

The background features a vibrant, multi-colored abstract design. On the left, there are overlapping, wavy, organic shapes in shades of red, orange, and yellow. On the right, a bright white light source emits a series of sharp, radiating lines in various colors, including blue, green, and yellow, creating a sunburst effect.

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The bridge to possible

Optimizing IT Operations with ThousandEyes and OpenTelemetry

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BRKAPP-2731

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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-2731>

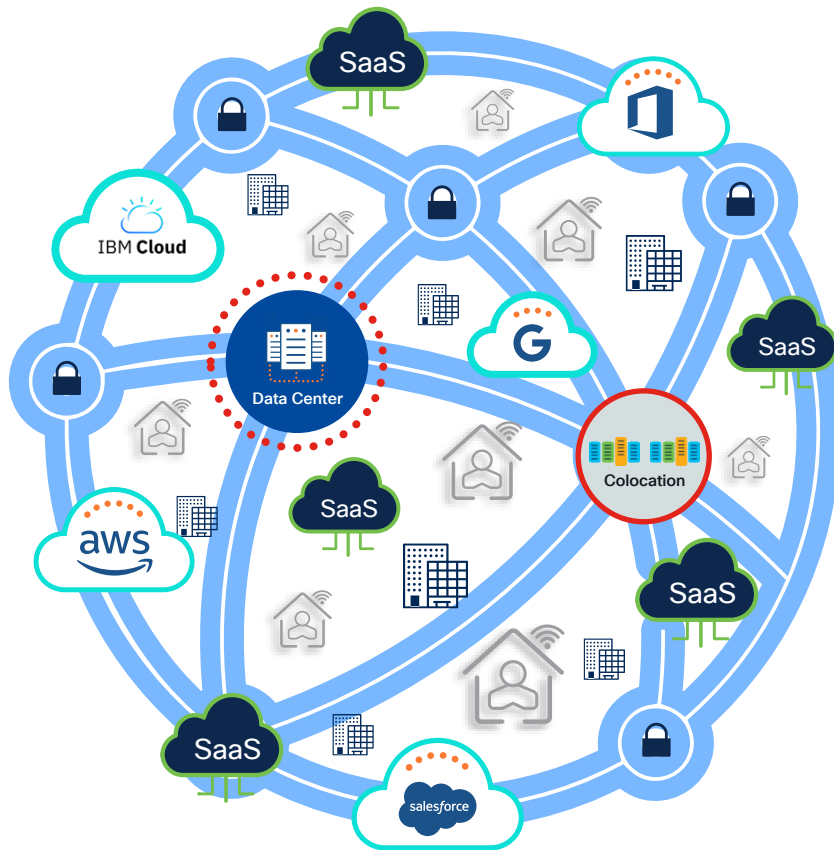
