



The bridge to possible

# Analytické nástroje (nejen) pro Cisco Collaboration

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21.června 2022

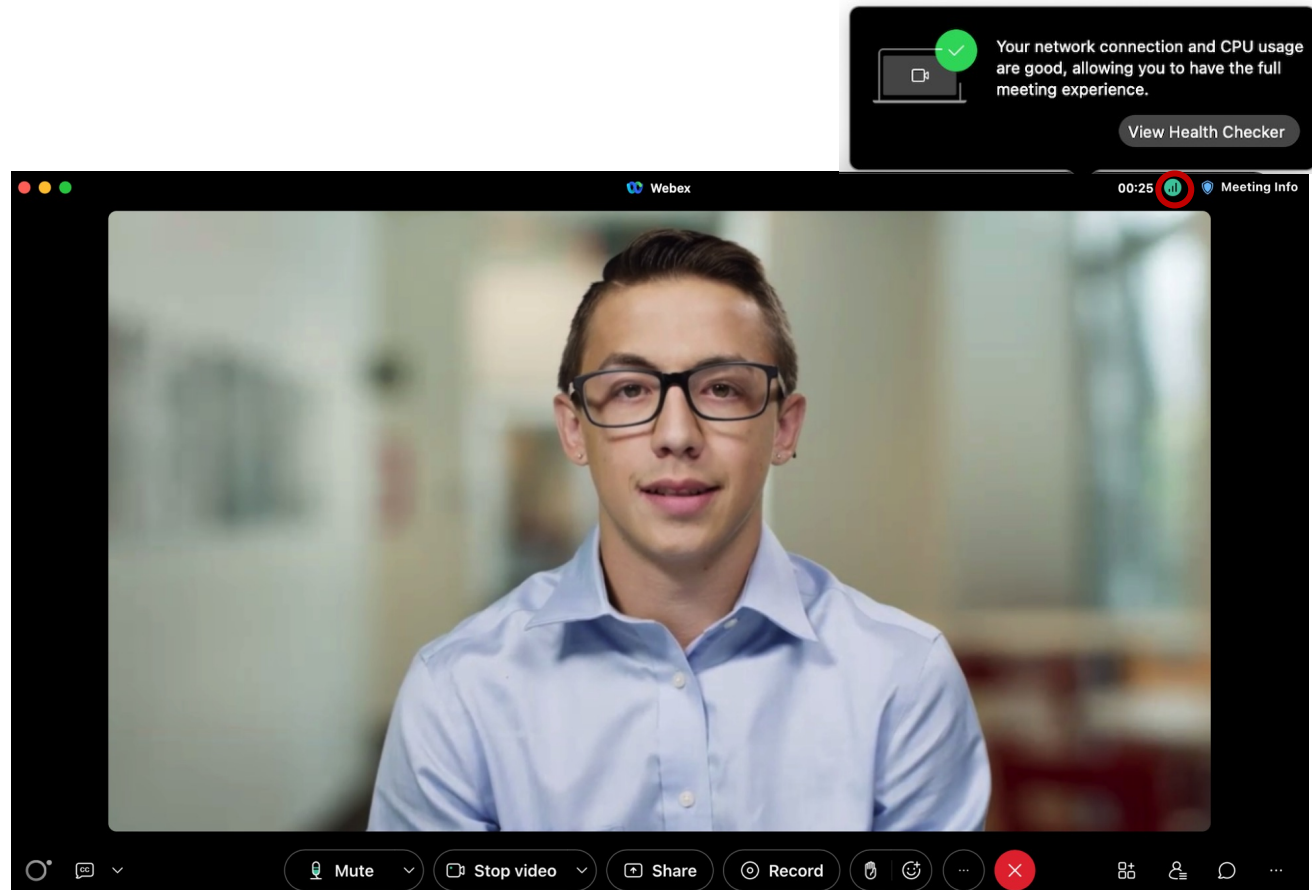
# Agenda

- Webex diagnostika
  - aplikace a video zařízení
  - Control Hub – analytics, troubleshooting, Cloud-connected UC
- Diagnostika sítě – end-to-end
  - ThousandEyes
- Integrace
  - ThousandEyes alarmy

Webex App & Video Device

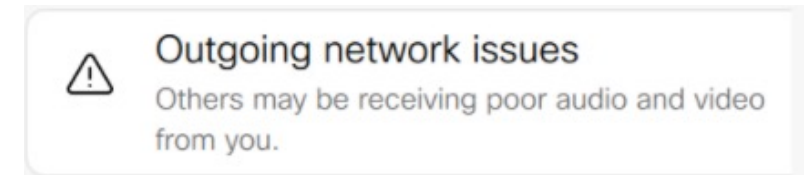
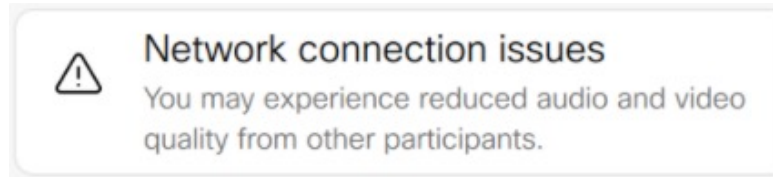
# Network Health Status Indicator

- Network health status indicator is now color coded
  - **Green** (network is good)
  - **Amber** (network is deteriorating)
  - **Red** (network is poor/unstable)
- Mouse over the indicator will show the current status with a button for **View Health Checker**
- Health Checker can provide clear guidance on issues and possible solution to remedy the situation



# Bad Network Quality Indication

- Two new OSD messages
  - Receive vs. Transmit
- These indicators are representative between you and Webex
  - Not an indication of another participant's network connection
  - Home network, Wi-Fi, ISP, etc...
  - We, of course, recommend a wired connection whenever possible!
- Several factors go into the determination to present these
  - Packet loss, consistent and bursty, as well as engagement of error correction
  - Specific limits and thresholds may evolve to better represent the current network status



