



#222120

August 2022

Commissioned by
RingCentral, Inc.

RingCentral MVP™ UCaaS

UCaaS Analytics vs. 8x8, Microsoft Teams & Zoom

EXECUTIVE SUMMARY

The transition from physical PBX to UCaaS has been underway for years. UCaaS is now a foundational element of the communications infrastructure for organizations of all sizes. Rich analytics are needed in order to get the most out of any such solution. In the past, UCaaS analytics have focused almost solely on the needs of IT support teams, providing less value for lines of business.

RingCentral commissioned Tolly to review the analytics capabilities of RingCentral MVP (message, video, phone) and compare that to analytics offered by 8x8, Microsoft Teams, and Zoom. Scope included only ready-to-use, turnkey packages and noted where analytics features are extra cost items.

The Tolly analysis shows that the RingCentral analytics solution provides an industry-leading, comprehensive approach to analytics that spans messaging, video and phone communications. RingCentral provides an intuitive, easy-to-use interface that allows at-a-glance summaries as well as detailed drill-down. It is both flexible and customizable. See Table 1 for a summary.

THE BOTTOM LINE

RingCentral UCaaS analytics solution highlights:

- 1 Only solution designed explicitly to address both line-of-business users and IT professionals
- 2 Extensive QoS analytics automatically included without the need for integrations or fees
- 3 Single interface for summary views and drill-to-detail across message, video, and phone
- 4 Custom KPIs and intuitive drag-and-drop interface provides superior flexibility

RingCentral UCaaS Analytics: LOB & IT Professional Summary vs. Leading Competitors

	RingCentral	8x8	Microsoft Teams	Zoom
Solution Evaluated	MVP Standard + Live Reports	X4 + callstats.io	Microsoft 365 E5 + Power BI	Zoom Meetings Pro + Zoom Phone + Power Pack
Summary	<p>Feature-rich, easy-to-use analytics included with standard offering. Only "Live Reports" is extra cost.</p> <p>Full support for: At-a-glance health insights, Video/call quality details in one place, Real-time monitoring of service quality and live call queues, Usage data by departments, sites, and users, Detailed quality metrics at call, meeting, user, Custom network topology definition, Rooms and device location mapping, Custom KPIs, Reports by: individual, user group, Real-time and historical for rooms and device health Message, video, phone usage in one place, and more...</p>	<p>Additional licensing required for call analytics. Extra-cost callstats.io add on required for video analytics.</p> <p>Full support for: Real-time monitoring and dashboards, Detailed quality metrics at call, meeting, user, Reports by: individual, user group.</p>	<p>Minimal analytics available by default via the Teams admin interface.</p> <p>Most analytics provided by Power BI app provided with M365. Some analytics require use of template files and coding-like procedures. To implement certain features Azure services might be required. For the purposes of this report, analytics will include only those items Microsoft lists as "Microsoft Teams Analytics & Reporting." (See reference in report.)</p>	<p>Additional licensing required for analytics.</p> <p>Full support for: Detailed quality metrics at call, meeting, user, APIs</p>

Source: Tolly August 2022

Note: Analytics review did not include contact center applications.

Table 1



Analysis of Solutions

With UCaaS systems maturing, core features are often functionally equivalent across vendors. In such cases, UCaaS customers can only provide further value to their organization by leveraging analytics to understand how systems are being used, assure quality for users, and promote line-of-business process optimization.

The analytics capabilities evaluated in this study are the ones that RingCentral believes are essential to Line-of-Business and IT teams in order to get the most out of a UCaaS solution. The reader will see that these are all solid, common-sense features. Overall, other vendors evaluated either implement only a portion of these analytics features, or, when they are implemented, the analytics may come as extra cost items where all but "Live Reports" are included in the base RingCentral MVP license.

Figures 1-4 provide several example views of key RingCentral analytics screens. The results are summarized in Table 2 and will be explained in detail later in this report. The percentage in parenthesis in the text represents the approximate amount of support for each of the sets of analytics features listed and corresponds to the circle icons in Table 2.

