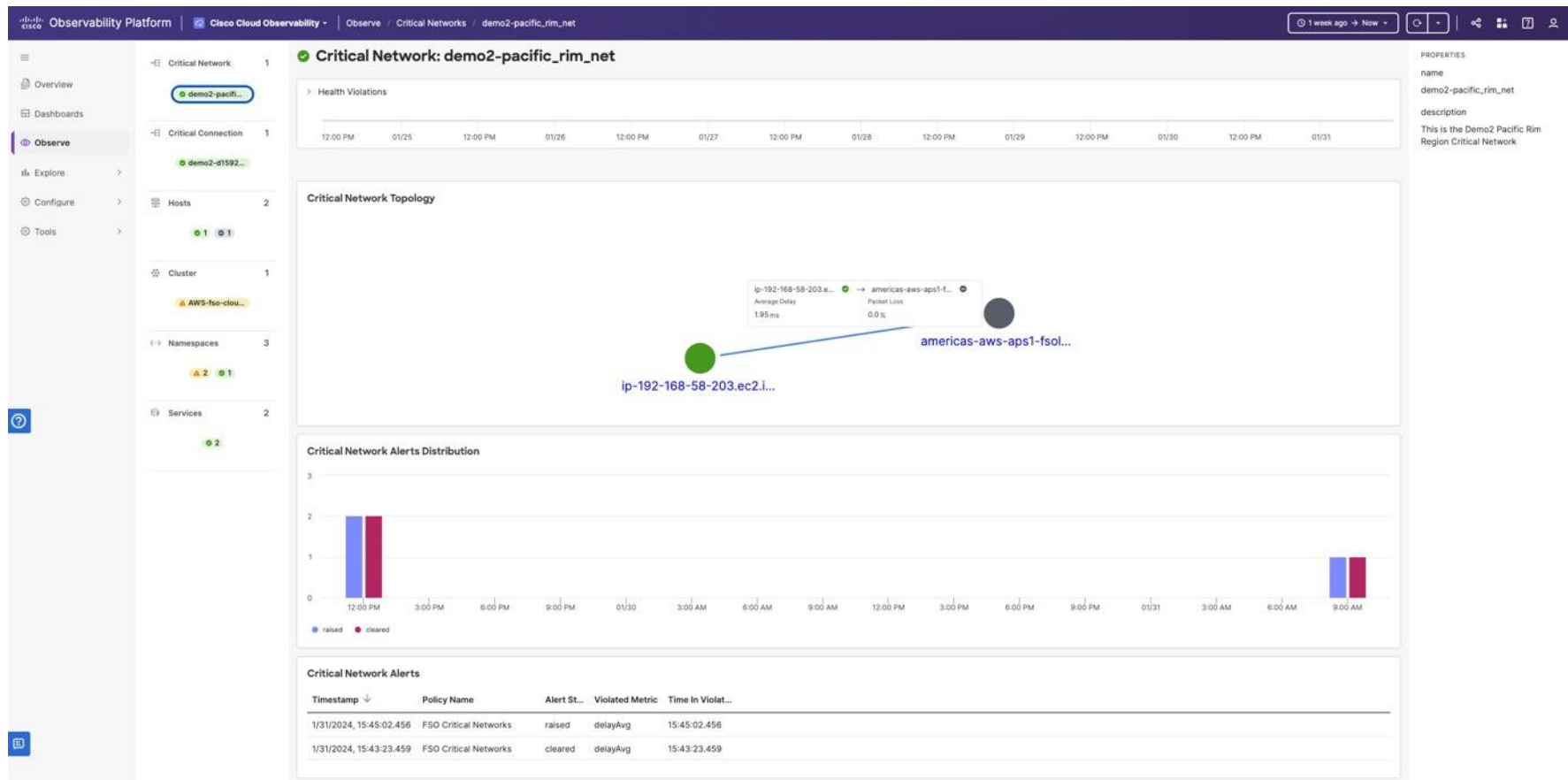
© 2024 Cisco and/or its affiliates. All rights reserved. Cisco Public