Webex Control Hub



# Slido

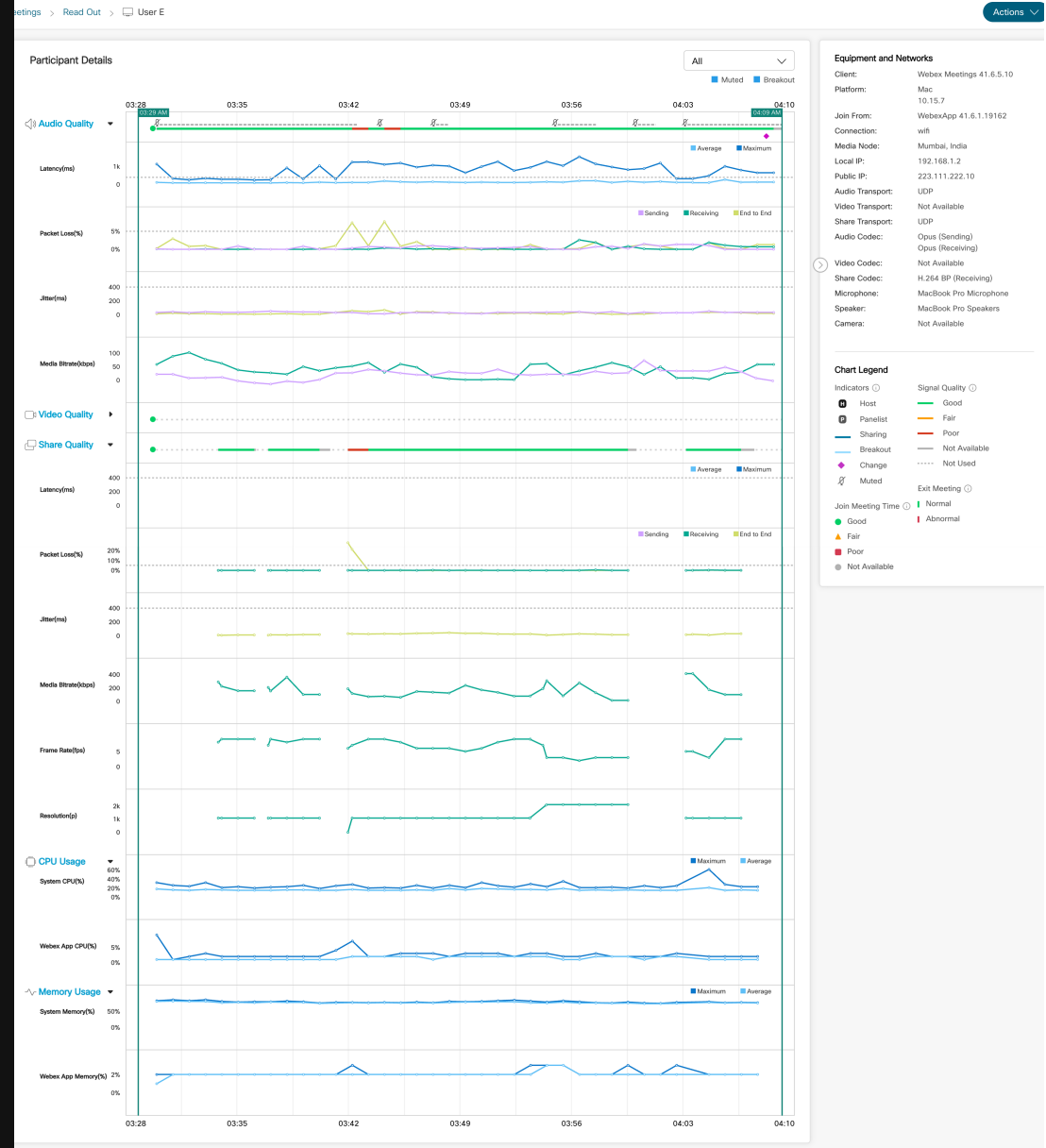
webex

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# Benefits

Control Hub Troubleshooting gives administrators access to meetings and calls (for basic Webex calls) statistics.

Identify causes of quality issues to increase user satisfaction.





🏠 Overview

🔔 Alerts center

MONITORING

📄 Webex Experience

🔍 Troubleshooting

MANAGEMENT

👤 Users

📍 Workspaces

📁 Devices

🧩 Apps

📁 Account

⚙️ Organization Settings

SERVICES

🔄 Updates & Migrations

💬 Messaging

📅 Meeting

📞 Calling

📶 Connected UC

🏠 Hybrid

📄 Demo

## Troubleshooting

🔍 Meetings & Calls

📄 Status

👤 Admin Activities

📅 Live Meetings

📄 Logs

🔍 user@cisco.com

7 days Oct 29, 2021 - Nov 4, 2021

(GMT +00:00) Europe/London

7 Records (7 meetings)

Service	Start Time	Conference / Call ID	Meeting Number	Host	Name	# Participants	Duration
📄	2021-11-02 03:07:35 PM	209879446611111111	259111111111	user@cisco.com	Webex meeting	3	41:17

Total participants

16

8 guests

Poor audio minutes

0.04%

1 participants

Poor video minutes

0.04%

1 participants

Poor sharing minutes

0.68%

5 participants

Screen share

0.00%

0 participants

Unexpected drops

0%

0 participants

Participants (16)

Search participant name, platform or client

Sort By A-Z

Audio

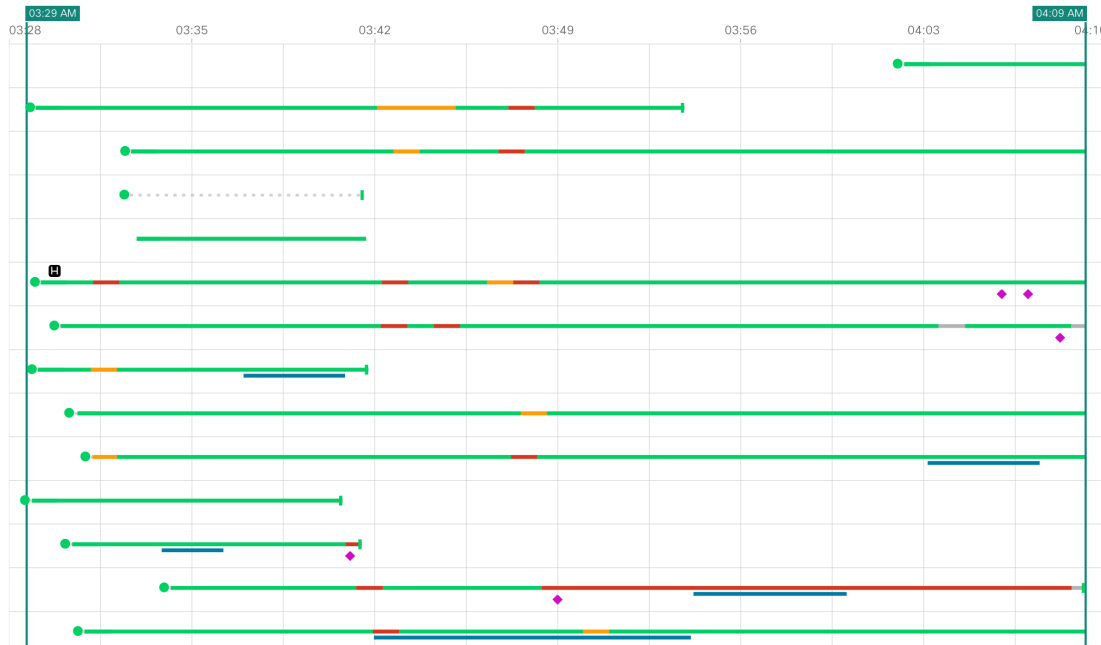
Video

Sharing

Details

Map

- User A
- User B
- User C
- User D
- User E
- User F
- User G
- User H
- User I
- User J
- User K
- User L
- User M



Meeting Details

Meeting No: 111111111  
 Conference ID: 2222222222222222  
 Site Name: cisco  
 Meeting Date: 2021-06-29  
 Meeting Time: 3:29 AM - 4:09 AM (41 Mins)  
 (GMT +00:00) GMT  
 Schedule Timezone: (GMT +05:00) India/Mumbai  
 Meeting Type: Webex Meetings  
 Participants: 16  
 Host Name: usera  
 Host Email: usera@cisco.com  
 Audio: PSTN and VoIP  
 Video: No  
 Recording: Not Used  
 Screen Share: 28 minutes 23 seconds

Chart Legend

- Indicators
- H Host
  - P Panelist
  - Sharing
  - Breakout
  - Change
- Signal Quality
- Good
  - Fair
  - Poor
  - Not Available
  - Not Used
- Join Meeting Time
- Good
  - Fair
  - Poor
  - Not Available
- Exit Meeting
- Normal
  - Abnormal

# Audio Quality

Troubleshooting > Meetings & Calls > Meeting > Participant

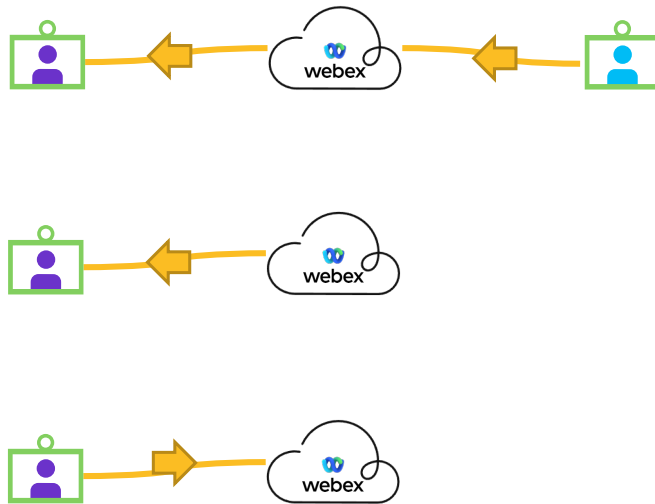


Local IP: 192.168.1.2  
Public IP: 223.111.222.10  
Audio Transport: UDP  
Video Transport: Not Available  
Share Transport: UDP  
Audio Codec: Opus (Sending)  
Opus (Receiving)  
Video Codec: Not Available  
Share Codec: H.264 BP (Receiving)  
Microphone: MacBook Pro Microphone  
Speaker: MacBook Pro Speakers  
Camera: Not Available

