TEAMS REPORTING OVERVIEW

For more advanced reporting you can follow microsofts guide on using the PowerBi Call quality dashboard

REPORTING OVERVIEW

1. **You can use Teams Activity reports** in the Microsoft 365 admin center to see how users in your organization are using Microsoft Teams. There are currently two activity reports you can view:

   - Microsoft Teams user activity report
   - Microsoft Teams device usage report

2. **Microsoft Teams analytics and reporting** in the Microsoft Teams admin center. Go to the Microsoft Teams admin center, in the left navigation, select Analytics & reports, and then under Report, choose the report you want to run.

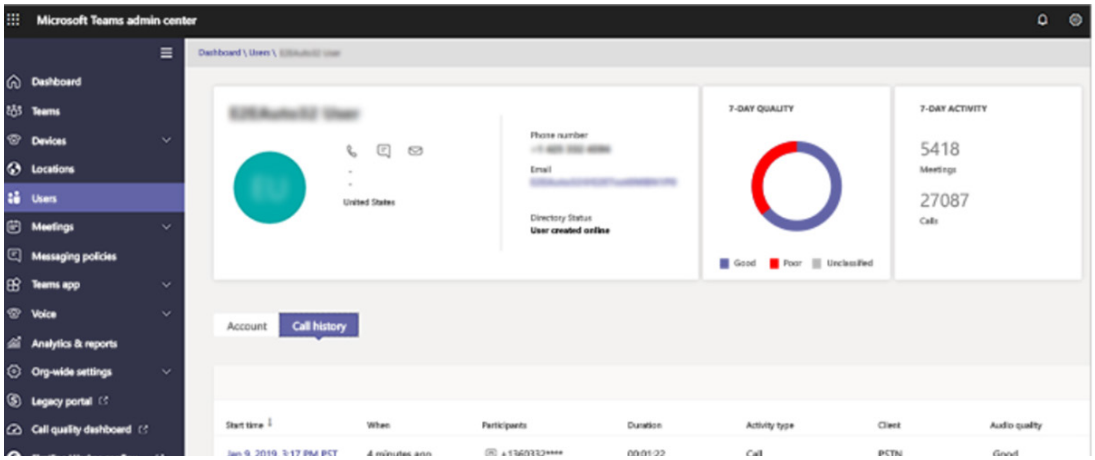
   - Teams usage report
   - Teams user activity report
   - Teams device usage report
   - Teams live event usage report

