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Let's go

#CiscoLive



The bridge to possible

# What is Full-Stack Observability and How It Can Help You

Wei Wang, Sr. Director, Cisco Systems  
Joe Byrne, CTO Advisor, Cisco Systems  
Colby Rozell, Product Manager, Chevron  
Irfan Farooq, US Bank

BRKAPP-4042



#CiscoLive



# Cisco Webex App

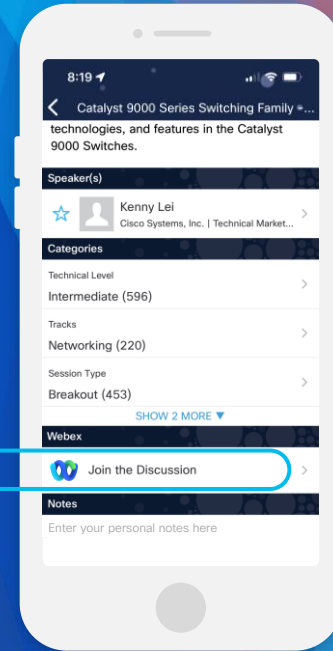
## Questions?

Use Cisco Webex App to chat with the speaker after the session

## How

- 1 Find this session in the Cisco Live Mobile App
- 2 Click “Join the Discussion”
- 3 Install the Webex App or go directly to the Webex space
- 4 Enter messages/questions in the Webex space

Webex spaces will be moderated by the speaker until June 9, 2023.

