Microsoft

Module 6

Managing Teams Rooms

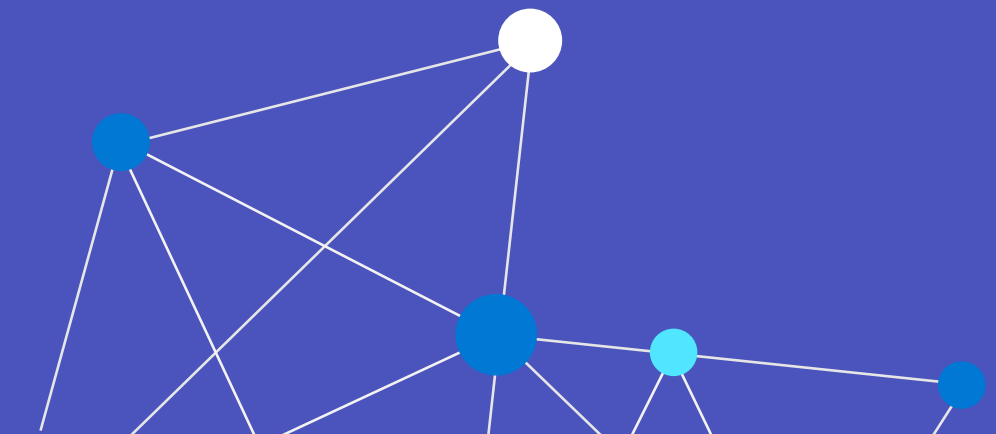
Objectives

Learn about the available management options

Have a better understanding of which tools to use to best manage Teams Rooms

Know how to monitor your Teams Rooms environment

Managing Teams Rooms



Unmanaged

Windows updates directly from Microsoft

App updates directly from Microsoft

Local Administrator account

On-premises management

Active Directory	Configuration manager
Exchange	XML configuration file
Skype for Business	PowerShell

Hybrid management

Microsoft Teams admin center

Skype for Business/Skype for Business Online

Azure Active Directory sync

Intune

Exchange/Exchange Online

PowerShell

XML configuration file

Configuration manager

Microsoft 365 management

Azure Active Directory	Teams Admin Center
Exchange Online	PowerShell
Skype for Business Online	XML configuration file
Endpoint Manager	

Microsoft Teams Rooms Premium

Great meetings for every room, expertly managed and secured

Expert management

24x7x365 monitoring, alerting incident management and resolution

Proactive security

Optimized security, protection, and policies

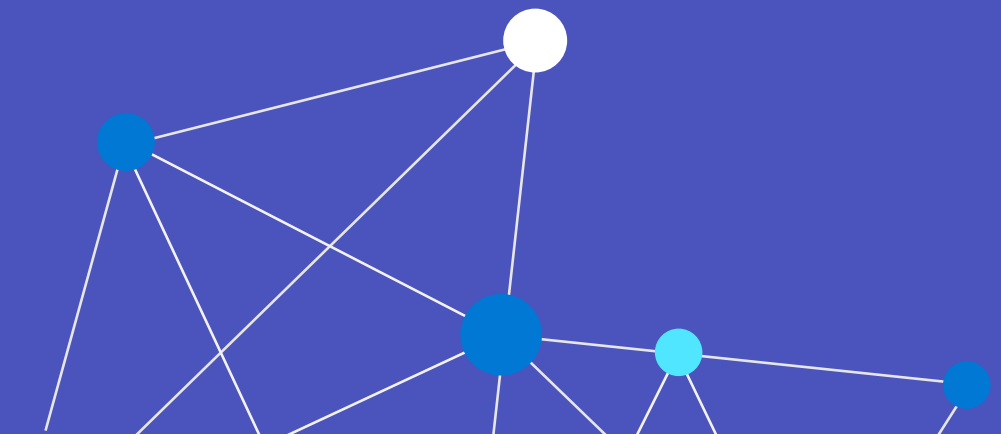
Enhanced insights

Inventory, health, and compliance insights, analytics and recommendations

Trusted partners

Measurable results from our best room installation and on-site management partners

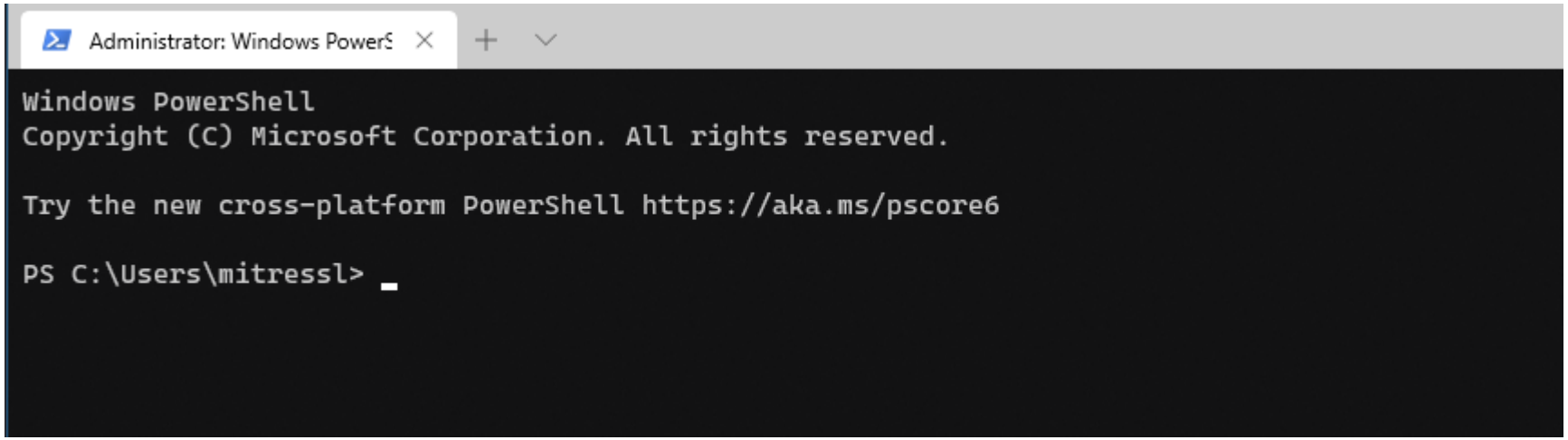
PowerShell



What is PowerShell

Windows PowerShell is a Windows command-line shell designed especially for system administrators.

Windows PowerShell includes an interactive prompt and a scripting environment that can be used independently or in combination.