3. **Call Analytics**

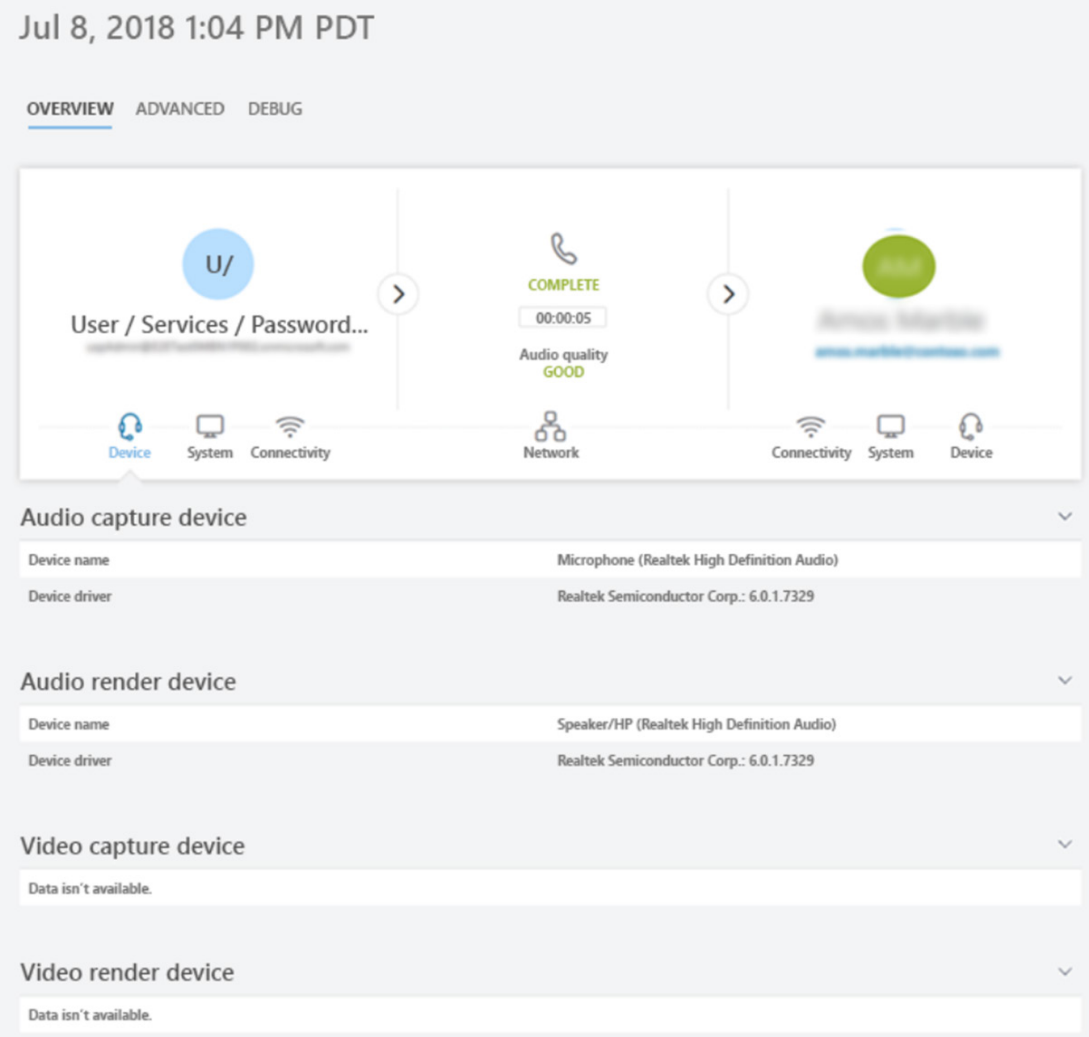
   To see all of the call information and data for a user, use the **Call History** tab. You can do this by looking on the user's profile page by either searching for the user from the dashboard or finding the user from **Users** in the left navigation.

   Call Analytics shows detailed information about the devices, networks, and connectivity related to the specific calls and meetings for each user in a Microsoft Teams or Skype for Business account. Why did this user have a poor call this afternoon? Using Call Analytics, an Office 365 admin or trained helpdesk agent can investigate the device, network, connectivity, and other factors related to his call to troubleshoot call quality and connection problems in Microsoft Teams.

   To see this information for a user in the Microsoft Teams admin center, click the **Call History** tab for that user in the user detail page, showing all the calls and meetings that user has participated in for the last 30 days.