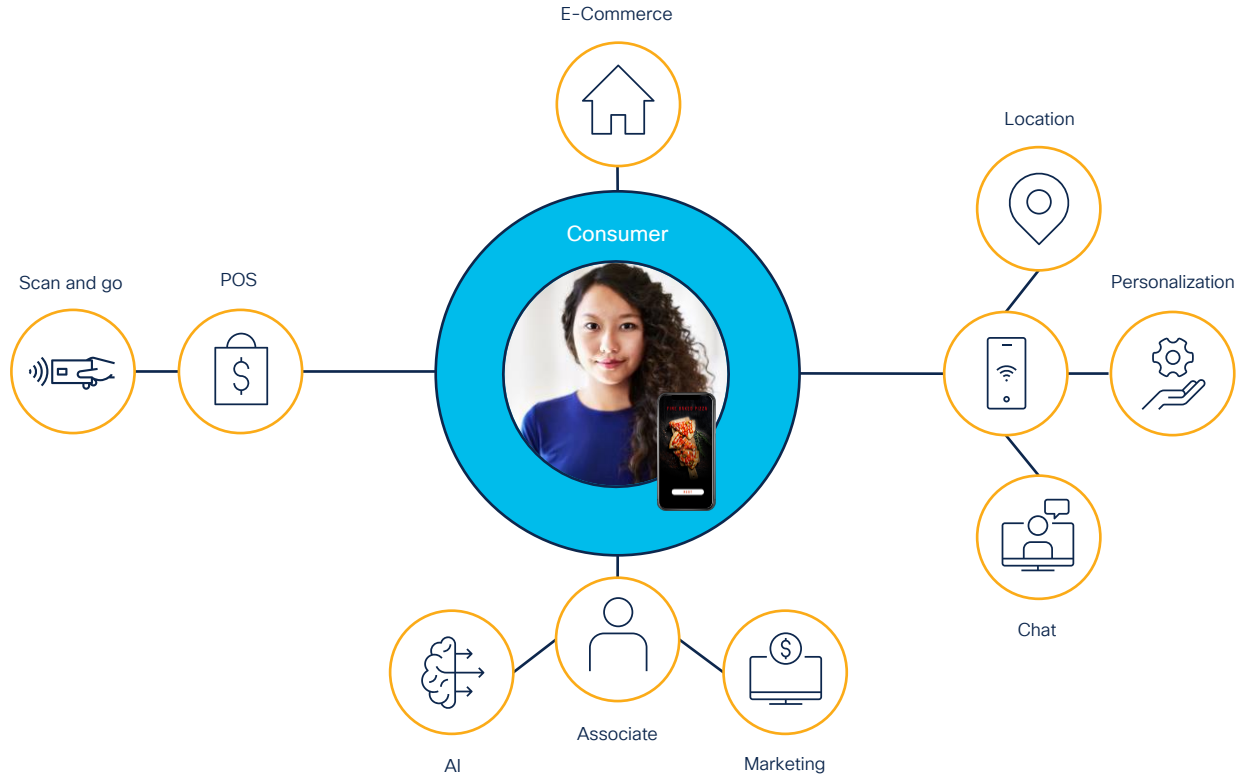


<https://ciscolive.ciscoevents.com/ciscolivebot/#BRKAPP-4042>

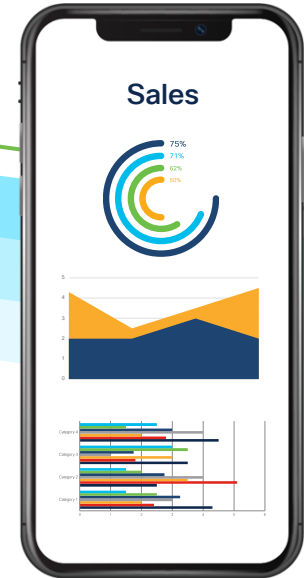
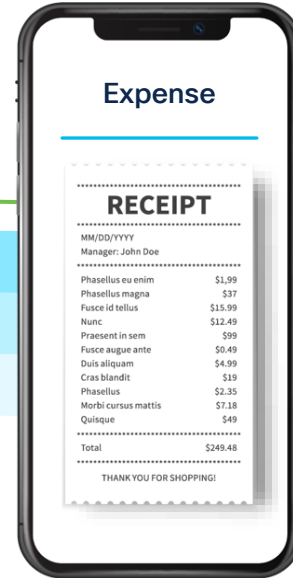
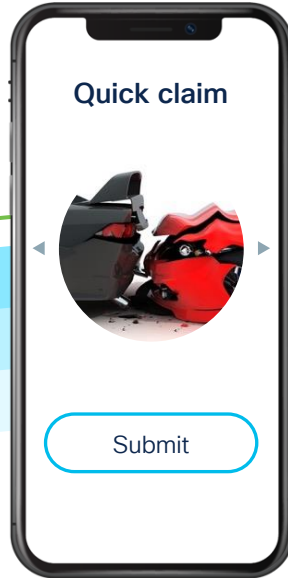
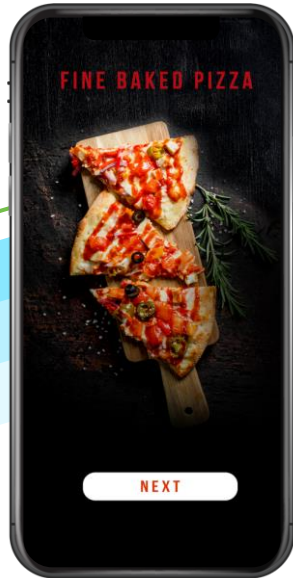
# Agenda

- Introduction
- What is Cisco Full Stack Observability?
- Customer Interview – Chevron
- What are the use cases of Cisco FSO and FSO platform?
- Customer Interview –US Bank
- Conclusion