UCaaS Analytics Feature Support Summary

Area	Persona	Feature	RingCentral	8x8	Zoom	Microsoft Teams*
Monitor	IT	At-a-glance health insights: global, location, ISP, network, endpoint	●	● \$	● \$	●
	IT	Video meetings and phone call quality details in one place	●	● \$	● \$	○
	Business	Real-time monitoring dashboards for call queues, agents, and service levels	● \$	●	● \$	○
Optimize	Business	Usage data by department, sites, users including adoption (i.e. non usage); MVP usage information in one place	●	● \$	● \$	●
	IT	Detailed quality metrics at call, meeting, or user level	●	● \$	● \$	○
	IT	Custom network topology definition	●	○	○	○
	IT	Rooms and device location mapping	●	●	●	○
	IT	Real-time monitoring and historical reporting for rooms and device health	●	● \$	●	○
Analyze	Business	Custom KPIs	●	○	○	○
	Business	Reports by: individual, group, department, call-by-call	●	●	● \$	●
Alerts	IT	Automated and customizable call & video (meeting) quality alerts	●	●	●	○
	IT	Automated and customizable rooms & devices quality alerts	●	●	●	○
Extend	Business	Developer Application Programming Interface (API)	●	●	●	●

*Note for Microsoft: While Power BI is included in M365, it is a separate product with its own learning curve. For the purposes of this report only features listed by Microsoft in its Teams analytics and reporting article are included: <https://docs.microsoft.com/en-us/microsoftteams/teams-analytics-and-reports/teams-reporting-reference>.

Note: Addition of \$ denotes this feature is provided by an extra-cost add-on. "No support" is represented by an empty circle.

Source: Tolly August 2022

Table 2



Complexity of Analytics Implementation

RingCentral

Before one can use analytics, one has to be aware that capabilities exist. RingCentral makes that easy. RingCentral integrates its analytics into its core product and interface. No separate integration is required. Analytics functions are accessed seamlessly from the main interface. Implementing RingCentral analytics is simple.

When reviewing the breadth of capabilities built into the core offering, it becomes apparent that RingCentral has recognized the importance of analytics and made it an essential element of their UCaaS solution.

The analytics offerings of the other UCaaS solutions are not delivered in as simple and

straightforward fashion. In fact, for most of the other vendors it isn't even possible to find a single documentation reference where all UCaaS analytics features are listed.

8x8

"Analytics for 8x8 Work" is the core analytics offering for 8x8 but does not include analytics for video meetings. Implementing this important feature requires a subscription to the separate callstats.io service. While owned by 8x8, callstats.io is built as a third-party monitoring solution with a separate interface that can integrate with some nine different solutions including Amazon Connect and Genesys.

Because it is not part of the core 8x8 system, adding video analytics requires integration into the 8x8 environment. According to the website, a customer

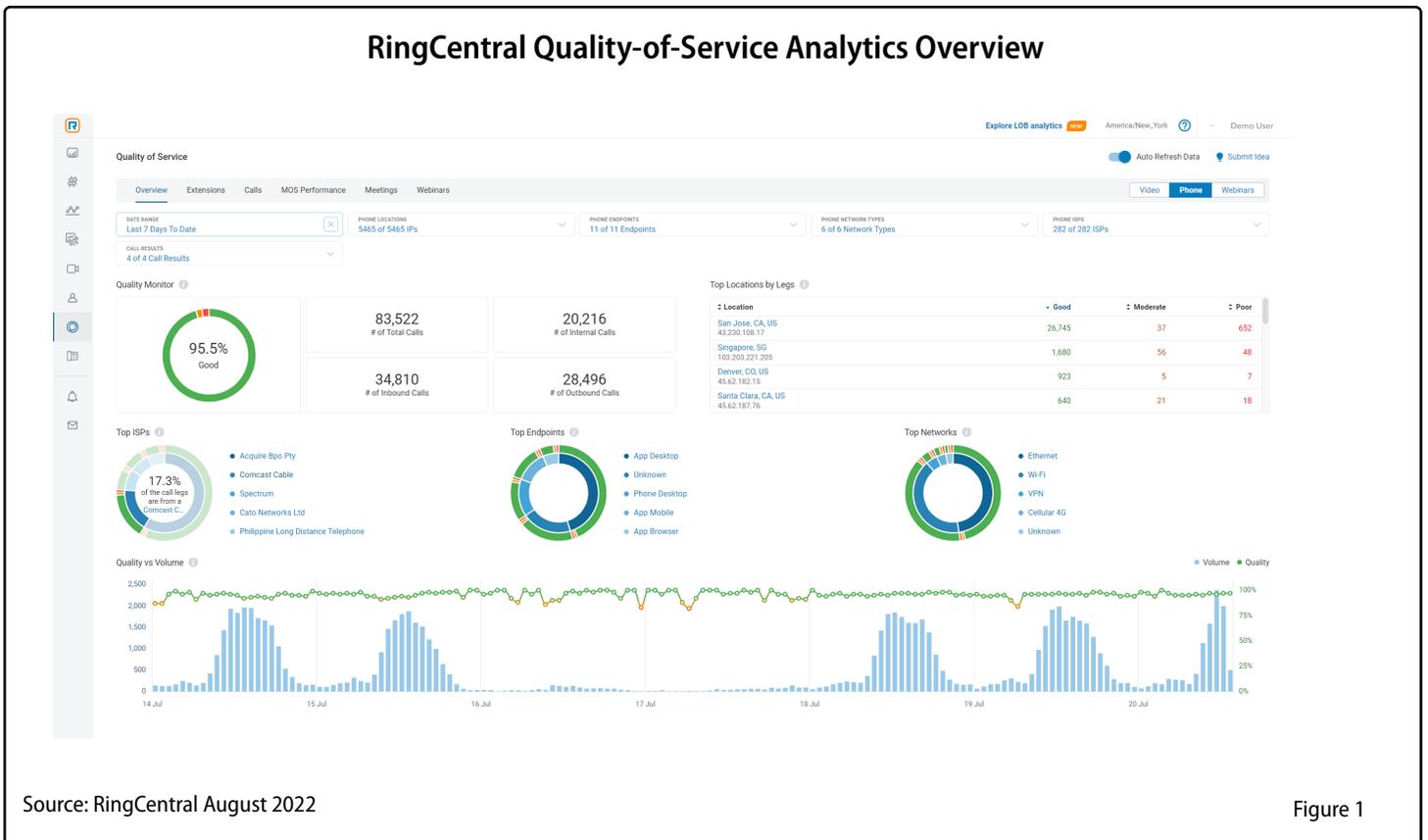
would: "simply integrate the callstats.io libraries, or use a third-party SDK that already includes callstats.io code" in order to gain the video analytics capabilities.

