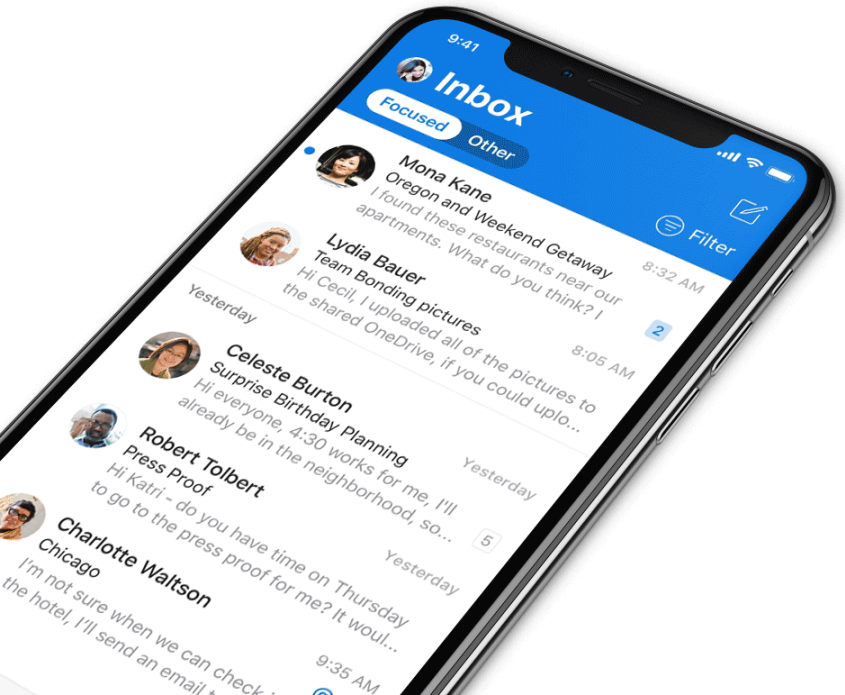
Microsoft Teams Phone Summit - Day 1 am

Teams Reporting & Analytics

Mary Beth Kirk & Jeff Baart

Digital Event Code of Conduct for Microsoft Webinars:



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We encourage everyone to assist in creating a welcoming and safe environment.

We will mute your microphone for the first part of today's call

Ask your questions via chat, we will get to all of them, live or after. Common questions will get addressed out loud.

We will be posting all recordings to the Microsoft CommUnity Connection YouTube channel approximately 2-3 days after the session has finished. Subscribe here to get updates
https://www.youtube.com/@TeamsPhoneCommUnity

Teams Phone Summit Schedule

Tuesday, March 5th	Wednesday, March 6	Thursday, March 7
10:00am – 11am EST Teams Reporting and Analytics	**10:00am – 11am EST** Using Intune when Deploying Teams Phone Devices	**10:00am – 11am EST** Exploring AI Innovation in Teams Phone with Copilot and Teams Premium
1:00pm – 2:00pm EST Adoption Change Management with Teams Phone Deployment	**1:00pm – 2:00pm EST** Teams Phone Roadmap	**1:00pm – 2:00pm EST** Teams Phone Devices for your Organization

aka.ms/TeamsPhoneSummitReg

Teams Phone Devices for your Organization

Mary Beth Kirk – Sr Program Manager with Technology Strategy Team

Jeff Baart – Converged Communications Customer Success Manager

Tuesday March 5th, 10 am EST

Kick-off, Intros, Expectations

- Call Kick-off
- What to Expect

Foundations and Scenarios

- Foundations
- Getting Started
- Scenarios

Questions and Close Out!

- Final Thoughts!
- Q & A

Session Expectations

- Learn available tools
- Insights when using telemetry tools
- Real world scenarios to spark creativity
- Help and offerings from Microsoft
- Next Steps

Foundations

Foundations

Use Teams Admin Roles and scale visibility to media quality

- New Role Announcement - Teams Telephony

Role	View Call Analytics	View reports	View EUII fields	Create reports	Upload building data
Global Administrator	Yes	Yes	Yes	Yes	Yes
Teams Administrator	Yes	Yes	Yes	Yes	Yes
Teams Communications Administrator	Yes	Yes	Yes	Yes	Yes
Teams Communications Support Engineer	Yes	Yes	Yes	Yes	No
Teams Communications Support Specialist	Yes*	Yes	No	Yes	No
Skype for Business Administrator	No	Yes	Yes	Yes	Yes
Global Reader	No	Yes	Yes	Yes	No
Reports Reader[1]	No	Yes	No	Yes	No

Acronym Bingo

- TAC – Teams Admin Center
- CQD – Call Quality Dashboard
- QER – Quality Experience Report
- PSTN – Public Switched Telephone Network
- MTR – Microsoft Teams Room
- RTA – Real Time Analytics
- EUII – End User Identifiable Information
- CSM – Customer Success Manager
- CSAM – Customer Success Account Manager

Foundations

Available Tools

Teams Admin Center

- Call Analytics in Teams Admin
- Device Health
- CQD in Teams Admin*

Power BI for CQD

- Multiple Templates
- Customized reports in Power BI
- Publish options to Power BI Service

Teams Rooms Pro Portal

3rd Party Options

Quality/Reliability Checklist

There are 7 key configuration areas to validate – start here

NOTE: Some of these changes can have perceived security risks, please see the Teams Security Guide to understand how we ensure the security of our traffic.

1. **Ensure the right ports and protocols are open**

   Subnets, 13.107.64.0/18, 52.112.0.0/14, 52.120.0.0/14 and Ports: UDP 3478-3481 & TCP 443 are needed for Teams signalling and media traffic.

2. **Bypass proxy and deep packet inspection**

   Bypass on-premises and cloud-based proxy and inspection services commonly used for Internet browsing.

3. **Implement split tunnelling for VPN solutions**

   Facilitate direct connectivity to these cloud endpoints for VPN users by implementing split tunneling.

4. **Exclude important processes from anti virus/DLP scanning**

   Excluding teams.exe, for example, from scanning keeps them from interrupting the operation of team which can lead to slow system performance.

5. **Local DNS resolution**

   Microsoft services are deployed globally and use geo-based DNS and Anycast IP to load balance and allocate services closest to the endpoint.

6. **Take the shortest path to the Internet**

   Route traffic to the Internet as close as possible to the endpoint. This ensure traffic enters the Microsoft managed network faster with fewer hops and points of failure in between.

