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Driving KPI Performance and User Satisfaction in Teams Through the CQD Framework

The rapid adoption of Microsoft Teams during and post COVID-19 played a pivotal role in ensuring business continuity and boosting employee productivity. However, the expedited deployment process led to gaps and issues in the initial Teams rollout. Users connecting from home and through VPNs experienced audio and video performance challenges owing to network connectivity, machine performance, outdated Teams applications, and headset compatibility.

To address these challenges, this white paper introduces the Call Quality Dashboard (CQD) framework for the Microsoft Teams environment, providing valuable insights to administrators and customers alike. The aim is to help organizations achieve their key performance indicators (KPIs) and elevate the overall collaboration experience.

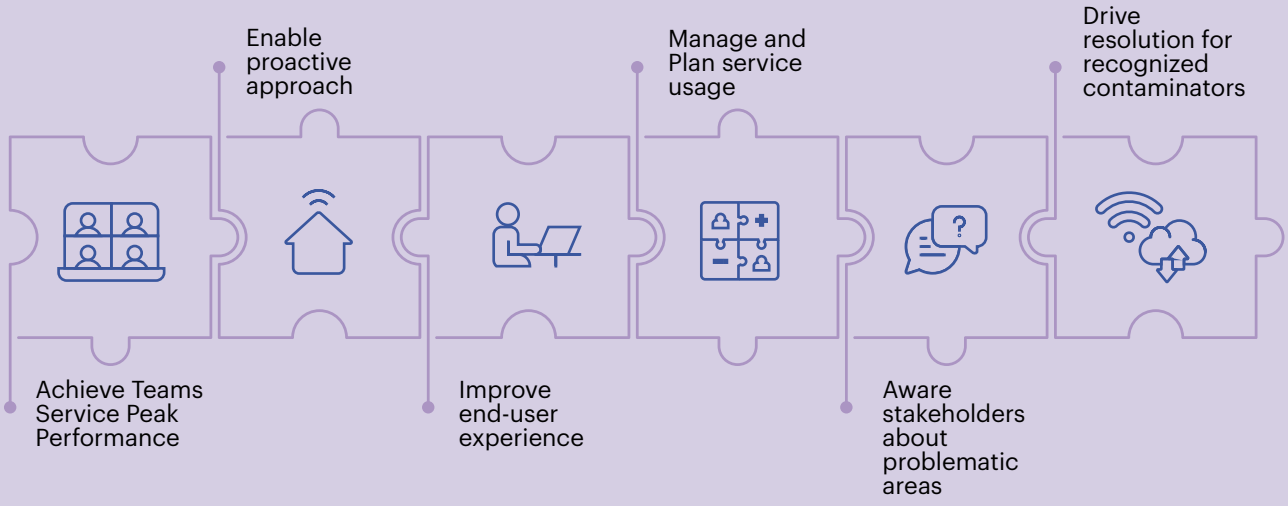
Notably, the remote work paradigm shifted from a supplementary practice to a mission-critical necessity during the COVID-19 pandemic, as the Bureau of US Labor Statistics highlighted.

This white paper delves into enhancing KPIs within the Microsoft Teams environment by defining strategic processes and optimizing critical infrastructure to ensure improved quality, reliability, and overall user experience. Additionally, it helps identify relevant metrics and continually assess and remediate actions taken by respective teams, aligning performance with organization-wide KPIs in managed and unmanaged network environments. This approach prepares organizations for the present and future, ensuring Microsoft Teams' readiness and effectiveness.

Methodology

CQD provides a holistic analysis of telemetry data across the organization, empowering users to derive actionable insights and maximize their investment in Teams. While the data is available in CQD, the administrator must define the specific actions to improve key performance indicators. This process begins by identifying the necessary reports to generate regularly.

The CQD framework aims to establish a clear set of steps to effectively manage the Teams call quality dashboard. This involves identifying the necessary reports that need to be generated at regular intervals. By doing so, the framework enables teams to actively address any issues pertaining to call quality in Teams. The ultimate goal is to enhance the Key Performance Indicators (KPIs) associated with voice quality and reliability, with the ultimate aim of delivering a superior user experience.