Zoom

In order to have more than rudimentary analytics, Zoom requires each user to license the "Zoom Power Pack." Once licensed, the analytics become available in the Zoom web interface. Some analytics are not available with the "Pro" plan and "Zoom Power Pack" but are only available to users who upgrade to the "Business" plan along with "Zoom Power Pack."

Microsoft Teams

Microsoft Teams is the core element of Microsoft UCaaS and is provided as part of the Microsoft 365 offering. Teams is only one of some 30 apps offered under the



Source: RingCentral August 2022

Figure 1



Microsoft 365 umbrella. The capabilities offered in Teams (e.g. voice calling) depend on which of the 20 Microsoft 365 and related SKUs a customer has licensed. Unlike the other vendors where voice calling is core to every license, that feature is an upgrade with Teams. That is, more than the base E1 license is required to get voice calling capability.

Only very rudimentary analytics are to be found in the basic Teams interface. Users must add the Power BI application into their Teams interface to get more useful data such as QoS analytics.

It is important to understand that Power BI is a stand alone application that is a general-purpose business analytics program. It was not purpose-built to provide UCaaS analytics. While some UCaaS analytics are “built in” to Power BI, others

might require working with templates or more involved data manipulation to get the information that one needs. Ultimately, Power BI is a completely separate application with a separate interface that is just made accessible via the Teams menu sidebar. Power BI has its own learning curve separate from Teams administration.

While the basic Power BI application is included with licenses of Microsoft 365, there is a premium level as well that provides additional functionality at additional cost.

For certain other functions, Azure functionality is required. Azure resources cost extra.

In Tolly’s assessment, the Microsoft Teams analytics offerings are both convoluted and complicated and require dramatically more time to implement and use than any of the

other offerings evaluated. For the purposes of this report, analytics will include only those items Microsoft lists as “Microsoft Teams Analytics & Reporting” capabilities. (See hyperlink in Table 2.)

Given the nature of the Microsoft offering, Tolly recommends confirming all functionality with Microsoft.