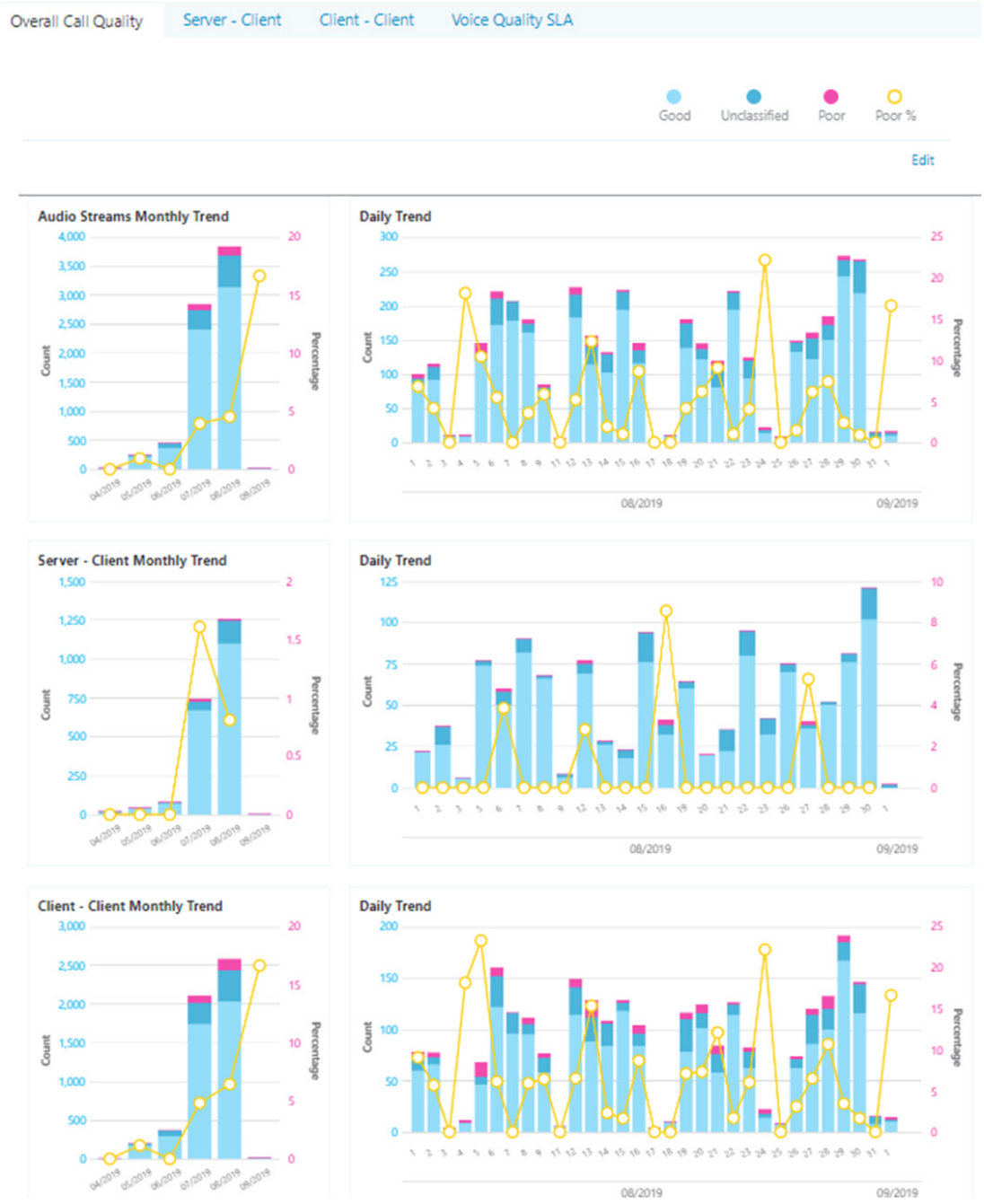
To get additional information about a given session including detailed media and networking statistics, click on a session to see the details.



4. Call Quality Dashboard

Whereas Call Analytics is designed to help admins and helpdesk agents troubleshoot call quality problems with specific calls, the Call Quality Dashboard (CQD) is designed to help Teams admins, and network engineers optimize a network. CQD shifts focus from specific users and instead looks at aggregate information for an entire organization. For more details, see Features of the Call Quality Dashboard for Teams.

Maybe the user's poor call quality is due to a network issue that's also affecting many other users. The individual call experience isn't visible in CQD, but the overall quality of calls made using Microsoft Teams is captured. With the CQD, overall patterns may become apparent, allowing network engineers to make informed assessments of call quality. CQD provides reports of call quality metrics that give you insights into overall call quality, server-client streams, client-client streams, and voice quality.



