ZSCALER AND ZOOM DEPLOYMENT GUIDE

NOVEMBER 2022, VERSION 1.0

BUSINESS DEVELOPMENT GUIDE

Contents

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Terms and Acronyms

The following table defines acronyms used in this deployment guide. When applicable, a Request for Change (RFC) is included in the Definition column for your reference.

Acronym	Definition
CQM	Call Quality Monitoring (Zoom)
DLP	Data Loss Prevention
DNS	Domain Name Service
IdP	Identity Provider
IKE	Internet Key Exchange (RFC2409)
IPS	Intrusion Prevention System
IPSec	Internet Protocol Security (RFC2411)
MOS	Mean Opinion Score
SaaS	Software as a Service
SSL	Secure Socket Layer (RFC6101)
TLS	Transport Layer Security
ZIA	Zscaler Internet Access
ZDX	Zscaler Digital Experience

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About This Document

The following sections describe the organizations and requirements of this deployment guide.

Zscaler Overview

Zscaler (NASDAQ: ZS) enables the world's leading organizations to securely transform their networks and applications for a mobile and cloud-first world. Its flagship Zscaler Internet Access (ZIA) and Zscaler Private Access (ZPA) services create fast, secure connections between users and applications, regardless of device, location, or network. Zscaler delivers its services 100% in the cloud and offers the simplicity, enhanced security, and improved user experience that traditional appliances or hybrid solutions can't match. Used in more than 185 countries, Zscaler operates a massive, global cloud security platform that protects thousands of enterprises and government agencies from cyberattacks and data loss. To learn more, see Zscaler's website.

Zoom Overview

Zoom (NASDAQ: ZM) helps you express ideas, connect to others, and build toward a future limited only by your imagination. Their frictionless communications platform is the only one that started with video as its foundation, and they have set the standard for innovation ever since. That is why they are an intuitive, scalable, and secure choice for large enterprises, small businesses, and individuals alike. Founded in 2011, Zoom is headquartered in San Jose, California. To learn more, refer to Zoom's website.

Audience

This guide is for network administrators, endpoint and IT administrators, and security analysts responsible for deploying, monitoring, and managing enterprise security systems. For additional product and company resources, see:

- Zscaler Resources
- Zoom Resources
- Appendix A: Requesting Zscaler Support

Software Versions

This document was authored using the latest version of Zscaler Internet Access.

Prerequisites

This guide provides GUI examples for configuring ZDX and Zoom Call Quality Monitoring (CQM). This guide presumes that you are familiar with ZDX and Zoom Meetings Administration. The examples in this guide illustrate how to provision Zoom CQM with ZDX. The prerequisites to use this guide are:

ZDX

- A working instance of ZDX.
- Administrator login credentials.

Zoom

- A working Zoom account.
- Administrator login credentials with admin permissions to be able to authenticate the Zoom ZDX Marketplace App.

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Request for Comments

- **For prospects and customers**: Zscaler values reader opinions and experiences. Contact partner-doc-support@zscaler.com to offer feedback or corrections for this guide.
- **For Zscaler employees**: Contact z-bd-sa@zscaler.com to reach the team that validated and authored the integrations in this document.

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Zscaler and Zoom Introduction

Overviews of the Zscaler and Zoom applications are described in this section.

If you are using this guide to implement a solution at a government agency, some of the content might be different for your deployment. Efforts are made throughout the guide to note where government agencies might need different parameters or input. If you have questions, contact your Zscaler Account team.

Zscaler Digital Experience (ZDX)

ZDX is a digital experience monitoring solution delivered as a service from the Zscaler cloud. ZDX provides end-to-end visibility and troubleshooting of end-user performance issues for any user or application, regardless of location. In addition, it enables continuous monitoring for network, security, application, and help desk teams with insight into the end-user device, network, and application performance issues.

ZDX leverages Zscaler Client Connector and the Zscaler Zero Trust Exchange to actively monitor applications from an end-user perspective. It continuously collects and analyzes various performance metrics, including application availability, response times, network hop-by-hop performance metrics, and end-user device health metrics such as device configuration, CPU, memory usage, process information, and device events. As a result, IT teams have uninterrupted visibility and save time with proactive identification and resolution of end-user experience issues.

Zscaler Resources

The following table contains links to Zscaler resources based on general topic areas.

Name	Definition
ZDX Help Portal	Help documentation for ZDX.
Zscaler Help Portal	Help documentation for all Zscaler products.
Zscaler Tools	Troubleshooting, security and analytics, and browser extensions that help Zscaler determine your security needs.
Zscaler Training and Certification	Training designed to help you maximize Zscaler products.
Submit a Zscaler Support Ticket	Zscaler Support portal for submitting requests and issues.

The following table contains links to Zscaler resources for government agencies.

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Submit a Zscaler Support Ticket	Zscaler Support portal for submitting requests and issues.

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Zoom Phone Call Quality Monitoring (CQM)

The Zoom quality of service dashboard allows you to see the overall quality of voice calls and filter data by any extension (phone user, common area phone, call queue, auto receptionist, or Zoom Room).

The dashboard uses Mean Opinion Score (MOS) as the main measurement to report on voice quality. MOS measures voice quality on a scale of 1 to 5. A score of 1 indicates unacceptable voice quality for all users. A score of 5 is the best voice quality, equivalent to speaking directly into a person's ear.

The dashboard uses a MOS of 3.5 as a general baseline to categorize calls. A MOS greater than or equal to 3.5 means good quality, while less than 3.5 means poor quality.

Zoom Resources

The following table contains links to Zoom support resources.

Name	Definition
Online Resources	Online resources for Zoom solutions.
Zoom Support	Online customer support for Zoom products.
Zoom Dev Support	Online developer support for Zoom products.
Zoom Community	Online Zoom community support.

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Configuring ZDX

This section demonstrates how to configure Zscaler before configuring Zoom.

Logging into ZDX

Log into the ZDX Admin Portal using your administrator account.

If you are unable to log in using your administrator account, contact Zscaler Support.