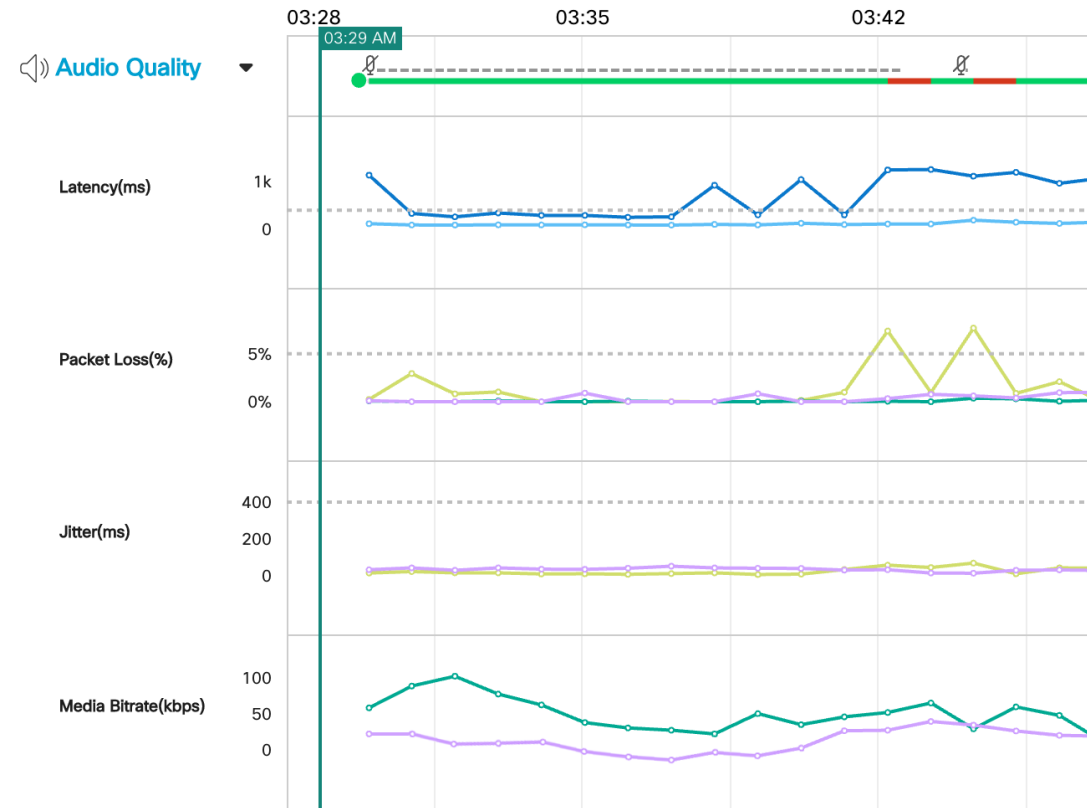
### Chart Legend

- Indicators
- Host
  - Panelist
  - Sharing
  - Breakout
  - Change
  - Muted
- Signal Quality
- Good
  - Fair
  - Poor
  - Not Available
  - Not Used
- Join Meeting Time
- Normal
  - Abnormal

# Quality



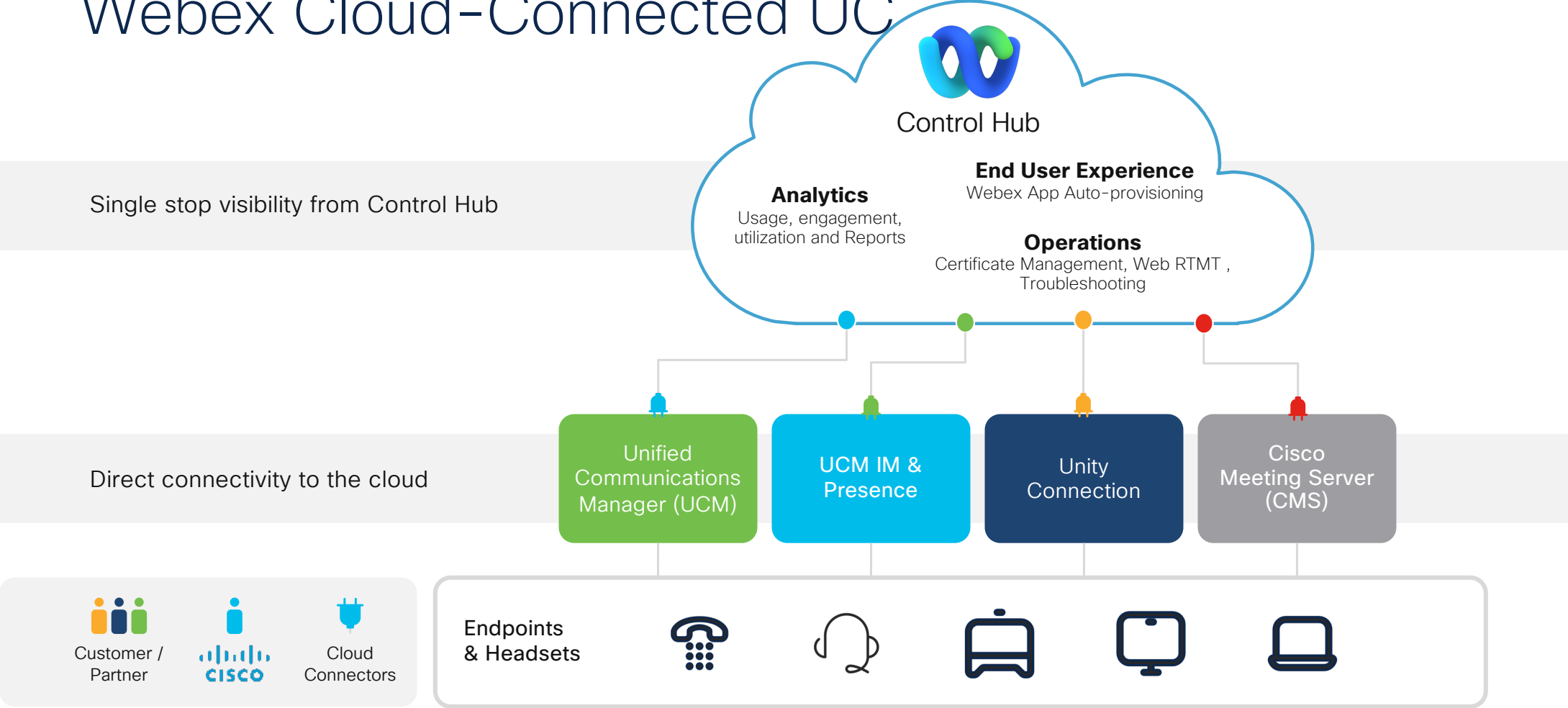
Measurement	Threshold	Color
Latency	< 300ms	Green
	300ms < 400ms	Orange
	> 400ms	Red
Packet Loss	< 3%	Green
	3% > 5%	Orange
	> 5%	Red