Remote management using PowerShell

You can perform the following management operations remotely by using PowerShell

Get attached devices

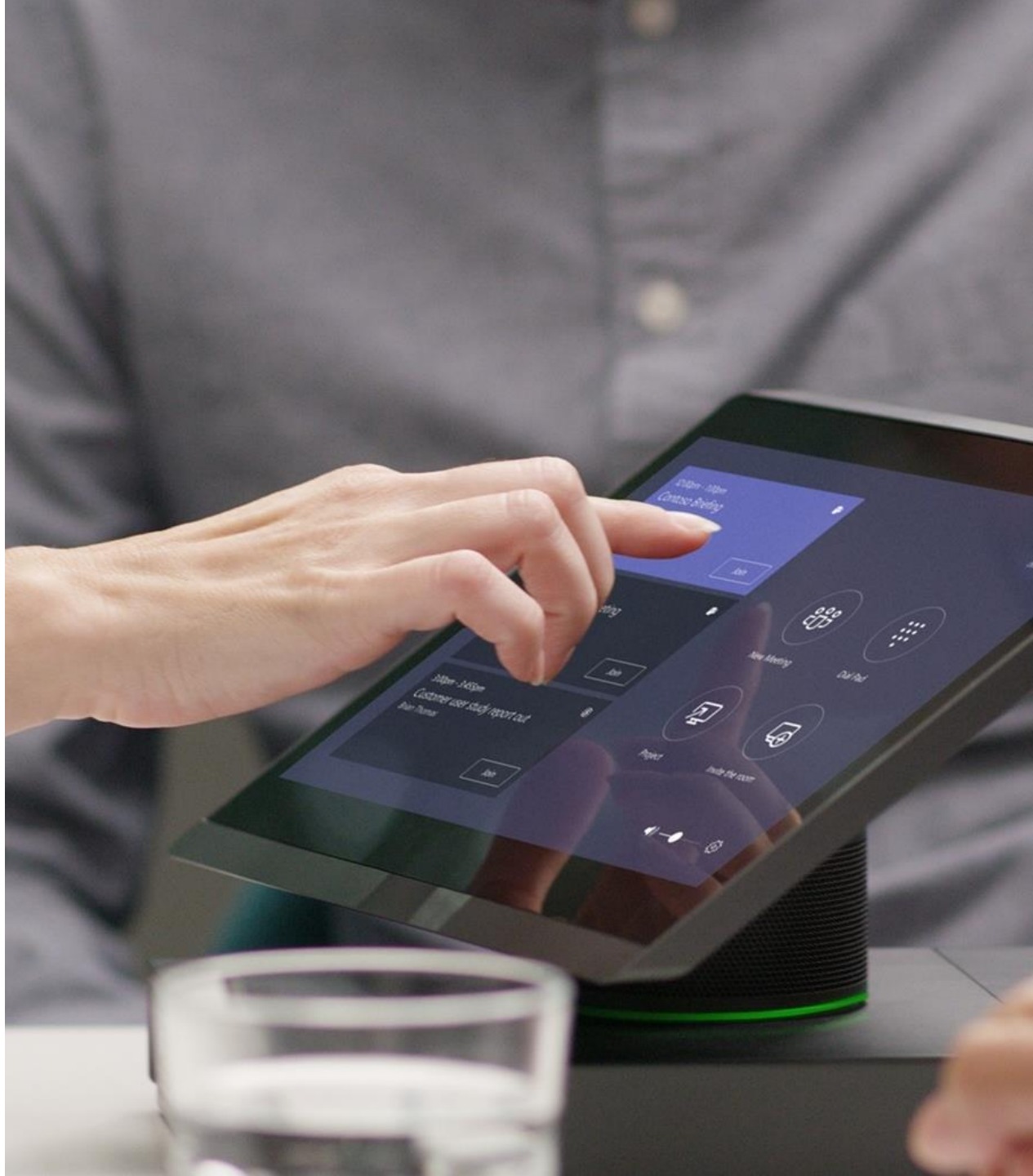
Get app status

Get system info

Reboot system

Retrieve logs

Transfer files (requires a domain-joined Microsoft Teams Rooms)



Enable remote PowerShell

Sign in as Admin on a Microsoft Teams Rooms device

Open an elevated PowerShell command prompt

Enter the following command

```
Enable-PSRemoting –force
```

Once Enabled

Sign into a PC with account that has permission to run PowerShell commands on a Teams Rooms device

Open a regular PowerShell command prompt on the PC

Get attached devices

```
VIDEO DEVICES:

Logitech BRIO OK        True


AUDIO DEVICES:

Name                      Status Present
----                      ------ -------
Logi Rally Audio          OK         True
Logitech Tap Audio        OK         True
Intel(R) Display Audio    OK         True
Logitech BRIO             OK         True
Realtek(R) Audio          OK         True
Logitech Tap HDMI Capture OK         True
```

```
DISPLAY DEVICES:

Name                    Status Present
----                    ------ -------
Generic PnP Monitor     OK         True
Generic PnP Monitor     OK         True
```

More PowerShell output examples

App status

```
SkypeRoomSystem Version :  4.3.33.0


StartTime  : 1/15/2020 2:33:57 AM
Responding : True
```

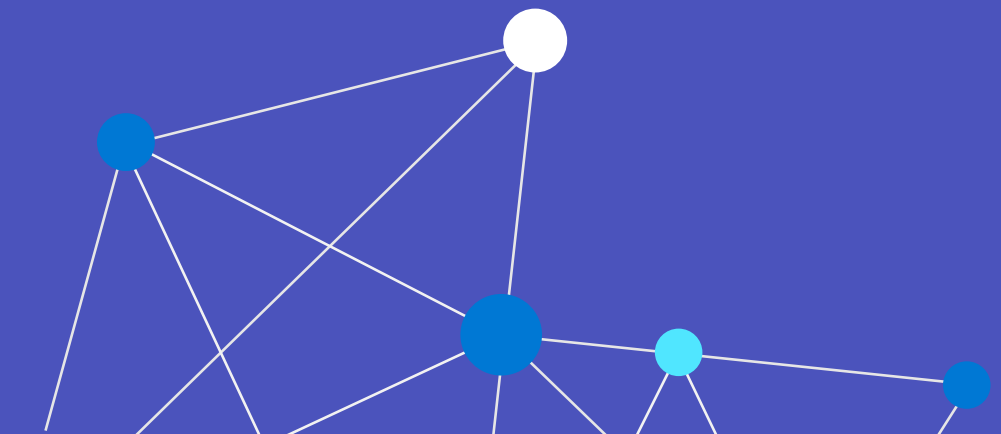
System info

```
PartOfDomain : False
Domain       : WORKGROUP
Workgroup    : WORKGROUP
Manufacturer : Intel(R) Client Systems
Model        : NUC8i5BEH



SerialNumber      : G6BE92100BZ9
SMBIOSBIOSVersion : BECFL357.86A.0064.2019.0213.1122
```

SkypeSettings XML file



SkypeSettings XML file

SkypeSettings.XML can be used to control settings

- Apply a custom theme
- Enable automatic screen sharing
- Hide meeting name
- Set sign-in address\password for Teams\Skype account
- Set Teams\Skype modes
- Enable dual screen mode
- ...and much more

All supported options are documented on docs.Microsoft.com
https://docs.microsoft.com/en-us/MicrosoftTeams/room-systems/xml-config-file

SkypeSettings XML file

The file can be created and edited using Notepad or any other text/XML editor

```
<SkypeSettings>
    <AutoScreenShare>true</AutoScreenShare>
    <HideMeetingName>true</HideMeetingName>
    <UserAccount>
        <SkypeSignInAddress>RanierConf@contoso.com</SkypeSignInAddress>
        <ExchangeAddress>RanierConf@contoso.com</ExchangeAddress>
        <DomainUsername>Seattle\RanierConf</DomainUsername>
        <Password>password</Password>
        <ConfigureDomain>domain1, domain2</ConfigureDomain>
    </UserAccount>
    <IsTeamsDefaultClient>false</IsTeamsDefaultClient>
    <BluetoothAdvertisementEnabled>true</BluetoothAdvertisementEnabled>
    <SkypeMeetingsEnabled>false</SkypeMeetingsEnabled>
    <TeamsMeetingsEnabled>true</TeamsMeetingsEnabled>
    <DualScreenMode>true</DualScreenMode>
    <SendLogs>
        <EmailAddressForLogsAndFeedback>RanierConf@contoso.com</EmailAddressForLogsAnd
        <SendLogsAndFeedback>true</SendLogsAndFeedback>
    </SendLogs>
    <Devices>
        <MicrophoneForCommunication>Microsoft LifeChat LX-6000</MicrophoneForCommunica
        <SpeakerForCommunication>Realtek High Definition Audio</SpeakerForCommunicatio
        <DefaultSpeaker>Polycom CX5100</DefaultSpeaker>
        <ContentCameraId>USB\VID_046D&amp;PID_0843&amp;MI_00\7&amp;17446CF2&amp;0&amp;
        <ContentCameraInverted>false</ContentCameraInverted>
        <ContentCameraEnhancement>true</ContentCameraEnhancement>
    </Devices>
    <Theming>
        <ThemeName>Custom</ThemeName>
        <CustomThemeImageUrl>file name</CustomThemeImageUrl>
        <CustomThemeColor>
            <RedComponent>100</RedComponent>
            <GreenComponent>100</GreenComponent>
            <BlueComponent>100</BlueComponent>
        </CustomThemeColor>
    </Theming>
</SkypeSettings>
```

SkypeSettings XML file

SkypeSettings.XML must be placed in this directory:

C:\Users\Skype\AppData\Local\Packages\Microsoft.SkypeRoomSystem_8wekyb3d8bbwe\LocalState

---

You can manually copy the file on each device or distribute it via Group Policy or a PowerShell script.