24

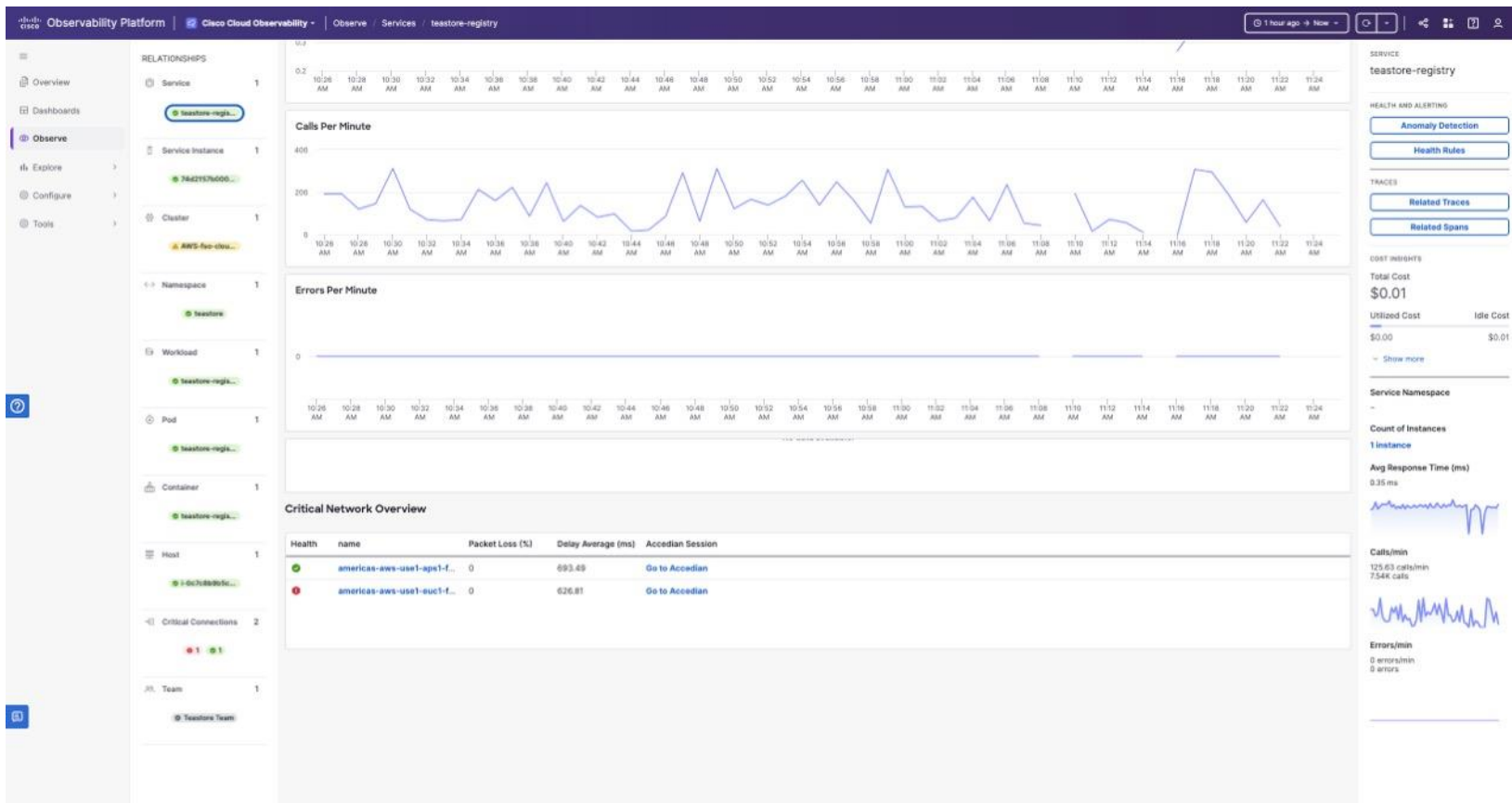
FSO for Critical Networks



FSO for Critical Networks



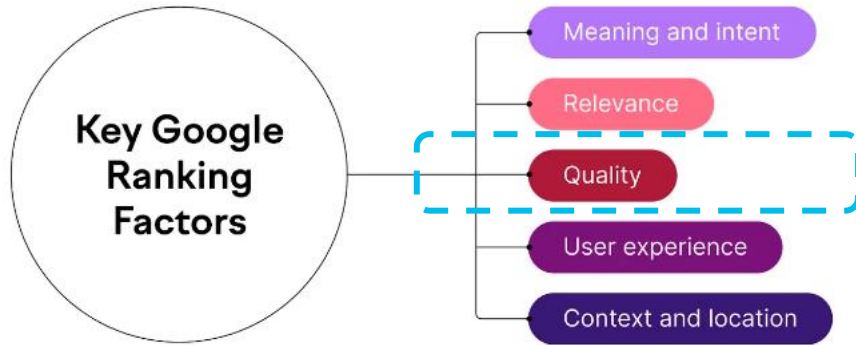
FSO for Critical Networks



Cisco Real User Monitoring (RUM) with Session Replay

App Quality is Central to Good User Experience

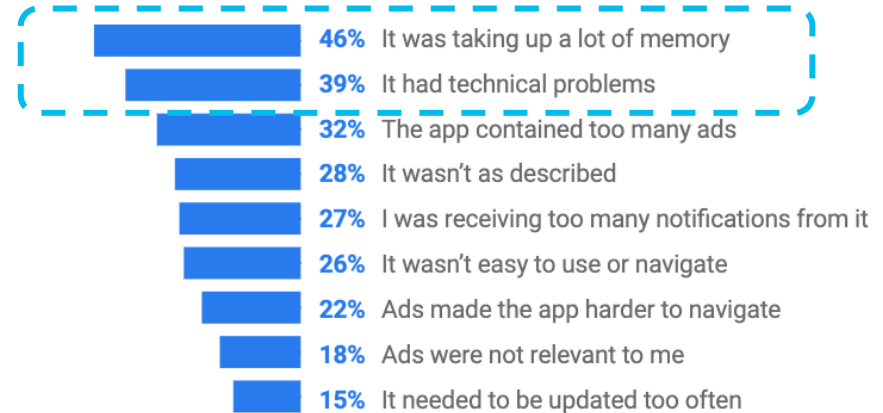
Factors that impact
web search results



Source: <https://www.google.com/search/howsearchworks/how-search-works/ranking-results/>

Reasons for mobile
app abandonment

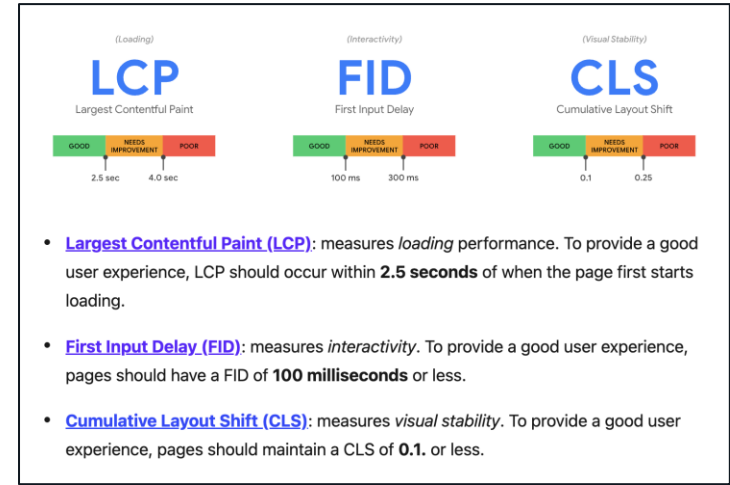
App-related reasons for abandonment



<https://think.storage.googleapis.com/docs/how-users-discover-use-apps-google-research.pdf>

Core Web & Android Vitals

- Multifaceted approach towards end user experience
- Explicit benchmarks provide clear guidance
- Poor experience will impair app discoverability



BAD BEHAVIOR THRESHOLD		
To maximize your title's visibility on Google Play, please keep it below these thresholds.		
	Overall (average across devices)	Per phone model
User-perceived crash rate	1.09%	8%
User-perceived ANR rate	0.47%	8%