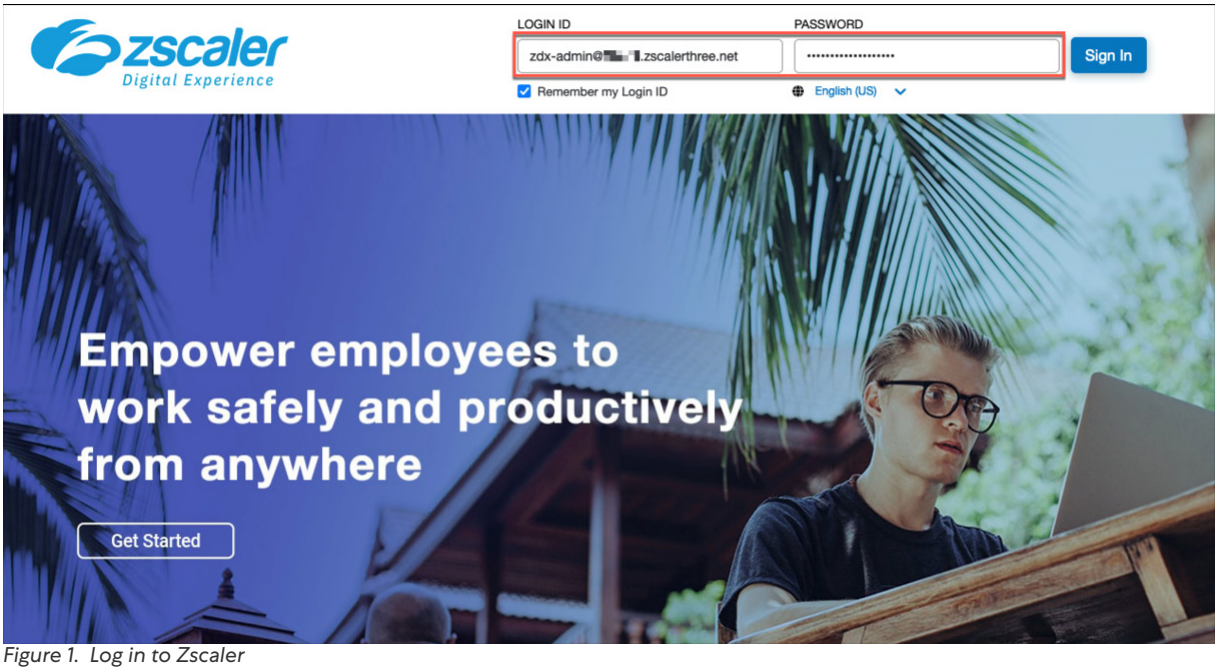

Figure 1. Log in to Zscaler

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Configure ZDX for Zoom CQM

Set up ZDX with the permissions to poll the Zoom Dashboard API for all Zoom meeting quality telemetry. Configuring ZDX to poll Zoom requires Zoom admin privileges with the proper API admin scopes. See the ZDX Integration Requirements (government agencies, see ZDX Integration Requirements) help page for the specific permissions needed.

Configure a tenant that maps to a Zoom account, and a probe specifically for the Zoom CQM application. Other probes configured for Zoom don't integrate into the CQM log data.

Navigate to **Configuration** > **Zoom Call Quality** > **Add New Tenant**.

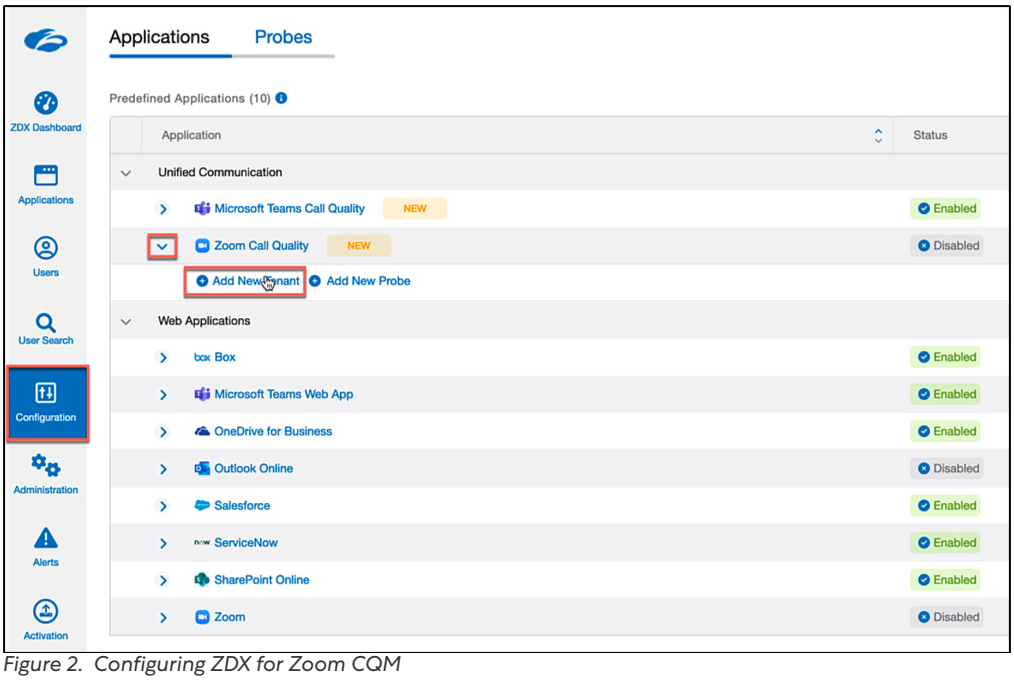

Figure 2. Configuring ZDX for Zoom CQM

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Configure the Tenant Information

In the **Add New Zoom Call Quality Tenant** window:

1. Enter a **Name** for the new tenant.
2. Set the **Status** to **Enable**.

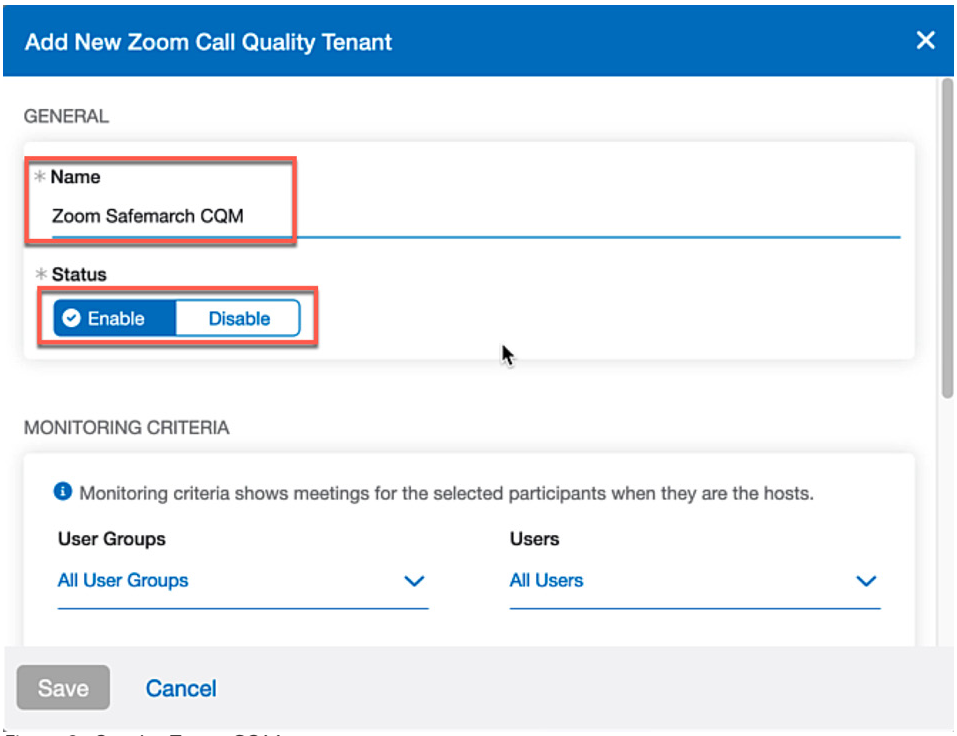

Figure 3. Set the Zoom CQM tenant name

3. Add filtering criteria to only report data on specific **User Groups** or **Users**. The default is to report on every Zoom user.
4. Click **Zoom Authentication**.