We're in a new world

Your Apps

Your People

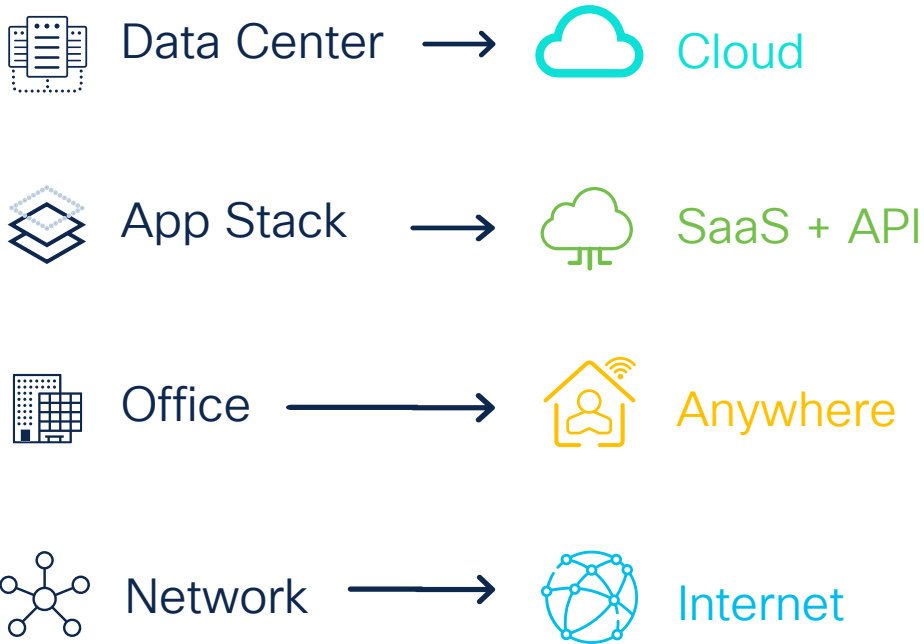
Your Infrastructure

All distributed



Visibility
and control
is **shrinking**

External
dependencies
are exponentially
growing

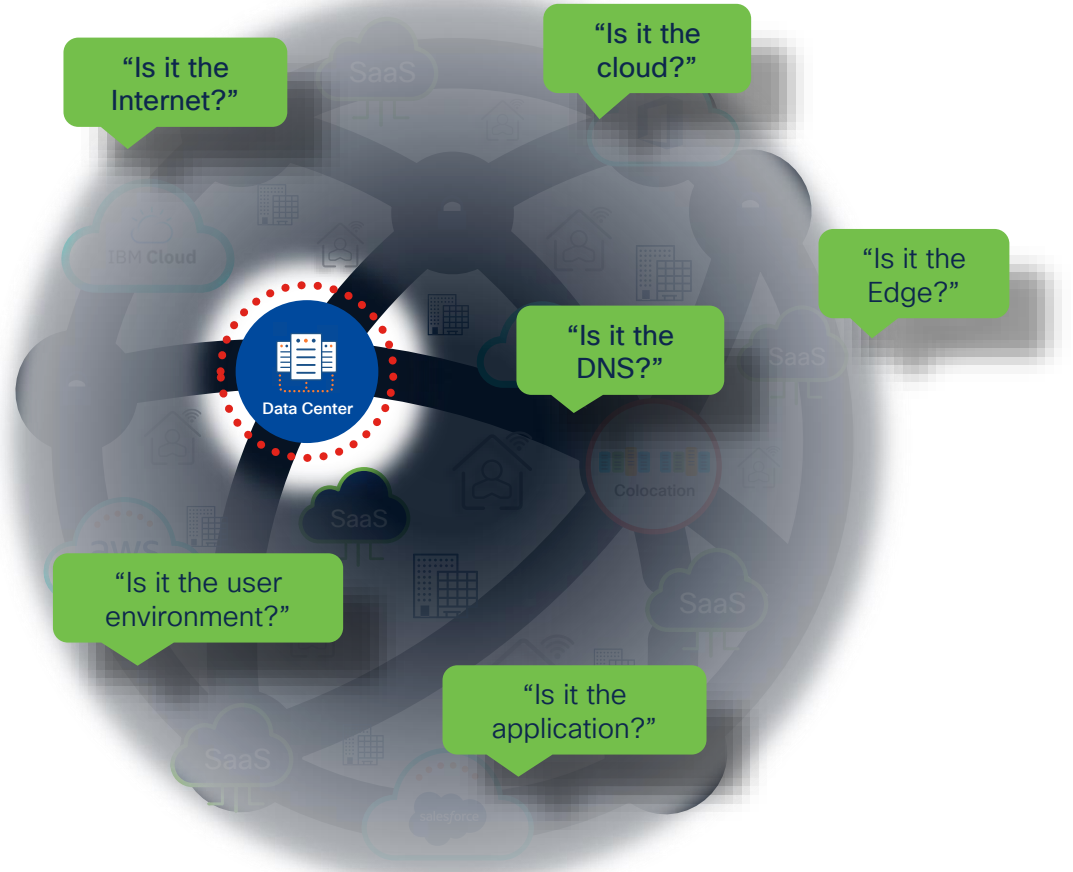


The Challenge

Massive
blind spots
erode ability
to manage

So many layers, domains,
and providers

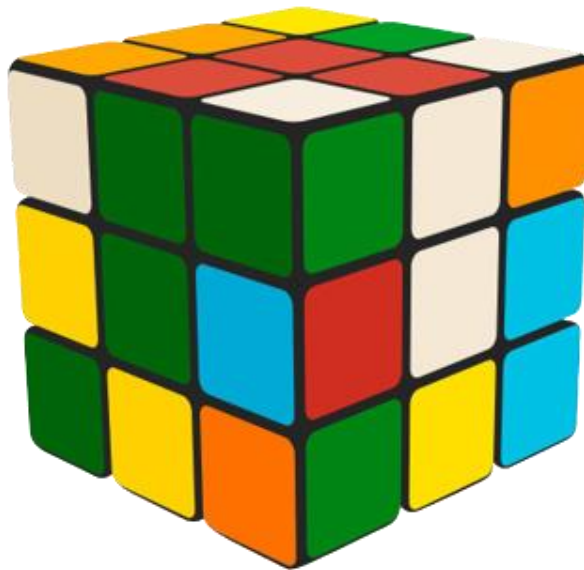
Traditional tools don't work
for what you don't own



Piecing together services is a complex puzzle

The challenge of managing and combining disparate performance data is exacerbated by differences in formats and tools.