Real User Monitoring (RUM)

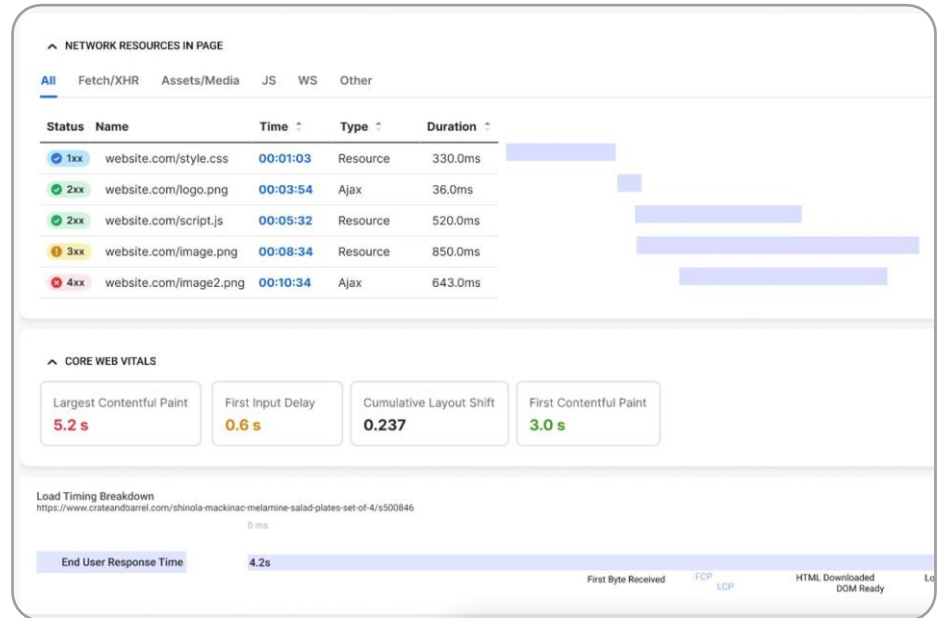
Browser/mobile RUM and modern experience metrics for cloud environments

Browser Real User Monitoring (BRUM)

- View aggregate user experience health like load, response time and Core Web Vitals
- Real-time alerting on anomalies
- Visualize detailed browser metrics to locate root cause

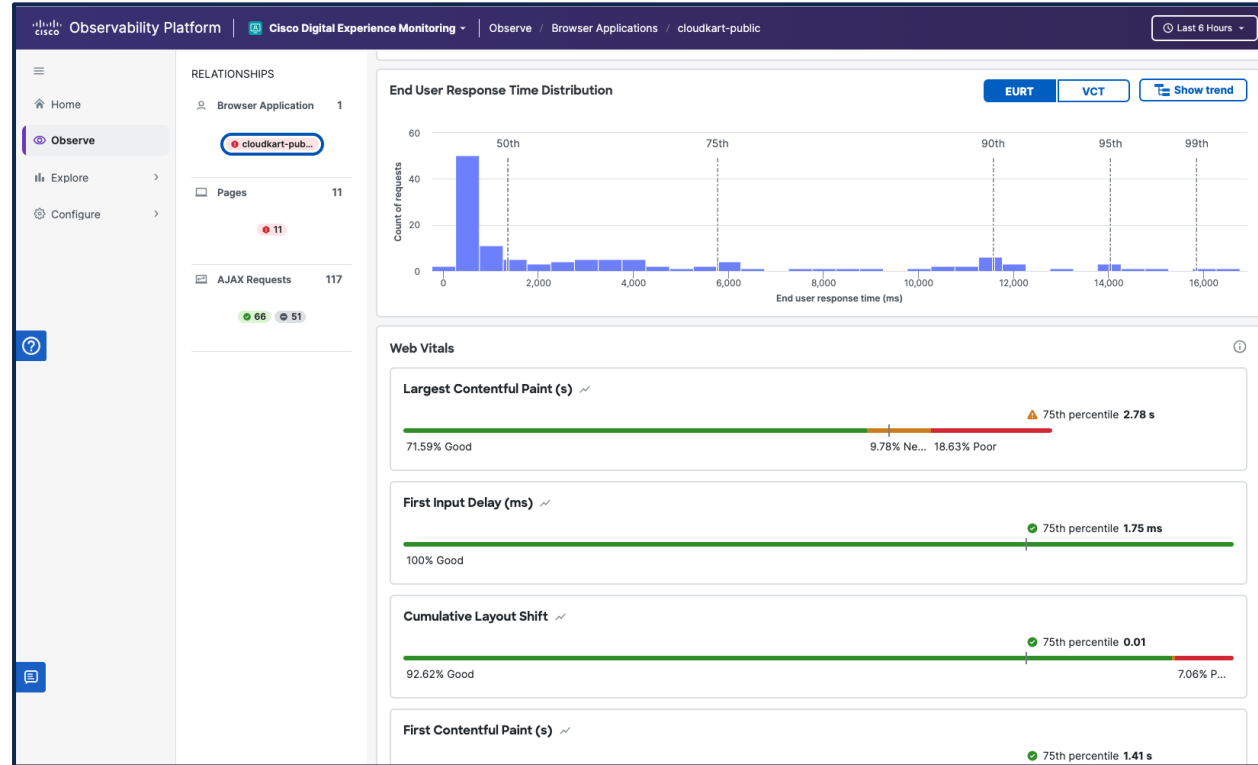
Mobile Real User Monitoring (MRUM)

