

WEBEX Amplified

Enabling Hybrid Work with Webex and ThousandEyes

Omer Ilyas

Omer Ilyas - Technical Marketing Engineer - oilyas@cisco.com

Table of contents

1. Lab	3
1.1 Overview - Enabling Hybrid Work with ThousandEyes	3
1.2 Task 1: Lab Login and Setup	5
1.3 Task 2: ThousandEyes Overview	12
1.4 Task 3: Log into the Lab Environment	18
1.5 Task 4: Install the ThousandEyes EPA	0
1.6 Task 5: Configure ThousandEyes Automated Session tests and EPA Monitoring	0
1.7 Analyzing ThousandEyes EPA Data	0
1.8 Fine-Tuning Large Language Models	0
1.9 Techniques for Finetuning LLMs	0
1.10 Logging Out and Ending the Lab Session	0
1.11 Conclusion	0

1. Lab

1.1 Overview - Enabling Hybrid Work with ThousandEyes

Work from the Office. Work from Home. Hybrid work has opened up the possibility of work from wherever the internet is available. At the same time, it brings new challenges to the IT team managing the end host's security, application performance, local network connection, VPN, proxy, and user's total digital experience. ThousandEyes provides this visibility with Endpoint Agents monitoring. In the lab, you will go through guided steps to start monitoring Endpoint hosts.

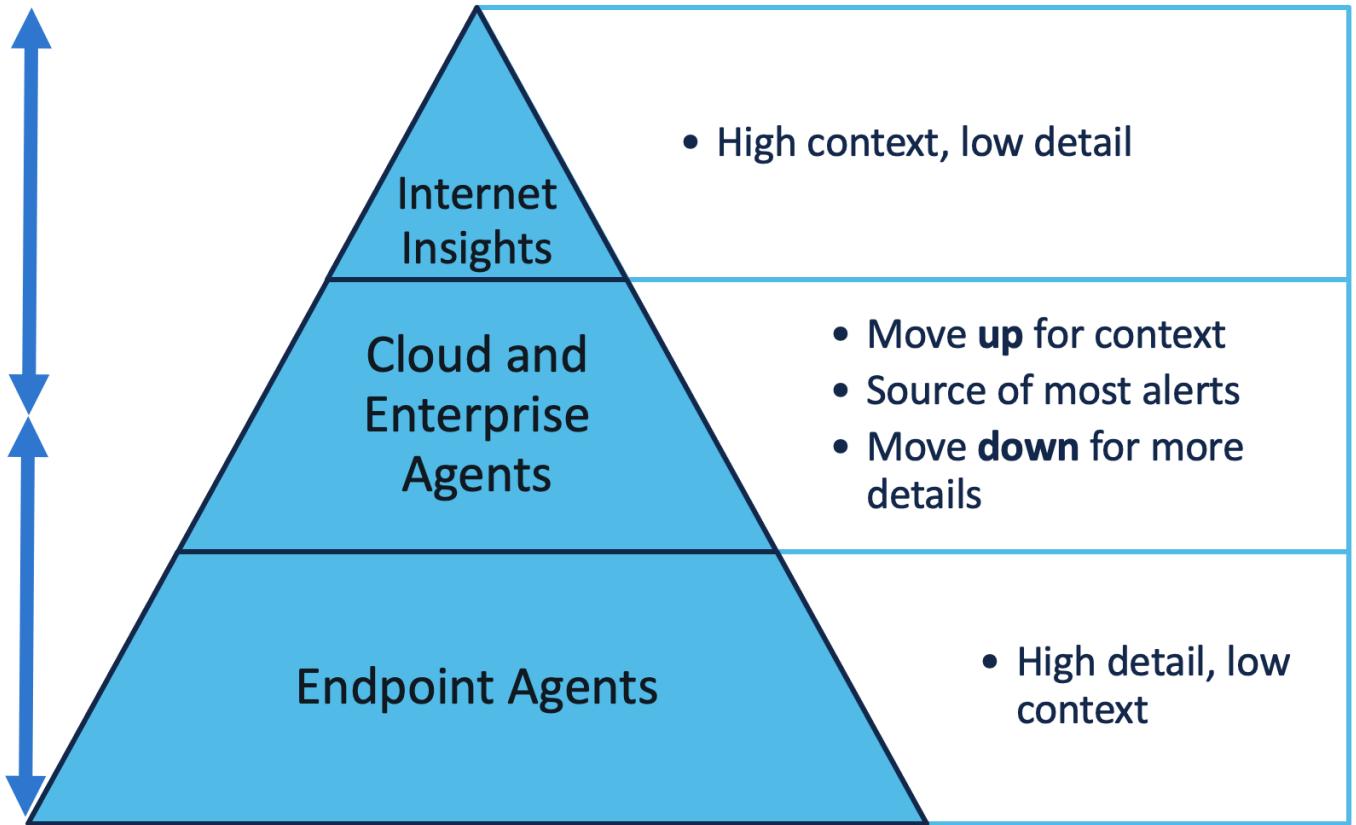
1.1.1 Upon completion of this lab you will be able to