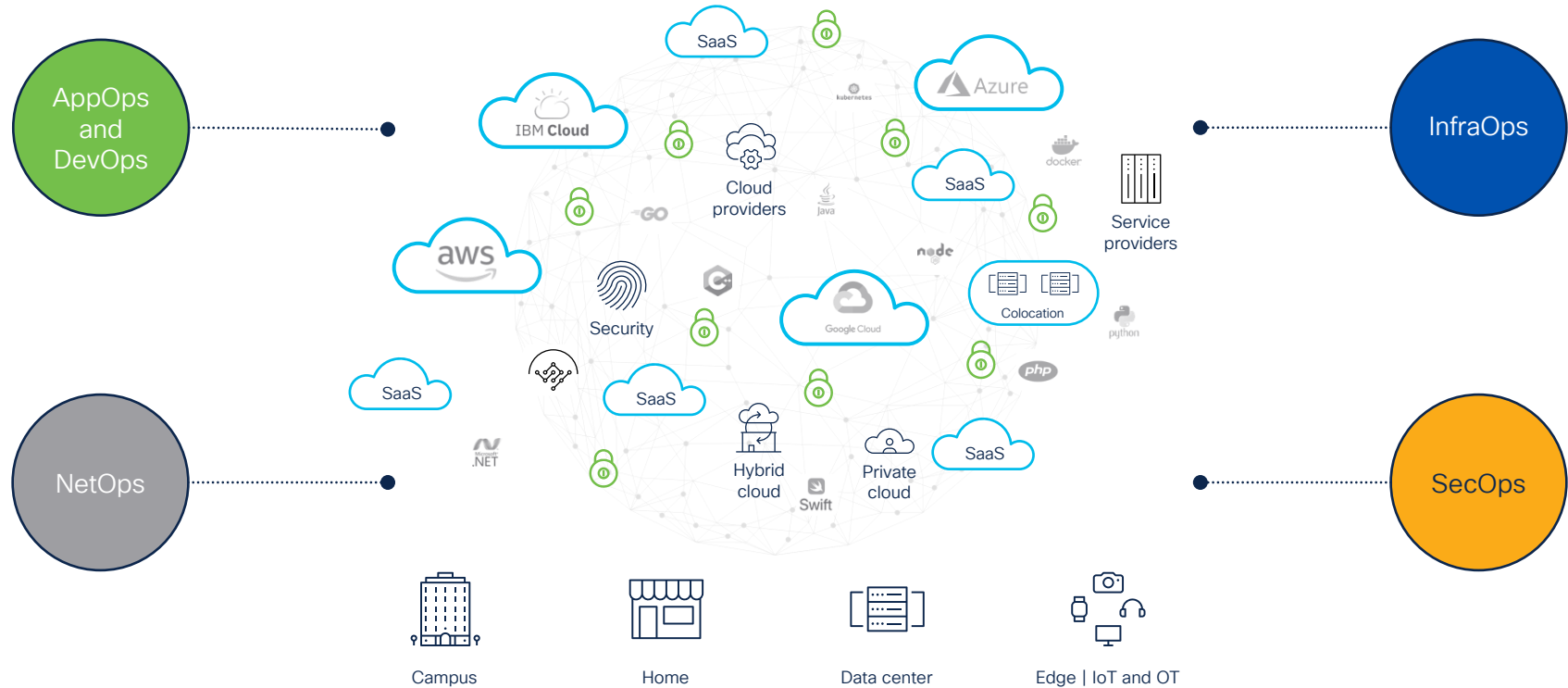
# We live in an evolving and expanding digital world



# Applications are the front door for digital experiences



# But applications are built in complex environment



# Which leads to

56%

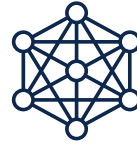
Use more than 10 application observability/monitoring tools

60%

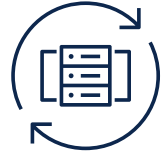
Say most observability tools serve narrow requirements and fail to enable a complete view

74%

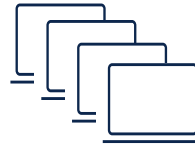
Struggle with data collection and correlation