# Demo

Webex Control Hub  
Cloud-connected UC

# Webex Cloud-Connected UC



Single stop visibility from Control Hub

Direct connectivity to the cloud

Customer / Partner  
Cloud Connectors

Endpoints & Headsets

# Analytics features

## Quality of experience

- Call success & failures
- Call quality metrics

## Traffic Analysis

- Number of calls by CAC  
Locations & Call Types

## Capacity analysis

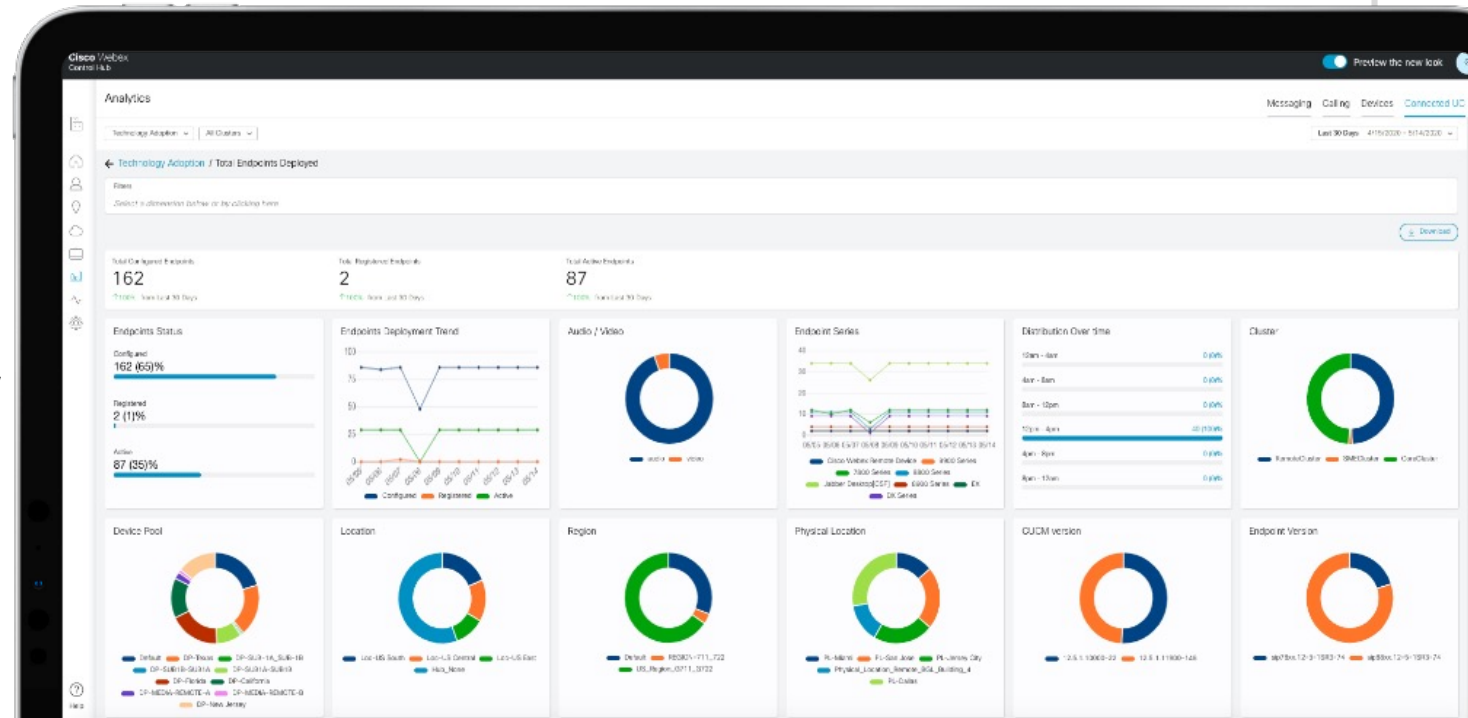
- Trunk usage

## Asset usage and inventory

- Number of calls, talk time
- Endpoints & headset usage

## User filters

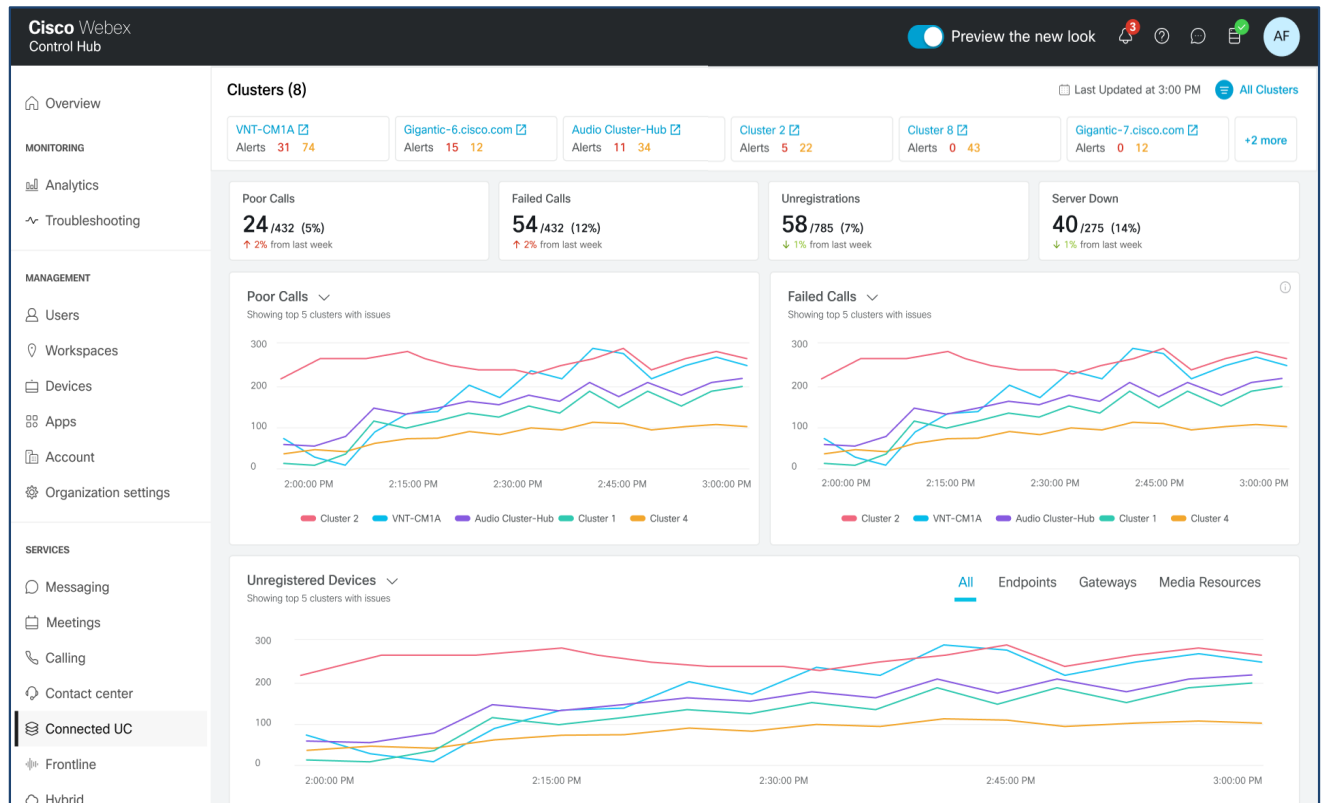
## Export Data





# CCUC Operations dashboard

- Operational view of the state of the deployment (across clusters and across products VOS, Expressway™, CUBE)
- Aggregated views with drill down for select workflows: call and registration failures and issues
- Expressway metrics drill down for Core and Edge clusters
- CCUC RTMT views for single cluster (VOS) drill down.