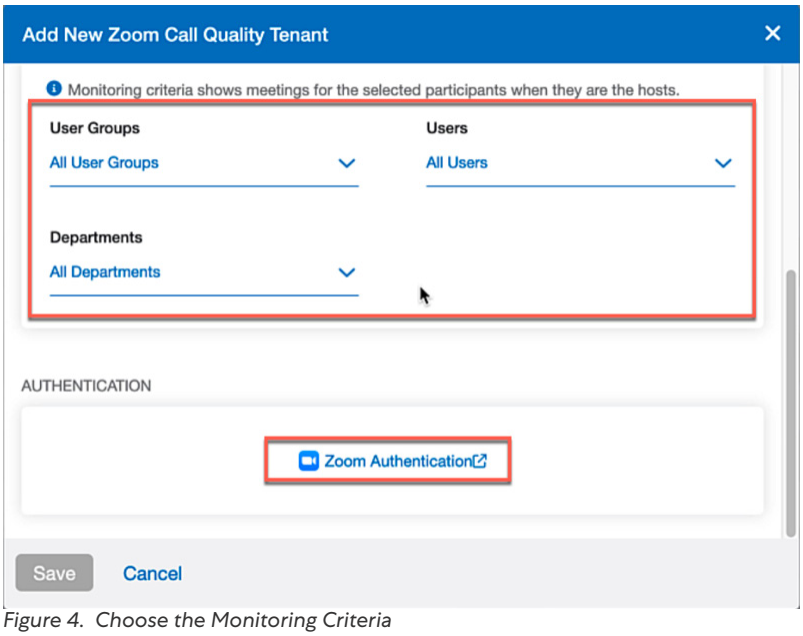

Figure 4. Choose the Monitoring Criteria

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5. Sign in with the correct administrator credentials. You need the **Zoom Authentication Token** for the **ZDX Application** in the Zoom Marketplace to poll the APIs for Zoom Meeting Telemetry. You are returned to the ZDX Admin, with a message stating that authentication was a success.

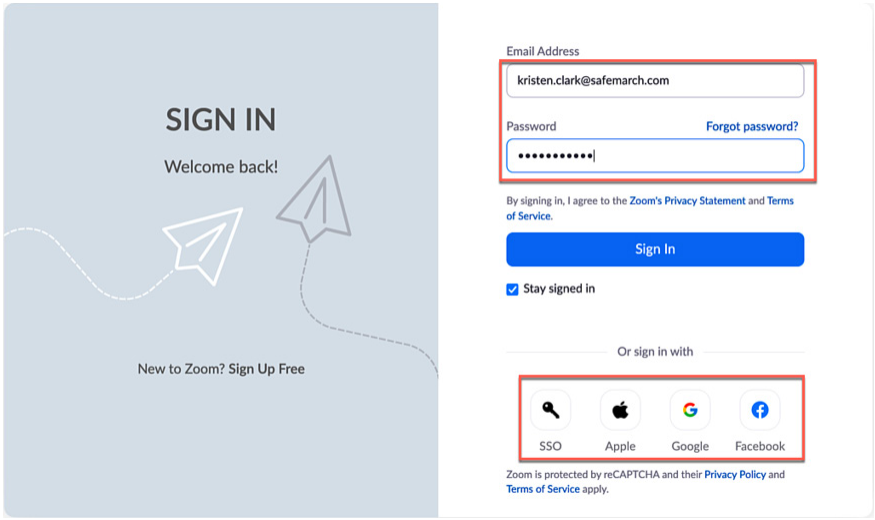

Figure 5. Authenticate to Zoom

6. Click **Save**.

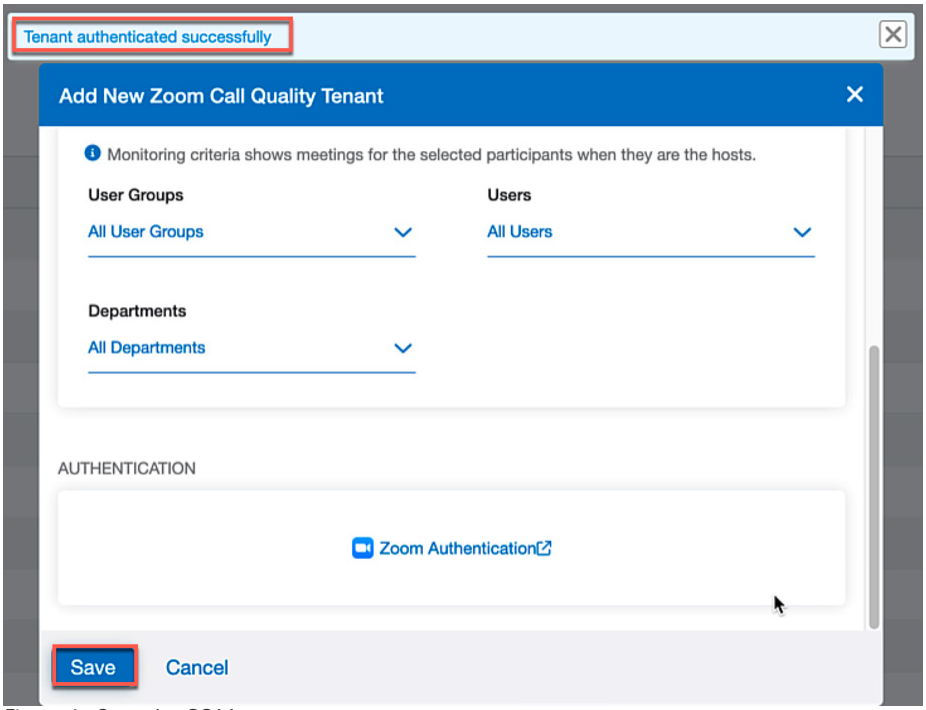

Figure 6. Save the CQM tenant

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The **Zoom Safemarch CQM** application shows enabled in the configuration screen.