Once the file has been copied to each machine, the device must be restarted. Once the device has been restarted, the specified settings will be applied, and the file is deleted.

Custom theme

Customize the background of the Teams Rooms displays

Image must be exactly 3840x1080 pixels

Must be .jpg, .jpeg, .png, or .bmp file type

A custom photoshop template is available on docs.microsoft.com to assist in creating a custom image

Custom Background

You can customize the background image

Add company-specific look and feel

Add support options directly on the displays

A Photoshop template can be downloaded from here.

Deploying custom theme

Using Notepad, create a file called skypesettings.xml

Enter the following.

```
<SkypeSettings>
<Theming>
        <ThemeName>Custom</ThemeName>
        <CustomThemeImageUrl>wallpaper.jpg</CustomThemeImageUrl>
        <CustomThemeColor>
                <RedComponent>1</RedComponent>
                <GreenComponent>1</GreenComponent>
                <BlueComponent>1</BlueComponent>
        </CustomThemeColor>
</Theming>
</SkypeSettings>
```

Deploying custom theme

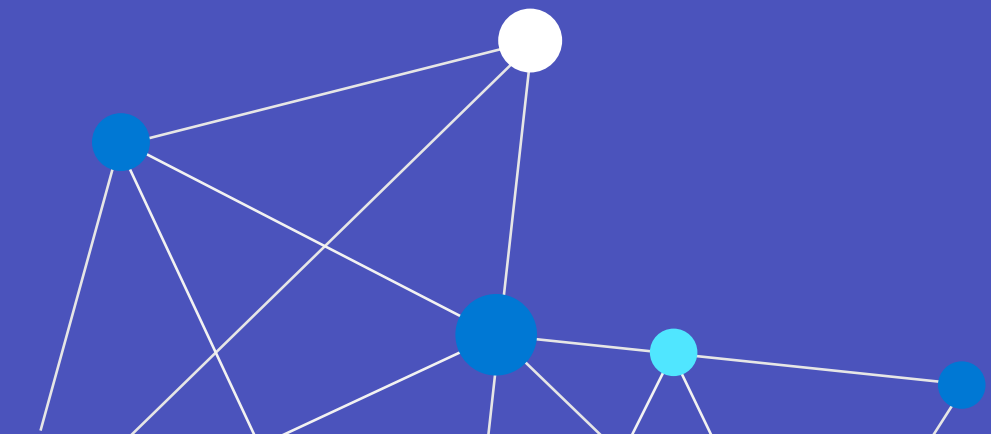
Log in to the device as a Windows Administrator

Navigate to "C:\Users\Skype\AppData\Local\Packages\Microsoft.SkypeRoomSystem_8wekyb3d8bbwe\LocalState“

Copy the wallpaper file and the SkypeSettings.xml file to the directory.

Restart the device

Microsoft Teams admin center



Microsoft Teams admin center

You can manage and monitor Teams Rooms devices via the Microsoft Teams admin center

Features include

Inventory and status

Performance statistics (network, audio, etc.)