Detailed Results

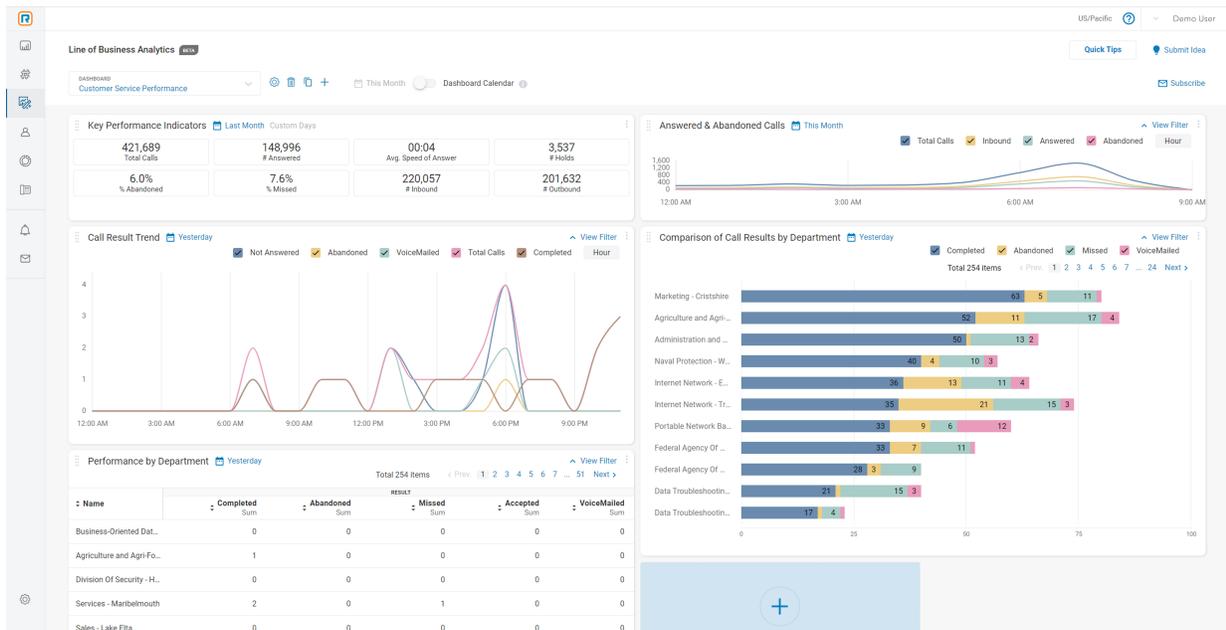
Monitor

These are analytics functions focused on monitoring the health of your environment and individual meetings and calls.

At-a-glance health insights: global, location, ISP, network, endpoint

Availability of at-a-glance health for each of the five areas listed.

RingCentral Line of Business Call/Meeting Analytics User Overview



Source: RingCentral August 2022

Figure 2

RingCentral. (100%) provides 100% of these capabilities allowing at-a-glance monitoring for all five of the evaluation items listed.

8x8. (100%) Extra cost. Provides health for call quality trends and for devices. Video (meeting) analytics require callstats.io subscription and are available via dedicated (i.e., separate) portal alongside the main Analytics for 8x8 Work reports. Admins must manually connect the callstats.io app to their 8x8 service as it is not automatically integrated.

Microsoft. (50%). Various health indicators provided as part of Microsoft 365.

Zoom. (75%) Extra cost. Requires Power Pack and business level license. Does not aggregate video quality results, only reports meeting-by-meeting.

Video meetings and phone call quality details in one place

Single screen where both video quality and call quality details are displayed.

RingCentral. (100%) Both video quality and call quality details available on a single screen.

8x8. (100%) Extra cost. Shows video and phone on separate tabs of same screen. Also maps streams and quality over time of day and day of week. Flags quality issues with red icons.

Microsoft. (0%). Feature not found in "Teams Analytics and Reporting" reference.

Zoom. (50%) Extra cost. Voice and video meeting quality metrics available but not on a single screen.

Real-time monitoring dashboards for call queues, agents, and service levels; MVP info in one place.

As described.

RingCentral. (100%) Provides 100% of these capabilities via extra cost "Live Reports" option. "Live Reports" is the only extra cost option required by RingCentral. All of the other analytics noted are included as part of the core license. This approach can provide a significant operating expense benefit over time. Usage information is found in one place.

8x8. (100%) Call queues dashboard shows real-time data for metrics such as: # of calls in queue, # of calls, # of available agents, # of overflow agents. Also for totals, average/longest for wait, hold and talk those metrics are updated every 15 minutes. Usage information found in different places.