- Deploy ThousandEyes Endpoint Agents
- Start monitoring SaaS services
- Learn how to enable Automated Session Testing (AST)
- Configure browser session monitoring
- Use the collected data for live troubleshooting
- Create a snapshot to share with others for collaboration
- Create/Duplicate a Hybrid/Remote Worker Dashboard

1.1.2 Prerequisites

- Understanding of ThousandEyes is helpful, but not required.

Endpoint in the ThousandEyes Ecosystem



1.1.3 Disclaimer

Although the lab design and configuration examples could be used as a reference, this is a sample deployment, thus not all recommended features are used, or enabled optimally. For the design related questions please contact your representative at Cisco, or a Cisco partner or TME's.

1.1.4 Lab Overview - Enabling Hybrid Work with ThousandEyes

- Lab Login and Setup
- Quick ThousandEyes Overview
- Configure and Access the Lab Systems
- Deploy a ThousandEyes EPA
- Setup and Configure AST and EPA Monitoring
- Review Agent Views and Analyze Test Data
- Review Home Worker Dashboard and Alerting
- Wrap up and End the Lab

Let's get started! Click on Task 1 – Lab Login and Setup.

1.2 Task 1: Lab Login and Setup

Click to access the lab

This lab requires a set of characters which will be aligned with roles to access ThousandEyes and Webex. Optional you can also register your Webex device on the platform that can be used with your demo.

Click My Characters then click Add New Character as shown in the below image. You only need to create one character for the lab.

The screenshot shows the 'My Characters' section of a software interface. On the left, there's a sidebar with various navigation options like Home, Demo Sessions, Tools, and My Characters (which is currently selected and highlighted). The main area displays four character profiles in cards:

- Funky Berry**: Status: Scheduled. Demo: Troubleshooting Webex Meetings & Devices with ThousandEyes. Email: funky.berry@cumulusorg.com. Password: [.....]. PMR: 200181.
- Omer Ilyas**: Status: Ready. Demo: Troubleshooting Webex Meetings & Devices with ThousandEyes. Email: omer.ilyas@cumulusorg.com. Password: [.....]. PMR: 200180.
- Webex Dna**: Status: Ready. Email: webexdna@cumulusorg.com. Password: [.....]. PMR: 200186.
- Alexa Hirthe**: Status: Ready. Email: alexa.hirthe@cumulusorg.com. Password: [.....]. PMR: 200182.

Below these cards is a section titled 'Add New Character' with a green button labeled 'Add New Character'. A large black arrow points upwards from the bottom of the 'Add New Character' button towards the '+' icon in the center of the card.

Click Create Character. Note (They will be randomly created so yours may not match the below screenshot. Also you have an option to modify the names as per your preferences.)

Create a New Character



Existing Avatar Priya

Upload Avatar

First Name Grace ✓

Last Name Ferry ✓

Username Grace.Ferry ✓ @cumulusorg.com

Locale English (United States) ✓

Password

A red arrow points down to the "Create Character" button.

Optional Step Click on the My Devices tab, select Add New Room Device, if you want your device to be available in the demo and thousandEyes agent installed on your device. Please remember its an optional step.

Webex Demo Toolbox A Global Demo Engineering Service

Help and Info [?](#) Send Us Feedback [✉](#)

Search...