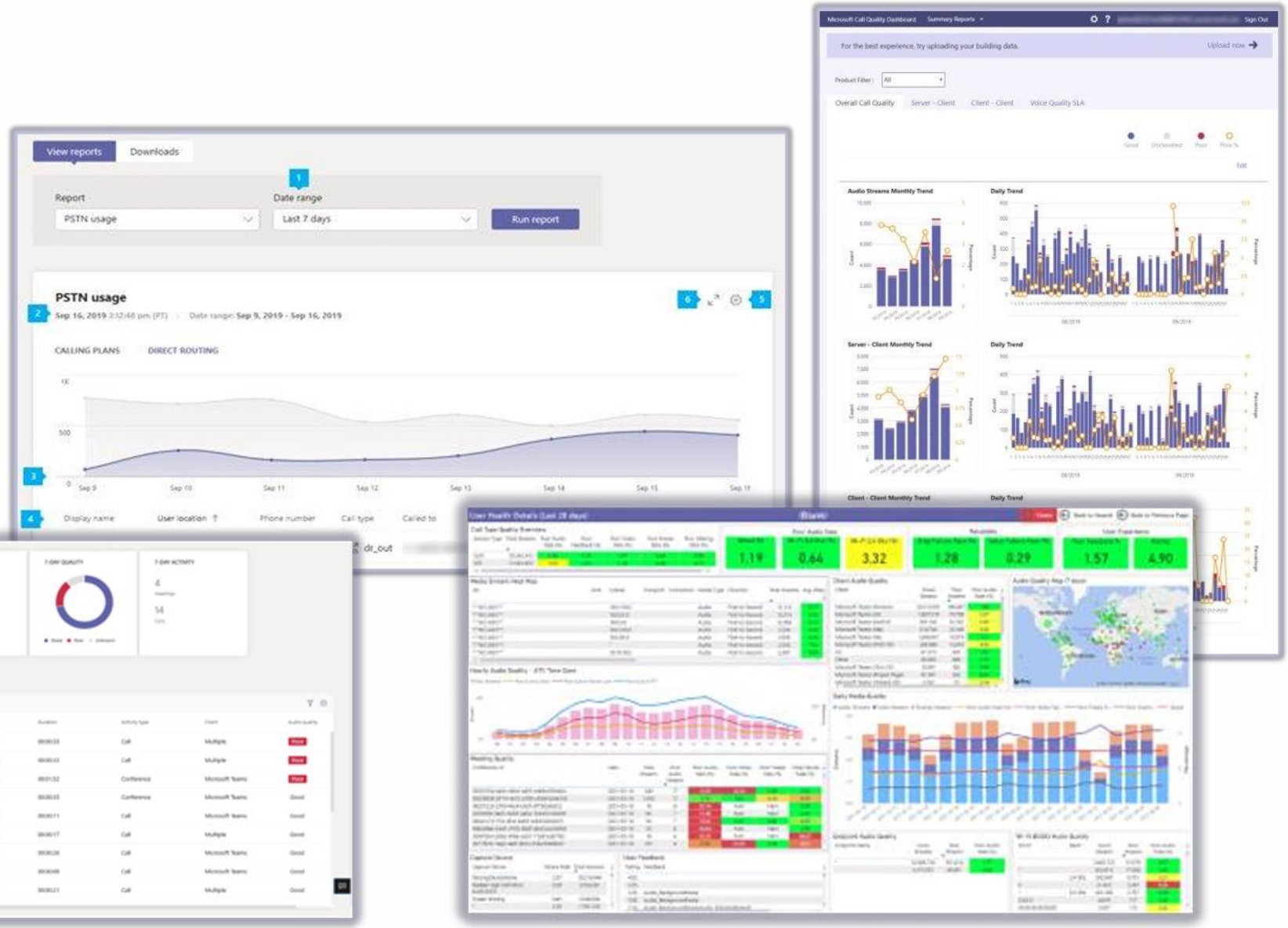
7. **Deploy Quality of Service (QoS) where needed**

   In congested networks, media workloads should be prioritized into proper queues to protect packets on managed networks.

Designate a Quality Champion

It’s the role of the quality champion to identify trends, take ownership, and drive remediation

[Become a Champion]



Microsoft Teams

Scenarios

Scenario 1 – Getting Started

Unleash the power of Call Quality Dashboard data with Power BI.

Download our customizable Power BI templates.

- **(QER) Quality of Experience Report (v4.9)** – Teams meetings & calling
- **QER MTR Report (v1.1)** – Teams Rooms (Windows & Android)
- **QER PS Report (v1.0)** – Teams Phone System (SBC & PSTN/Direct Routing)
- CQD Teams Auto Attendant & Call Queue Historical Report

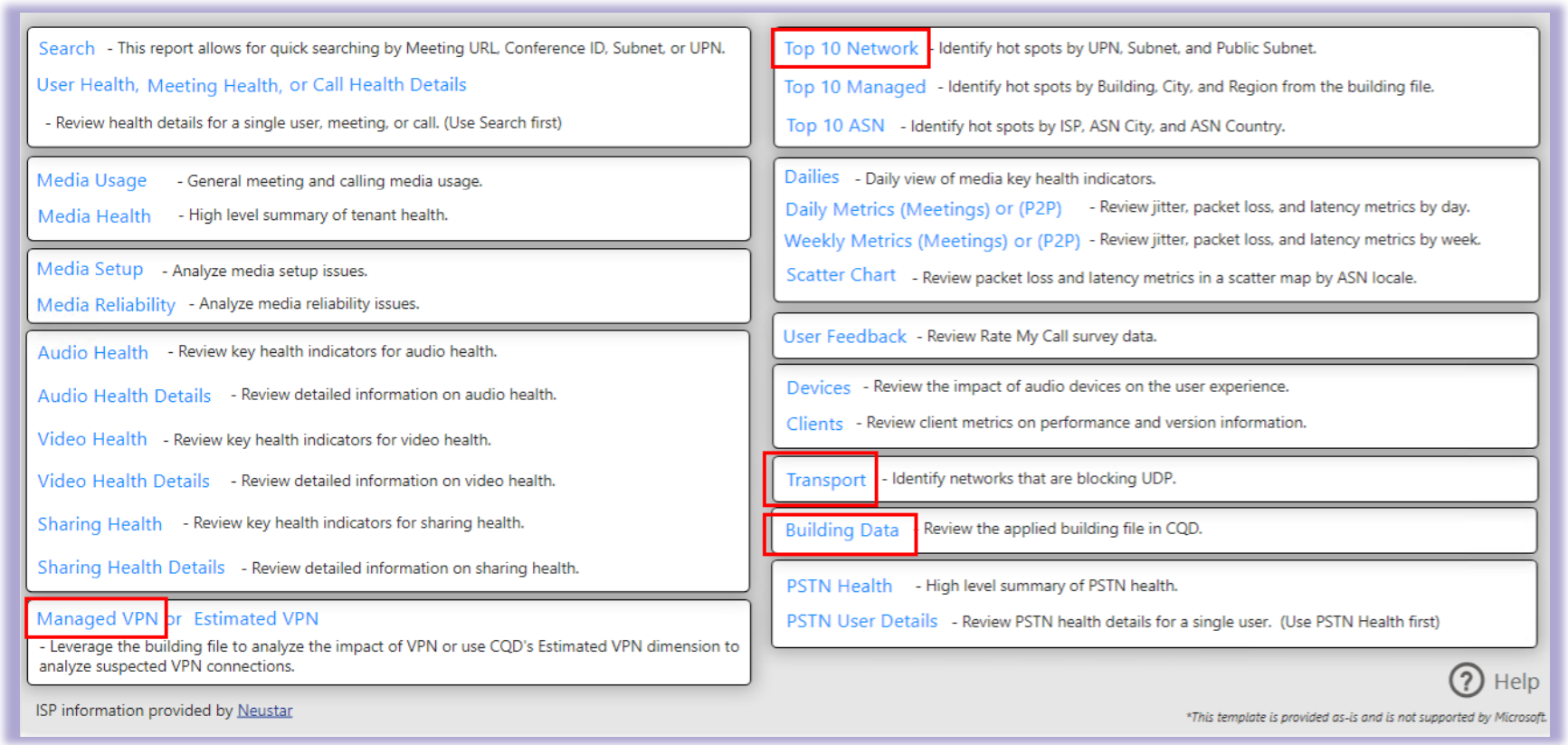
Before you can use these PBIT files, you'll need to Install the Power BI Connector for Microsoft CQD using the *MicrosoftCallQuality.pqx* file included in the download.