The result is a frustrating, fragmented system that hinders performance optimization and decision-making.



ThousandEyes for OpenTelemetry

Accelerate your IT Operations

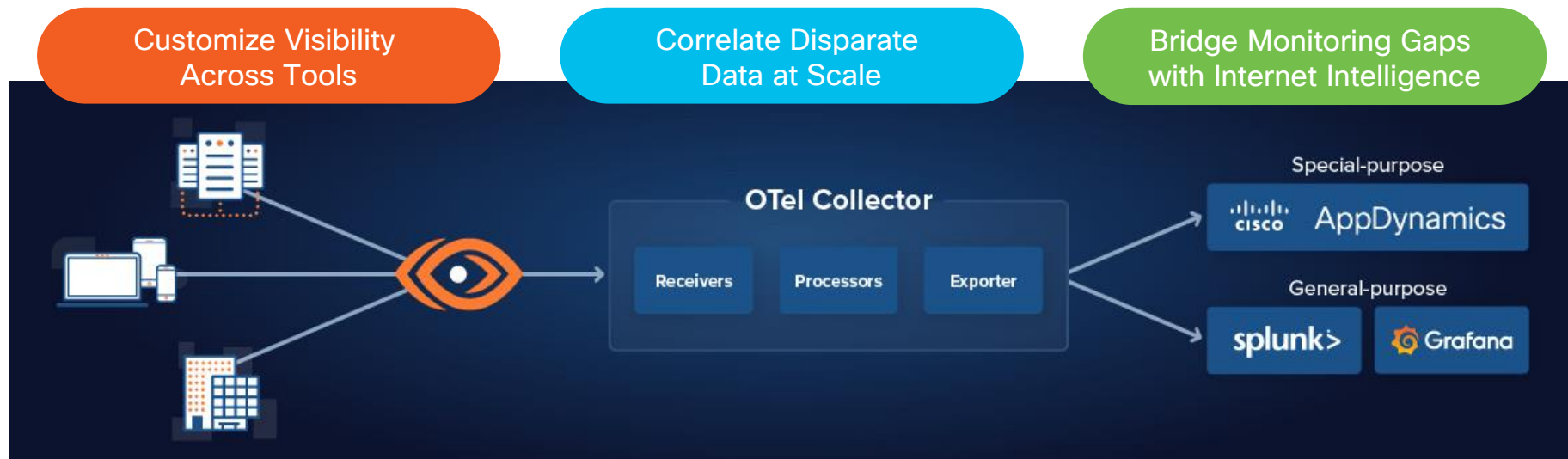
Optimize
Workflows

Lower
MTTR

Improve
Digital
Experience



The Power of ThousandEyes for OpenTelemetry



A vital tool to optimize performance

Share internet and cloud intelligence across IT tools

Reduce or eliminate custom development with vendor-neutral protocols

End-to-end visibility at scale

Gain deeper understanding of your app and infrastructure performance

New opportunities to optimize

Access the right data at the right time to identify new opportunities to enhance user experience