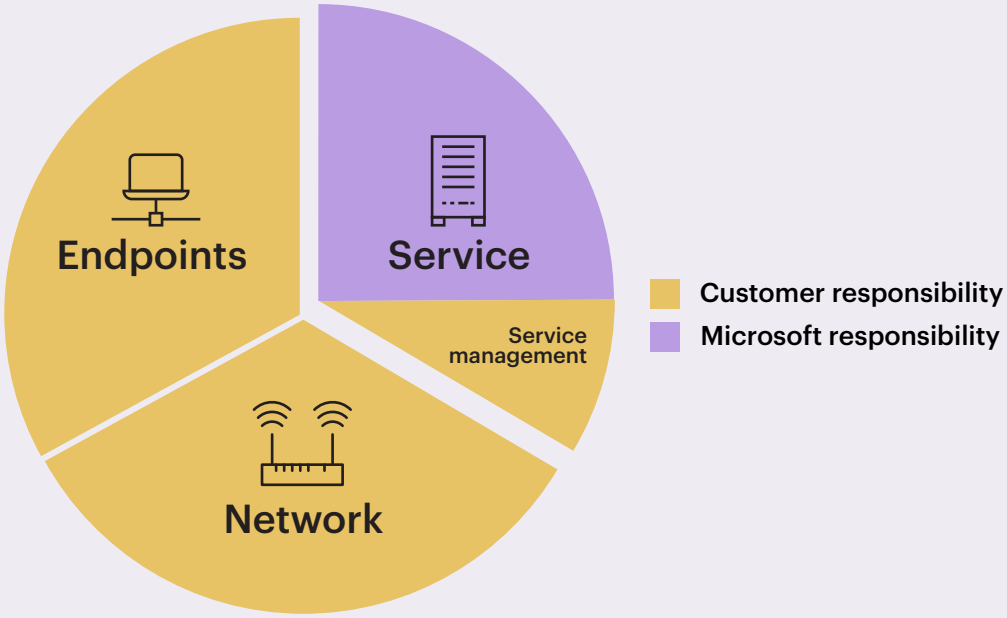
By utilizing a well-defined RACI matrix and automated reports, customers can quickly identify bottlenecks in their current environment and take necessary steps to optimize managed infrastructure and enhance the meeting experience. The automated reports can be shared and reviewed with relevant parties, streamlining the process of taking timely, targeted actions.

Elevating voice quality and reliability KPIs with the CQD framework

The CQD framework effectively utilizes the native CDR/CQD data from MS Teams to identify issues and problem areas within the system. By analyzing this data, the framework can define actionable items to improve the overall user experience and address any identified issues. The framework places particular emphasis on measuring the quality of audio, video, and VBSS meetings for both managed and unmanaged networks.

To establish a benchmark for performance, the framework defines and agrees upon KPIs based on Microsoft's recommended KPIs. These KPIs are tailored to the specific needs and capabilities of the managed and unmanaged networks, ensuring that the agreed-upon values align with the network's ability to deliver optimal performance.

Network type		**Quality targets**	**Reliability targets**	
		Audio poor stream rate	**Setup failure rate**	**Drop failure rate**
All	Internal	2.0%	0.5%	2.0%
	Overall	3.0%	1.0%	3.0%
Conferencing	Internal	2.0%	0.5%	2.0%
	Wired internal	1.0%	0.5%	1.0%
	Wi-Fi 5 GHz internal	1.0%	0.5%	1.0%
	Wi-Fi GHz internal	1.0%	0.5%	1.0%
	Overall	2.0%	0.5%	3.0%
P2P	Internal	2.0%	0.5%	2.0%
	Wired/Wi-Fi 5 GHz internal	1.0%	0.5%	1.0%
	Wired/Wi-Fi 5 GHz overall	2.0%	1.0%	1.0%
	Overall	2.0%	1.0%	3.0%



Remove values that cannot impact these metrics since they are influenced by external factors beyond our control, such as the public internet.

Generating reports is essential to measure and achieve the agreed KPIs. A sample network report is provided below to assist in identifying any issues that may be affecting the KPIs.

Network performance reports

Reports

- Network connection details for Teams sessions
- Missing subnet reports
- VPN usage and voice quality reports
- Network WiFi driver and driver versions with poor audio sessions
- Network subnets with media failure due to firewall
- Top network location with poor session quality
- Top reasons for poor quality
- WiFi signal strength with media quality stats

Benefits

- Firewall configuration checks based on media failure reports for firewall IP blockage
- Update the missing subnets in location details to get the accurate reports
- Teams traffic optimized to flow in split tunnel
- Network team can work on the top reason for poor quality
- Network team can prioritize activity based on the quantity and severity of media failure
- Network teams can plan bandwidth for sites where media quality is not up to the mark
- Problematic WiFI driver is identified so it can be updated to the latest version

To streamline the process, reports are generated automatically, and recipients receive emails prompting them to take necessary actions. These reports are also made accessible in Power BI reports via the Teams channel. This is particularly beneficial for the network team as they can utilize the CQD report to identify and isolate any issues and analyze the parameters that impact the KPIs.