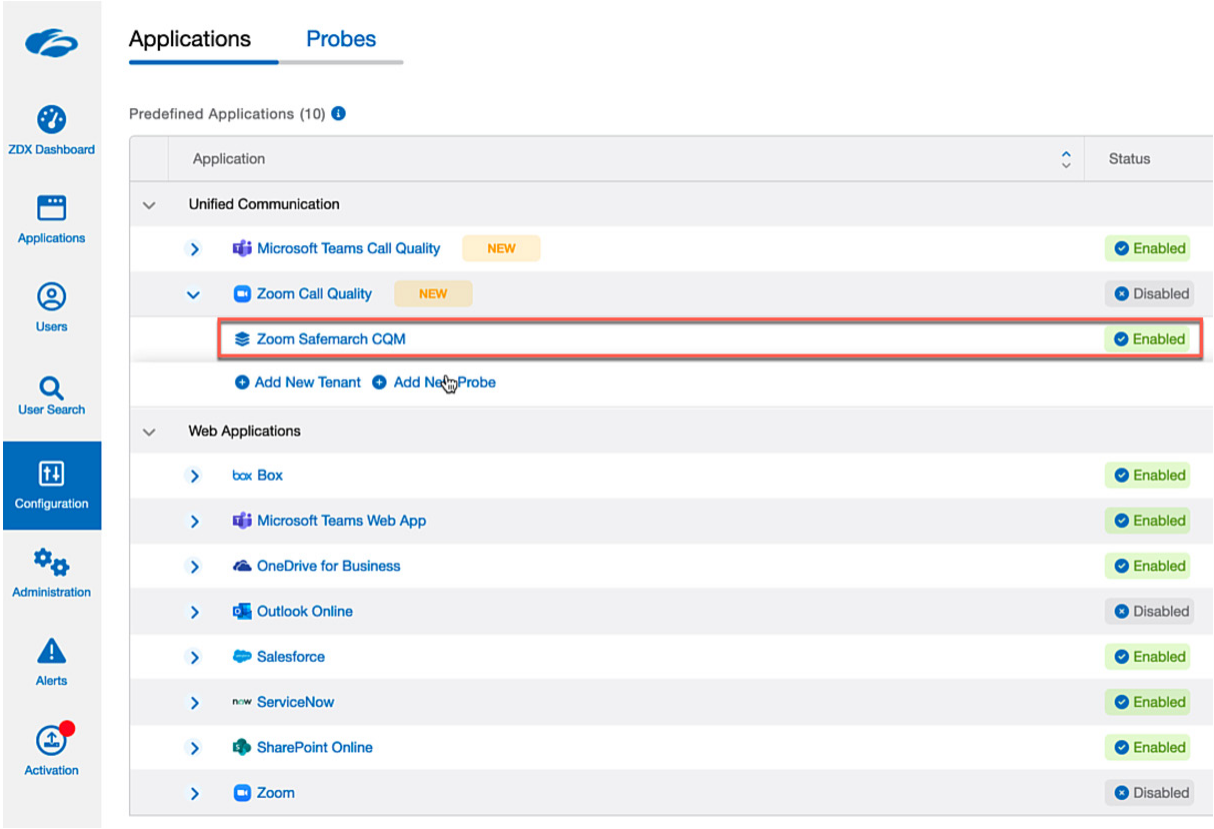

Figure 7. Zoom CQM Application successfully enabled

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Configure the Application Probe

Configure a new Application Probe that provides Cloud Path monitoring information to assist with investigating user issues.

Click **Add New Probe**.

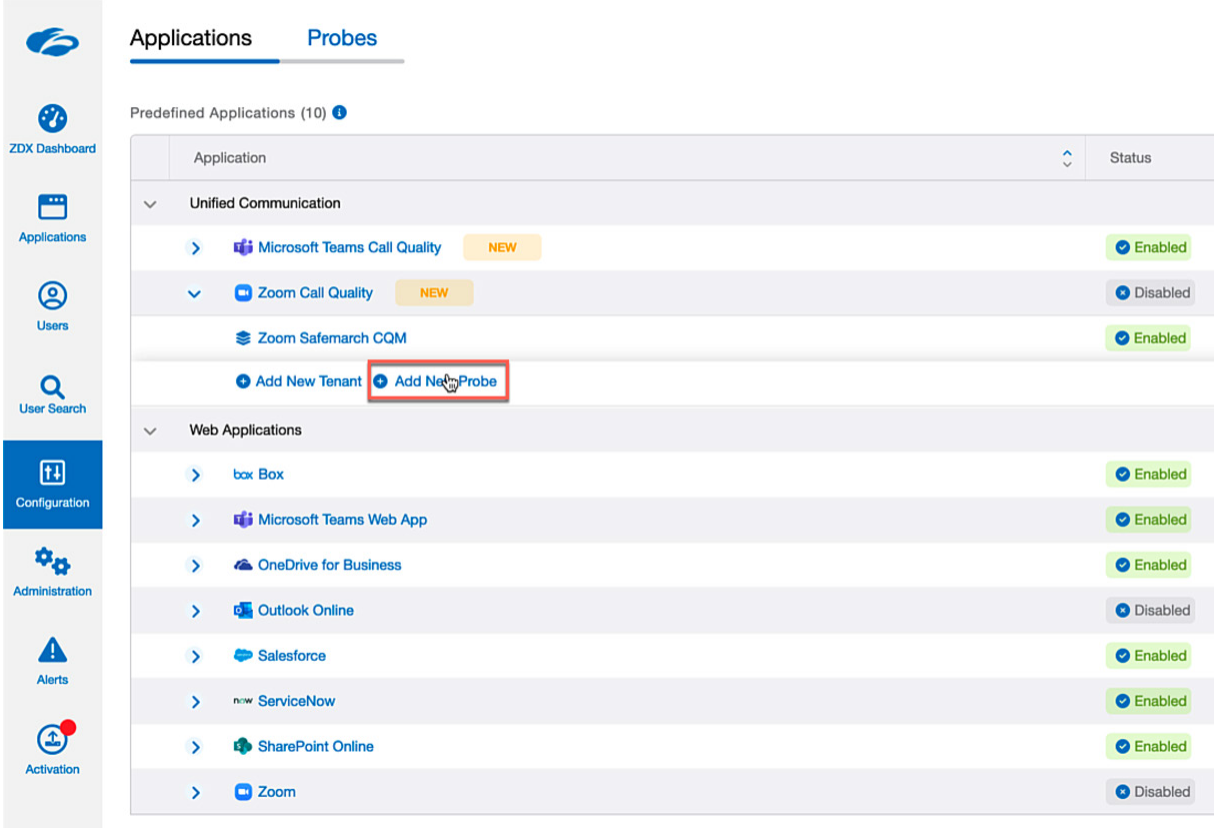

Figure 8. Zoom CQM tenant creation successful.

You could activate the change at this point, but Zscaler recommends batching changes. This deployment guide notes when to activate pending changes.

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Application Probe Setup

To set up an application probe for Zoom CQM:

1. Enter a **Name** for the probe.
2. **Probing Criteria**: ZDX allows administrators to configure filters so that Probes are run only when a user matches the configured filter. By default, all users at every location have probes run. You can use the **Probing Criteria** filters to restrict the probe use. Zscaler recommends that these filters match the filters configured for the Zoom application so that full metrics are available for troubleshooting.
3. Click **Next**.

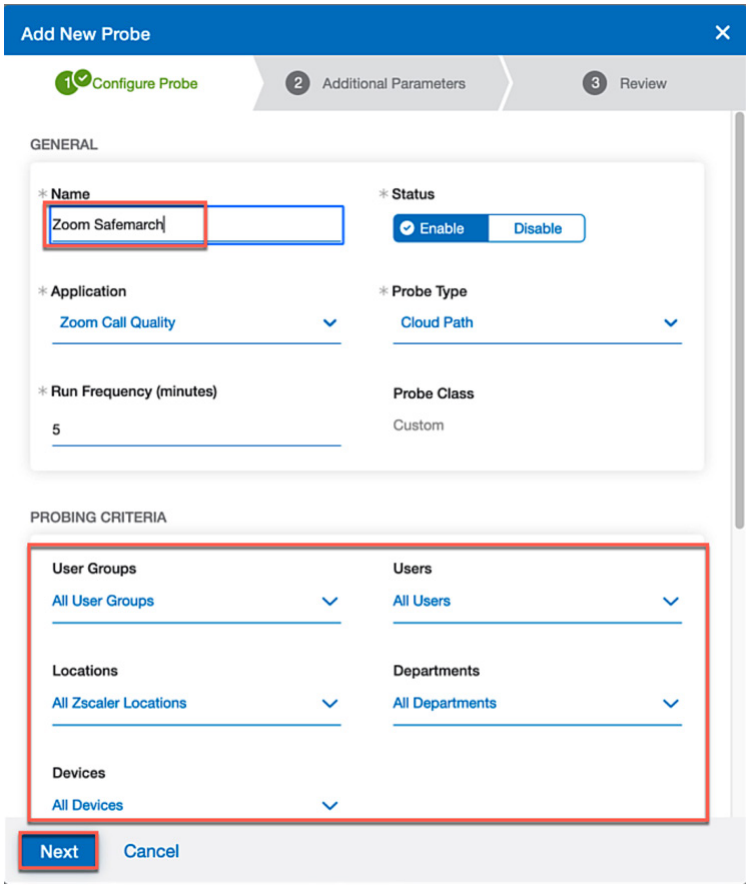

Figure 9. Adding a partner administrator role

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4. Change the **Protocol** to **Adaptive** from the drop-down list.
5. Enter the host where the probes are sent. This guide uses Zscaler's front page, `zscaler.zoom.us`. You can use your own Zoom login page or the generic `zoom.us` front page.
6. Click **Next** to review the configuration and then **Submit** to complete the configuration.