# CCUC troubleshooting -> call issue diagnostics

- ✓ Drill down of call failure and call quality issues by user-id, calling/called party, failure cause, quality status and more..
- ✓ Correlate CDRs and CMRs for a given end to end call.
- ✓ Admin can trigger collecting relevant logs based on call issue from various nodes
- ✓ Provide insights if available for cause of failure based on log analysis
- ✓ Provide log analysis of various call legs including a visual ladder diagram of the call

The screenshot displays the Cisco Webex Control Hub interface for troubleshooting. The main content area is titled "Troubleshooting" and shows a table of call records. The table has the following columns: Source device, Log analysis, Destination Device, Status, Reason of failure, Call quality, Started at, and Duration. The records are filtered by "Host: John Doe" and show a mix of successful and failed calls. A notification banner at the top of the table indicates "4 new call records found in last few minutes. Do you wish to add them to the table?".

Source device	Log analysis	Destination Device	Status	Reason of failure	Call quality	Started at	Duration
00-04-5A65-T7	Analyze	00-24-79A7-T7	Success	None	Unknown	Nov 04, 2020   11:50 PM	1 hr 35 mins
123 254 5583	Analyze	00-24-79A7-T7	Failed	Channel unacceptable	None	Nov 04, 2020   11:50 PM	1 hr 35 mins
123 254 5583	2 mins	00-24-79A7-T7	Dropped	Lorem ipsum	Poor	Nov 04, 2020   11:50 PM	1 hr 35 mins
123 254 5583	Show	00-24-79A7-T7	Success	None	Acceptable	Nov 04, 2020   11:50 PM	1 hr 35 mins
123 254 5583	Analyze	00-24-79A7-T7	Failed	Out of bandwidth (Cisco specific)	None	Nov 04, 2020   11:50 PM	1 hr 35 mins
123 254 5583	Show	00-24-79A7-T7	Failed	No user responding	None	Nov 04, 2020   11:50 PM	1 hr 35 mins
00-04-5A65-T7	Retry	00-24-79A7-T7	Failed	Channel unacceptable	None	Nov 04, 2020   11:50 PM	1 hr 35 mins
00-04-5A65-T7	Analyze	00-24-79A7-T7	Failed	Call terminated when timer expired...	None	Nov 04, 2020   11:50 PM	1 hr 35 mins
00-04-5A65-T7	Retry	00-24-79A7-T7	Success	None	Poor	Nov 04, 2020   11:50 PM	1 hr 35 mins
00-04-5A65-T7	Analyze	00-24-79A7-T7	Failed	Temporary failure	None	Nov 04, 2020   11:50 PM	1 hr 35 mins
00-04-5A65-T7	Analyze	00-24-79A7-T7	Success	None	Good	Nov 04, 2020   11:50 PM	1 hr 35 mins

# CCUC Troubleshooting Experience

The screenshot shows the 'Troubleshooting' section of the Cisco Webex Control Hub. It features a sidebar with navigation options like Overview, Monitoring, Analytics, and Troubleshooting. The main area displays a table of call records with columns for Source device, Log analysis, Destination Device, Status, Reason of failure, Call quality, Started at, and Duration. A prominent yellow banner at the top of the table states: '4 new call records found in last few minutes. Do you wish to add them to the table?' with 'Add records' and 'Hide banner' options. Each row in the table includes an 'Analyze' button, indicating that users can quickly investigate individual call issues.

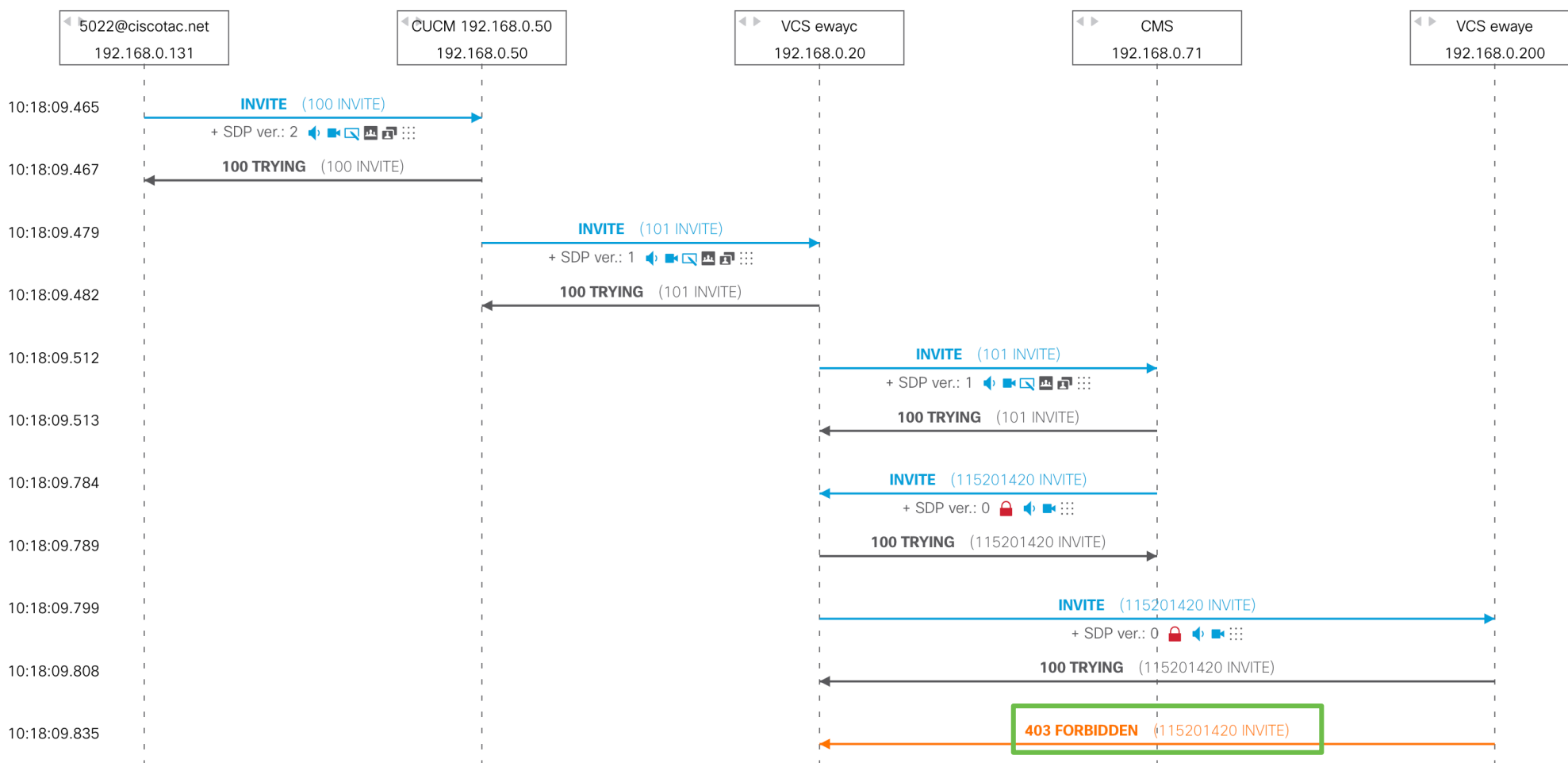
Analyze with 1 click

This screenshot displays the detailed view of a call record (Global Call ID 438282) within the Cisco Webex Control Hub. The interface is divided into several sections: 'SIP - incoming' and 'SIP - outgoing' for general call information, and 'Ingress zone information' and 'Egress zone information' for network-level details. A 'Linked RTP streams' table provides a granular view of media flow, including direction, IP addresses, ports, start/end times, payload types, SSRC, packets, packet loss, and jitter. The 'SIP - incoming' section shows details like 'General information' (SP call leg type, From, To, Signaling source, Signaling destination, Call-ID) and 'Ingress zone information' (Zone name, Encryption, ICE, Zone type, Peers). The 'SIP - outgoing' section shows similar details for the egress path.