Complexity



Data overload



Tool sprawl



Friction  
between teams



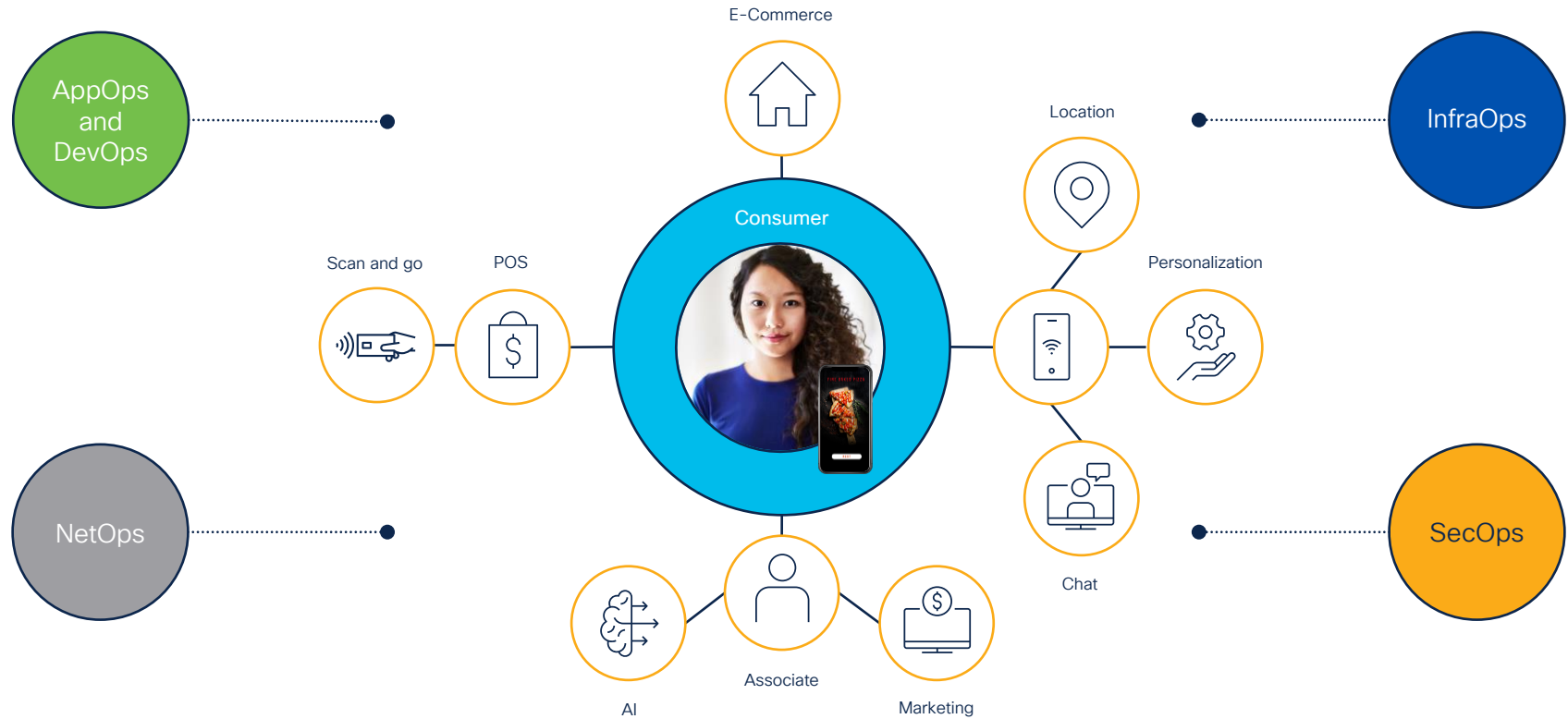
A photograph of three IT professionals in a server room. A woman with glasses and a blue shirt stands in the background. A man with glasses and a light blue shirt sits in the middle, wearing headphones. Another man with a beard and a grey hoodie leans over his shoulder from the right. They are all looking at several computer monitors displaying code or data. The room has glass partitions and server racks in the background.

# 71%

believe that unified  
observability is  
critical to delivering the  
best digital experience

# So, teams need to see the full stack of available data

## Shared context across the digital experience



# Cisco Full-Stack Observability

## Full Stack Observability (FSO)

is a requirement for business to deliver the most **optimal and secure experience** to users and applications.

Cisco Full-Stack Observability brings together data from multiple operations domains to provide **unified visibility**, derive **real-time insights** and recommend **actions** helping to:



Focus on what matters most: revenue, user experience, risk, costs



Reduce time to resolution of incidents and performance issues



Minimize tool sprawl by providing a unified solution



Break down silos by reducing friction among teams

# Customer Interview – Chevron





We're leaders in energy because we value responsibility, trust and integrity. This unwavering dedication to quality drives our company culture and will keep us ahead for years to



Headquartered in  
**San Ramon, CA**



**43,846** Employees



**Active in 180+ countries**  
worldwide



**140+ years**  
of human ingenuity



**On track** for 2023  
renewable fuels  
target



**Our purpose** is to develop  
the affordable, reliable,  
ever-cleaner energy that  
enables human progress



**Our vision** is to be the  
global energy company  
most admired for its  
people, partnership and  
performance

**CISCO** *Live!*

# Full Stack Observability Use Cases



# Hybrid Application Monitoring

Correlate performance and application experience to business results and proactively remediate issues.

- Gain deep app insight to continually improve performance and user experience.
- Understand the correlation between app performance, user experience, and business impact.
- Connect teams across domains and correlate risk with outcomes.

*Make better decisions from the code-level to the C-Suite and beyond.*





# Modern Application Monitoring

Monitor performance of cloud native applications that leverage distributed cloud hosted technologies.

- Identify and resolve infrastructure-related performance issues across cloud hosted environments.
- Empower dev teams with future-ready capabilities that accelerate innovation.
- Efficiently optimize distributed cloud hosted resources and minimize costs.

*Cut through the complexity and future-proof your investments.*





# Application Dependency Monitoring

Understand external network dependencies negatively impacting user experience through increased visibility.