Integrating across your ecosystem

OpenTelemetry is supported by a variety of systems and platforms, providing a versatile solution to avoid vendor lock-in and fragmented services:

Log Management & Analytics



Application Monitoring



Prometheus



Infrastructure Monitoring



Cloud Providers



Google Cloud



Nagios®

ZABBIX

Under the Hood



Introducing Tags

'Flat label' schemas limit the ability to correlate disparate data into meaningful insights



Standard 'key:value' approach improves interoperability and correlation across datasets

Labels

servicenow-ci-11234

app-webex

servicenow-ci-3456

app-m365

servicenow-ci-2346743

app-slack

branch-ord

branch-sfo

branch-ewr

Tags

servicenow-ci: 11234

app: webex

servicenow-ci: 3456

app: ms365

servicenow-ci: 2346743

app: slack

branch: ord

branch: sfo

branch: ewr

OpenTelemetry stream

Stream

- Stream endpoint:
“Where am I sending data?”
- Tag match: “Which data will I send?”
- Custom Headers:
optional, typically used for Authentication

Restriction:

- 1 stream and 250 test limit per Account Group

Requirements:

- OTLP/gRPC receiver required
- PKI-valid TLS cert required

Supported Test types:

- Agent-to-Server tests (incl. Higher layers built on Agent-to-Server tests)

Supported Metrics:

- Latency
- Loss
- Jitter

Configuration Steps

ThousandEyes for OpenTelemetry is configured via API

Create a Tag

POST /v7/tags

```
{
  "key": "myKey",
  "value": "myValue",
  "objectType": "test",
  "accessType": "all"
}
```

Assign the Tag

POST
/v7/tags/<tag_id>/assign

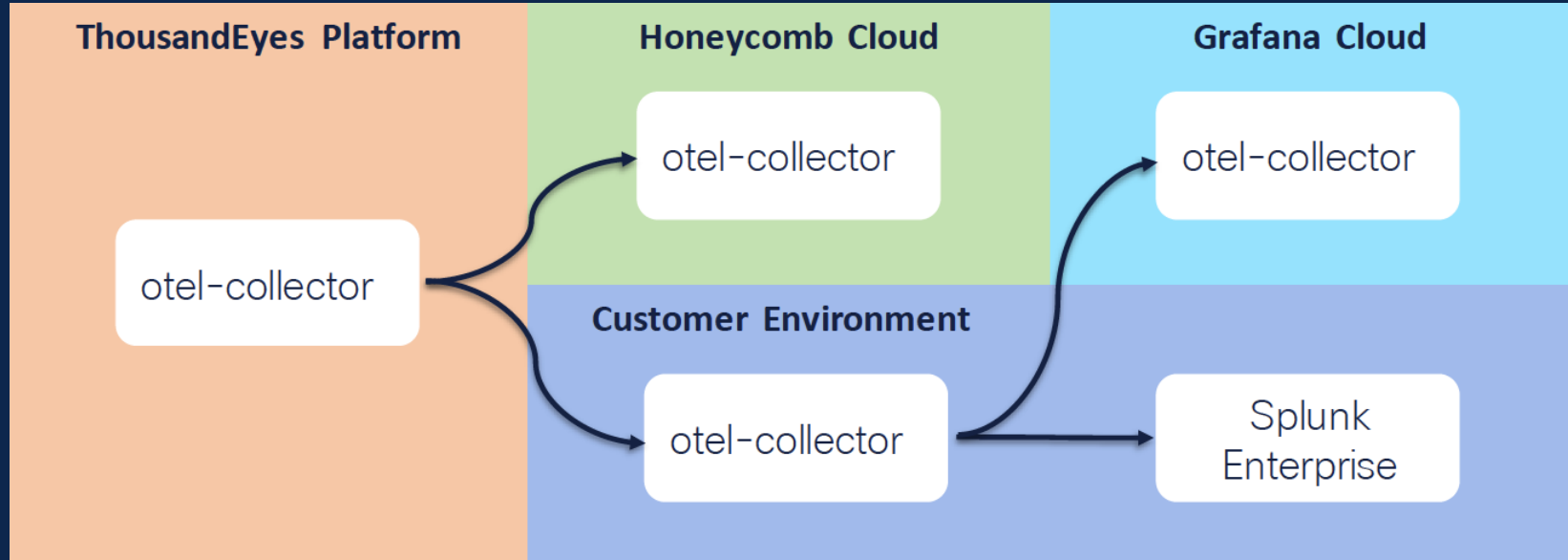
```
{
  "assignments": [
    {
      "id": "1234567",
      "type": "test"
    }
  ]
}
```