Webex Devices

DASHBOARD

- Home
- My Demo Sessions
- My Tools
- My Characters
- My Devices**
- My Favorites
- My User Profile

DEMONS & TOOLS

- All
- Calling
- Devices
- Feature VODs
- Integrations
- IT Admin
- Meeting
- Messaging
- Security
- Tools

OmerOffice

Cisco Desk Pro

Status: Online - Ready
Local Admin: Not Configured
Macros: Configure
Software Channel: Latest
Digital Signage: Disabled
Cisco Spaces: Disabled
Kiosk: Disabled
Proximity: Not Supported
Room Scheduler: Disabled
Web Apps: Configure
Hot Desking: Disabled
API Access: Configure
Room Mailbox: omeroffice@cumulusorg.com [✉](#)
[Show More...](#)

Add a New Room Device
Click here to add a new room device

Average time

Create a New Device

Display Name Mirthful Bison ✓
This display name is available

NOTE: This is for adding room devices only.
For phone devices (MPP), please use the Webex Calling demo to add the device.

Three black arrows point to the "Create Device" button, the "Add New Room Device" button, and the "Create a New Device" modal window.

Make sure you are on your demo page Click Start Demo (you may have to use the back arrow to navigate back to the main overview page)

The screenshot shows the Cisco Webex Demo Toolbox interface. At the top, there's a navigation bar with links for 'Help and Info' and 'Send Us Feedback'. On the right, there's an email address 'oilyas@cisco.com' and a user profile icon. Below the navigation bar, the main title is 'Troubleshooting Webex Meetings & Devices with ThousandEyes'. There's a green 'Start Demo' button with a red arrow pointing to it. The page content includes a section titled 'Demo the power of Webex and ThousandEyes working together to troubleshoot Webex meetings and devices using the Control Hub/ThousandEyes integration.' It also features a 'Feature Overview Video' section with a video player showing a 'Webex with ThousandEyes Overview Video' from 'Global Systems Engineering'. The video player has a timeline from 17:30 to 18:30 and a 'Audio Quality' graph. On the left, there's a sidebar with sections like 'DASHBOARD', 'DEMOS & TOOLS', 'Home', 'My Demo Sessions', 'My Tools', 'My Characters', 'My Devices', 'My Favorites', and 'My User Profile'. The 'Overview' tab is selected in the top navigation.

Next we need to provide a few details in order for the lab to be spun up.

- Audience: External
- External Type: Trade Show
- Tradeshow Name: Roadshow
- Demo Session Name: Enter your name – or leave it default

Troubleshooting Webex Meetings & Devices with ThousandEyes



Please provide details about how you are going to use this demo

Audience

External Type

Tradeshow Name

Roadshow

Demo Session Name

Troubleshooting Webex Meetings & Devices with ThousandEyes

Previous

Next

Cancel

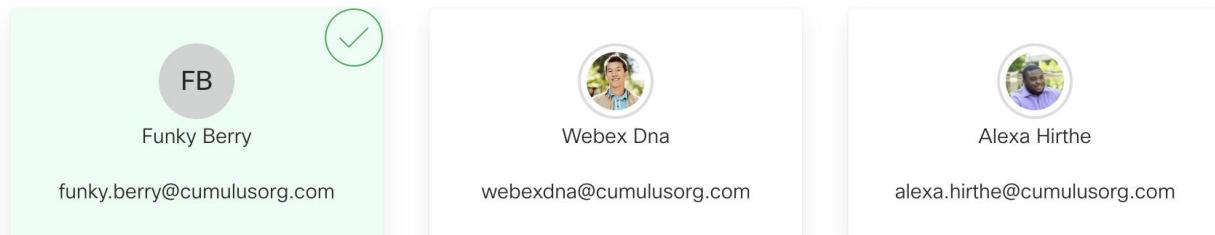
Start Demo

Click Next and then choose the character you created previously. (Note: this will be needed for automated session testing - AST)

Troubleshooting Webex Meetings & Devices with ThousandEyes



Choose a character to use in your demo for scheduling a Webex meeting.



Previous

Next

Cancel

Start Demo

Click Next and add a virtual workstation using the "+" sign. This will be used to install the ThousandEyes Endpoint Agent (EPA) which can be configured to monitor web browser sessions, automatically monitor dynamic Webex meeting network connections and run scheduled tests in the background. Note you also have an option to install the ThousandEyes agent on your personal machine

Troubleshooting Webex Meetings & Devices with ThousandEyes



If you would like to use a virtual workstation then increase the number below to 1.