Make sure you have the right CQD access role to access the Power BI reports.

Use Power BI to analyze CQD data for Microsoft Teams | Microsoft Docs

Scenario 1 – Getting Started

Be Proactive – Get started with CQD in Power BI (v4.9 current)



Pro Tips:

- Leverage Teams Admin Roles – have a team review quality
- Publish to PowerBI Service and Pin in Teams
- Unified Workshop Offerings – Media Foundations and Quality Assessment

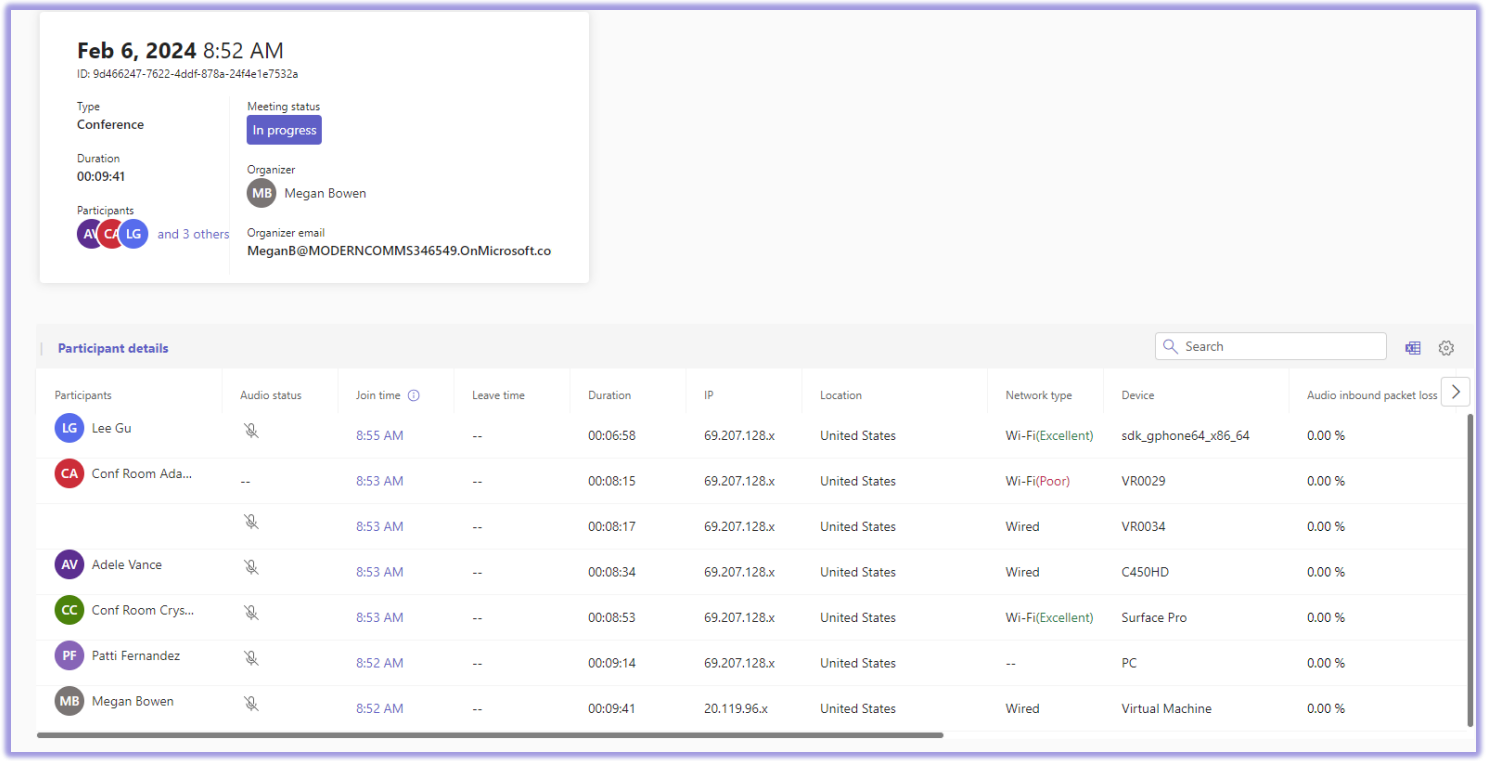
Scenario 2 – Upcoming Large Meetings

Planning

- Know who is speaking, presenting and attending
- Teams Real Time Analytics

Resources

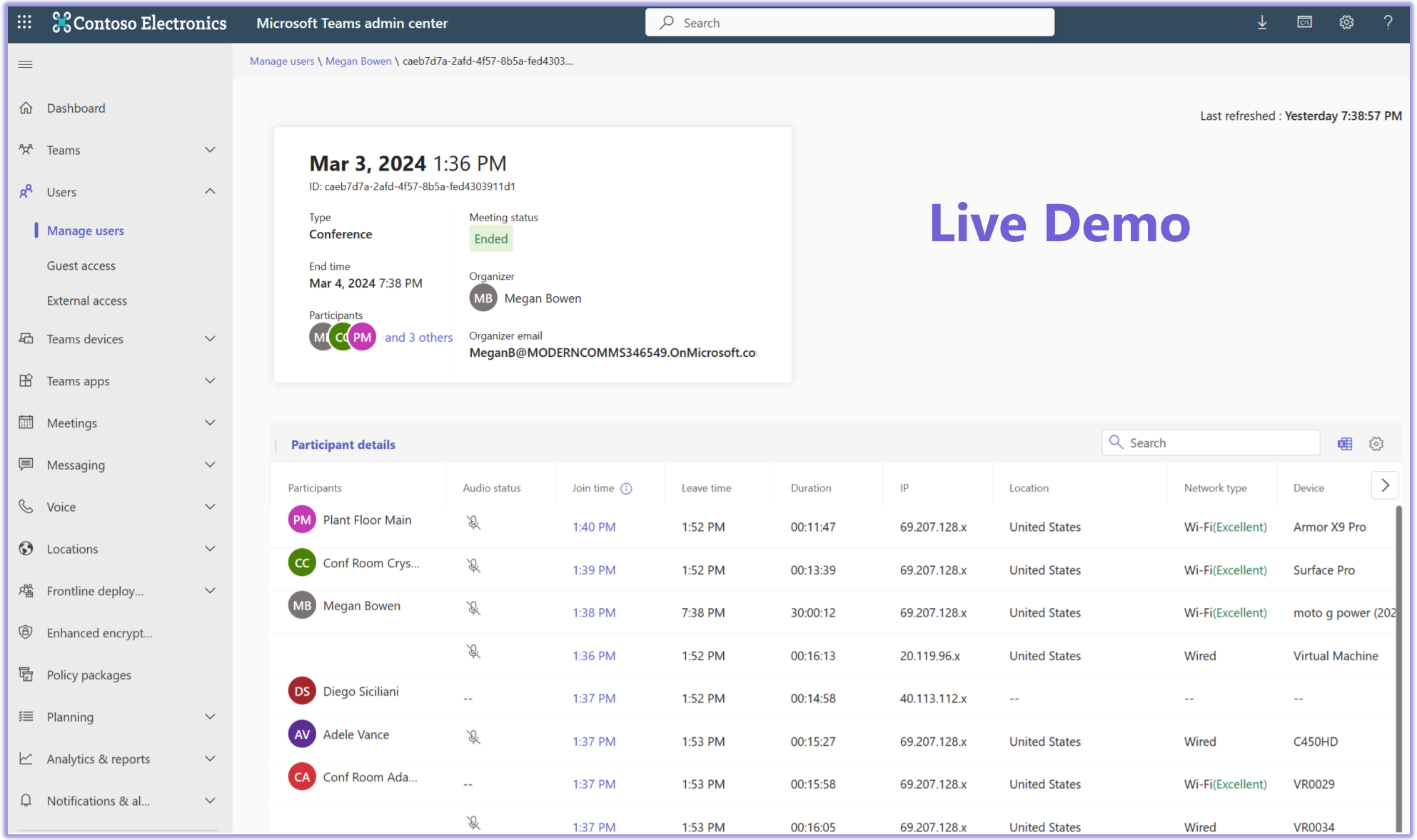
- Virtual Event Playbook
- Microsoft 365 Live Event Assistance Program



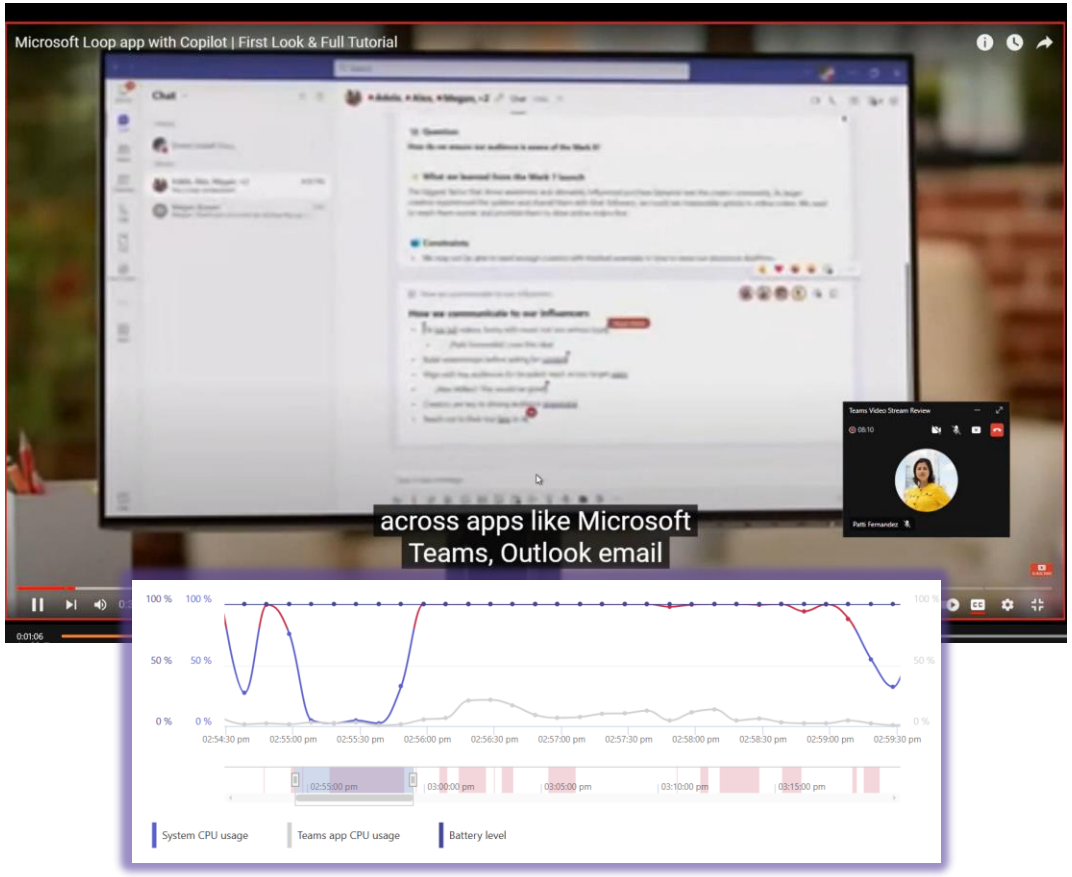
Pro Tips:

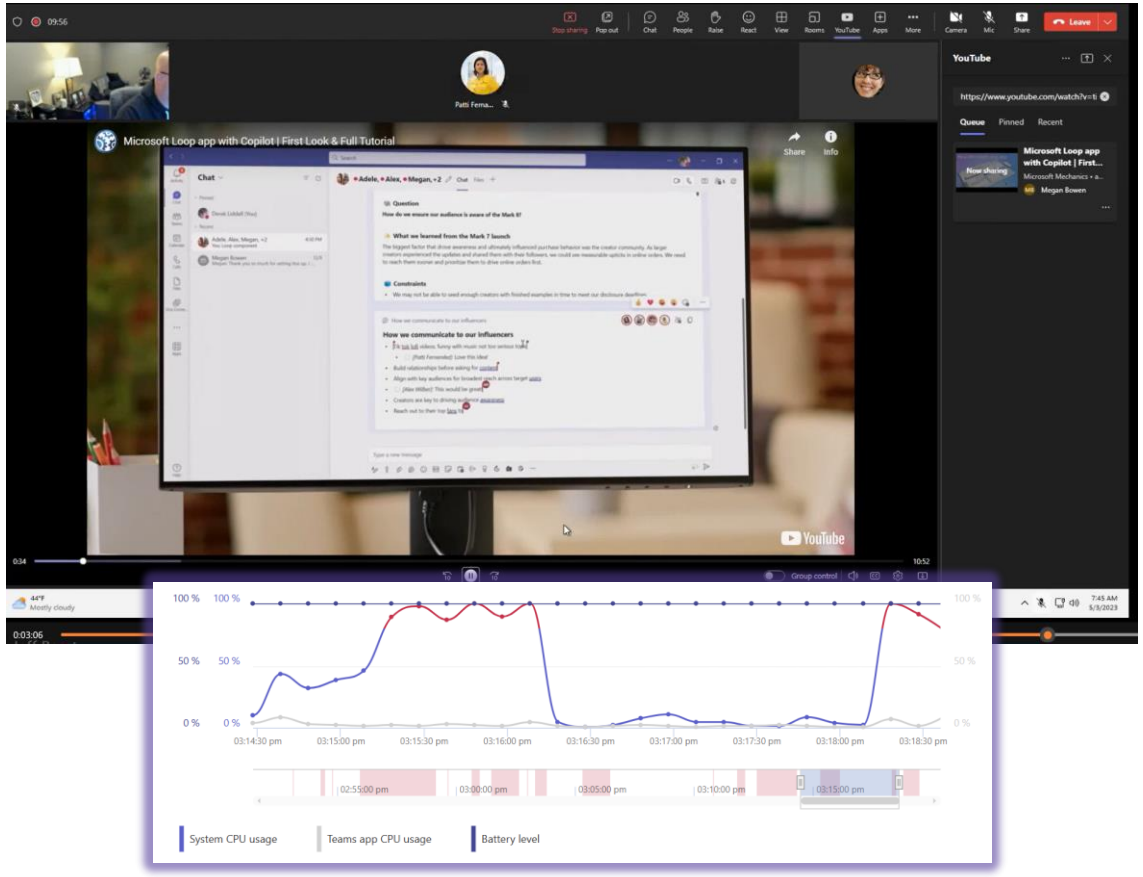
- Use Teams Premium Alerts for Audio and Video Quality alerting
- YouTube App in Teams – reduce PC processor demand
- Unified Workshop - Teams Premium

Scenario 2 - Call Analytics in Teams Admin Center



Improve Overall Quality – Apps in Teams





- Improve video and audio quality – no fuzzy image or choppy audio
- Reduce load and delay while improving computer response during meeting

Scenario 3 – Case of the Bad Executive Meeting

1. QER in PowerBI – Familiarize with measurements in CQD
   - Search Tab – find meeting by meeting ID or UPN
   - Drill Through – Conference Details
2. Analyze overall meeting
   - Filter Public IP and Private IP network for commonality
   - Analyze network statistics by user, by IP, and public network/carrier
   - Analyze individual user data
     - WiFi/Connectivity/Roaming
     - Compute and peripherals
     - OS and Teams version
3. Compare to optimized network experiences

Pro Tips:
- Use Teams Premium Alerts for Audio and Video Quality alerting
- Unified Workshop Offerings – Teams Premium Optimization – Teams Media Quality Assessment

Scenario 3 - The Good

Teams Experience Overall

- Overall tenant and experience health very positive
- 99.9% Transport using UDP – optimal over TCP
- Video quality well within optimal criteria
- Teams client versions updated

Poor Freeze Rate (7 days)					Video Reliability (7 days)		Video Experience (7 days)	
Overall (%)	Wired (%)	Wifi (%)	Wifi 5Ghz (%)	Wifi 2.4Ghz (%)	Drop Rate (%)	Setup Rate (%)	Feedback Rate (%)	Feedback Score (%)
1.81	1.76	1.84	1.43	2.79	0.57	0.04	4.08	4.76

Transport	User Count	Total Streams (%)	Avg Network Jitter	Avg Network Jitter Max	Avg Jitter	Median Jitter	Avg Jitter Max	Avg Round Trip	Median Round Trip	Avg Round Trip Max
UDP	3,910	99.92%	12.64	181.21	2.46	2.00	15.47	53	44	190
MultiHostTCP	29	0.02%	24.15	507.80	4.06	3.00	28.90	97	58	865
TurnTCP	29	0.02%	25.77	844.43	6.53	5.00	61.37	190	109	1565
CompoundTCP	22	0.01%	25.79	922.86	3.80	3.00	36.61	105	95	954
TCPHostActive	22	0.02%			3.62	1.00	32.58	155	58	747
MultiTurnTCP	8	0.01%	51.62	1,405.77	4.91	4.00	72.52	127	108	1713

The Case of the Bad Executive Meeting

17 Attendees
6 with poor experiences

- ✗ Home networks/wifi contributing poor experience due to packet loss (4 users)
- ✗ Packet Loss greater impact than Round Trip Delay and Jitter
- ✓ 3 users on iOS/Android (Mobile) – quality good
  - ✗ 1 iOS User dropped – network disconnect
- ✓ Device CPU utilization good – no insufficient CPU triggers
- ✗ Packet Loss on outbound more prevalent (user to service)
  - ✗ Asymmetric congestion/packet inspection
- 💡 Building data file will assist in VPN user identification