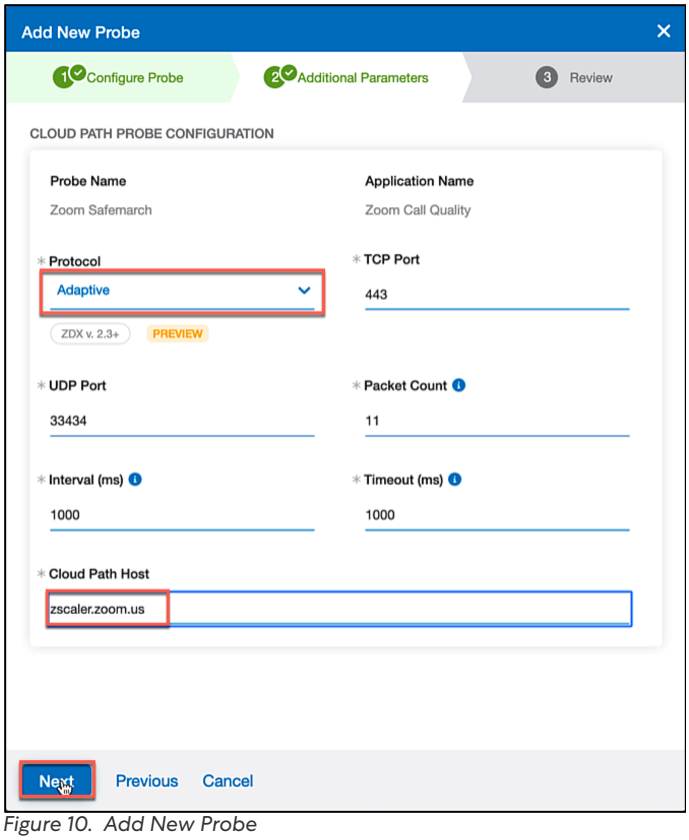

Figure 10. Add New Probe

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Activate the Configuration

The probes configuration screen shows a confirmation that the Zoom probe was created.

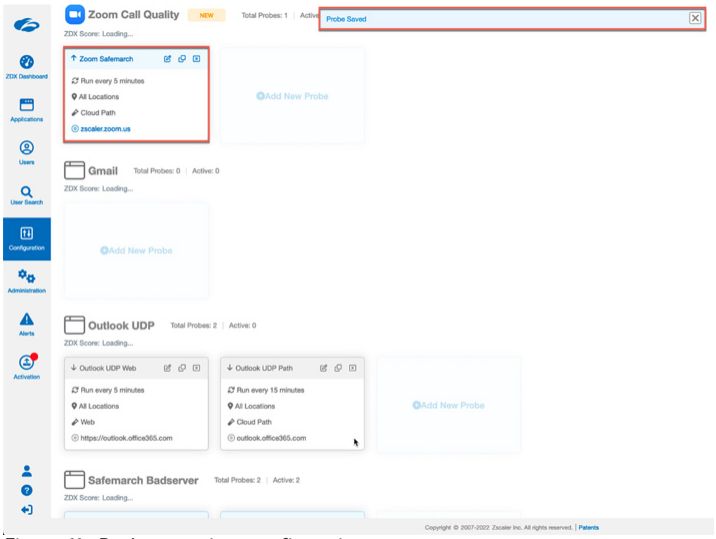

Figure 11. Probe creation confirmation

To activate the configuration, select **Activation** in the left-side navigation and click **Activate**.

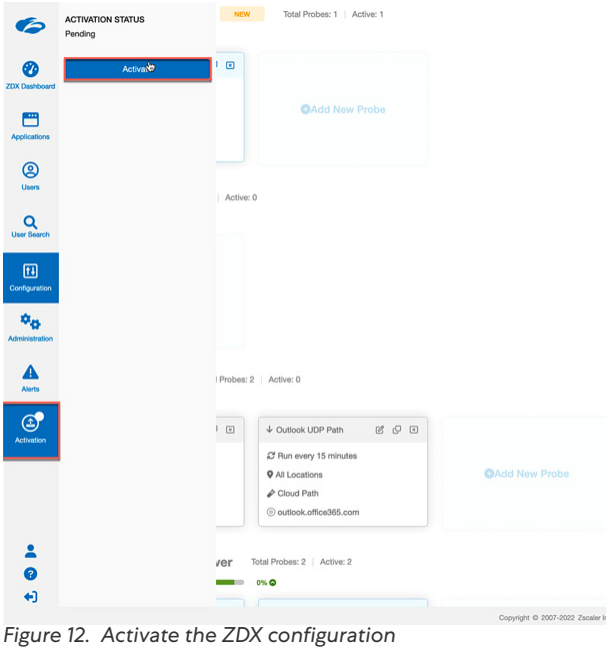

Figure 12. Activate the ZDX configuration

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Use Case: Leveraging Zoom CQM and ZDX Telemetry to Determine Meeting Issues

When users have issues with web conference meetings, IT support personnel can use ZDX to quickly isolate which components of the infrastructure to investigate further.

This use case shows both support engineer activity and end-user activity.

For example, a user opens a support case stating that their Zoom meeting has issues. Within the time frame of the meeting. a support engineer can investigate in the ZDX dashboard.

On the main dashboard, the engineer selects a time frame, then scroll through the Most Impacted Applications section of the dashboard to find Zoom Call Quality for when the issue occurred. Clicking the Zoom Call Quality link displays the Zoom Call Quality Application dashboard.