- Monitor baseline and standard deviation for proactive issue identification
- Benchmarked against Android Vitals
- Troubleshoot down to individual sessions



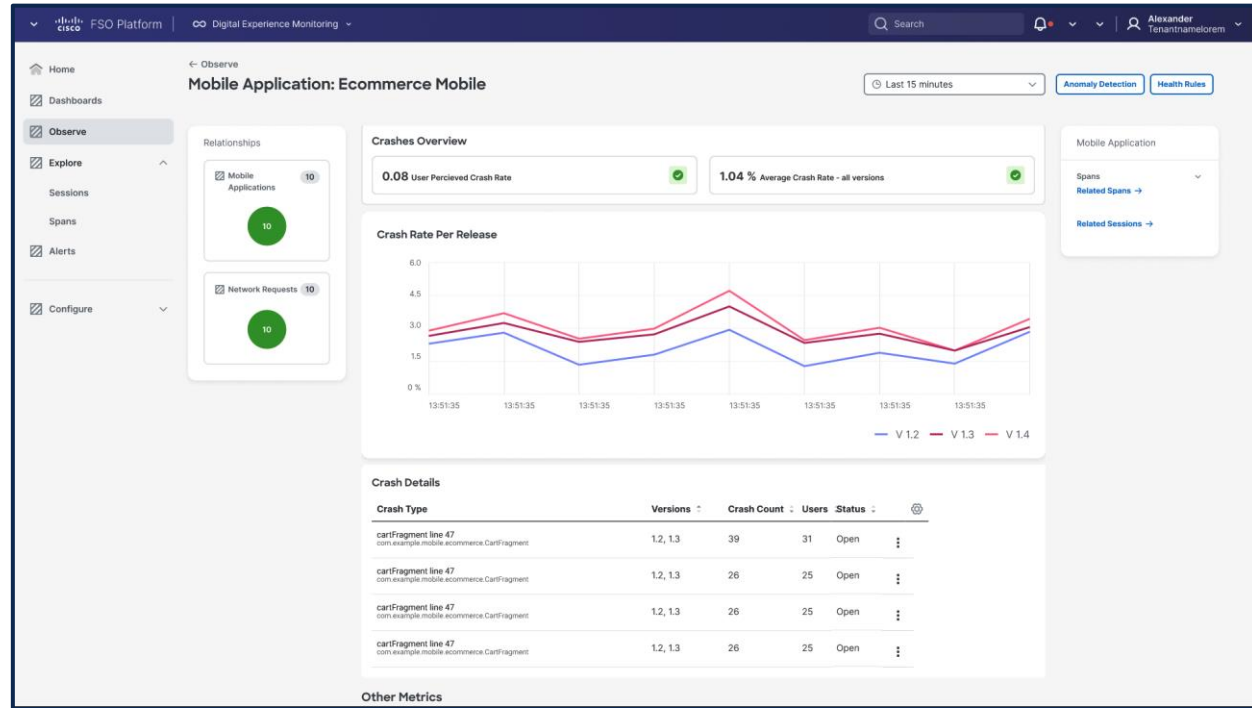
Cisco Browser Real User Monitoring

- Core Web Vitals
- Holistic performance monitoring
- Capture all user sessions
- Open Telemetry Support w/ correlation to Cisco Cloud Observability
- Available now



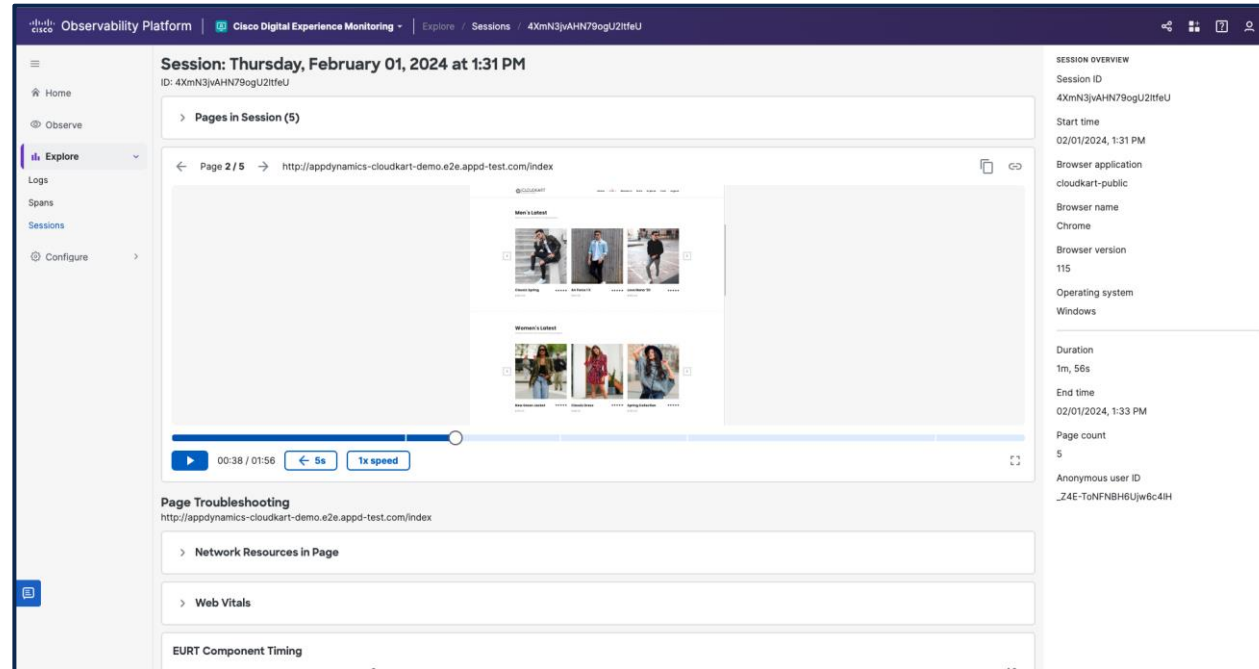
Cisco Mobile Real User Monitoring

- Core Android Vitals
- Monitor all network requests to services
- Capture all user sessions
- Open Telemetry Support w/ correlation to Cisco Cloud Observability
- Available March



Session Replay for Cisco Real User Monitoring

- See exactly what happened in a user session to quickly reproduce the problem
- Visualize the impact of a technical problem on the user
- Available for mobile and browser apps



Demos



Home

Observe

Explore

Configure

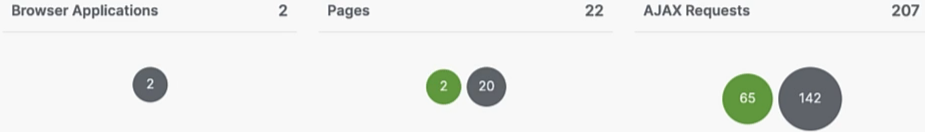


Filter View

EntityStatus = 'active'