5. Direct Routing Usage Report

The Direct Routing Usage report allows tenant administrators to see the details of the calling usage across your organization.
The report is available in Teams admin center -> Analytics & reports -> Usage reports -> PSTN Usage

The information can be used for planning, investigation and troubleshooting. **The report can be downloaded as an Excel file**. Note there is one field, “Shared Correlation ID”, which is only available in the CSV file and not present on the portal.

VERACITY NETWORKS

TEAMS REPORTING OVERVIEW

REPORTS FIELDS DESCRIPTION

Element	Description	Sample Values	Column(Data type)	Length
Display Name	The name of a user or a calling bot (for example, Call Queue or Auto Attendant) as it created in Office 365 portal	John Doe	nvarchar	128
SIP Address	The address of the user or bot that made or receive the call	John.Doe@Microsoft.com	nvarchar	128
Caller Number	Number of the user or bot who made the call. On inbound to a Team user call it will be a PSTN User, on outbound from Teams user call it will be the Teams user number	13123193483	nvarchar	32
Callee Number	Multi Party HD Video Conferencing - 10 Party	John Doe	nvarchar	32
Call Type	There are multiple call scenarios in Direct Routing, the column helps to understand the call type and direction. Below there is more detailed description of the call types	dr_in dr_out dr_out_forwarding dr_out_transfer dr_ucap_in dr_ucap_out dr_emergency_in dr_emergency_out	nvarchar	32
Invite Time	When the initial Invite send on outbound from Teams user or bot call to the SBC or received on inbound to Teams or bot call by the SIP Proxy component of Direct Routing from the SBC	Sep 27, 2019, 3:00:00 PM	Date	
Start Time	Time when the SIP proxy received the final answer (SIP Message "200 OK") from the SBC on outbound (Teams/Bot to a PSTN User) or after the SIP Proxy send the Invite to the next hop within Teams backend on inbound call (PSTN User to a Teams/Bot)	Sep 27, 2019, 3:00:01 PM	Date	
Failure Time	Only exists for failed (not-fully established) calls. The time when call failed. Final SIP Code, Final Microsoft Subcode and Final SIP Phrase provide the reasons why call failed and can help with troubleshooting	Sep 27, 2019, 3:00:05 PM	Date	
End Time	Only exists for successful (fully established) calls. Time when call ended	Sep 28, 2019, 8:00:07 AM	Date	
Media Bypass: Yes/No	Indicates if the trunk was enabled for media bypass or no. More about media bypass mode here	Yes, No	bit	
SBC FQDN	The FQDN of the SBC	sbc.contoso.com	nvarchar	32
Azure region for Media	The datacenter that used for media path in non-bypass call.	EMEA, APAC, NA	nvarchar	8
Azure region for signaling	The datacenter that used for signaling for both bypass and non-bypass calls	EMEA, APAC, NA		

REPORTS FIELDS DESCRIPTION

Event type (Success or attempt)	For failed calls either not fully established or unexpectedly dropped, the event "Attempt". Also: • Failure Time field indicates when failure happened. • Final SIP Code, Final Microsoft Subcode and Final SIP Phrase provide the reasons why call failed and can help with troubleshooting. • End Time will be empty as call was not successful **For fully established** calls that cleared normally, the event type "Success". Also: • Failure time empty as call did not experience any errors • End Time indicates when the call ended • Final SIP Code, Final Microsoft Subcode and Final SIP Phrase indicate the normal clearance and contain the SIP message with which call ended	Success, Attempt	bit	
Final SIP Code	The code with which the call ended. The codes in accordance with RFC 3261	Y408	int	
Final Microsoft subcode	Microsoft in addition to the SIP codes has own subcodes that indicate the specific issue happened. For example, SIP Code 408, according to FRC 3261 is "Request timeout". However, the timeout can happen for different reasons. For example, in addition to 408, Microsoft can provide the subcode 500001, which indicates that Forwarded or transferred call accepted on another endpoint. The subcode description is in Final SIP Code phrase. Microsoft tis publishing the knowledge base for the subcodes.	500001	int	
Final SIP Code Phrase	Description of the SIP code and Microsoft subcode. May contain Q.850 reason with cause as well	"Request timeout. Forwarded or transferred call accepted on another endpoint"	nvarchar	256
Correlation ID	This field is an internal Microsoft ID assigned to the call. Can be used when you open a case with Microsoft Support Organization to expedite identification of the call	57f28917-42k5-4c0c-9433-79734873f2ac	nvarchar	32
Shared Correlation ID	This field is only visible in the downloadable CSV file and does not exist in the portal. The shared correlation ID exists in at least two calls which are related. Please see detailed description below	72f28917-829k-9e0c-4533-94321873f2be	nvarchar	32