Media Type	Stream Direction	Avg Jitter Buffer Size (Audio Only)	Max Jitter Buffer Size (Audio Only)	Avg Network Jitter (Audio Only)	Max Network Jitter (Audio Only)	Avg Jitter	Max Jitter	Avg Packet Loss Rate	Max Packet Loss Rate	Avg Round Trip	Max Round Trip
Video	Second-to-First					0.00	11.00	9%	91%	84	131
Video	First-to-Second					1.00	14.00	1%	84%	79	167
VBSS	First-to-Second					1.00	14.00	0%	82%	78	275
Audio	First-to-Second	621	960	11.85	236.93	4.00	13.00	0%	79%	62	331
Audio	First-to-Second	78	316	14.03	86.17	4.00	13.00	1%	78%	76	121
Video	First-to-Second					1.00	103.00	0%	76%	68	191
Audio	First-to-Second	657	1999	27.53	1,250.40	4.00	47.00	3%	68%	79	1650
VBSS	First-to-Second					1.00	58.00	1%	66%	81	629
VBSS	First-to-Second					1.00	14.00	0%	57%	83	95
Video	First-to-Second					1.00	24.00	0%	45%	57	217
Audio	First-to-Second	172	1310	9.09	261.27	3.00	49.00	0%	40%	79	418
VBSS	First-to-Second					1.00	49.00	0%	29%	79	349
Audio	First-to-Second	156	377	12.70	187.04	4.00	17.00	0%	26%	50	294
Audio	First-to-Second	168	414	9.65	148.27	3.00	18.00	0%	24%	76	145
Video	First-to-Second					0.00	9.00	0%	21%	80	594
Video	First-to-Second					0.00	13.00	5%	20%	82	95
Video	First-to-Second					1.00	11.00	0%	19%	65	129
Video	First-to-Second					0.00	14.00	0%	16%	80	200
Audio	First-to-Second	95	210	7.87	133.23	2.00	10.00	0%	12%	74	140
VBSS	First-to-Second					4.00	30.00	1%	12%	72	178
VBSS	First-to-Second					1.00	19.00	0%	12%	59	138
Audio	First-to-Second	159	771	8.52	589.29	3.00	22.00	0%	11%	79	620
Audio	First-to-Second	153	200	6.66	133.23	2.00	6.00	0%	9%	52	74
Video	First-to-Second					0.00	6.00	0%	9%	71	94
VBSS	First-to-Second					1.00	12.00	0%	8%	67	137
VBSS	First-to-Second					1.00	45.00	0%	8%	60	334
VBSS	Second-to-First					7.00	172.00	0%	7%	86	632
Audio	Second-to-First	83	501	7.21	352.68	2.00	18.00	0%	7%	44	233
Video	First-to-Second					0.00	4.00	0%	7%	56	70
Video	Second-to-First					1.00	32.00	0%	7%	80	594
Video	First-to-Second					0.00	1.00	4%	6%	86	87
Video	Second-to-First					0.00	5.00	0%	5%	71	94
Video	Second-to-First					3.00	49.00	0%	5%	88	579
Audio	Second-to-First	67	222	14.50	86.95	4.00	10.00	0%	5%	71	139
Video	First-to-Second					2.00	25.00	2%	5%	82	89

Teams Phone Journey Next Steps

Teams Phone Workshop

- Teams Phone Overview & Customer Discovery
- High-level Solution Design & ROI Value Calculation
- Validate Technical Proof & Readiness Planning for Pilot

Next Step: Pilot

Teams Phone Pilot

- ★ Readiness Planning for Broad-Scale Deployment
- Identified PSTN Connectivity to Accelerate Time-to-Value
- End User Acceptance Testing & Remediation Guidance

Next Step: Deploy

Teams Phone Activation

- Guide Initial Scope of Teams Phone Deployment
- Enabled Teams Phone Users
- ★ Optimization & Management Strategy

Next Step: Optimize

Teams Phone Optimization

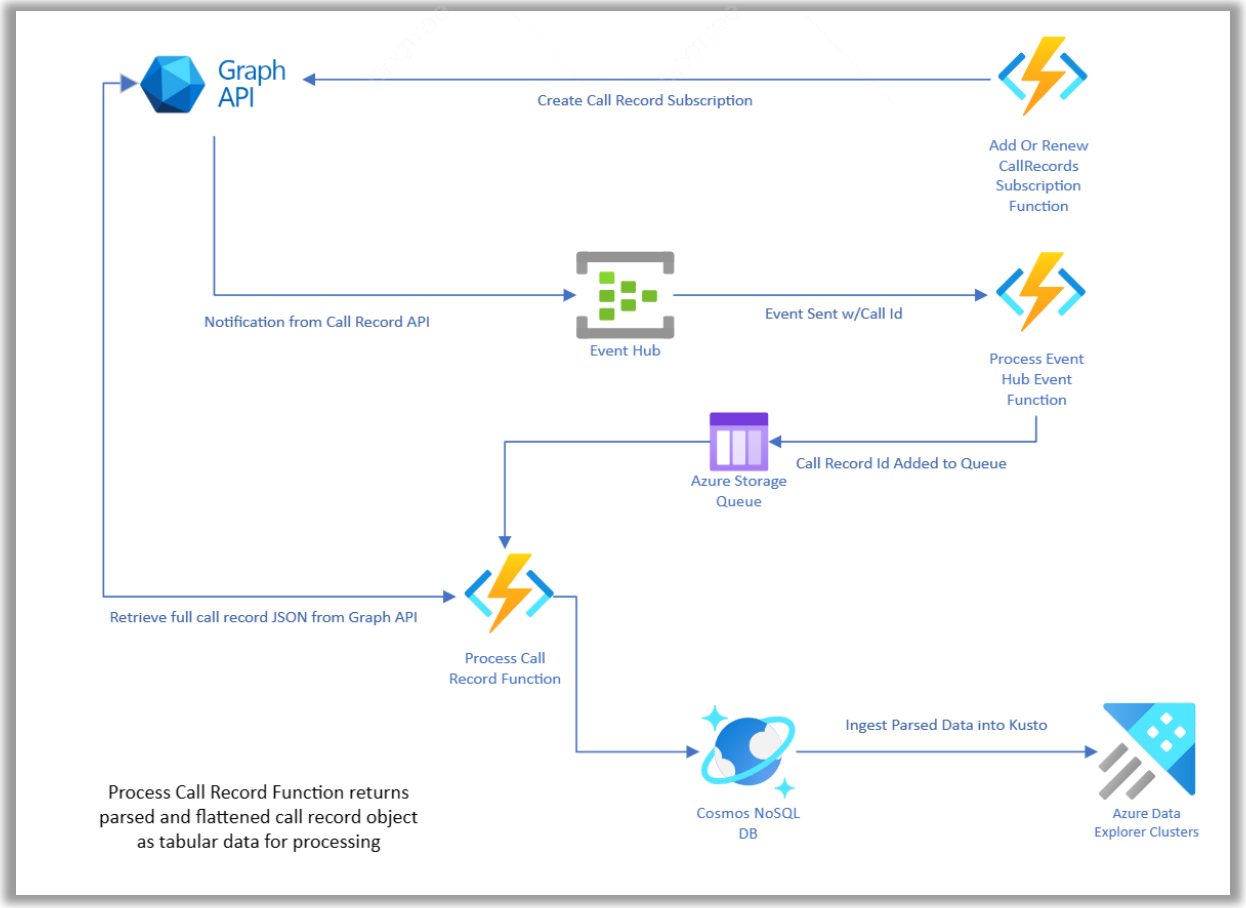
- Identified Next Best Workload
- ★ Complete IT Enablement to Manage Ongoing Health
- ★ Identify and Address Media-Quality Needs