- 1 +

Previous

Next

Cancel

Start Demo

Optional Step If you have a Webex device select your device and click Next

Troubleshooting Webex Meetings & Devices with ThousandEyes



Optionally select a device to add to the demo. This is needed if you want to configure the device to the correct software channel to install the ThousandEyes device agent. Then you will be able to use the device in a Webex meeting and see the network data line.



Choosing a device is optional for this demo.

Previous

Next

Cancel

Start Demo

Click Next select your duration and Click Start Demo as shown in the below screenshot.

Troubleshooting Webex Meetings & Devices with ThousandEyes ×



Choose the duration for your demo.

2 Hours 4 Hours 8 Hours 24 Hours 2 Days **3 Days**

Previous

Cancel

Start Demo

This is roughly a 45 min lab but the access duration can be upto 3 days. It will take a few minutes for the lab to spin up. While this is occurring proceed on to the ThousandEyes Overview content and extra background information in Task 2.

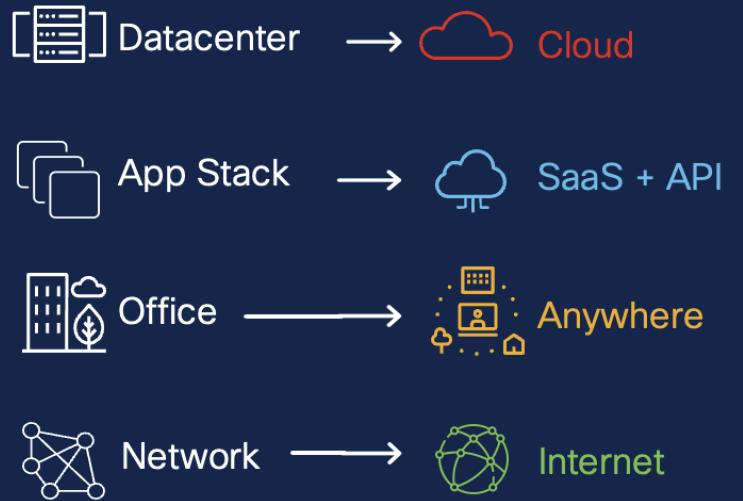
1.3 Task 2: ThousandEyes Overview

Feel free to take a few minutes while the lab spins up and review the Getting Started with Endpoint Agents guide.