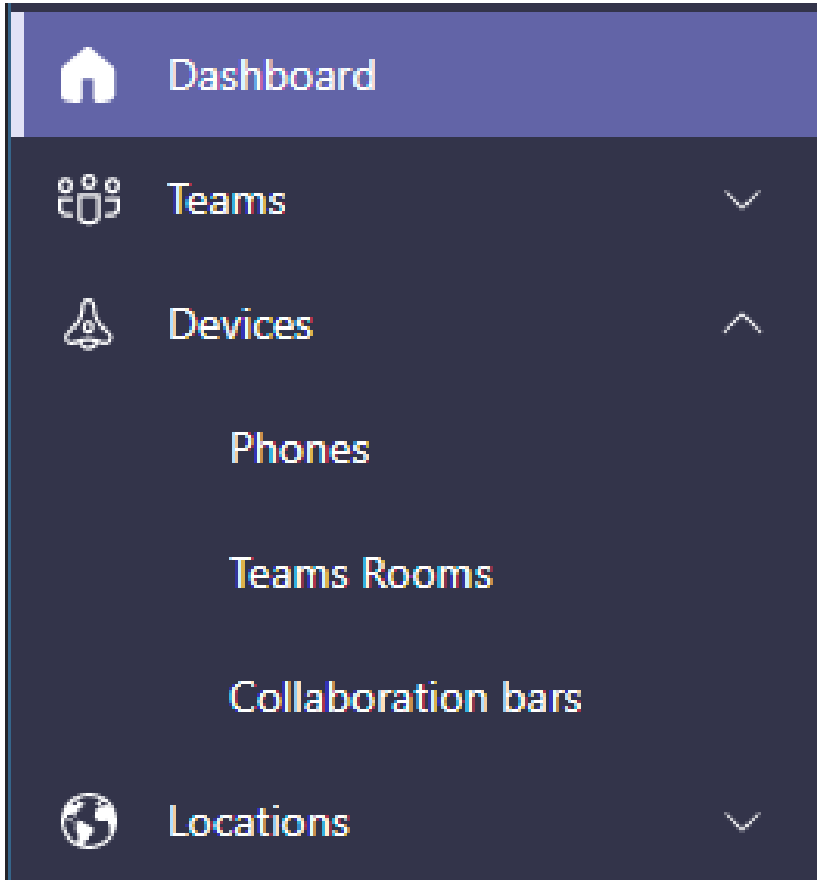
Update settings

Remote restart

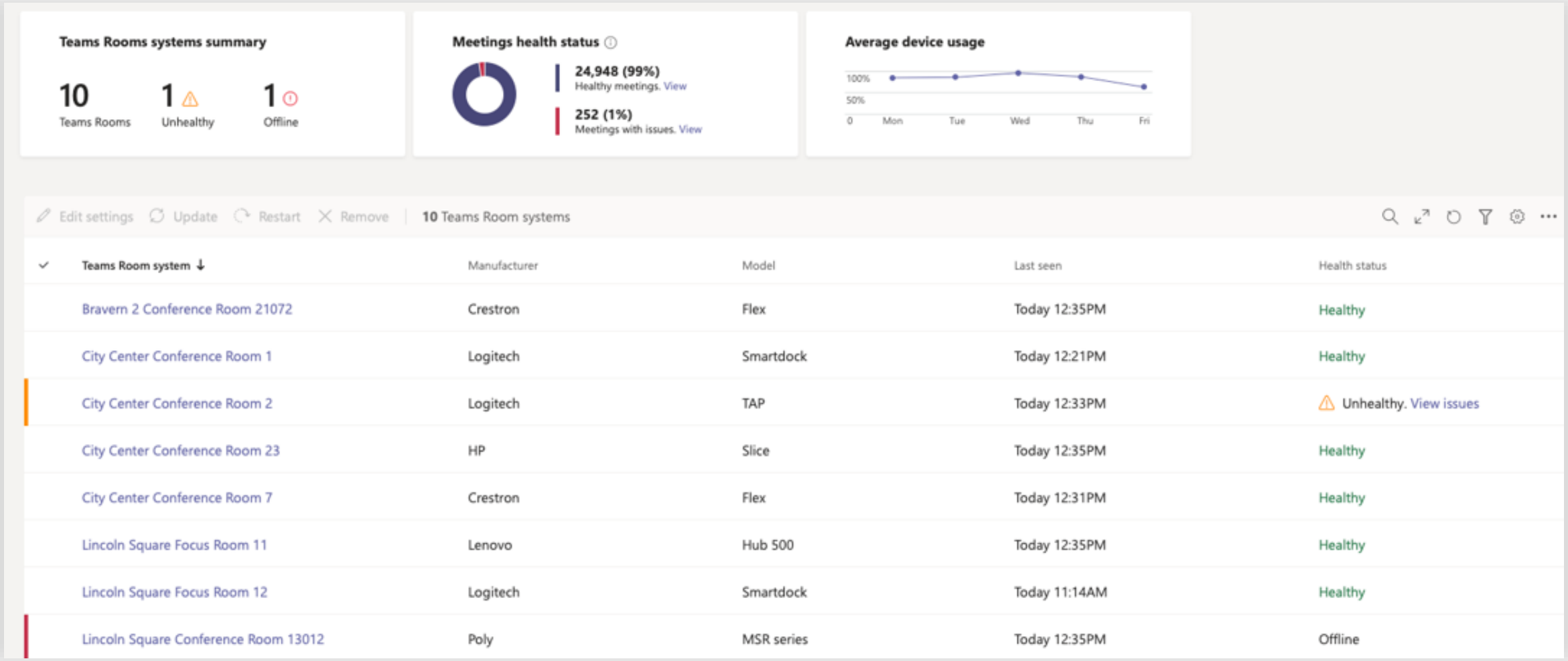
Meeting history

Log collection

Auto enrollment to Teams admin center

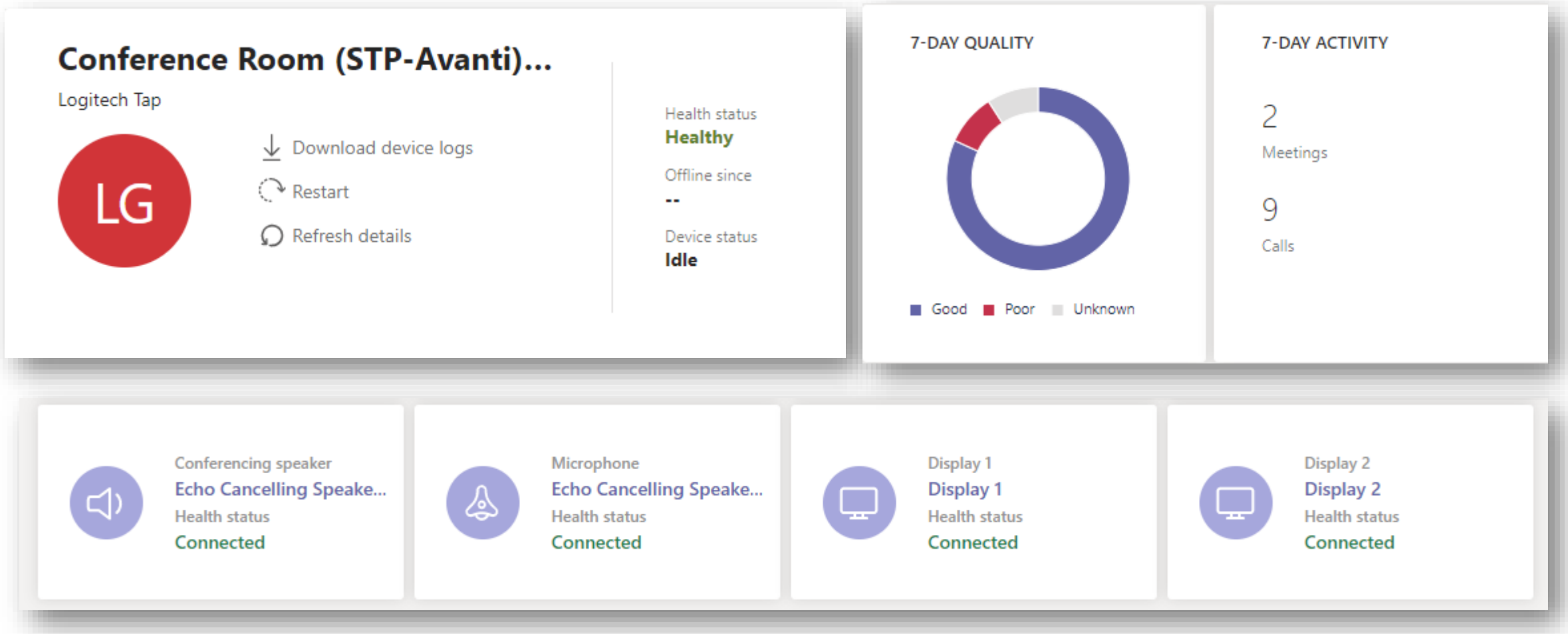


Microsoft Teams admin center

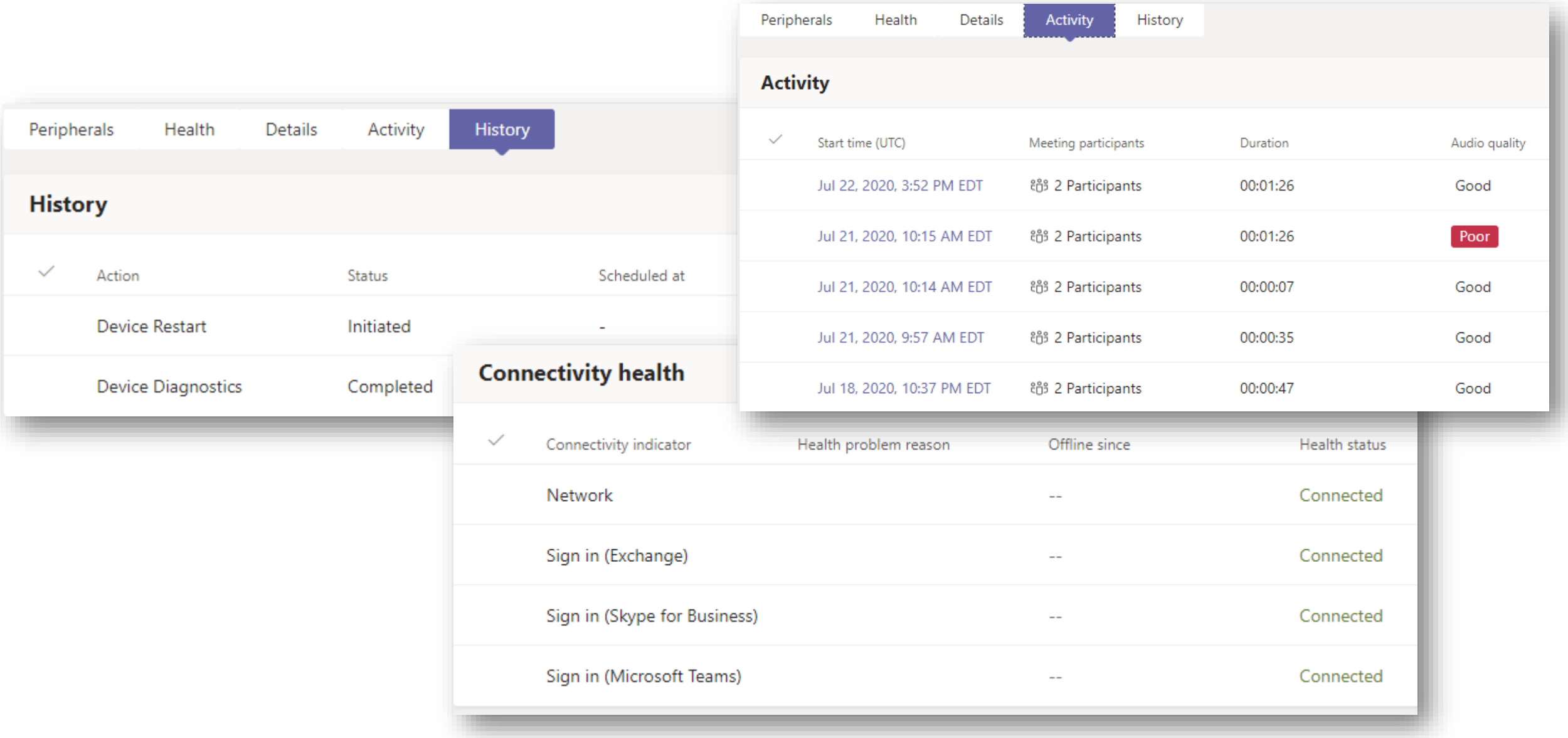


Microsoft Teams admin center