- Eliminate blind spots with real-time visibility from the end user to the application.
- Identify dependencies from the internet to the public cloud to enterprise networks.
- Correlate insights across application transactions—all the way down through the network path and internet routing.
- Deeper integration between AppDynamics and ThousandEyes to support assessment and urgency of issues.

*Ensure app performance is driving business outcomes.*



# Customer Digital Experience Monitoring

End-to-end visualization of user, application, hybrid cloud, and internet performance.

- Visualize in one place the user, application, hybrid cloud, and internet performance.
- Manual correlation of business performance with application and internet performance.
- Deeper integration between AppDynamics and ThousandEyes for end-to-end experience and faster remediation

*See and take action across the entire digital experience with relevant context.*



# Hybrid Cloud Cost Optimization

Lower costs by paying only what you need in public clouds and safely increasing utilization of on-premises assets.

- Avoid public cloud over-provisioning and the associated cost overruns.
- Ensure application performance without incurring unpredictable public cloud costs.
- Avoid the underutilization of on-premises infrastructure.

*Ensure application performance and operational efficiency.*





# App Resource and Workload Optimization

Tie infrastructure resourcing decision to the user experience

- Dynamically optimize resources and maximize positive business impact.
- Get visibility into how infrastructure resources are impacting user experience.
- Always deliver the best experience, no matter the load/stress put on the system.

*Focus on your digital innovation initiatives and not infrastructure resources.*



# Application Security

Simplify the lifecycle of vulnerability fixes and security incidents by creating shared context across application and security teams.

- Identify vulnerabilities and threats within applications in production.
- Protect applications against threats and attacks in real-time
- Correlate security and business impact to prioritize remediations and compliance.
- Business Risk Observability – integrating Kenna Risk Meter Score Distribution, Panoptica for API Security, plus Talos to integrate threat feed intelligence, all directly into Full-Stack Observability.

*Catch exploits in moments, not months.*



# Cisco FSO Platform with Partners

Open, Extensible and API driven platform that empowers a new observability ecosystem

- Built on OpenTelemetry and anchored on MELT
- Brings data together from multiple domains such as application, networking, infrastructure, security, cloud and business sources
- Customers get powerful, correlated, and more predictive insights that reduce time to resolve issues and optimize experiences
- Cisco has worked closely with partners to develop a diverse ecosystem of solutions. CloudFabrix, Evolutio, Kanari are partners will showcase their Cisco FSO solution at Cisco Live.

*Built an ecosystem of developers and partners.*

**CISCO** *Live!*



# Customer Interview – US Bank







U.S. Bank serves millions of customers locally, nationally and globally through a diversified mix of businesses and has been recognized for its approach to digital innovation, social responsibility, and customer service.



Headquartered in  
**Minneapolis, MN**



**77,000**  
Employees in **13** countries



**2,000+**  
Branches in **26** states



**1863**

Founded



**\$24B+**

In annual revenue



**No. 150**

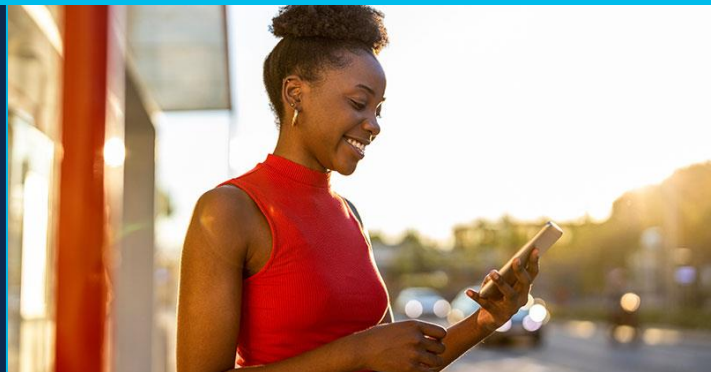
On the Fortune 500



Mobile app earned more than **1 million 5-star reviews** from customers



For the ninth consecutive year, named one of **the World's Most Ethical Companies** by the Ethisphere Institute.