New App – Call Record Insights

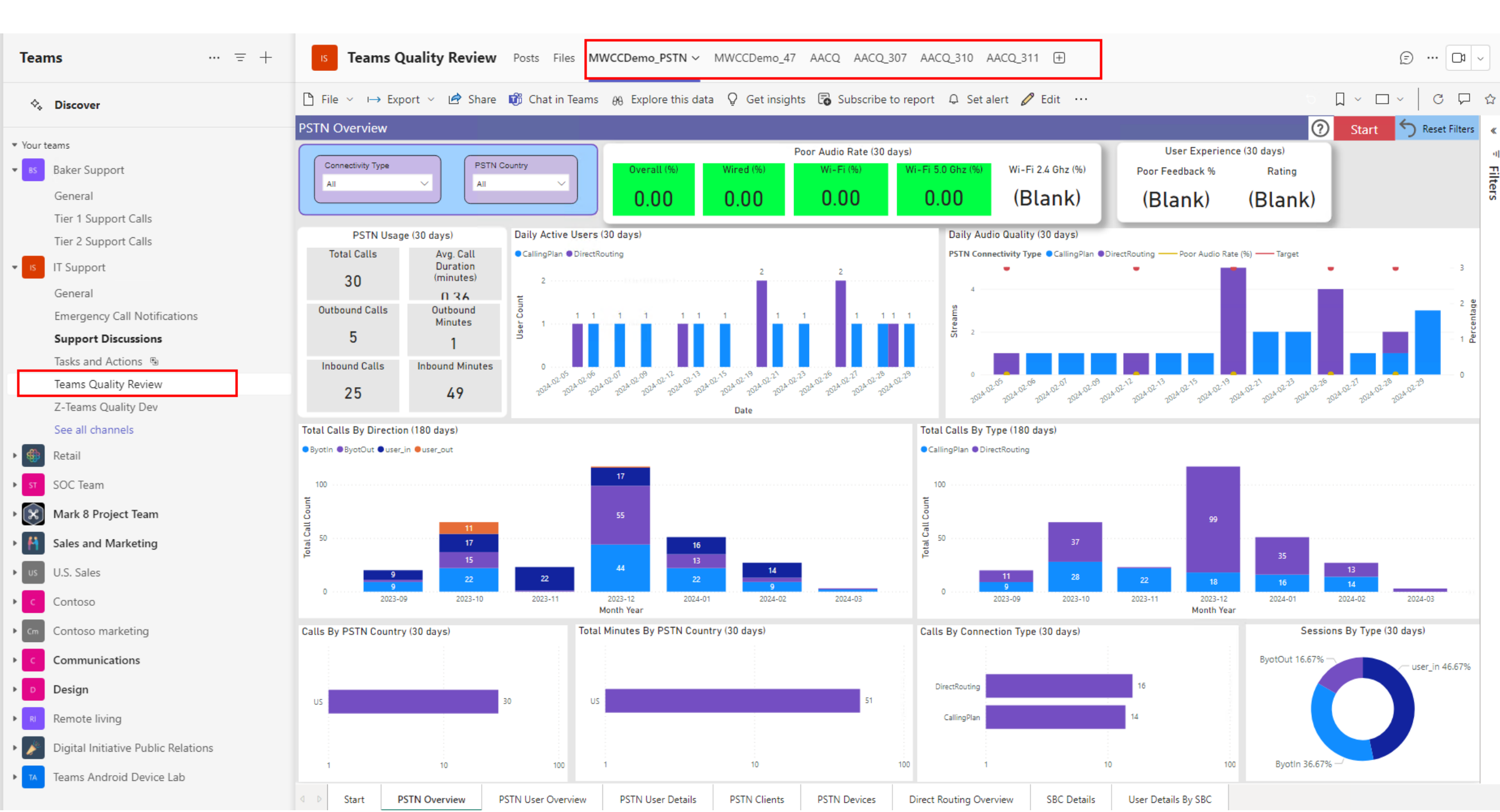
Bonus!

Microsoft Teams Call Record Insights

- Call Record Insights is a turnkey application template for retrieving, parsing, flattening, and storing Microsoft Teams Call Records retrieved via Graph API.
- This application enables you to retrieve your tenant's call records, parse them into a meaningful format and store them in Cosmos DB and Kusto without writing any code yourself.
- Because this solution uses Cosmos DB it is highly scalable and because it uses Kusto it is very friendly to application development and deep data analysis.
- The solution is fully deployed within your own tenant. All data processing and data storage is done in whichever tenant you deploy the application.



