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Troubleshooting Microsoft Teams' Meeting Room's and Devices with Martello Vantage DX

The Challenge

Detecting any issues with the meeting room device or meeting experience is critical to ensure the best ROI out of the MTR investment. Martello Vantage DX is configured to alert on every device issue, including connection and software updates as well as every Meeting issue where the device was taking place. It also provides details on severity and root cause of any Microsoft Teams Meeting Room problems.
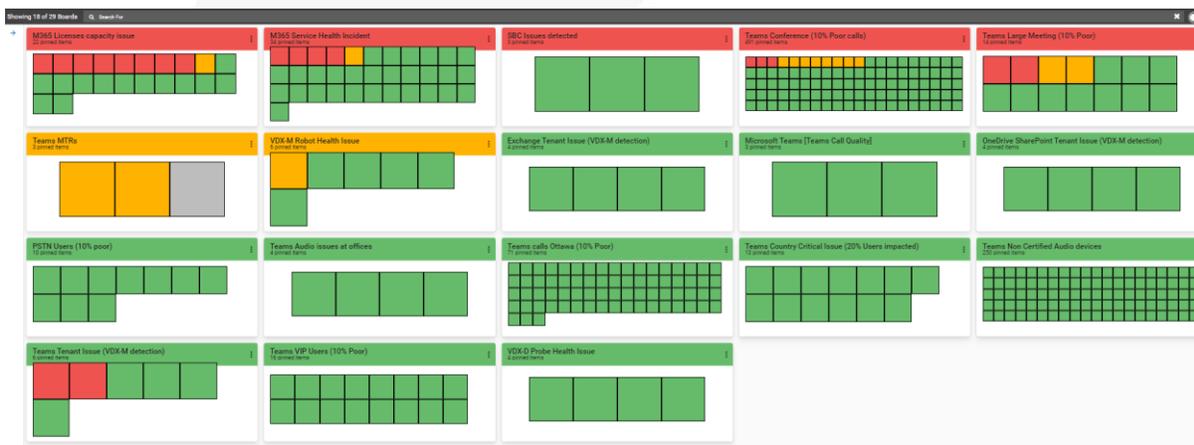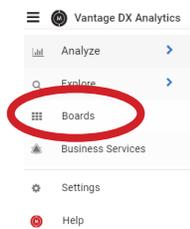
Overview

Discover how you can monitor the health status of all your meeting room devices from your Surface screen to any IP-phone, and how you can the check the quality of the service delivered by each meeting room on each meeting they host.

Let's Get Started!

Let's start with the monitoring of the health status for each device.

For that we go on our Alerting board:

Let's focus on the **Teams MTRs** alerting board.

This board alerts you if you have any issue impacting Microsoft Teams Rooms:

- Teams sign in failure
- Peripherals issues which can be Room camera health, content camera health, Speaker health, Communication speaker health, Display health collection and Microphone health.

Each time it checks if all these parameters are ok and then provides a health status based on how the device has been defined. It can be non-urgent, no impact or critical.

Clicking on the board show the alert condition that have been found by Martello.
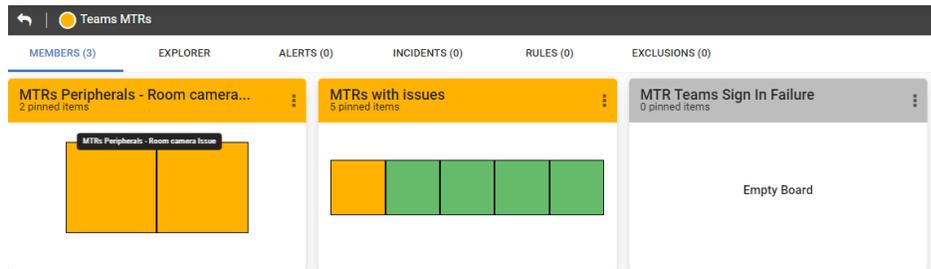
We can see that 2 devices experience specific Room camera issues and another device on the second board was put in warning.

Let's open the MTRs with issue, click on the device with warning and see the properties:

| Id	21377e69-d3ae-4ab3-9b3d-5aae533c1093
Device Type	collaborationBar
Health Status	nonUrgent
Activity State	unknown
Created Date Time	2022-04-01T17:50:14Z
Last Modified Date Time	2023-01-18T03:27:35Z

This collaboration bar has a Health status that is non urgent. That is why it is displayed in yellow.

Any alerts can be trigger for any Teams certified devices, whether they are Surface Hub or just IP Phone.