Apply

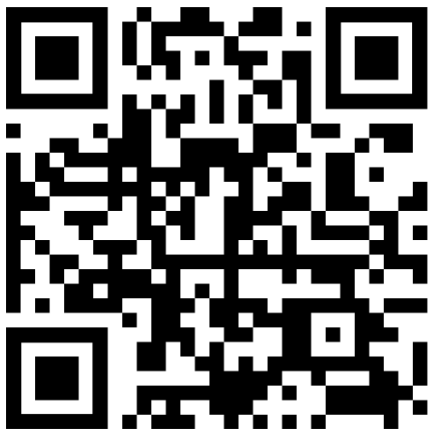
Browser Real User Monitoring



Connect with us after Cisco Live Amsterdam!

Want to chat more?

Scan the QR code or visit the link!



cs.co/emea

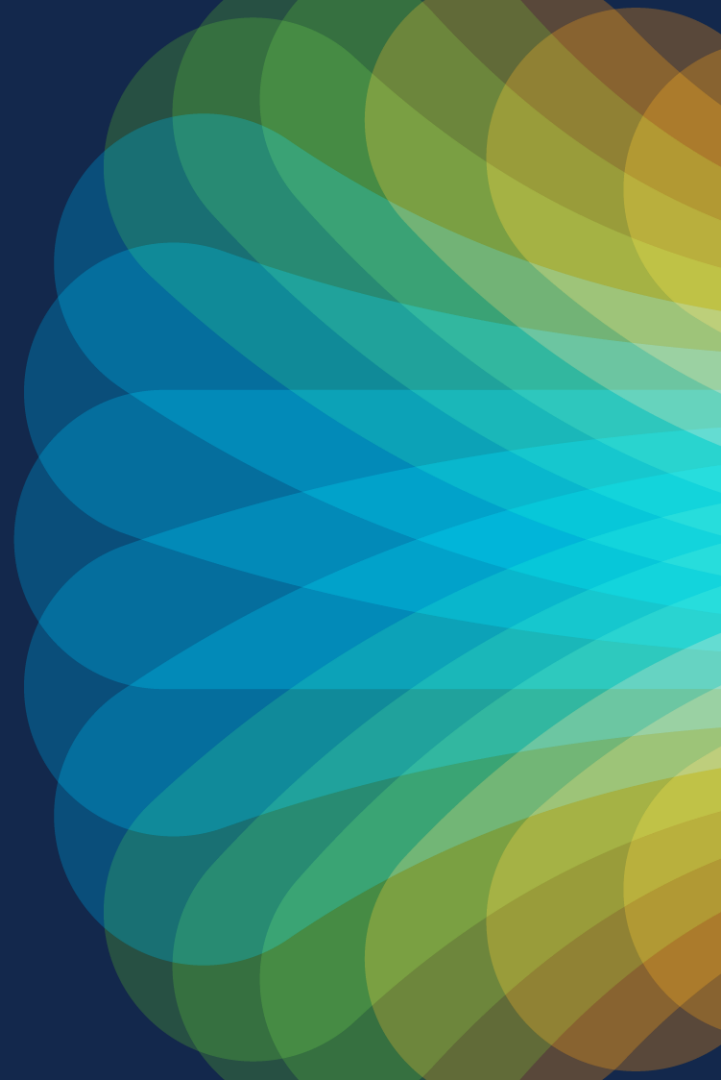
- 1 Learn more about Cisco Full- Stack Observability
- 2 Go deep with Cisco AppDynamics
- 3 Request a personal demo
- 4 Start a free trial



The bridge to possible

Thank you

CISCO *Live!*



The background features a vibrant, abstract design with a color gradient from dark blue on the left to bright yellow and white on the right. The design consists of overlapping, wavy horizontal bands and a radial pattern of lines emanating from a bright white point on the right side, creating a sense of motion and energy.

CISCO *Live!*

Let's go