CALL TYPES

Direct Routing has different call types depends on where call goes (to/from Teams user or a Teams Bot), call direction (inbound or outbound) and specific actions taken during the call (forward or transfer).

Teams Users call types

- **Dr_In** – Teams user received a PSTN Call
- **Dr_Out** - Teams user placed a PSTN Call
- **Dr_Out_User_Conf (Dr_Adhoc_Conf)** – Teams user escalated existing one to one Teams to Teams or Teams to PSTN call to an ad hoc conference by adding a PSTN participant. The call might happen via Microsoft Audio Conferencing service (if the initiator of the escalation has Audio Conferencing license) or via the SBC, connected Direct Routing Interface (of Audio Conferencing license not assigned to the initiator of the escalation).

  This call type indicates the second scenario - the Teams User who escalates the call does not have the Microsoft Audio Conferencing license. The Teams User, that escalates the call must have Phone System with Direct Routing configured in this case
- **Dr_Out_User_Forwarding** – Teams user forwarded the call to a PSTN Number
- **Dr_Out_User_Transfer** - Teams user transferred the call to a PSTN Number
- **Dr_Emergency_Out** – Teams user makes an emergency call

Teams Bots (Organizational Auto Attendant and Call Queues) Call Types

- **Dr_In_Ucap** – an inbound call to a Teams bot, such as auto attendant or call queue
- **Dr_Out_Ucap** – an outbound PSTN Call from the Teams bot, such as auto attendant or call queue

Shared Correlation ID

The Shared Correlated ID only exists in downloadable Excel and indicates that two or more calls are related.

Below is the table that explains different scenarios and when Shared Correlation ID is present

Call	Scenario number	Call Type	Correlation ID	Shared Correlation ID
1	PSTN User 1 on a PSTN endpoint called Teams User 1 on Teams client	Dr_In	57f28917-42k5-4c0c-9433-79734873f2ac	NA
2	Teams User 1 on Teams client called PSTN User 1 on a PSTN endpoint	Dr_Out	2c12b8ca-62eb-4c48-b68d-e451f518ff4	NA
3	PSTN User 1 on a PSTN endpoint called a Teams User 2 on Teams client	Dr_In	f45e9a25-9f94-46e7-a457-84f5940efde9	f45e9a25-9f94-46e7-a457-84f5940efde9
4	Existing call 3 with correlation ID “f45e9a25-9f94-46e7-a457-84f5940efde9”. PSTN User 1 in a call with Teams User 2. Teams User 2 transferred (blind or consultative) a call to Teams or PSTN User	Dr_Out_User_Transfer	45a1da7c-9e97-481a-8a05-3fe19a9a77e0	f45e9a25-9f94-46e7-a457-84f5940efde9

Note the Shared Correlation ID is always the ID of the first established call in the par of two related calls.