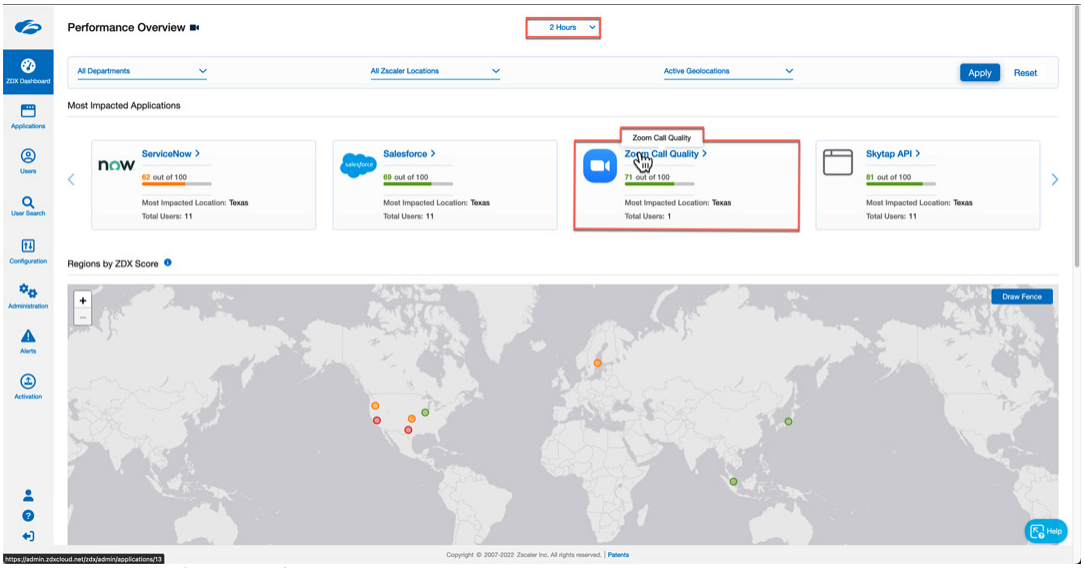

Figure 13. ZDX Performance Overview

The example process shown in this section is only an option. There are many possible navigation paths through the ZDX Dashboard.

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Zoom Call Quality Application Dashboard

The Zoom Call Quality application dashboard provides an instant high-level view of a monitored application user experience, and gives the engineer a quick view of the overall score for Zoom meetings across all monitored users and groups.

The following example looks at a specific user who was hosting a meeting. An engineer can click the **Meetings** tab.

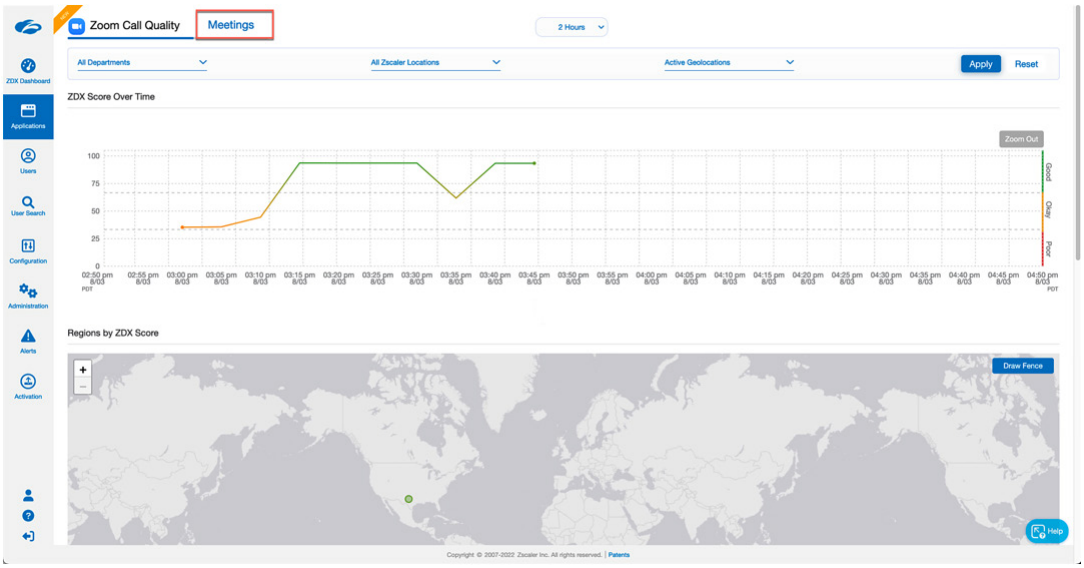

Figure 14. Zoom Call Quality dashboard

Meetings Tab

The **Meetings** tab shows a list of all the monitored meetings that occurred during the selected time frame. In this case, there is only one monitored call.

Clicking the **Meeting ID** takes you to the **Meeting Details** screen.

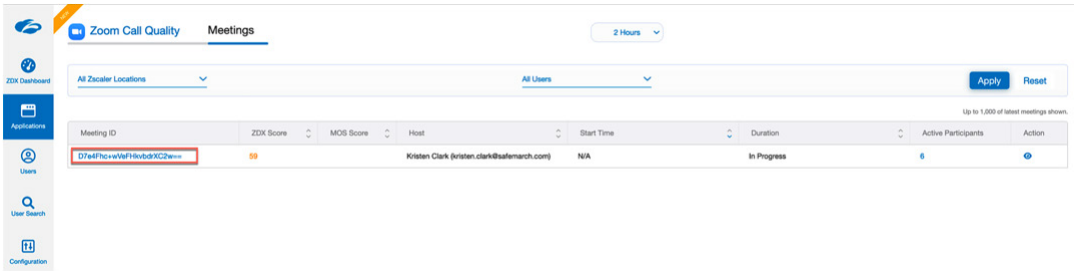

Figure 15. Meetings tab

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Meeting Details

The Meeting Details window shows all the attendees of the meeting and their ZDX scores.

Engineers and admins can select any user with Zscaler Client Connector and get detailed telemetry data about a call.

In the example, there are only two participants (even though it shows six active members). This is indicative of one user appearing multiple times due to connectivity issues.

Clicking **Kirsten Clark** displays her **User Details** screen for the same time frame and the **Zoom CQM** application telemetry.

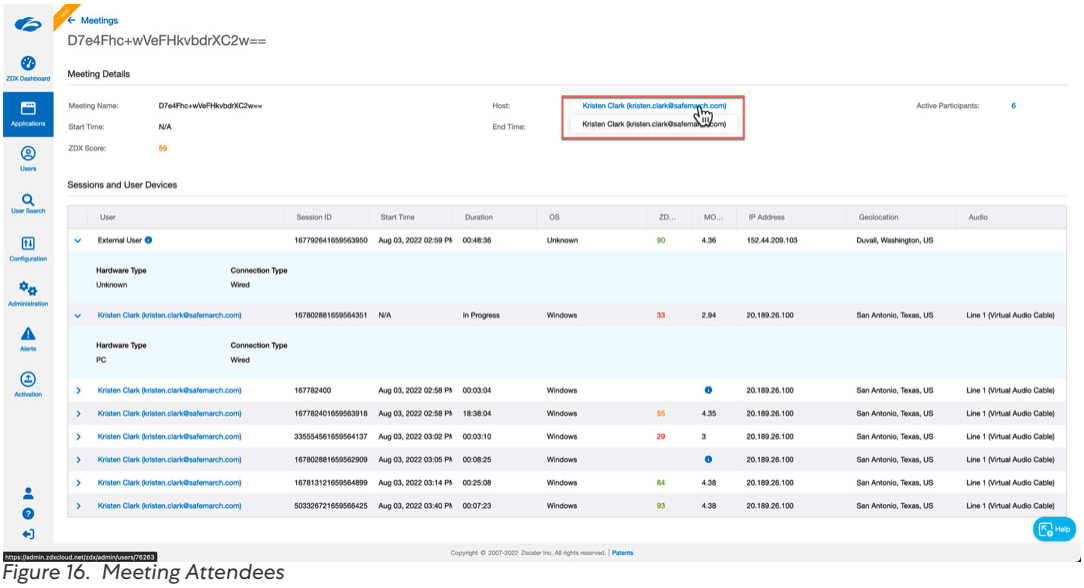

Figure 16. Meeting Attendees

User Detail Screen

The User Detail window provides contextual information from collected user metrics. You can see all the metrics derived from the various telemetry points and get a contextual view of how the user is experiencing the monitored application.