You can get details for any registered device



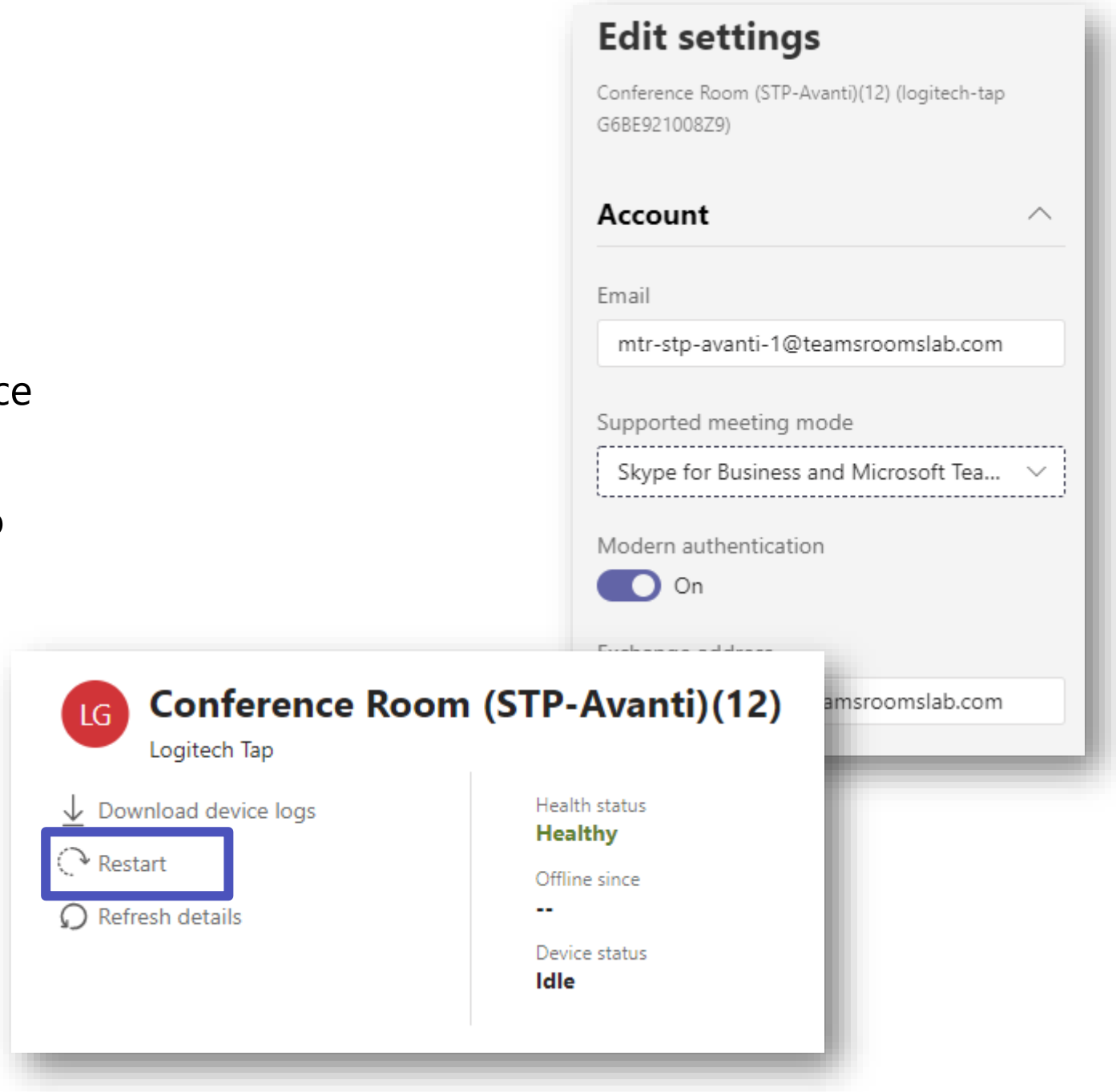
Device information



Edit device settings

You can remotely edit settings for individual settings for a single device or a group of selected devices.

After making changes, you can also remotely restart the device(s) for changes to take effect.