Create a Stream

POST /v7/stream

```
{
  "type": "opentelemetry",
  "tagMatch": [
    {
      "key": "myKey",
      "value": "myValue",
      "objectType": "test"
    }
  ],
  "streamEndpointUrl":
    "https://my-otel.com:4137"
}
```


High Level Architecture



Broad Applicability Across Industries

Financial Services



Key Challenge

Imposing regulatory and security policies

Solution

OpenTelemetry-based observability solution

Cloud-Based Communications



Key Challenge

Multiple internal dashboard & alert tools

Solution

Highly scalable and optimized data model

Managed Service Provider



Key Challenge

Distributed tool sets and environments

Solution

Collect, query, and monitor metrics at scale

OpenTelemetry Turbo-Charges ThousandEyes Data

End-to-End
Visibility



Gain real-time data
and correlation
across platforms

Scales to
Your Needs



Optimize your digital ecosystem
with the ability to collect, query,
and monitor at scale

Improve
Performance



Quickly identify and
troubleshoot issues
across your services

ThousandEyes 

a part of Cisco

Fill out your session surveys!



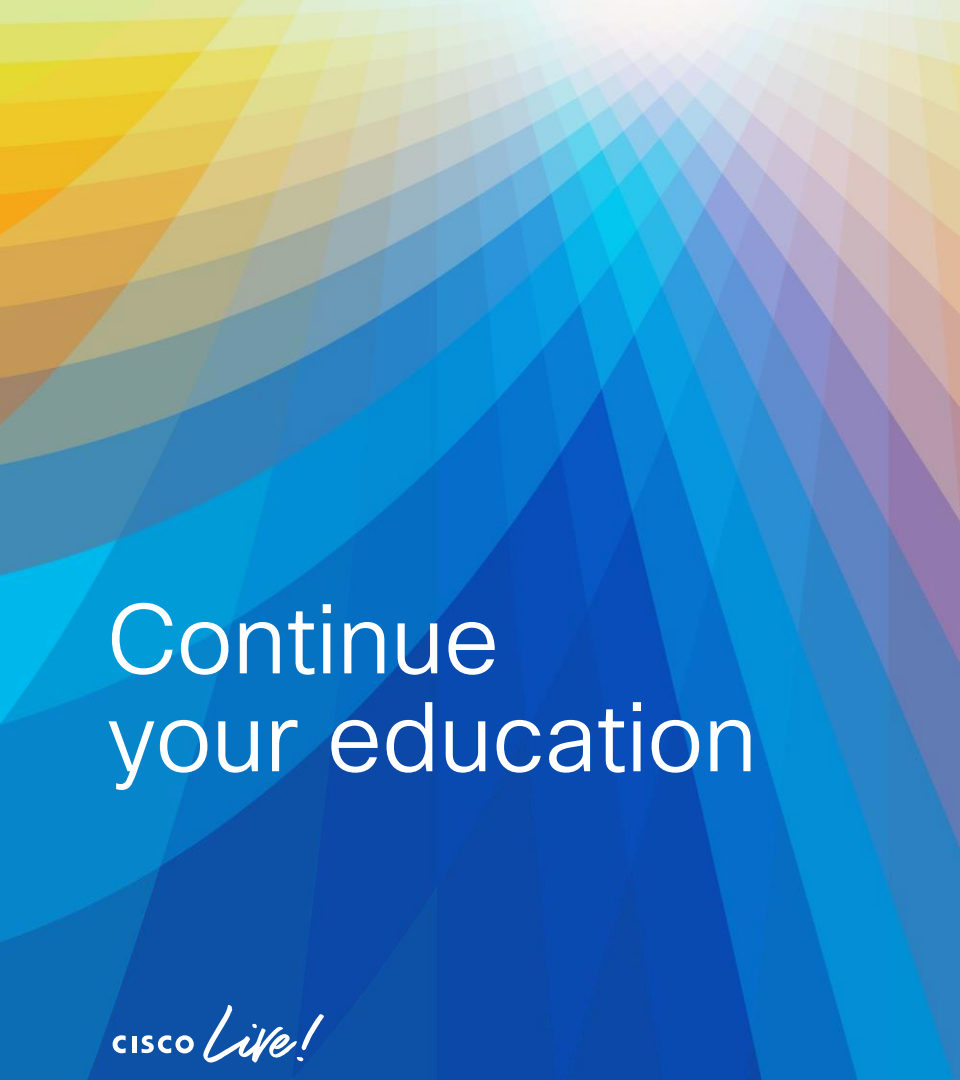
Attendees who fill out a minimum of four session surveys and the overall event survey will get **Cisco Live-branded socks** (while supplies last)!