The Challenge

Visibility and control is shrinking

External dependencies are exponentially growing



The Challenge

Massive blind spots erode ability to manage

So many layers, domains, and providers

Traditional tools don't work for what you don't own

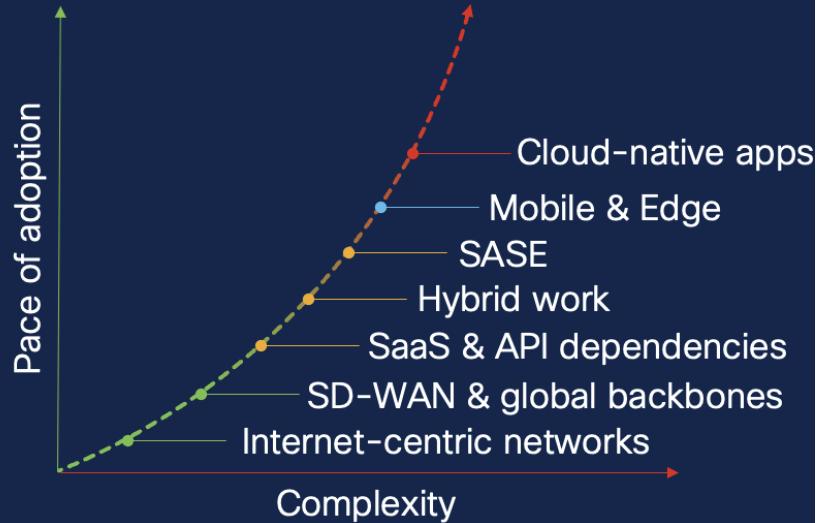


The Challenge

Soaring complexity curve is widening visibility gap

Competitive pressures driving technology adoption

Adoption outpacing capabilities to manage new environments



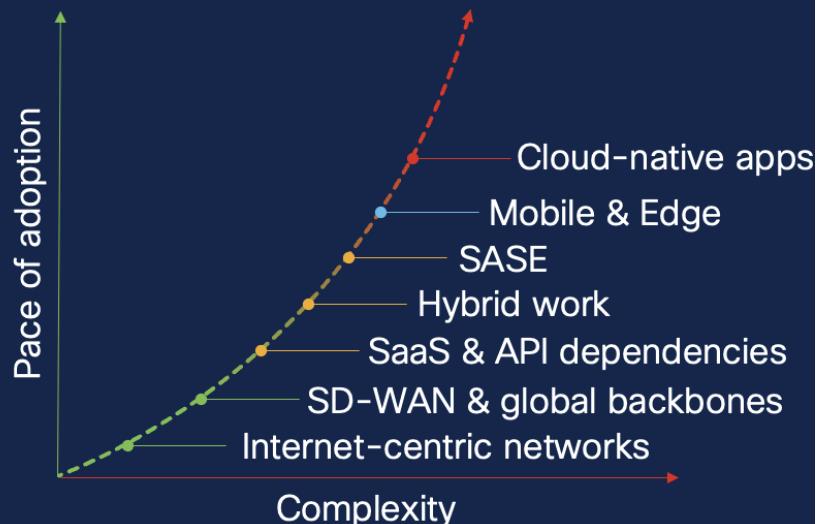
Connectivity is your business, but it's changing rapidly. Your brand is only as good as your network. Digital experience is how you are measured, but most of the path is outside your control (outside the core) What do you need to do about it? How can you understand digital experience to the things your customers are accessing and understand health of the Internet cloud and peering providers. Continue your journey to learn how ThousandEyes can help answer these questions and help solve your network and application access issues.

The Challenge

Soaring complexity curve is widening visibility gap

Competitive pressures driving technology adoption

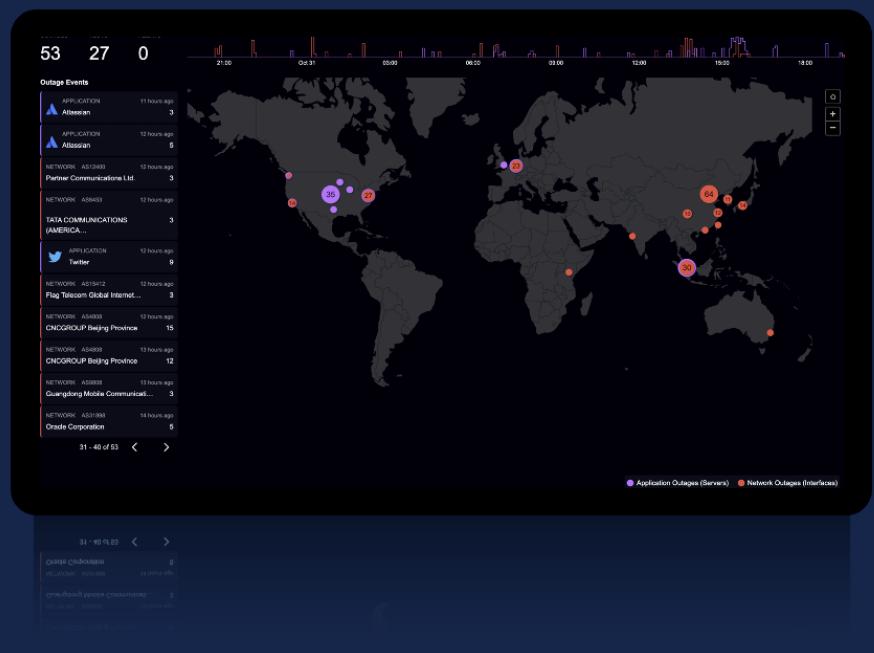
Adoption outpacing capabilities to manage new environments