Call Record Insights


Teams
Discover
Your teams
Baker Support
General
Tier 1 Support Calls
Tier 2 Support Calls
IT Support
General
Emergency Call Notifications
Support Discussions
Tasks and Actions
Teams Quality Review
Z-Teams Quality Dev
See all channels
Retail
SOC Team
Mark 8 Project Team
Sales and Marketing
U.S. Sales
Contoso
Contoso marketing
Communications
Design
Remote living
Digital Initiative Public Relations
Teams Android Device Lab
Teams Quality Review
Posts
Files
MWCCDemo_PSTN
MWCCDemo_47
AACQ
AACQ_307
AACQ_310
AACQ_311
File
Export
Share
Chat in Teams
Explore this data
Get insights
Subscribe to report
Set alert
Edit
PSTN Overview
Start
Reset Filters
Filters
Connectivity Type
All
PSTN Country
All
Poor Audio Rate (30 days)
Overall (%)
0.00
Wired (%)
0.00
Wi-Fi (%)
0.00
Wi-Fi 5.0 Ghz (%)
0.00
Wi-Fi 2.4 Ghz (%)
(Blank)
User Experience (30 days)
Poor Feedback %
(Blank)
Rating
(Blank)
PSTN Usage (30 days)
Total Calls
30
Avg. Call Duration (minutes)
0.36
Outbound Calls
5
Outbound Minutes
1
Inbound Calls
25
Inbound Minutes
49
Daily Active Users (30 days)
CallingPlan
DirectRouting
User Count
Date
Daily Audio Quality (30 days)
PSTN Connectivity Type
CallingPlan
DirectRouting
Poor Audio Rate (%)
Target
Streams
Percentage
Total Calls By Direction (180 days)
ByotIn
ByotOut
user_in
user_out
Total Call Count
Month Year
Total Calls By Type (180 days)
CallingPlan
DirectRouting
Total Call Count
Month Year
Calls By PSTN Country (30 days)
US
30
Total Minutes By PSTN Country (30 days)
US
51
Calls By Connection Type (30 days)
DirectRouting
16
CallingPlan
14
Sessions By Type (30 days)
ByotOut 16.67%
user_in 46.67%
ByotIn 36.67%
Start
PSTN Overview
PSTN User Overview
PSTN User Details
PSTN Clients
PSTN Devices
Direct Routing Overview
SBC Details
User Details By SBC

Microsoft Teams

Q&A

Event Giveaway

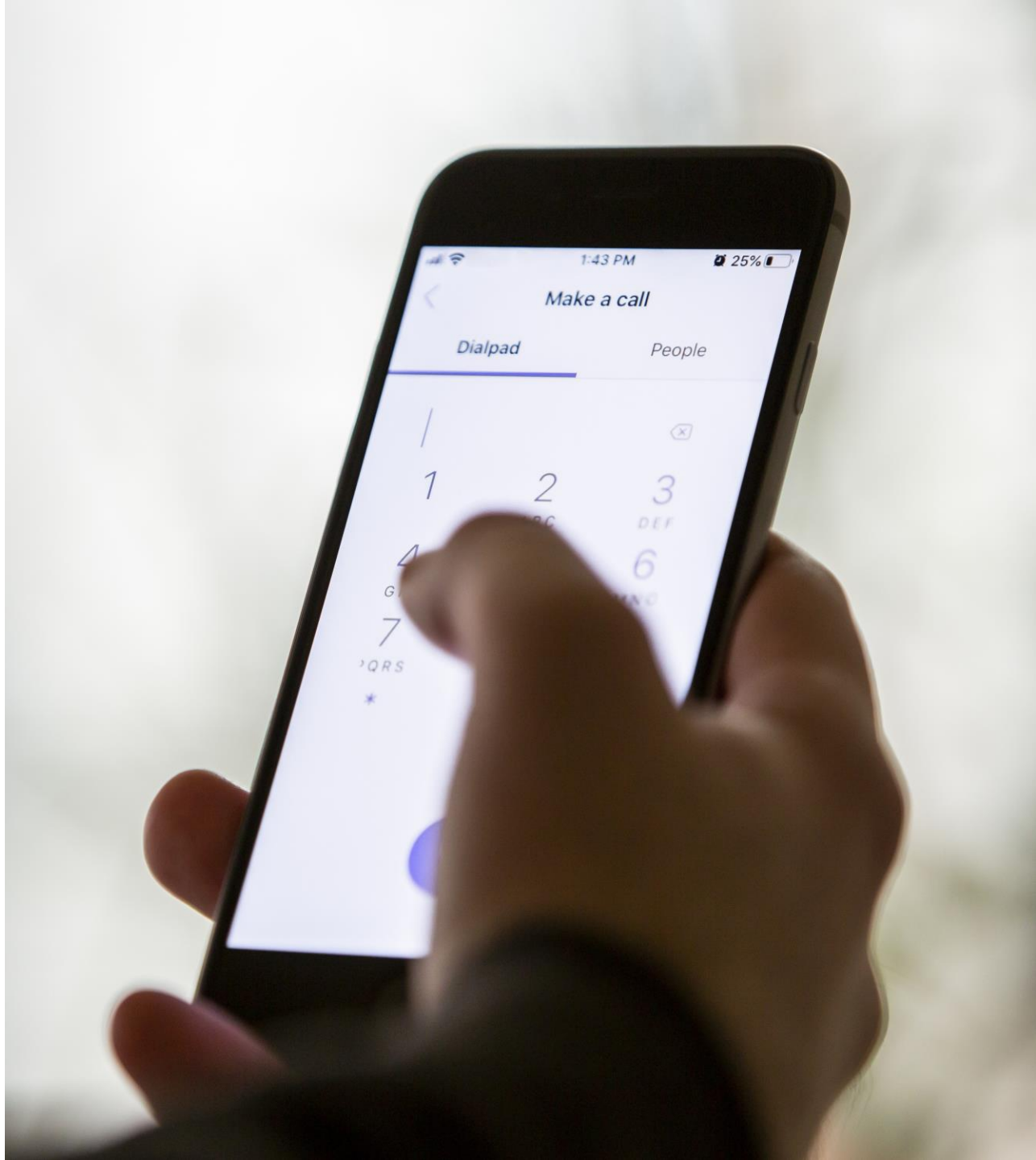
Giving away a prize pack for each session. Fill out a survey to be entered.

We will reach out after the Teams Phone Summit to the winners!

If you are a government employee, please fill out the survey and indicate you are not eligible to participate.

Call to Action

- Need a more technical conversation on Teams Phone?
  - Set up a meeting with your Microsoft Account Teams or partner
- Teams Phone POC/Pilot
  - Let's talk about how we can help you with a POC and/or Pilot
- Interested in reducing your IT spend, simply administration and support your users
  - Let's talk about how Shared Calling is the right solution for you
- Let's get started - https://aka.ms/TPSSurveyDay1AM



We want your Feedback!

- Let us know how we did
- Do you need any help with Teams Phone?
- Register for the giveaway

https://aka.ms/TeamsPhoneSummitDay1AM

Thank you for attending!!

Teams Reporting & Analytics