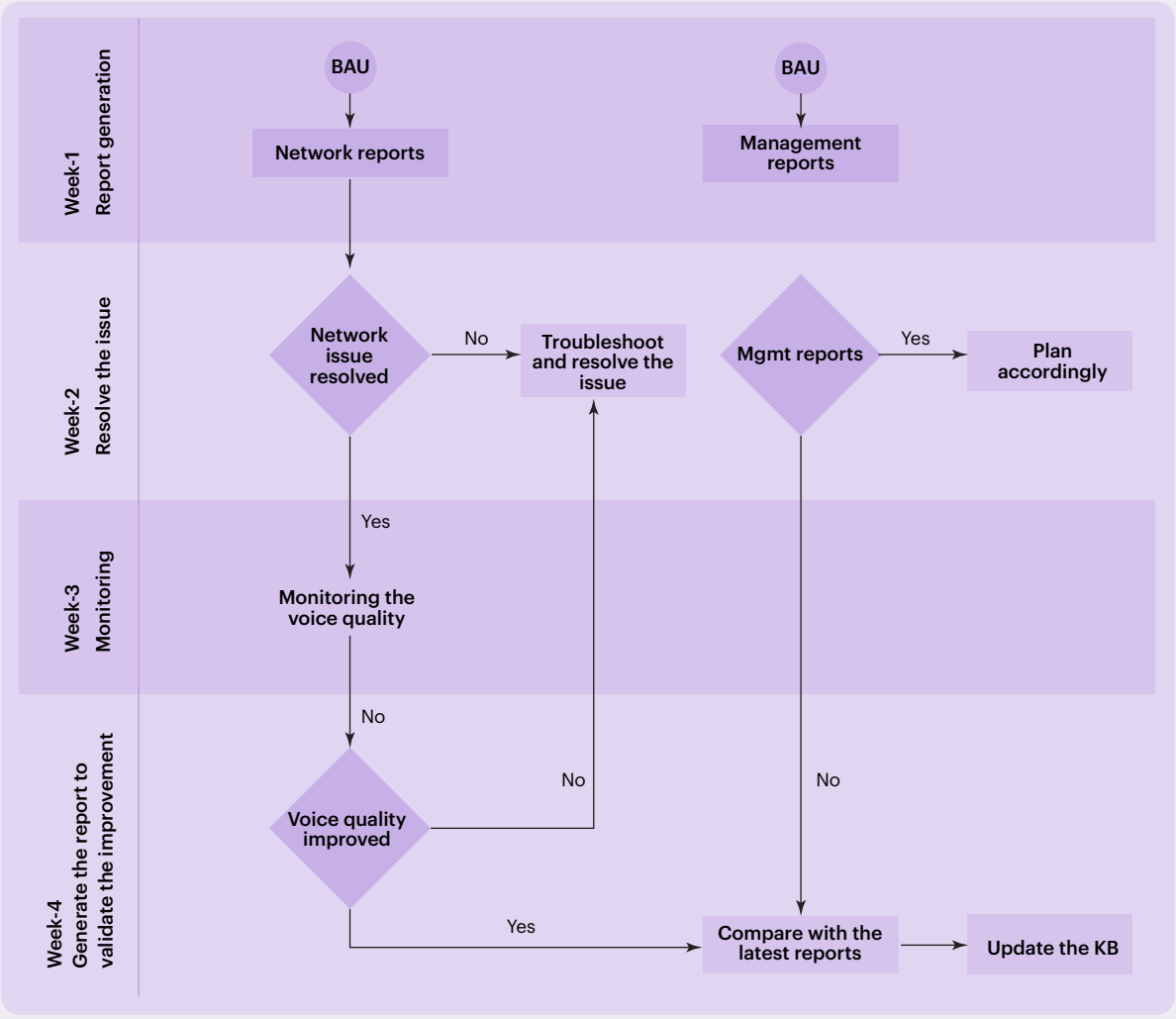
Empowering efficient collaboration: The RACI matrix

The RACI matrix is a valuable tool that helps define the roles and responsibilities of individuals to effectively complete tasks, meet milestones, and make critical decisions. The primary purpose is to instill a shared understanding among all stakeholders about their roles and what is expected of them to achieve the established KPIs. By clearly outlining who holds the responsible, accountable, consulted, and informed positions for each task or decision, the RACI matrix effectively prevents confusion and promotes streamlined collaboration and execution.

Efficient project management with the CQD process flow chart

The CQD process flow serves as a valuable instrument for tracking and monitoring a project's overall status in alignment with the customer agreement. It provides a clear and concise way to visualize the progress and performance of the project, ensuring that all parties are on the same page and aware of any potential issues or challenges.