The **User Details** screen provides high-level information about Kristen's authenticated devices in the selected time frame. Clicking **ZDX Score Over Time** sets all metrics to the same point in time.

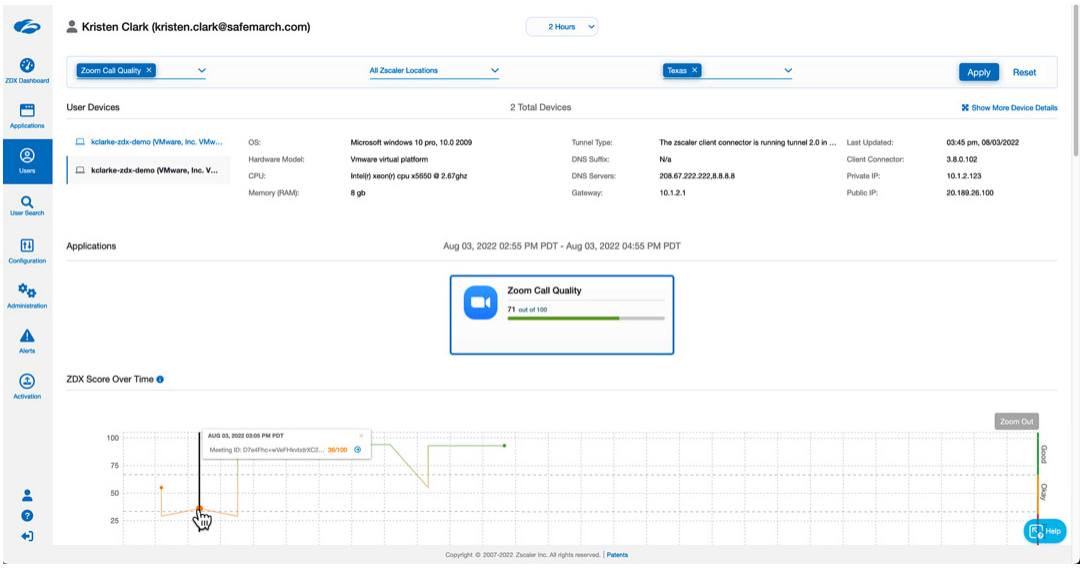

Figure 17. User Details

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Meeting Monitoring Metrics

The **Meeting Monitoring Metrics** window shows an excerpt of all the collected information for the selected Zoom call.

In this example, the **Audio Latency**, **Audio Jitter**, and the **MOS Score** were impacted. This implies that something is happening on the network transit path

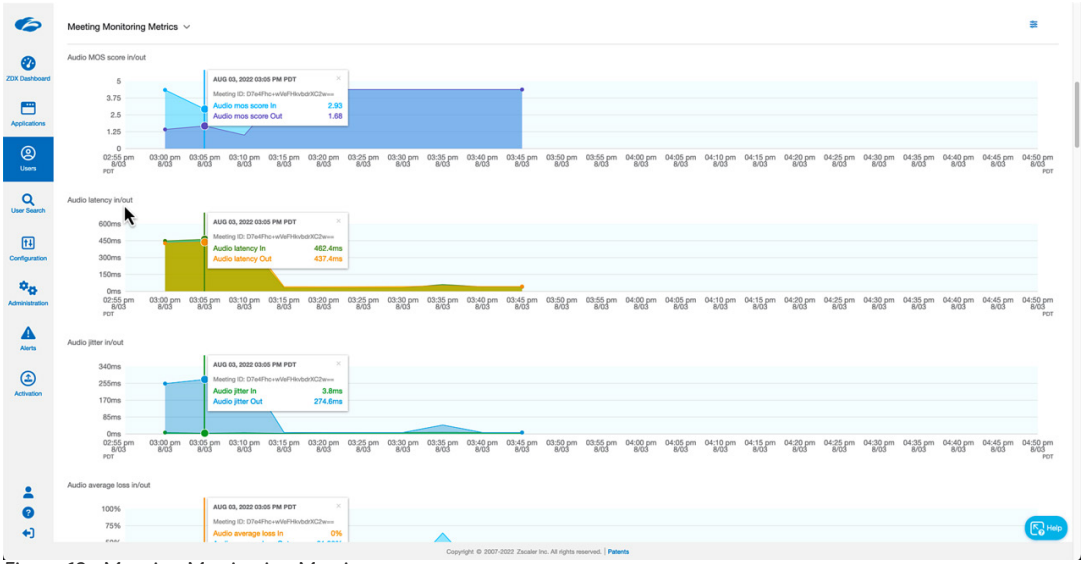

Figure 18. Meeting Monitoring Metrics

Further down, the **Cloud Path** pane shows that latency for the probes to the endpoint spiked at the same timestamp.

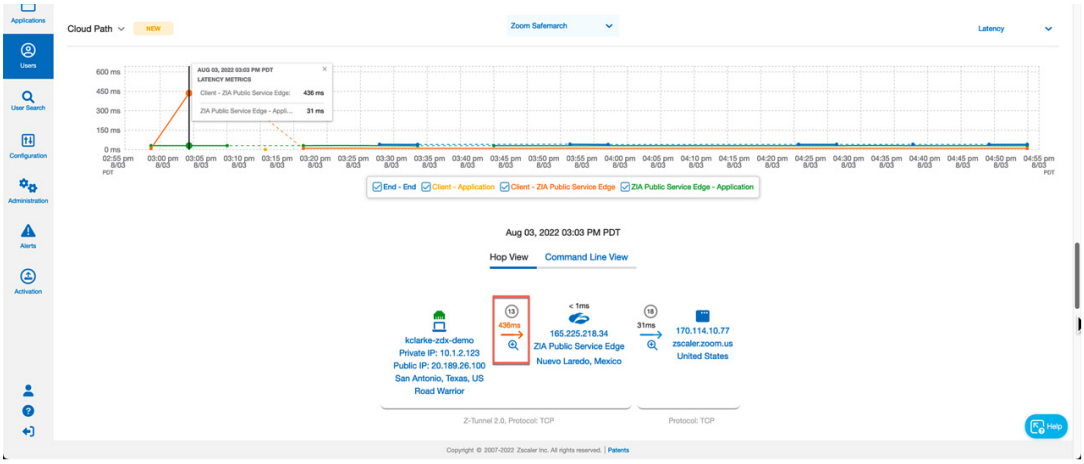

Figure 19. Cloud Path

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If you click the graphical view measurement for the path between the Zscaler Client Connector host and the ZIA Public Service Edge, every path hop is expanded to reveal the measured latency.

In this example, you can see high latency by the second-hop device. A support engineer can now investigate this device or refer the support case to the infrastructure support team that owns those components.