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



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



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- 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



The bridge to possible

Thank you

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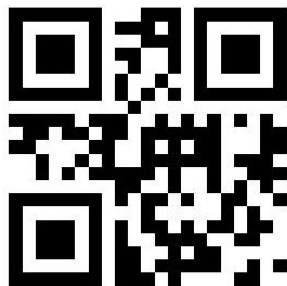
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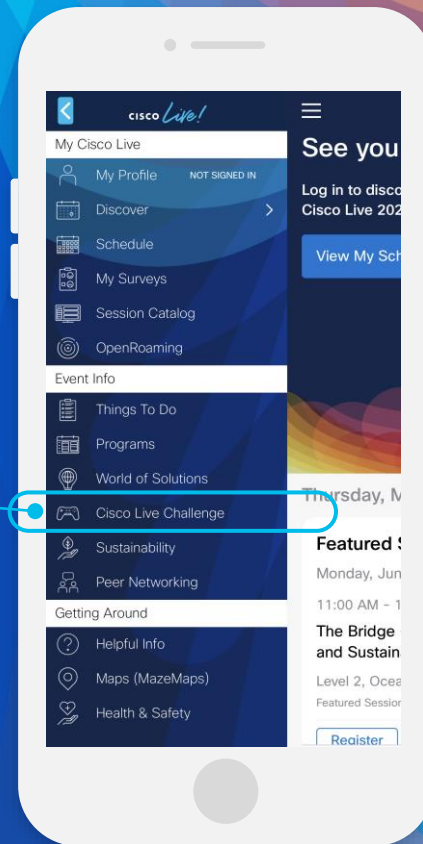
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How:

- 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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The background is a vibrant, abstract graphic. It features a central bright white light source from which numerous colorful rays emanate, creating a sunburst or starburst effect. The rays transition through a spectrum of colors including yellow, orange, red, and various shades of blue and green. Overlaid on this are large, flowing, wavy shapes in similar colors, giving the impression of liquid or smoke being illuminated by the light. The overall effect is dynamic and energetic.

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