**82%**

of core consumer customers engaged digitally with U.S. Bank

**CISCO** *Live!*



# Cisco FSO Platform



# What is Cisco FSO Platform?

Open, Extensible, API driven platform built on OpenTelemetry and anchored on MELT



Open, Extensible and  
API driven



Natively supports  
OpenTelemetry



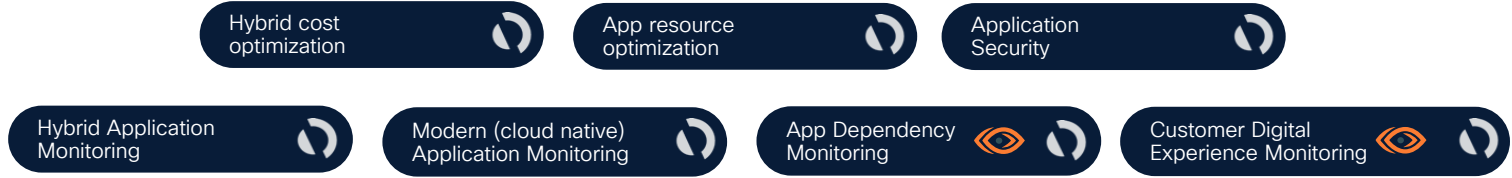
Anchored on MELT



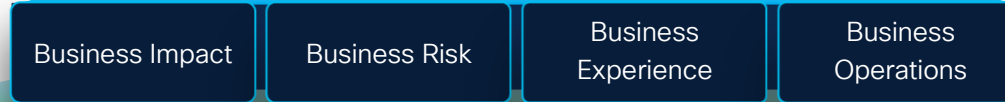
Provides Unified  
Query Language  
(UQL)

# Cisco Full-Stack Observability Architecture Foundation

## USE CASES



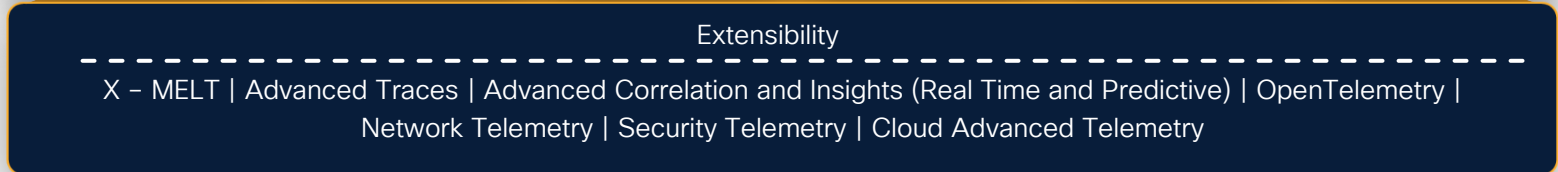
## BUSINESS CONTEXT



## SERVICES



## PLATFORM



# Cisco FSO Platform

Single platform for Cisco and third-party FSO applications

## Multi-product integration platform

Ingestion and storage for compute, networking, security, public, and hybrid clouds

## Cross-MELT troubleshooting

Anomaly detection and root cause analysis services across metrics, events, logs, and traces

## Multiple sources → Single entity

MELT from multiple collectors are combined for a single entity view for multi-dimensional visibility

X – MELT | Advanced Traces | Advanced Correlation and Insights (Real Time and Predictive) |  
OpenTelemetry | Network Telemetry | Security Telemetry | Cloud Advanced Telemetry

# Cisco FSO Platform

Built for today, ready for tomorrow

## Empower solution developers

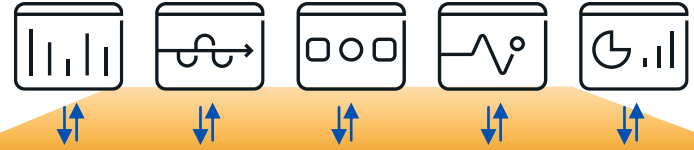
Giving 3rd party developers the tools to build new integrations

## Extend FSO services

Create your own custom data models, custom APIs, and custom UIs

## Create value-added solutions

Built your own and/or extend AppDynamics Cloud with enrichments, dashboards, custom experiences, and even full applications



X – MELT | Advanced Traces | Advanced Correlation and Insights (Real Time and Predictive) |  
OpenTelemetry | Network Telemetry | Security Telemetry | Cloud Advanced Telemetry

# Cisco FSO Solution Components



# Evolutio Fintech

A Module on Cisco FSO Platform- created by Evolutio



Monitor KPIs relevant to the fintech vertical like credit card authorizations



Draw relevant business insights using the data ingested



View KPIs and insights grouped and aggregated based on metadata like region, schemas, infra components and merchants