Then scrolling down, you can see all the devices parameter and all the recent meeting the device was part of.
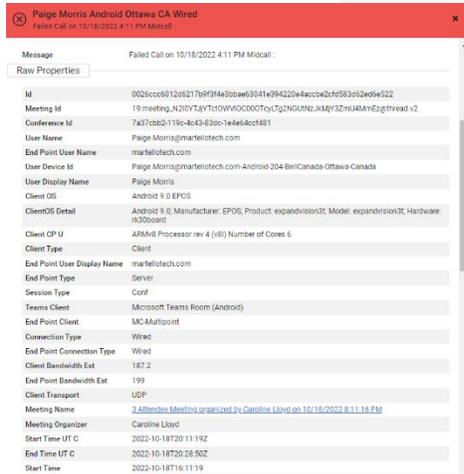
Now let's go deeper in the alert part.

Click on Alert then remove the "Show only Active" in order to see the past alert linked with that device.
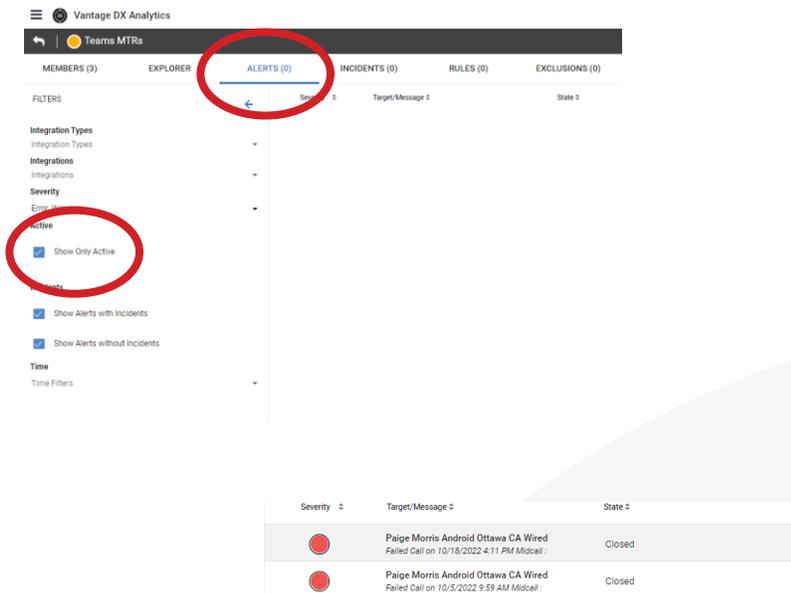
Click on any alert: and scroll through the Alert details.

What you see here is the meeting problems that have been found on this MTR with details about the meeting and the reason of the failure.

The meeting failed because of

Call Setup Failure Reason	NotMediaFailure
CDR Response Reason	MediaConnectivityError

Which means it was impossible for the device to connect properly to the meeting.

It happens once, and now the device is backup so it is not a big deal, but it is something to monitor in the future.

To summarize on the alerting side, with Vantage DX you can be alerted:

- On every problem found at the device itself, whether it is connectivity, Peripheral health, Software update, Hardware
- On every meeting problem that involved your Meeting Room to understand if the meetings were bad because of a meeting room issue.

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Let's continue the monitoring of the service quality delivered by the meeting room devices by setting up performance reports / SLA.

For that we go to our Business Service page:

This is where you can define & track performance reports for anything in your environment. That can be used to measure SLA or internal OLA.

For each report, you can choose precisely what data will affect the SLA performance and what additional data should be displayed to explain potential loss of service quality.

Here is what we can see here:

- The name of the service that you define
- The type of data used either for the SLA achievement or for troubleshooting (End-User, Application, Infrastructure)
- The number of Alerts for this Business services over time
- The Incident synchronization with your ITSM tool (for example ServiceNow) that correlates alerts into service incident that are then synchronized with your tool
- And finally, the SLA achievement itself overtime.

And let's click into the Teams MTR Business service:

Clicking then on **SLA** shows you the % of achievement for that Business Service

Business services are a way to define performance reports that can be shared with your management and teams.

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Clicking on Members, show you then the type of data that have been selected as being part of the SLA. In this case we just have our main meeting room, but you could set up Performance report by location, region, or on specific MTR device like here.

PROPERTIES

Clicking on   display all the properties of the object selected to be part of this SLA.

Let's click [↩] until we come back to the Business Service Overview.

Now clicking on the 3 dots at the right end of our Teams MTR Business Service.

Open the menu for configuration.

Configure > Service detail open the pop up where you can choose what data type is taken in account to calculate the SLA (End user, Application, Infrastructure).

Service Level objective all define the target level of performance.

Incident Automation enable you to synchronize the status of the Business services with your ITSM tool.

Finally, Notification enables you to choose how and when to be alerted when your Business Service Teams MTR is failing.

As you can see, Vantage DX provides several ways to group your users, define service quality target, and be alerted when Meeting Room devices have issues.

Now let's continue with our dashboards that will give you another hint at what is going on with your meeting rooms.

Click Burger menu > Analyze > Teams Overview

The Overview displays all the issues related to calls & meetings overtime whether they are made by regular users or users associated with Meeting Rooms.