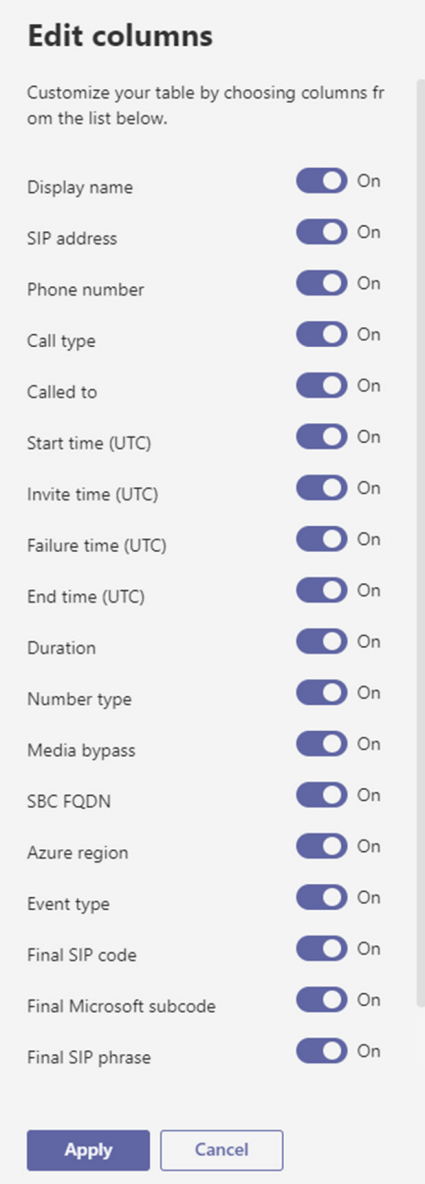
Filtering the results
You can filter the results by the Username or Call Type. The filter is available in top right corner of the PSTN Usage pane

You also can filter by Username, Call Type or combine two filters together. The example below shows how to configure the filter to see all DR-Out calls for user@contoso.com

Configuring the columns

You can also turn the columns on and off by clicking Edit columns button in the tor right corner of the PSTN usage pane.

In the side menu you can configure which columns to show in the report



Note changing these fields will only affect the report in the PSTN usage pane and will not apply to the exported file. The exported file will always contain all fields.

Exporting the data

You can export the data in a comma separated file (CSV) for offline analysis or using as input for your billing system.

To export click the Export To Excel button in the top right corner of the PSTN usage pane

If you have both Calling Plans and Direct Routing, the exported file will contain data for both products.

The exported file will have additional filed, which is not visible in the PSTN Usage pane – "Shared Correlation ID". You can read above about the Shared Correlation ID field.

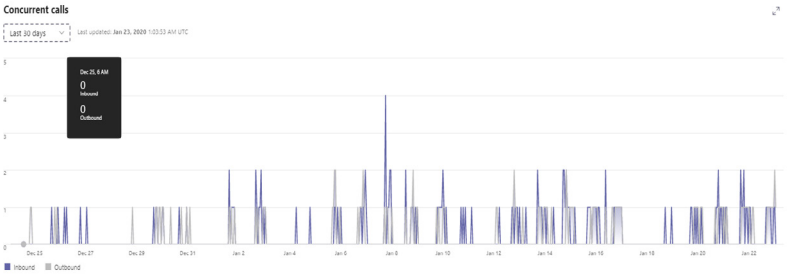
6. **Microsoft Teams PSTN usage report**

   https://docs.microsoft.com/en-us/microsoftteams/teams-analytics-and-reports/pstn-usage-report

7. **TEAMS PSTN Reporting - Health Dashboard for Direct Routing**

   Still in beta for Hosted Direct Routing however does provide some good data – especially concurrent calls. TLS & SIP Options warnings can be ignored for Hosted Direct Routing.

   https://docs.microsoft.com/en-us/microsoftteams/direct-routing-health-dashboard



8. **Veracity Stats Reporting**

   Veracity Stats Portal provides utilization reports as follows.

   a) CDR's
   b) Concurrent Call / Trunk utilization