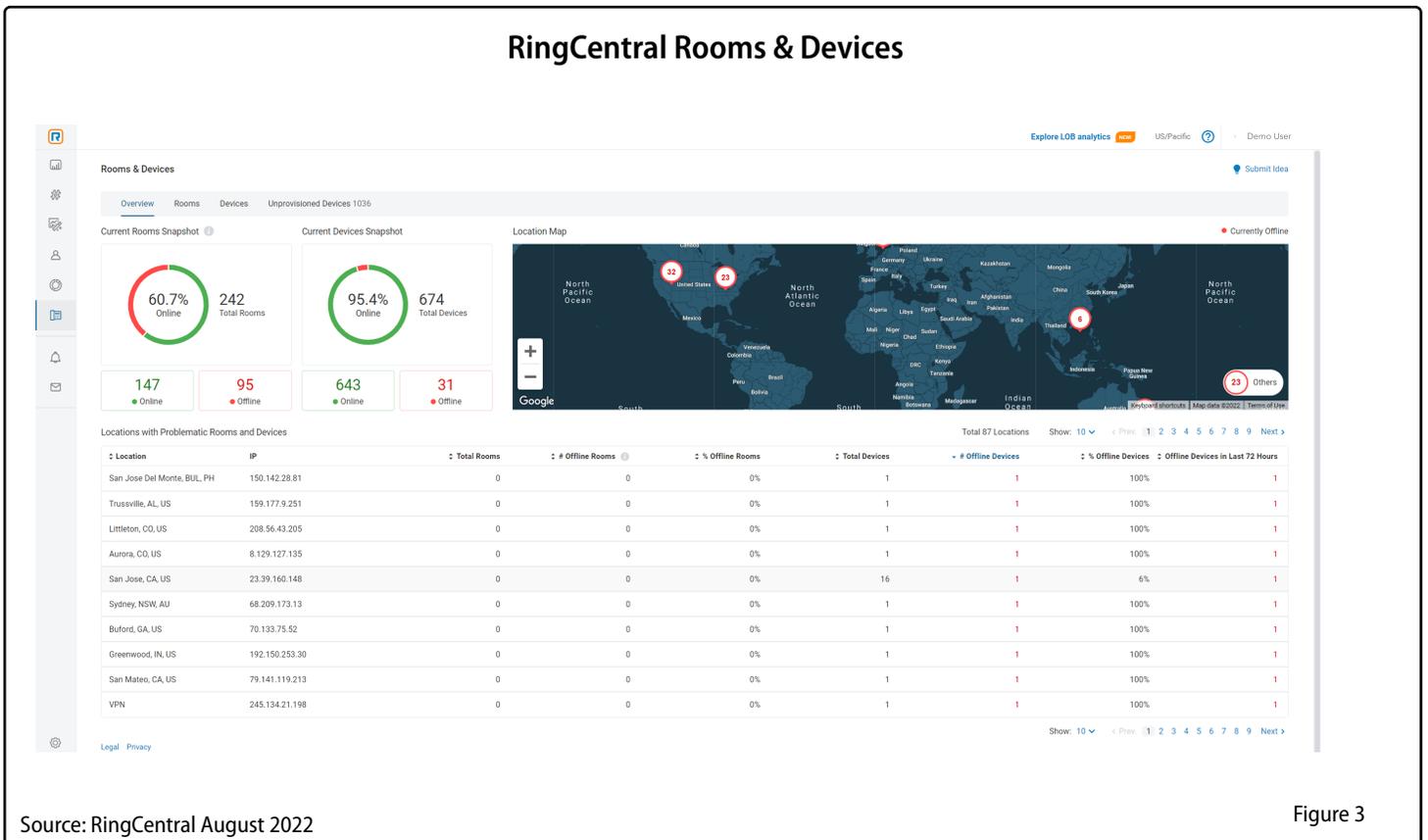


Figure 3

Source: RingCentral August 2022

Microsoft. (0%). Feature not found in “Teams Analytics and Reporting” reference.

Zoom. (75%) Extra cost. Dashboard for real-time monitoring of call queues. Shows total inbound call, completed/abandoned/overflowed/forwarded to voicemail, avg. call handling time, avg. call waiting time, shows current active calls, waiting calls and calls on hold. No call-level details or SLA. Usage information found in different places.

Usage data by department, sites, users including adoption (i.e. non usage); MVP information in one place

As described.