# vSphere Observability and Data Modernization

A Module on Cisco FSO Platform- created by CloudFabrix



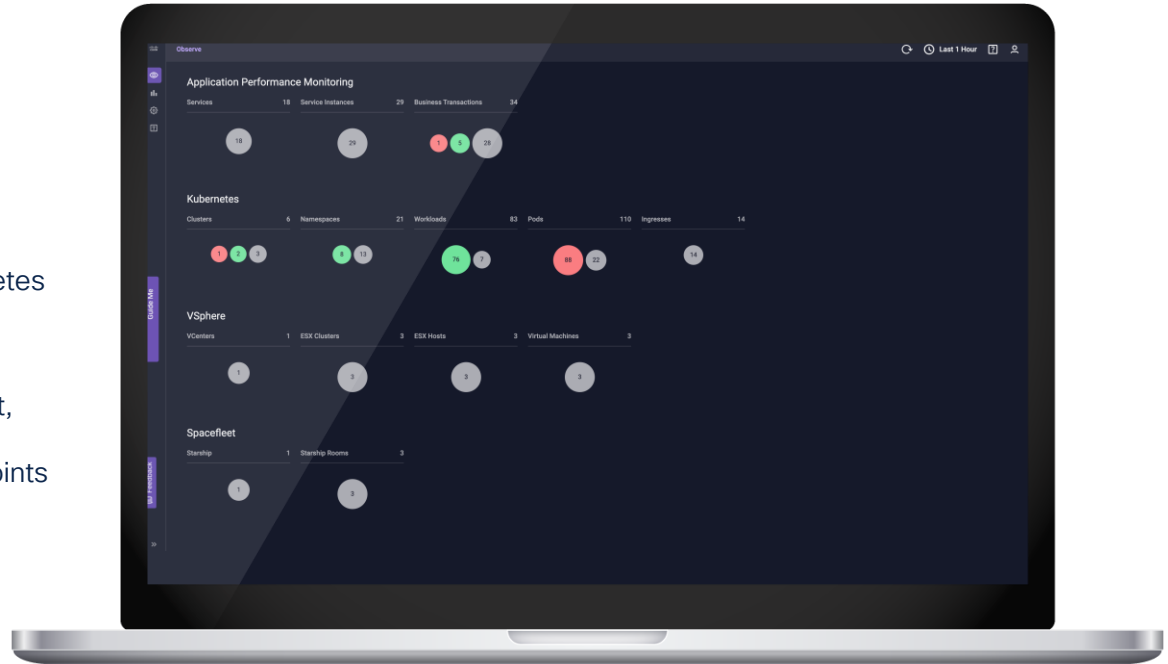
Observe vSphere  
through FSO platform



vSphere data is now enriched  
through correlations with Kubernetes  
and infrastructure data



Collaboration, event management,  
ITSM, and additional MELT  
integrations for non-OTEL end points





# Cisco Full-Stack Observability offers

5%

Stacked discount on these packages and if you take optional CX services from us we provide another 3% discount

8%

Total package discount with services attached

## FSO Essentials

Customer Experience and Partner Enablement

Extend observability with Cisco FSO Platform

Application security

Modern application monitoring

Hybrid application monitoring

**FSO Essentials** package provides full stack visibility, insights, and actions, tied to business context, across application monitoring and application security

## FSO Advantage

Customer Experience and Partner Enablement

Extend observability with Cisco FSO Platform

Digital experience monitoring

Application dependency monitoring

Application security

Modern application monitoring

Hybrid application monitoring

**FSO Advantage** package provides full stack visibility, insights, and actions, tied to business context, across application monitoring, network and application security

## FSO Premier

Customer Experience and Partner Enablement

Extend observability with Cisco FSO Platform

Application resource optimization

Hybrid cost optimization

Digital experience monitoring

Application dependency monitoring

Application security

Modern application monitoring

Hybrid application monitoring

**FSO Premier** package provides full stack visibility, insights, and actions, tied to business context, across application monitoring, network and application security and helps you to optimize resources

# Fill out your session surveys!



Attendees who fill out a minimum of four session surveys and the overall event survey will get **Cisco Live-branded socks** (while supplies last)!



Attendees will also earn 100 points in the **Cisco Challenge** for every survey completed.