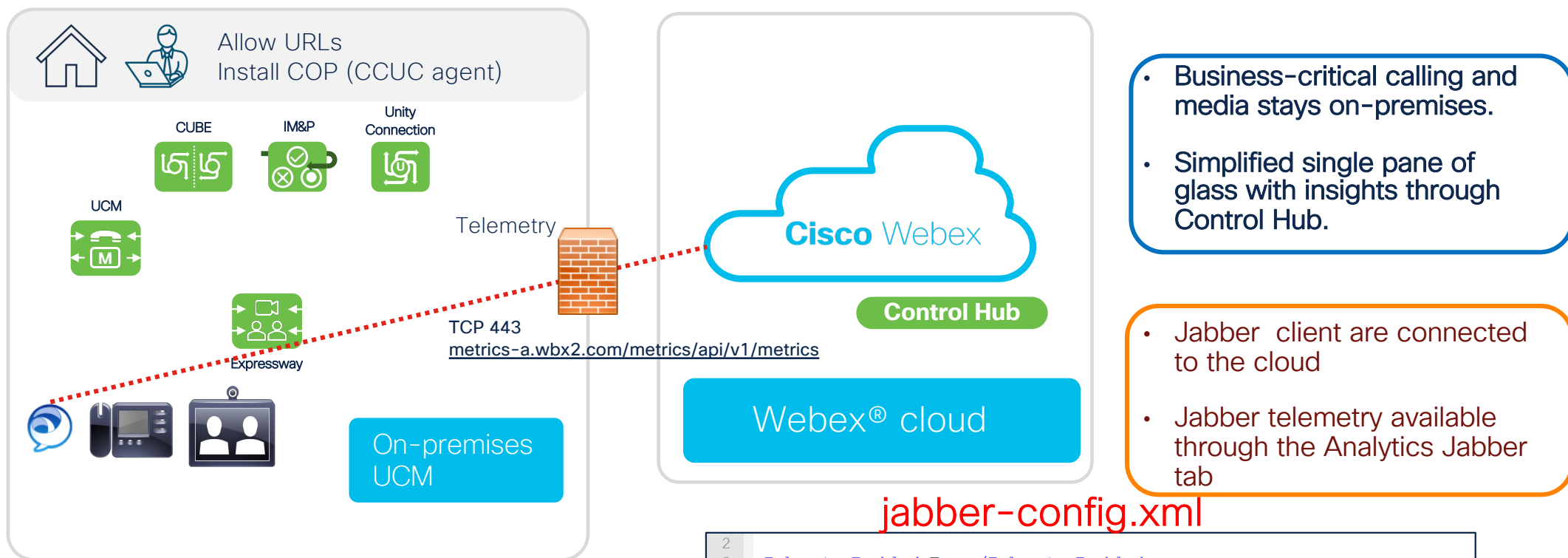
Actionable insights by CSA

# Troubleshooting flow with CSA

Ladder diagram Signaling



# Jabber Telemetry



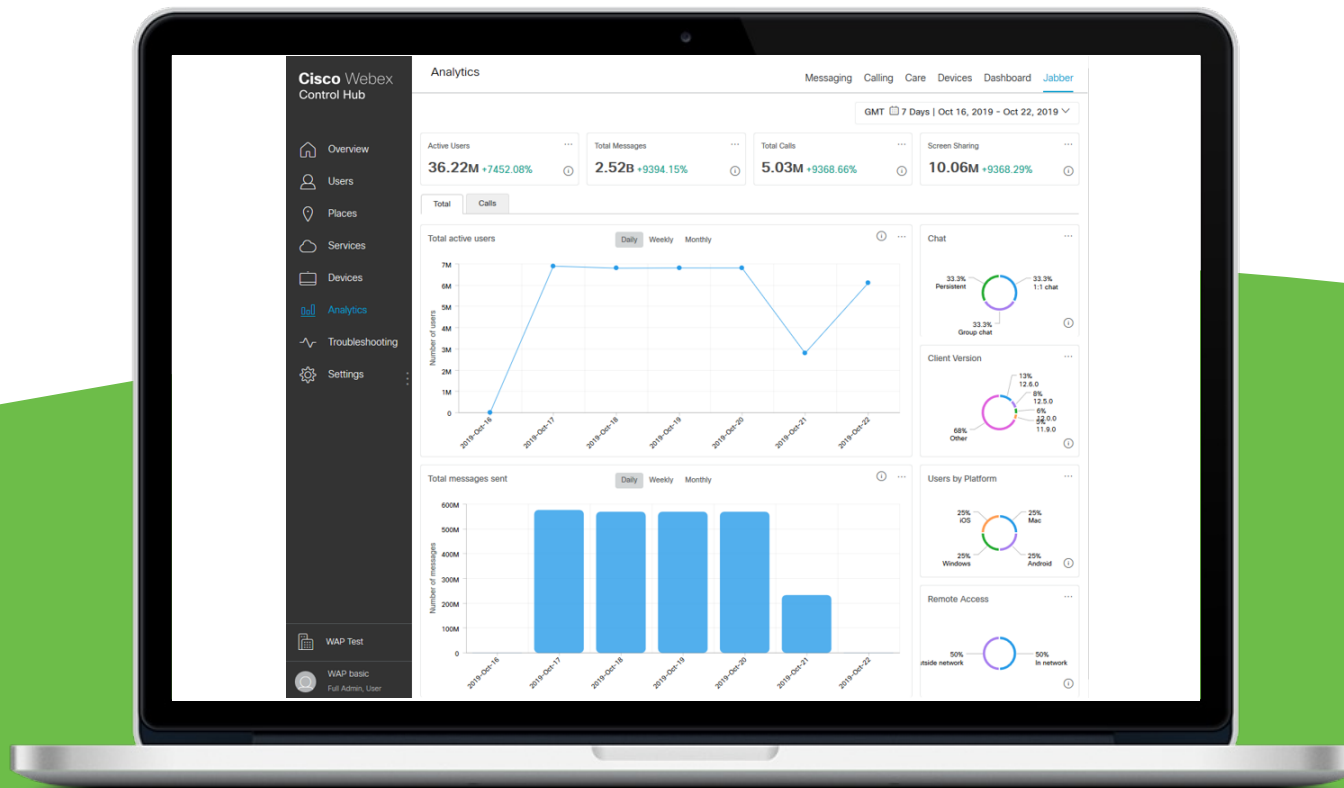
## jabber-config.xml

```

2
3 <TelemetryEnabled>True</TelemetryEnabled>
4 <TelemetryEnabledOverCellularData>True</TelemetryEnabledOverCellularData>
5 <TelemetryCustomerID>customer_ID</TelemetryCustomerID>
6

```

# Jabber Telemetry in Webex Control Hub



Telemetry data for:

Number of active users

Call, message, screen sharing volume

Chat type

Video resolution

Client version, User platform

Inside/outside the corporate Network

No PII Captured

Thousand Eyes

The background features a black field with large, overlapping organic shapes in shades of blue and purple. The word 'Slido' is written in white on the blue area.