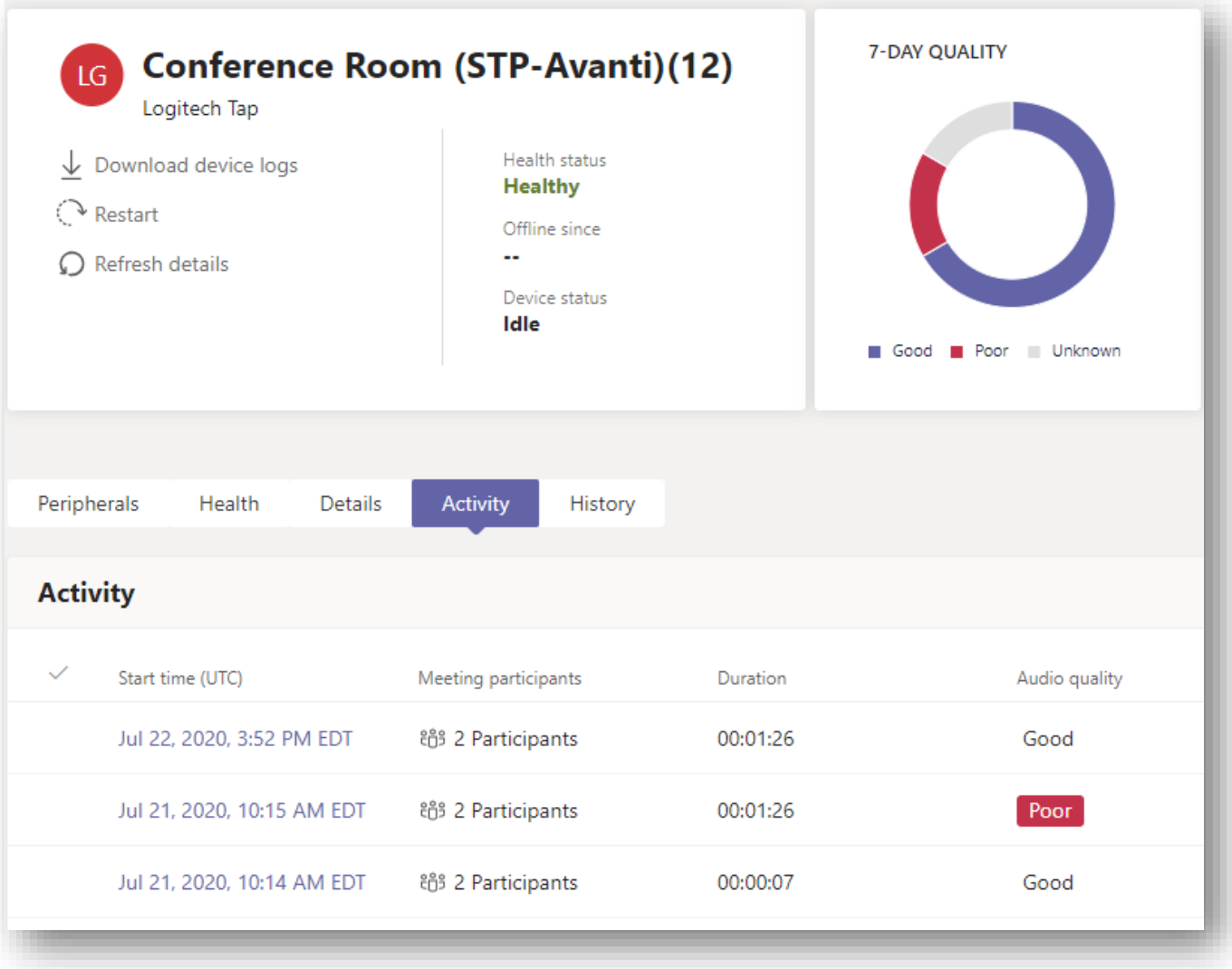


Demonstration: Troubleshooting a poor audio call

A user reports poor audio in a meeting

Navigate to the Teams Rooms device and click on Activity

Notice a meeting is listed as “poor” in the Audio Quality column

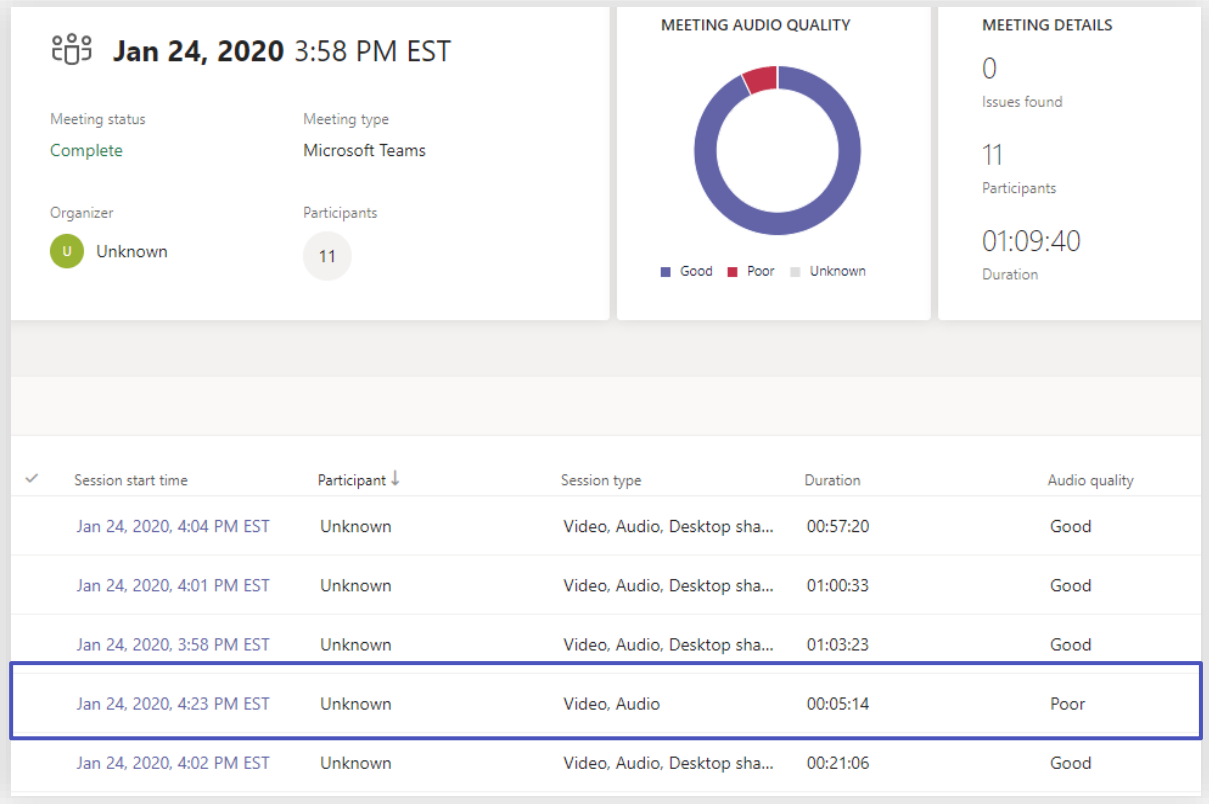


Troubleshooting a poor audio call

Click on the poor meeting to get details

Notice that one of the sessions had poor Audio Quality

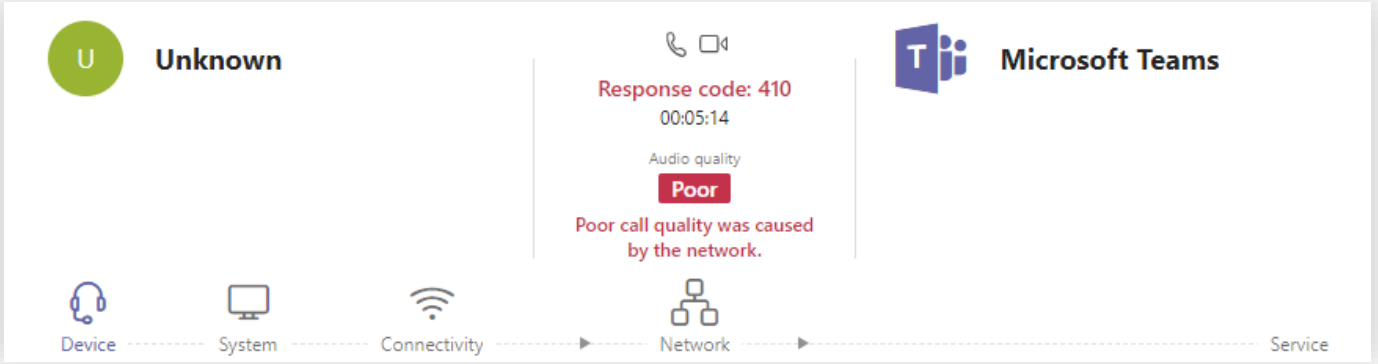
Click on that session



Troubleshooting a poor audio call

The header of the session highlights the call quality as poor due to network

Click on the Network icon

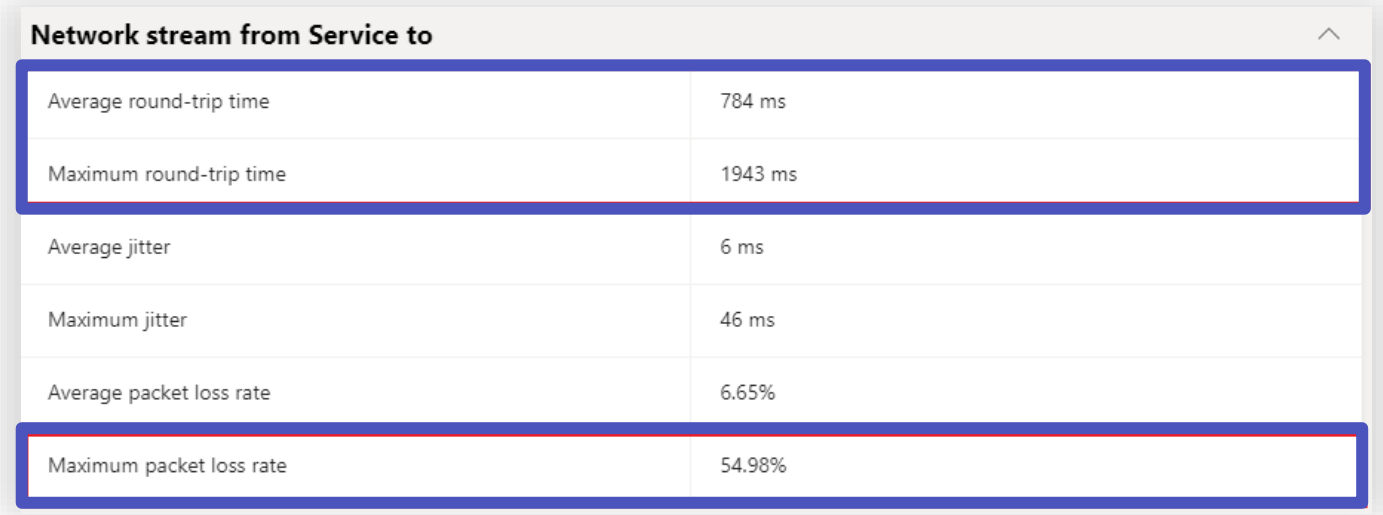


Troubleshooting a poor audio call

This session had excessive round-trip times and extremely high packet loss

Round trip time should be less than 100ms and packet loss should be less than 1%

docs.microsoft.com has an article listing the requirements for latency, packet loss, and jitter