Looking at the map and at the top affected users:

If you don't find the Dallas meeting room right away, just go on the second page

of the top affected users:

Top Affected Users — Displays up to 50 Users

⬆ Export

Users	↓ Poor + Failed Calls	Top Location	Top Call Type	Top Connection Type
rtucker@martellotech.com	15	Ottawa, Ontario, CA	Conference	Wired
Conf-RM-US-Dallas@martellotech.com	12	Arlington, Texas, US	Conference	Wired
tappleby@martellotech.com	6	Arlington, Texas, US	Conference	Wired
Heather.Chapman@martellotech.com	1	Fredericton, New B...	Conference	Wifi

Any Meeting room that had issues with meeting will be displayed here.

If you can't find it on the first page, just use the ‹ 1 **2** 3 4 5 › to navigate through the users with problem to find it.
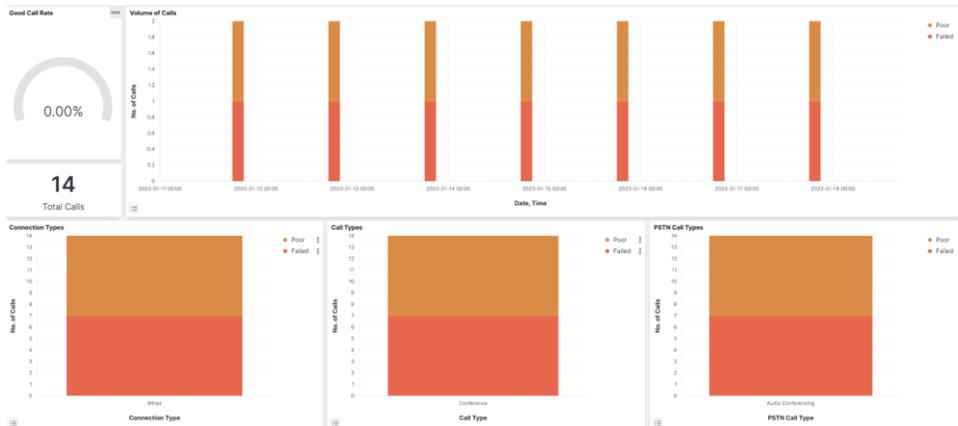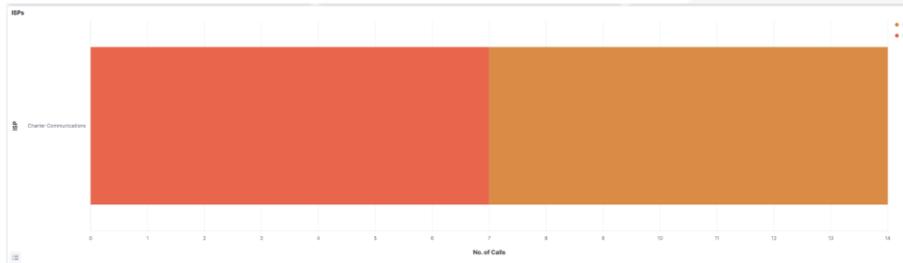
Let's go to the Meeting Room user dashboard:

This device is setup to fail regularly to make sure you can view a consistent use case.

Here you can analyze the volume of the calls made on that device, how the meeting room is connected, what type of calls are made.

Below that you can see the ISP that is used with that Meeting room device.

If several ISPs are used, you can understand if one of the ISP is associated with poorer service quality for that device. If it was the case, it would make sense to test the network path performance between the location of the meeting room and Microsoft Teams.

Finally, below this chart, you can see the last meetings with issues:

Recent Calls — Displays up to 50 Calls

⬆ Export

Call ID	Date	Start Time	End Time	Duration	Call Type	User Experience	Poor / Failed Reason(s)
30383336-3539-3837-3930-363030303136	2023-01-17	20:01	20:28	27.00 min	Conference	Poor	Packet Loss, Video Frame Rate
30383336-3539-3837-3836-363030303030	2023-01-17	20:01	20:01	2.00 s	Conference	Failed	(empty)
30383336-3439-3239-3530-363030303136	2023-01-16	20:01	20:28	27.00 min	Conference	Poor	Packet Loss, Video Frame Rate
30383336-3439-3239-3436-363030303030	2023-01-16	20:01	20:01	2.00 s	Conference	Failed	(empty)

You have here an overview of the last meetings and their user experience and the reason of the issues with these meetings.

You can then click on any of these meeting to access to the specific dashboard for them. For that click on a meeting, then **+** then **Go to call dashboard**.

If you want more information about troubleshooting the meetings and the call, please watch our dedicated video: Troubleshooting call quality issue.

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Conclusion

We have seen that Vantage DX offers you several ways to monitor the health and the performance of your Teams Meeting Room devices.

You can be alerted at the device level, meeting level and Business Service level by tracking performance reports.

Then you can drill down on our dashboard to have more information about how they are used, how they are connected and who had issues and why during the meetings they host.

With Vantage DX you get end to end visibility on everything that matters to ensure the best possible service for your Teams Meeting Room Devices.