These points help you get on the leaderboard and increase your chances of winning daily and grand prizes

# Continue your education



- Visit the Cisco Showcase for related demos
- Book your one-on-one Meet the Engineer meeting
- Attend the interactive education with DevNet, Capture the Flag, and Walk-in Labs
- Visit the On-Demand Library for more sessions at [www.CiscoLive.com/on-demand](https://www.CiscoLive.com/on-demand)

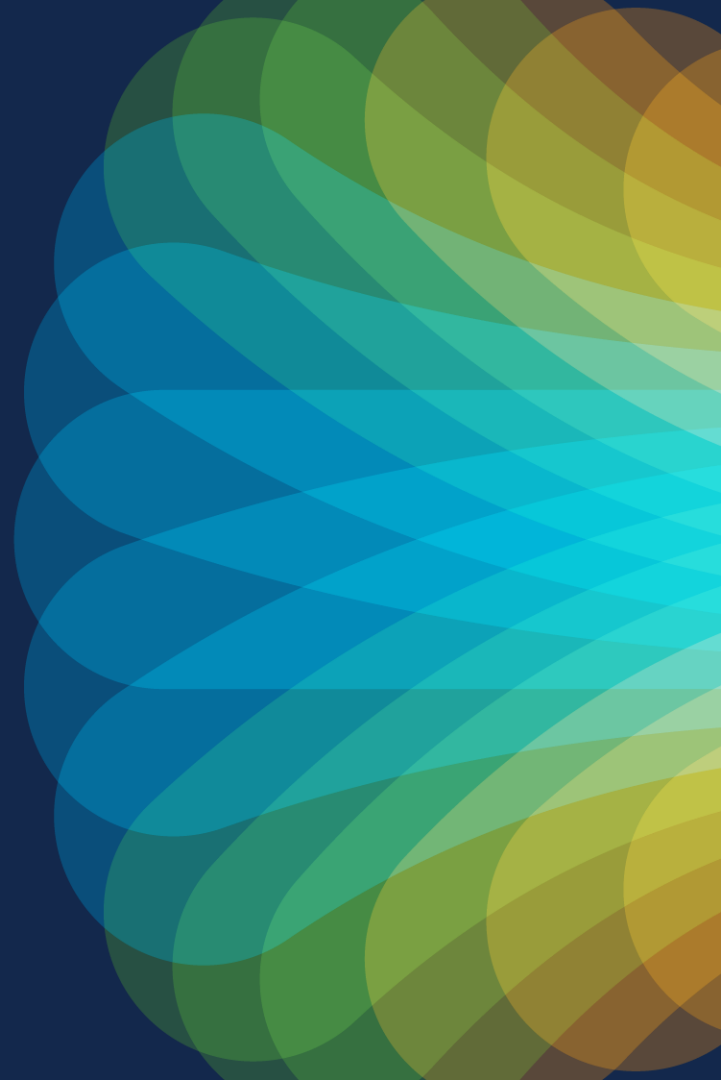


The bridge to possible

# Thank you

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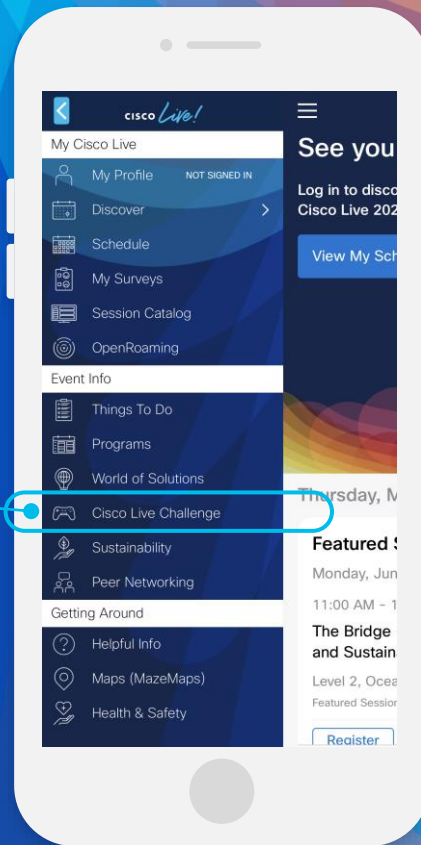


# Cisco Live Challenge

Gamify your Cisco Live experience!  
Get points for attending this session!

## How:

- 1 Open the Cisco Events App.
- 2 Click on 'Cisco Live Challenge' in the side menu.
- 3 Click on View Your Badges at the top.
- 4 Click the + at the bottom of the screen and scan the QR code:



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