# Slido

webex

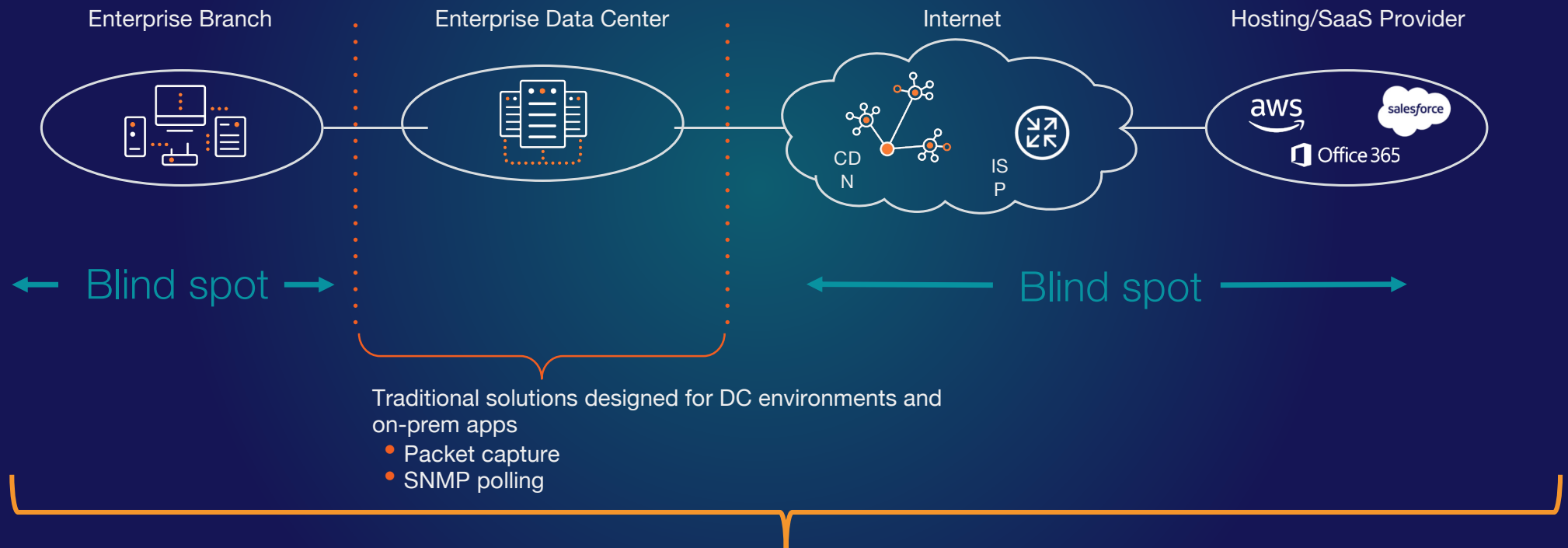
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# The Problem Landscape

Internet became the hub of everything connected

No good solution to monitor the performance of the Internet



ThousandEyes



# Adoption Challenges

1

Unable to measure SaaS application user experience.



2

No visibility of internet, cloud and proxy networks used to deliver SaaS application.



3

Poor communication between network team, application owners and all ecosystem partners.