The process flow is defined to allow easy identification and resolution of any discrepancies or deviations from the agreed-upon terms. By adhering to this flow, the project team can effectively manage and communicate project status, thereby ensuring the fulfillment of all deliverables and achieving customer satisfaction. Below is one such sample.



Enhancing decision-making with the CQD framework

The CQD framework is instrumental in expediting decision-making by enabling seamless communication among stakeholders, immediate team access, and access to critical information.

This standardized collaboration process ensures efficient decision-making by continuously assessing and remedying incomplete firewall or proxy configuration, poor WiFi coverage, insufficient bandwidth, VPN issues, inconsistent or outdated client versions and drivers, non-certified or built-in audio devices, and problematic subnets and network devices, thus helping achieve optimized KPIs

After implementing a series of measures, such as enhancing network infrastructure, optimizing network configurations, and implementing proactive monitoring and troubleshooting measures, we have observed a substantial improvement in KPIs for managed and unmanaged networks. It has increased network stability, enhanced response times, and improved reliability. Not only have these improvements positively impacted our business operations, but they have also improved overall customer satisfaction. Notable changes implemented include:

Incomplete firewall or proxy configuration corrected

Poor WiFi coverage found in the top bad building report

Updated the missing IP of split tunneling (VPN users)

Updated client and device driver versions to the latest

Recommended the usage of certified headsets

These improvements have positively impacted our daily business operations, allowing for smoother communication and seamless functioning of our systems. Additionally, the enhanced network reliability has resulted in increased customer satisfaction, as our clients experience improved service quality and a more seamless user experience. Overall, these improvements have significantly contributed to the success and growth of our business.

References

- A Total Economic Impact Analysis, Forrester Consulting report prepared for Microsoft
- Microsoft and Audio Codes website

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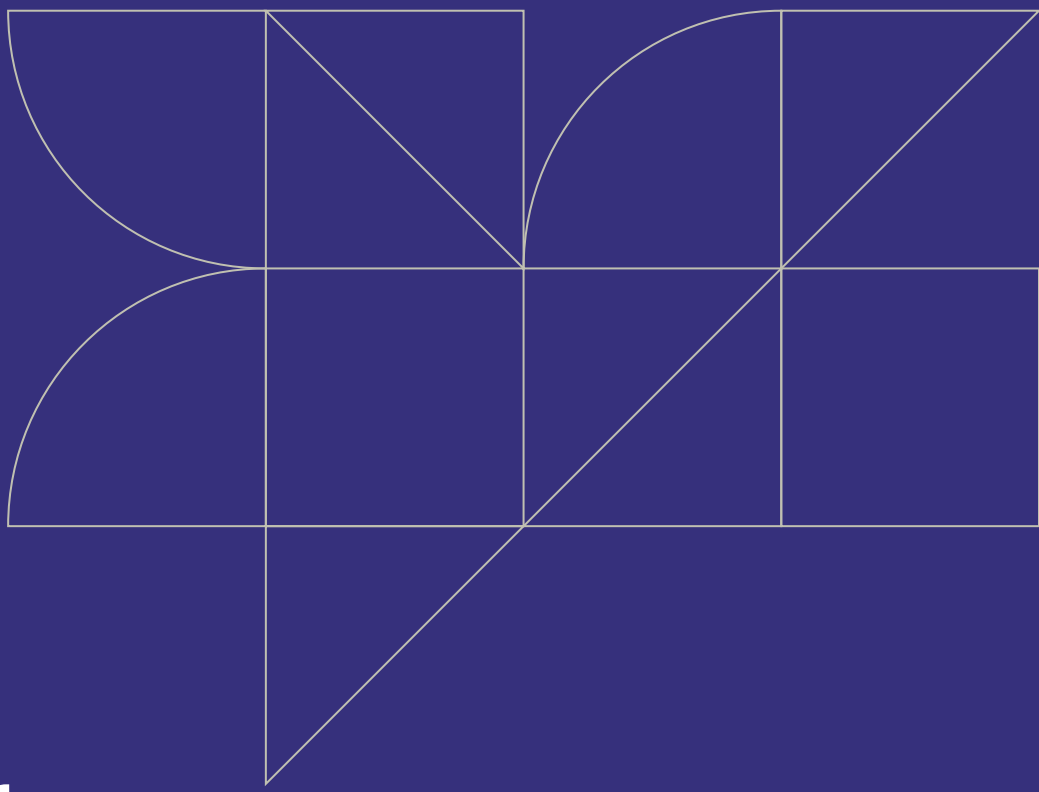

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