RingCentral. (100%) Adoption and usage combined. Shows top line enabled messaging, video, and phone. Shows active users. Can show who is using very

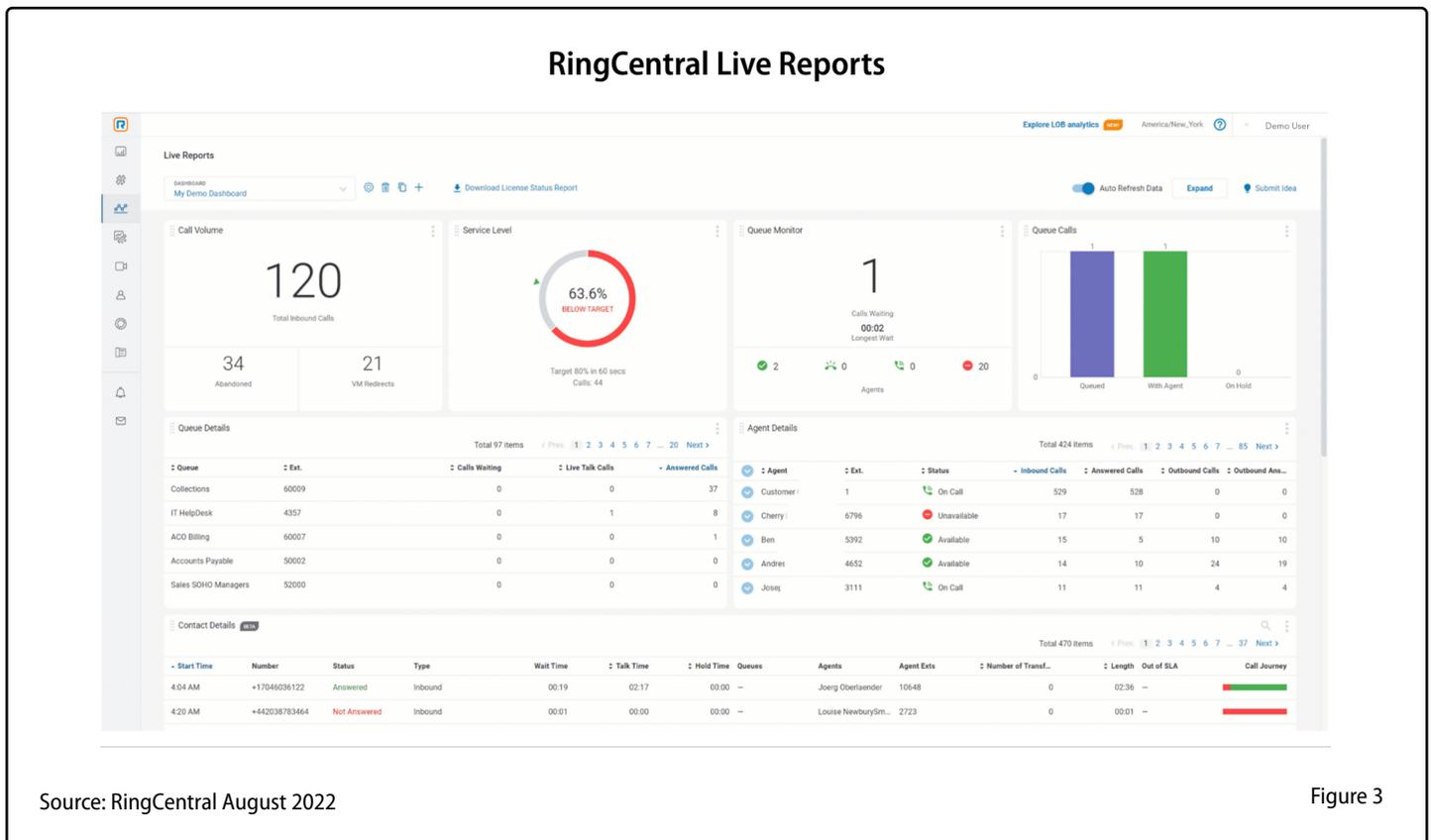
frequently, frequently, occasionally, etc. by message, video, and phone. Can compare and show over time periods. Can pull out users by usage levels, so, e.g. one could target non-adopters. For video, one can even break down how many are using recording, screen sharing, etc. Can show the version of software being used.

8x8. (75%) Extra cost. Usage data for calls broken down various ways. Usage for video meetings provided by callstats.io. Default retention for basic callstats.io license is 15 days which can limit the type of analysis that can be done. Did not find any specific information with respect to adoption analytics.

Microsoft. (75%) Extensive usage reporting across VoIP/PSTN and other elements. Includes active users, channels, messages,

calls, audio, video and screen sharing time. Did not find all information in one place.