# Understand the application and the network together

Time Correlated

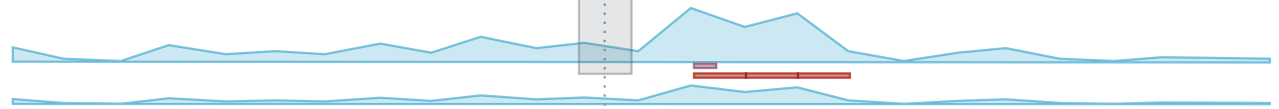
## Internet Insights

- Detection of global network outages
- Identification of affected domains



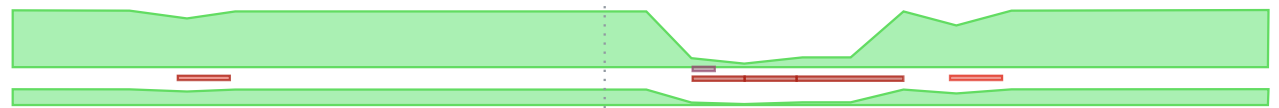
## App Experience

- Transaction scripting, page load



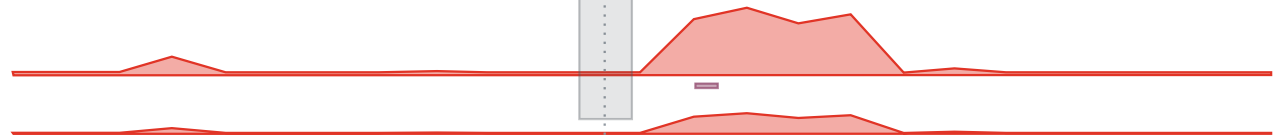
## HTTP/DNS/RTP Server

- HTTP Availability, response time, throughput



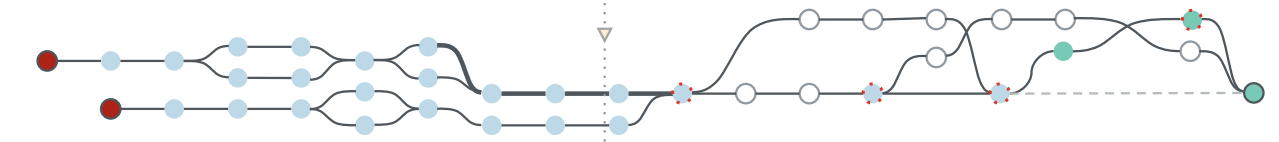
## Network Metrics

- Packet Loss, Latency, Jitter



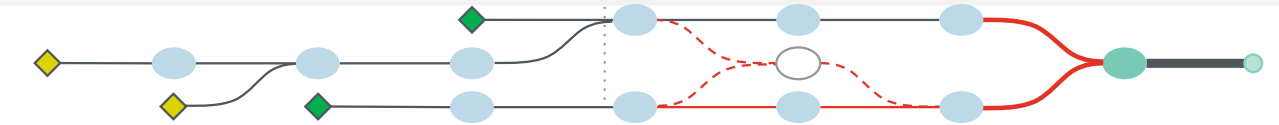
## Path Visualization

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

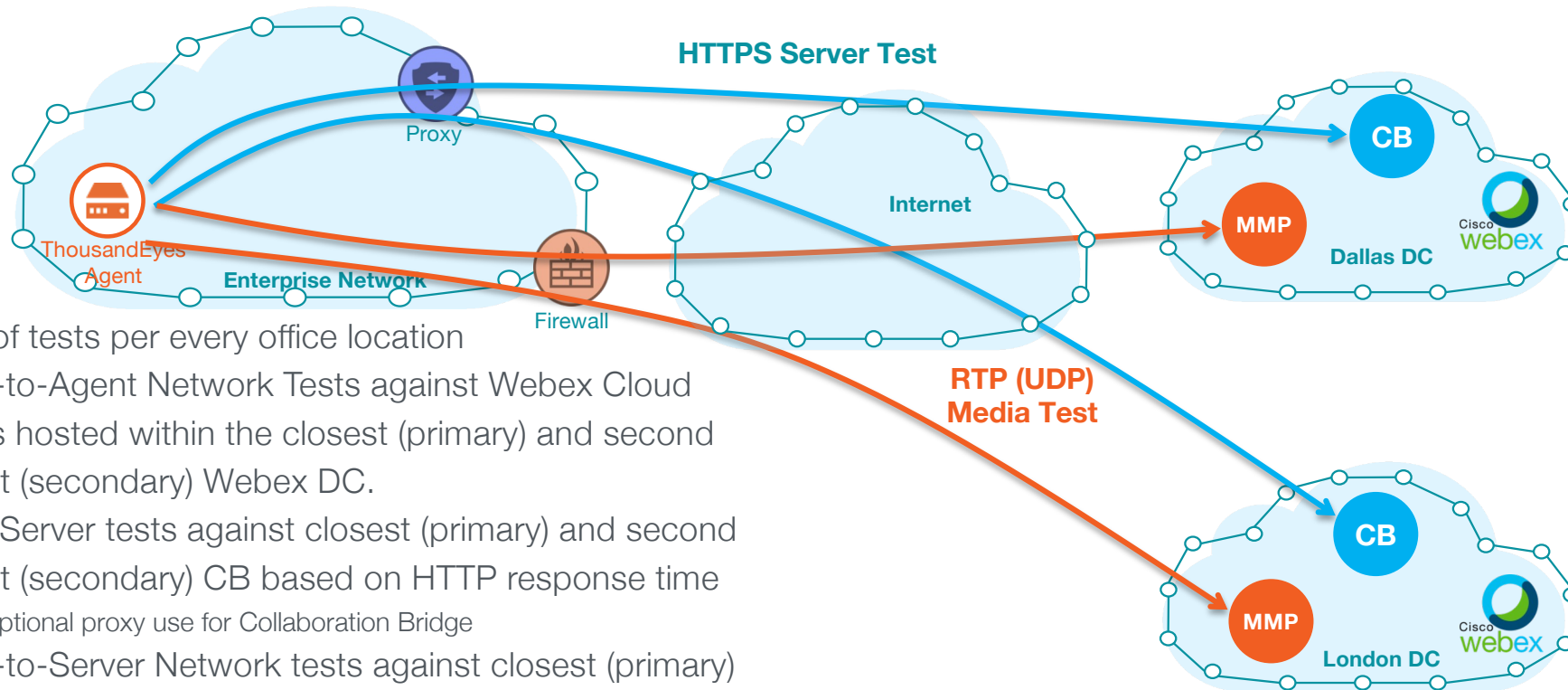


## BGP Monitoring

- Reachability, path changes, updates



# Signaling & Media Testing



- A set of tests per every office location
- Agent-to-Agent Network Tests against Webex Cloud agents hosted within the closest (primary) and second closest (secondary) Webex DC.
- HTTP Server tests against closest (primary) and second closest (secondary) CB based on HTTP response time
  - Optional proxy use for Collaboration Bridge
- Agent-to-Server Network tests against closest (primary) and second closest (secondary) MMP based on network latency
  - UDP port 5004. Webex uses UDP, but falls back to TCP.
  - DSCP 46 to mimic audio or DSCP 34 to mimic video traffic

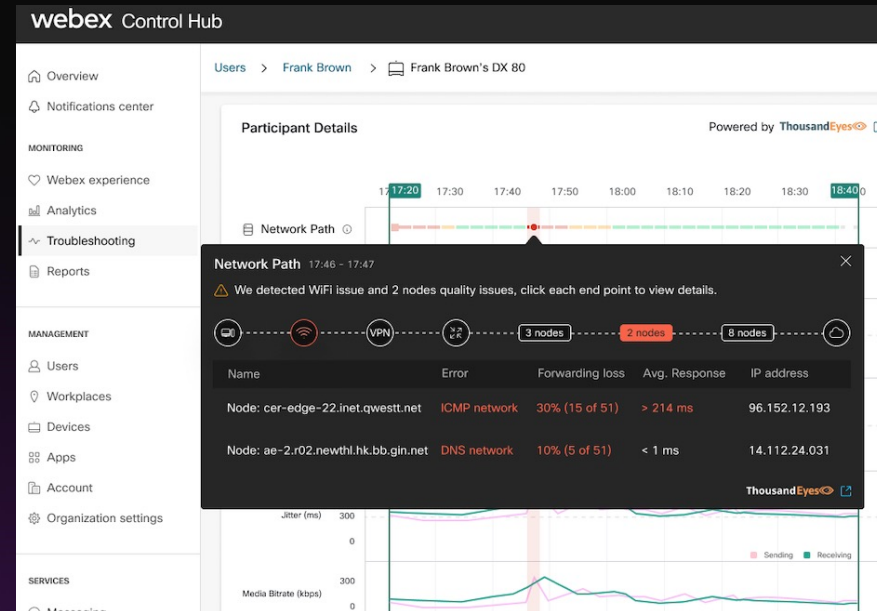


# Demo

# Accelerate problem solving with network visibility across all workspaces

## ThousandEyes integration with Webex Control Hub

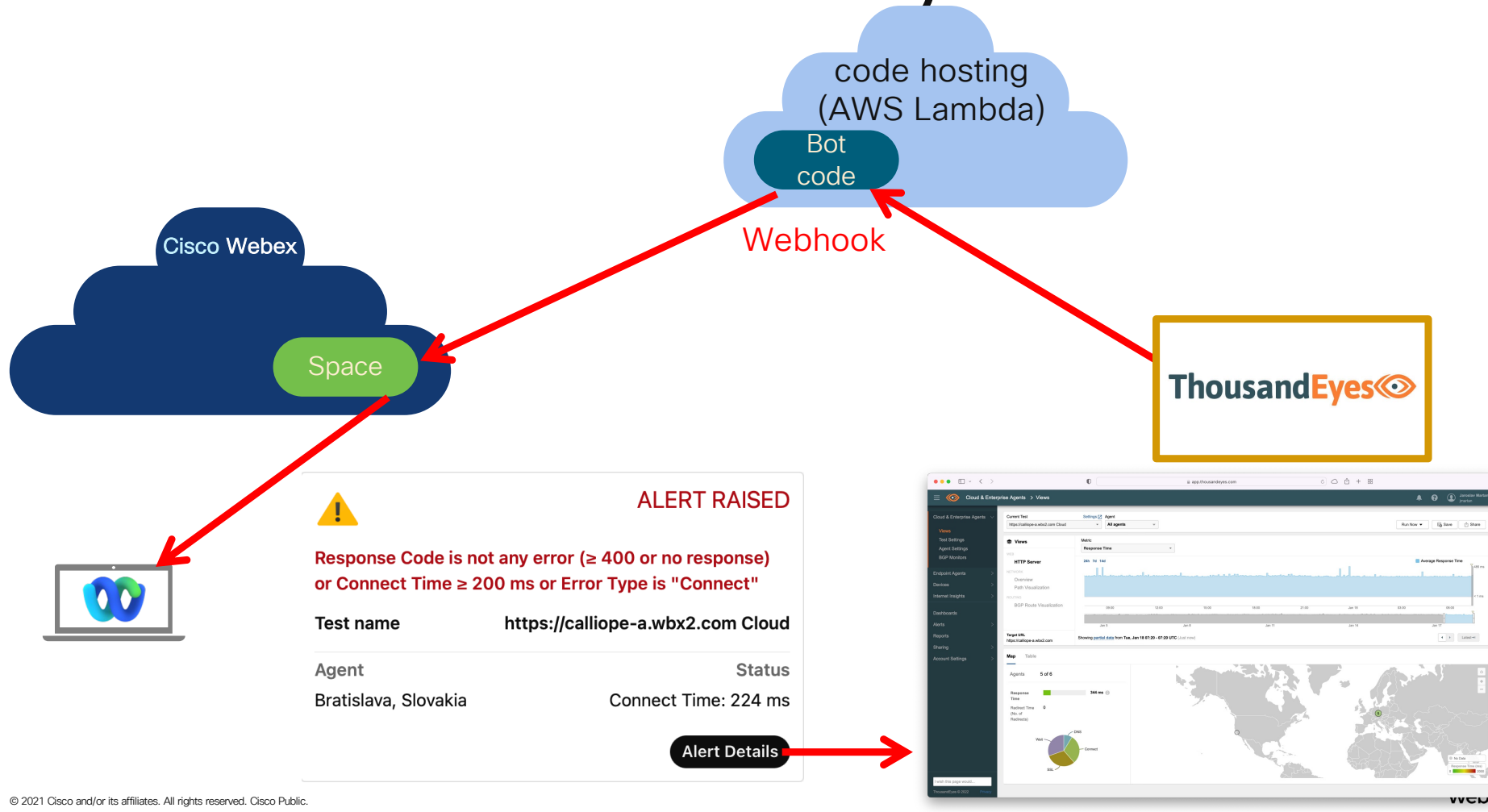
- Real-time network path visibility supports drill down and proactive mediation
- Speed issue resolution with single dashboard visibility across network path, application, & Webex devices
- End to end network connectivity path details hop-by-hop connectivity



\*Requires additional ThousandEyes license

# Alerts - Integrations

# Architektura – Thousand Eyes Bot







The bridge to possible