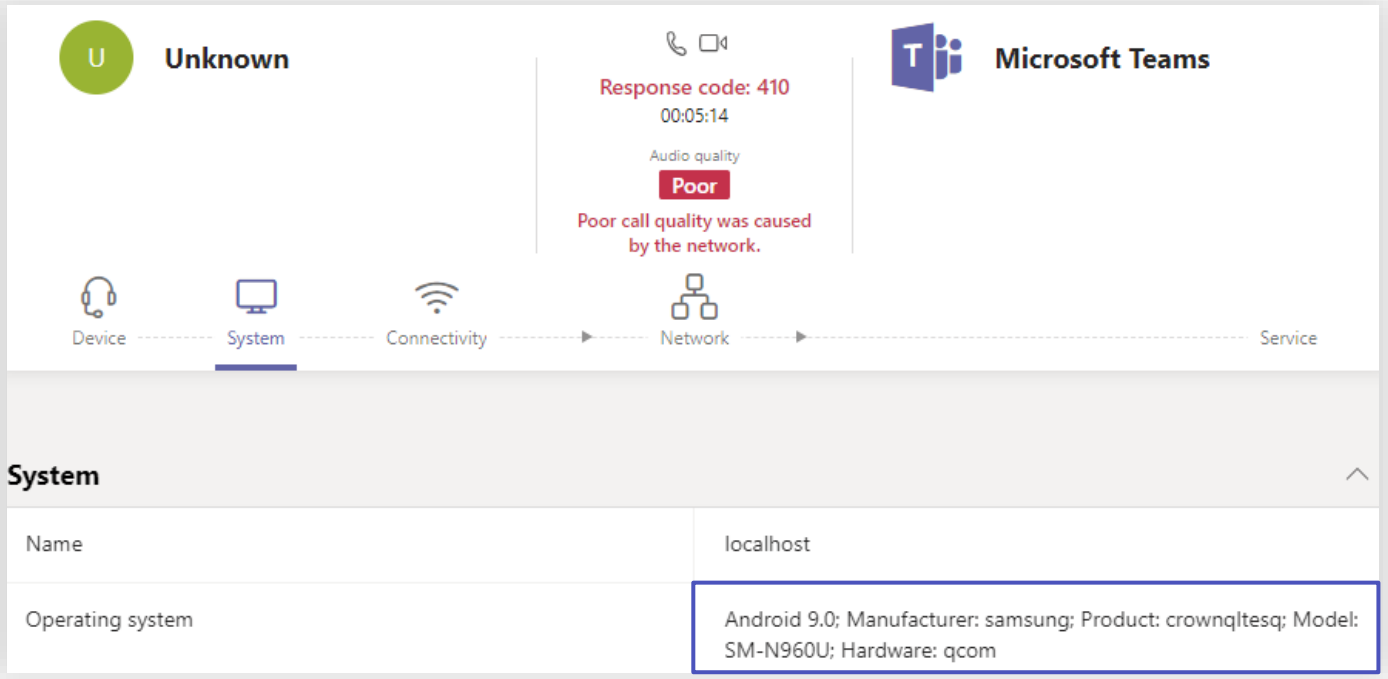
Network stream from Service to	
Average round-trip time	784 ms
Maximum round-trip time	1943 ms
Average jitter	6 ms
Maximum jitter	46 ms
Average packet loss rate	6.65%
Maximum packet loss rate	54.98%

Troubleshooting a poor audio call

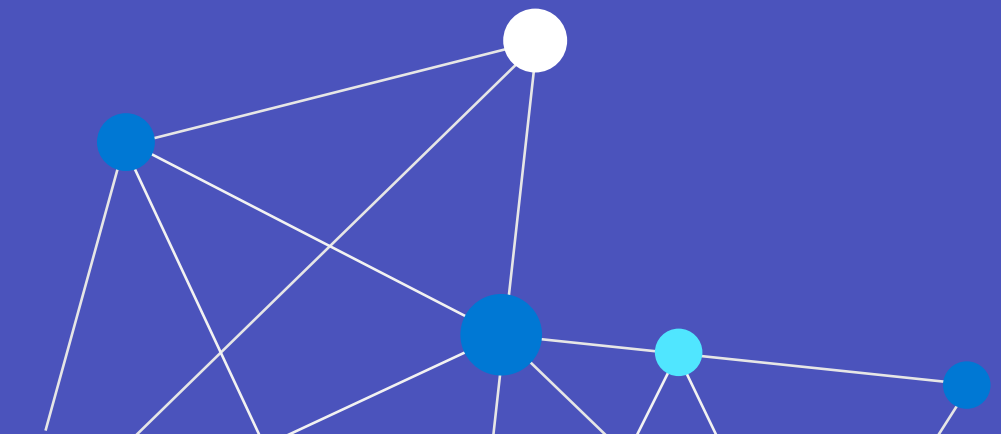
By clicking on System, we can learn details about the client device

In this case, it was an Android device

Most likely, this user had poor wireless service during the call which led to the poor audio



Azure Monitor



Azure Monitor

What is Azure Monitor?

A collection of management services that were designed in the cloud

Get notifications of systems that are offline or are experiencing app, connectivity, or hardware failures as well as knowing if a system needs to be restarted

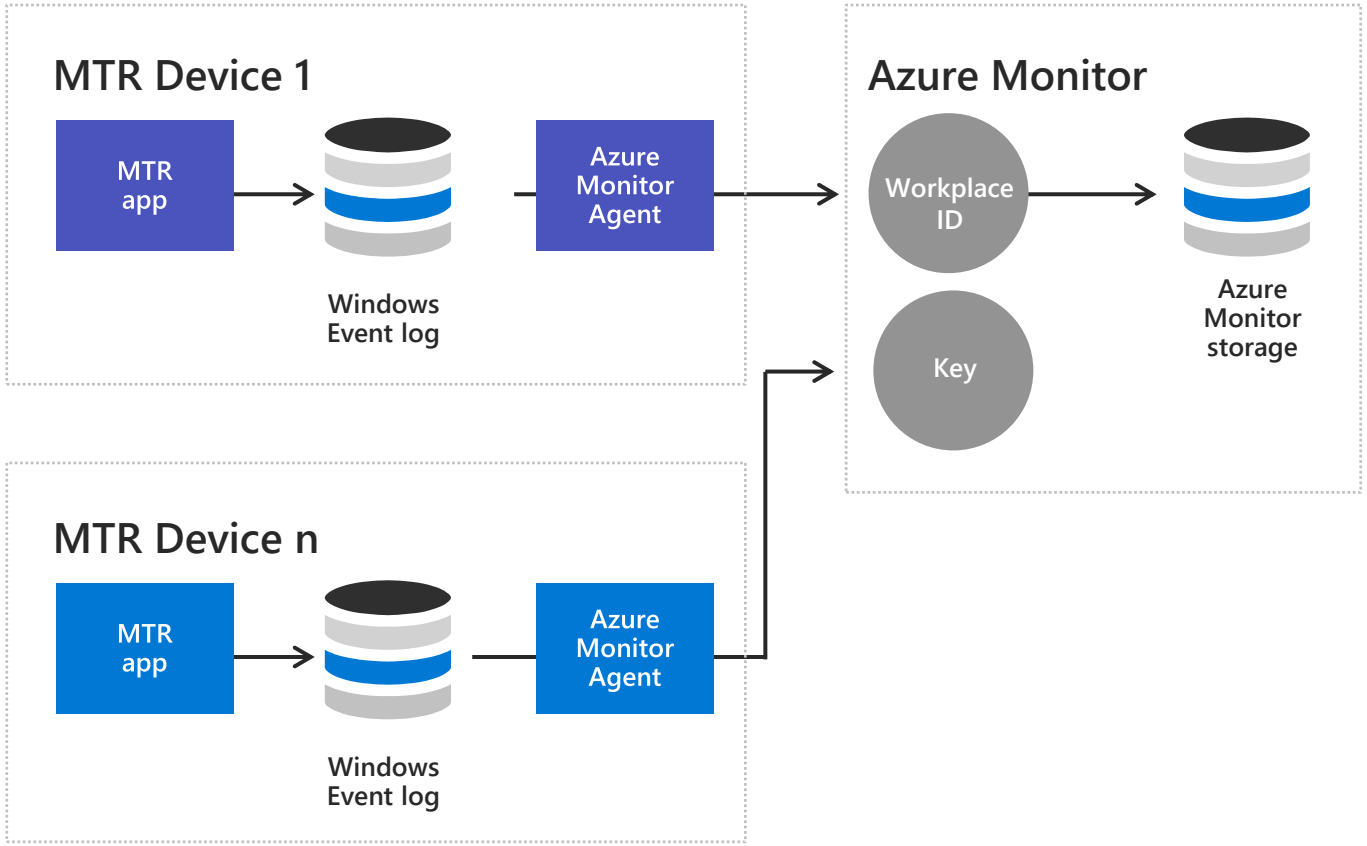
Can scale to managing thousands of Microsoft Teams Rooms