Zoom. (75%) Usage data is distributed among multiple locations in the portal and is separate for phone and video. No way to navigate usage data by department or site. Can access certain usage information, e.g., access reports, on a per-user basis. Provides a list of inactive hosts (users, rooms). While not adoption, per se, reporting inactive users can provide insights into adoption. Zoom does provide a “Usage & Adoption” tab under its Zoom Phone analytics dashboard.



Source: RingCentral August 2022

Figure 3



Optimize

These analytics encompass functions of special importance to IT in maintaining a quality user experience.

Detailed quality metrics at call, meeting, or user level

RingCentral. (100%) Details of individual calls. Showing quality, packet loss, jitter, delay, bitrate, FPS. Also shows connection quality over time including key events such as microphone mute, screen share, etc. Shows details of user platform including microphone and speaker type, CPU details including CPU and memory utilization.

8x8. (100%) Extra cost. Provides call quality and meeting (video) quality separately. Video meeting quality available in dedicated portal via subscription to callstats.io.

Microsoft. (0%). Feature not found in "Teams Analytics and Reporting" reference.

Zoom. (100%) Extra cost. Call quality metrics dashboard available (Business license or higher with Power Pack.) Meeting quality metrics can display cause of poor quality (e.g., high CPU utilization on endpoint or unstable network connection).

Custom network topology definition

Define a custom network topology that can be used as a basis for analytics displays.

RingCentral. (100%) User can create a file that relates IP addresses to location descriptions.

8x8. (0%) Unable to locate this function.

Microsoft. (0%). Feature not found in "Teams Analytics and Reporting" reference.

Zoom. (0%) Unable to locate this function.

Rooms and device location mapping

Provide mapping to match rooms and devices to geographical location.

RingCentral. (100%) Mapping function allows additional levels of detail. Also, information such as emergency address, etc.

8x8. (50%) Calls are mapped to location. Did not find information about rooms.

Microsoft. (0%). Feature not found in "Teams Analytics and Reporting" reference.

Zoom. (50%) Rooms can be mapped to a location. Devices cannot be mapped to a location.

Real-time monitoring and historical reporting for rooms and device health

Provide both real-time and historical analytics at both the room and device levels.

RingCentral. (100%) Real-time and "click to select data ranges" for historical. History is seven days for rooms. Data is saved for six months for devices.

8x8. (50%) Extra cost. Real-time device status provided. No room status or historical information found. Information provided by callstats.io. 8x8 doesn't specifically report on configured physical meeting space resource but rather the stats for the Virtual Meeting Rooms that are assigned to physical videoconferencing rooms.

Microsoft. (0%). Feature not found in "Teams Analytics and Reporting" reference.

Zoom. (50%) Minimal health information. For devices, Zoom only notes whether a device is online or offline. Dashboard report lists "Top 25 Zoom Rooms Usage with Issues".

Analyze

Features that enable LOB analysts to get greater insight into the way communications-oriented departments are working and leveraging resources.

Custom KPIs

Enable a user to create their own custom metrics derived from the data, giving them names that make sense to their business and use case.

RingCentral. (100%) Widgets via Live Reports. Create new historical (summary) report. New dashboard with historical reporting. Can select "today", "last month", etc. Trend views available.

Can rename KPIs, create custom aggregate statistics, and define static or moving date ranges along with custom dimensional filters (departments, groups, etc.).

8x8. (0%) 8x8 notes that this is currently available in their CCaaS solution and is a roadmap item for UCaaS.

Microsoft. (0%). Feature not found in "Teams Analytics and Reporting" reference.

Zoom. (0%) Tolly could not find any documentation of custom KPI capability.

Reports by: individual, group, department, call-by-call

Document reporting available and determine whether it can be done by each item noted.

RingCentral. (100%) Provides reports by users, user group, departments, can create a queues.

8x8. (100%) Provides detailed reporting for calls.



Microsoft. (75%). Extensive reporting options with filtering by various criteria.

Zoom. (75%) Extra cost. Reports on calls via Power Pack. Historical reports for phone via call queue with detail report. Video reports (included in Zoom Meetings) provides various usage and user activity reports. Can show active hosts, inactive hosts. Minimal drill-down.

Alerts

Provide information updates to IT to help understand real-time status of UCaaS resources.

Automated and customizable call & video (meeting) quality alerts

As described.