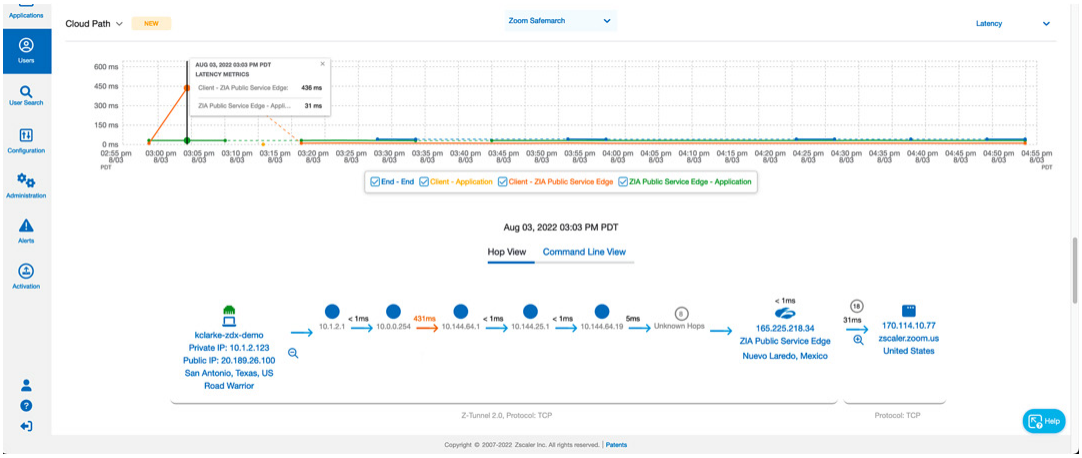

Figure 20. Latency

A few clicks narrows down the possible issues to a likely root cause component of the infrastructure.

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Appendix A: Requesting Zscaler Support

You might need Zscaler Support for provisioning certain services, or to help troubleshoot configuration and service issues. Zscaler Support is available 24/7/365.

To contact Zscaler Support:

1. Go to **Administration** > **Settings** > **Company Profile**.

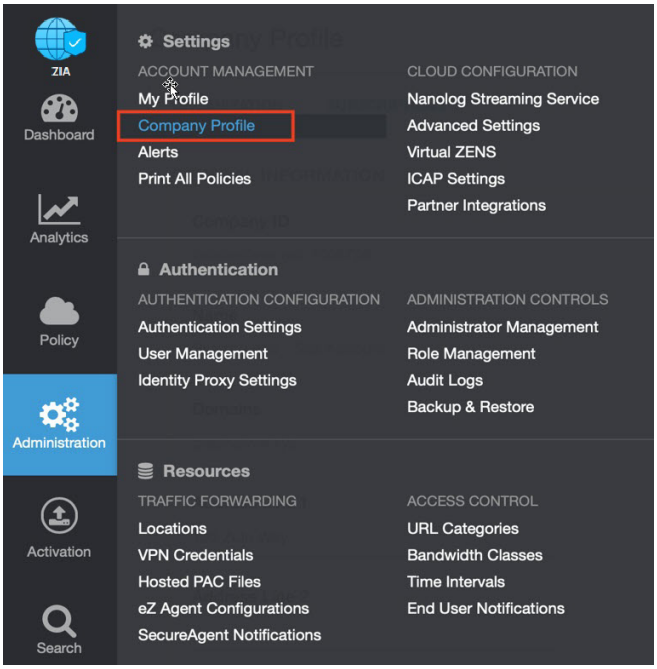

Figure 21. Collecting details to open support case with Zscaler TAC

2. Copy your Company ID.

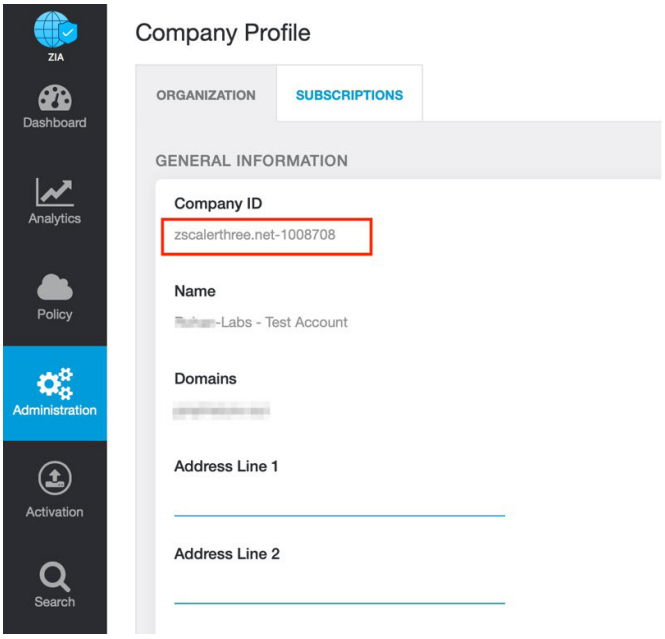

Figure 22. Company ID

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3. With your company ID information, you can open a support ticket. Navigate to **Dashboard** > **Support** > **Submit a Ticket**.

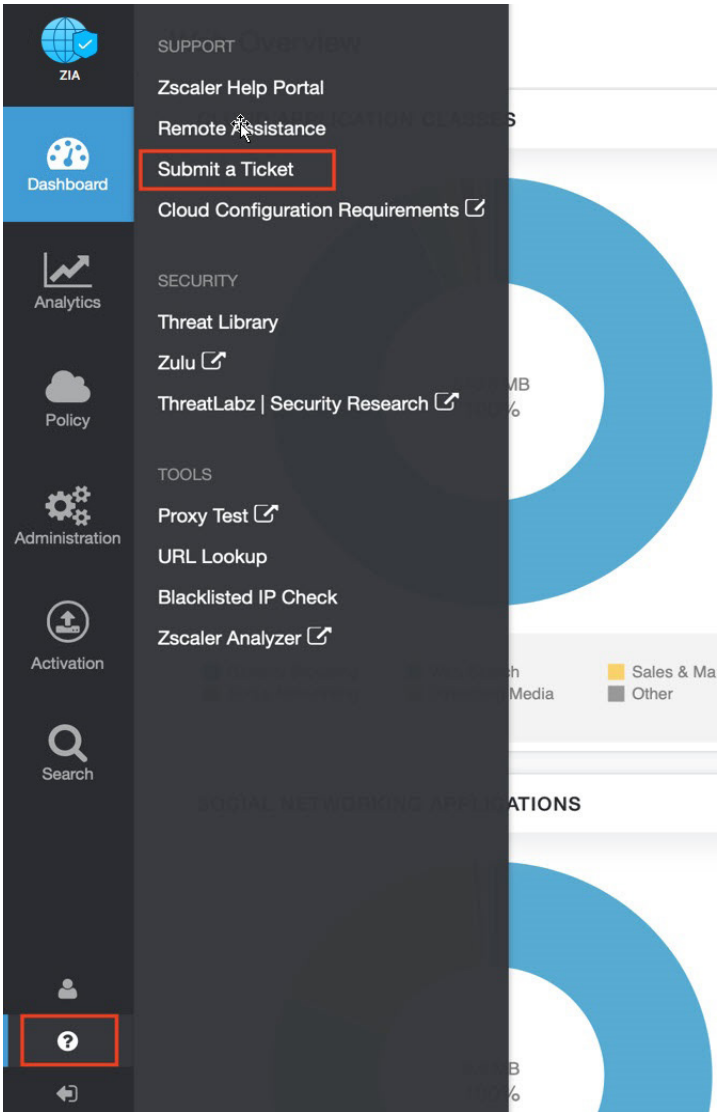

Figure 23. Submit a Ticket

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