Functional overview

Microsoft Teams Rooms app on the console device writes events to its Windows Event Log

Microsoft Monitoring agent, once installed, passes the information to Azure Monitor service

Log Analytics parses the JSON payload embedded in the event descriptions to describe how each Microsoft Teams Rooms system is functioning and what faults are detected



Requirements

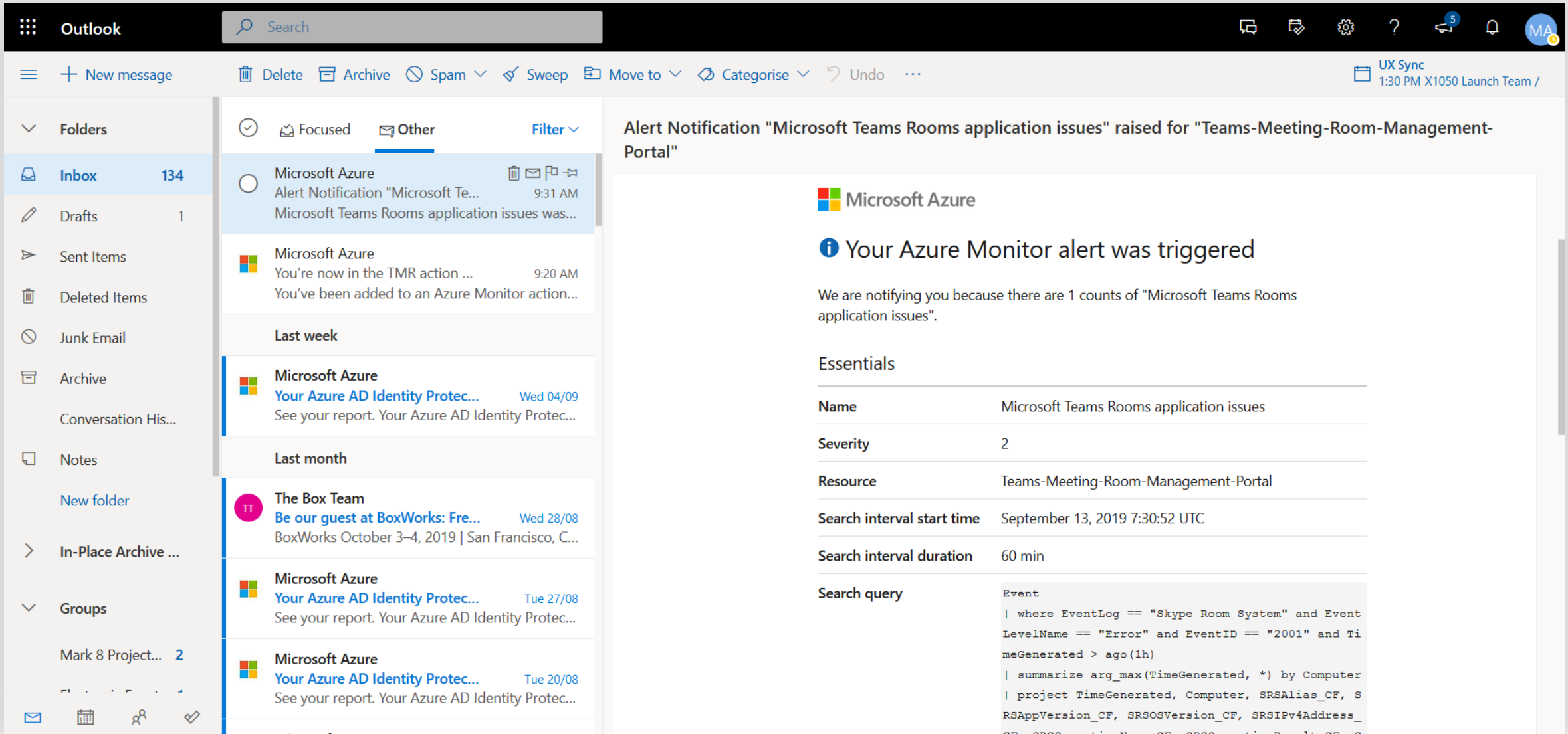
A valid Azure subscription for Azure Monitor to use Log Analytics

Custom fields needed to parse the information that will be sent from Microsoft Teams Rooms consoles

Develop a Microsoft Teams Rooms management view in Log Analytics

Adding the Microsoft Monitor agent on your Microsoft Teams Rooms device

Example of an Alert received in Outlook



Understand the log entries

Event ID level	Event behavior
2000 Information	This is a healthy heartbeat event. Every 5 minutes, Microsoft Teams Rooms checks that it is signed in to Microsoft Teams or Skype for Business and has network and Exchange connectivity. If all 3 factors are true, it writes Event ID 2000 into the event log every 5 minutes until the device is offline or one or more of the conditions is no longer met.
2001 Error	This is an app error event. Every 5 minutes, Microsoft Teams Rooms checks that it is signed in to Microsoft Teams or Skype for Business with network and Exchange connectivity. If one or more factors are not true, it writes EventID 2001 into the event log every 5 minutes until the device is offline or all conditions are met once again.
3000 Information	This event verifies that a hardware check was run and found to be healthy. Every 5 minutes Microsoft Teams Rooms checks that configured hardware components such as front of room display, microphone, speaker, and camera are connected and functioning. If all components are healthy, it writes EventID 3000 into the event log. This event is written every 5 minutes unless there is an issue with a connected device.

Understand the log entries

Event ID level	Event behavior
3001 Error Event	This is a hardware error event. The Microsoft Teams Rooms app has a process that checks the health of connected hardware components (front of room, microphone, speaker, camera) every 5 minutes. If one or more of the components are unhealthy, it writes EventID 3001 into the event log. This event is written every 5 minutes until the issue with the device is fixed.
4000 Information	This is an App Restart event. Every time the app is restarted, it will log this event into the Windows event log.

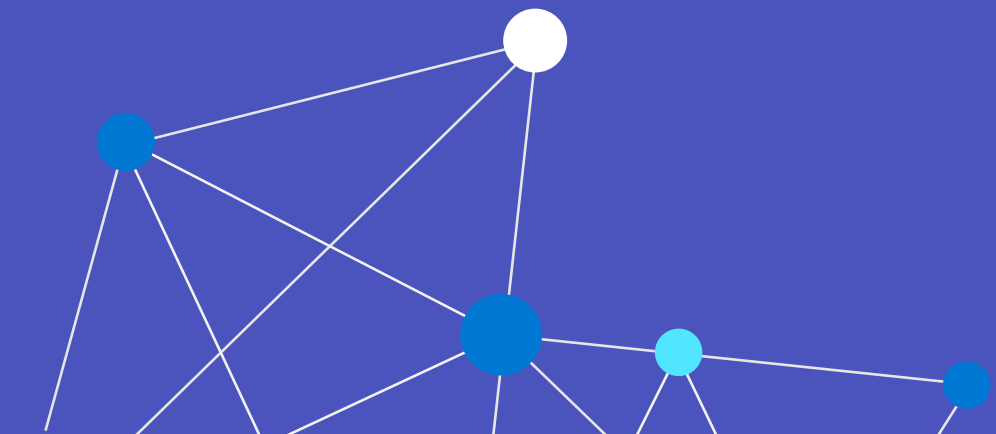
Summary

We reviewed the available management options for Microsoft Teams Rooms

You learned when to use each management tool

Know how to monitor your Teams Rooms environment

Questions?



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