RingCentral. (100%) Admin can subscribe to notifications. Send via email at whatever interval. Proactive system. Don't have to be in the app, just want notification. E.g. "good calls less than 95%, if that threshold is broken, let me know every 15 minutes, only for RC desktop App." System will generate an alert message when threshold is hit.

8x8. (50%) Smart Connectivity Test can provide automated alerts via 8x8 application programming interface. Alerting not customizable.

Microsoft. (0%). Feature not found in "Teams Analytics and Reporting" reference.

Zoom. (50%) Alerts available for specific functions such as Zoom Rooms. No higher-level monitoring or system notification alerts found. No options to customize alerting found.

Automated and customizable rooms & devices quality alerts

As described.

RingCentral. (100%) Alerts at various levels: entire company, locations, users, ISPs, devices, rooms. Can monitor meetings where good streams or poor streams meet certain conditions.

8x8. (50%) Smart Connectivity Test can provide automated alerts via 8x8 application programming interface. Alerting not customizable.

Microsoft. (0%). Feature not found in "Teams Analytics and Reporting" reference.

Zoom. (50%) Alerting available. No options to customize alerting found.

Extend

Features that allow customer to build out custom functions.

Developer Application Programming Interface (API)

Program-level access to UCaaS system resources.

RingCentral. (100%) Two APIs available. Call Log API is focused on individual calls. Line of Business (LOB) Analytics API is for analyzing calls in the aggregate and provides Call Performance Aggregation and Call Performance Timeline analysis. Rapid time-to-value with SDKs for JavaScript, Java, and C#.

8x8. (75%) Access to call records only. No mention of video meetings or messaging.

Teams. (100%) via Microsoft Graph API with access to 14 resource categories.

Zoom. (100%) Mirrors most popular portal features.

Test Goal & Methodology

The focus of the test was to quantify the analytics available from each UCaaS solution. Specifically, the test evaluated analytics made available in a ready-to-use package under the same brand as the solution vendor. Thus, the test excluded capabilities that would require programming or licensing 3rd-party software.

Test Results

Tolly reviewed the offerings of each vendor compared to the specifications of each of the evaluation points. Tolly then assigned an approximate percentage result based on how much of the requirement the solution fulfilled. The possible values were 0, 25, 50, 75, and 100%. These values are used to approximate support for the feature described in the table row and detailed in the body of the report. These are shown in Table 2 visually using circle ranging from empty (0%) to full (100%). In cases where the feature required an extra-cost component, the dollar sign (\$) was included in the table.

As there is no industry standard for UCaaS analytics, vendor-to-vendor offerings rarely map 1:1. Thus, Tolly recommends that the reader contact the solution vendor for clarification when it comes to availability of specific, granular functions.



Solutions Tested

RingCentral. RingCentral MVP was the basis for the evaluation with Live Reports added to provide real-time monitoring dashboards.

8x8. The 8x8 X4 license was the starting point for the evaluation with the “Analytics for 8x8 Work” providing the basic functions. For video analytics, the callstats.io solution was required. While callstats.io is available as a 3rd-party solution to other vendors (e.g. Genesys, Twilio, OpenTok), callstats.io is an 8x8 company and, thus, its capabilities were included in this study. As the callstats.io functions were not available in the test environment, those functions were examined from vendor documentation and demonstration videos.

Zoom. The capabilities evaluated were based on Zoom Meetings Pro plus Zoom Phone to provide VoIP capabilities. Zoom Power Pack is a required add-on for certain analytics functions. The Zoom Meetings Business license (the next level up from Pro) is required for QoS dashboards. As that license was not available in the test environment Zoom documentation was used to determine that functionality.

Competitor Interaction

Tolly’s goal is always to present accurate information to the reader. Tolly contacted each of the competing vendors and offered to provide the vendor with their results for review, comment and, if required, correction. 8x8 and Zoom responded to this invitation, Microsoft did not respond to multiple contact attempts.

Tolly notes that it will work in good faith to provide an update to this report should Microsoft provide relevant feedback and/or corrections after publication.

8x8 reviewed their results and provided updates and clarifications that are included in this document.

Zoom reviewed their results. The Zoom contact noted that the Zoom team found errors in the Tolly results. When asked to provide comments and corrections, Zoom effectively declined to do so by ceasing communication with the Tolly team. Tolly notes that it will work in good faith to provide an update to this report should Zoom provide relevant feedback and/or corrections after publication.



About Tolly

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