See,
understand, and
improve digital
experiences
everywhere

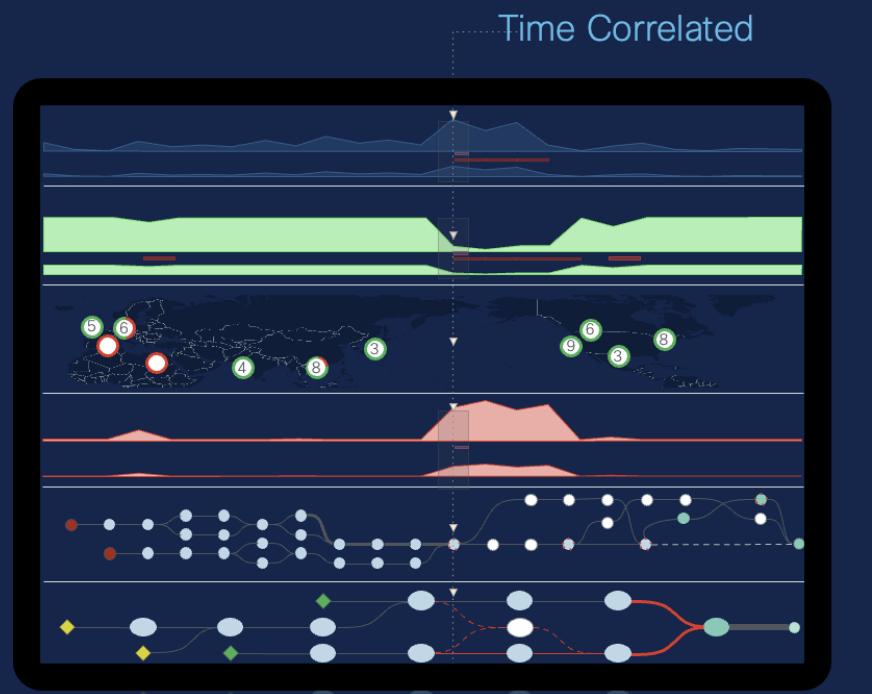
Our Solution

Collectively
powered
Internet
weather map



Our Solution

Correlate performance across every layer



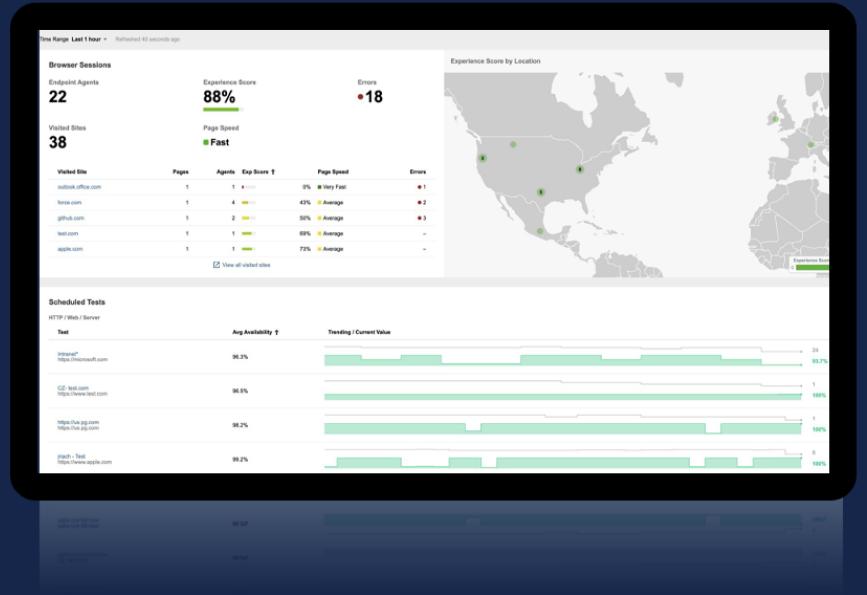
Our Solution

Visualize services end-to-end across every domain



Our Solution

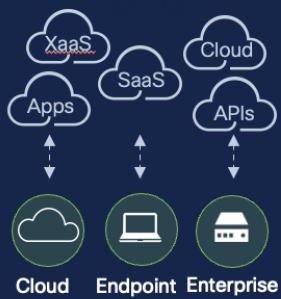
Understand
global
workforce
experience



Our Solution ThousandEyes Internet and Cloud Intelligence

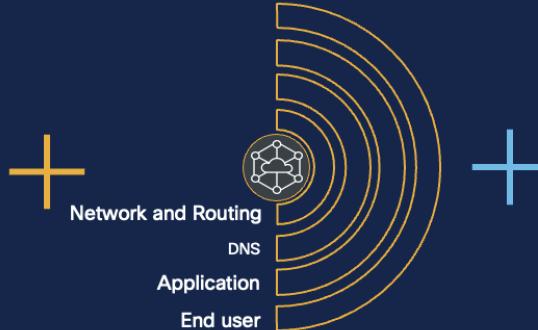
VISIBILITY

1000s Global Vantage



INTELLIGENCE

Unique X-layer Telemetry



WORKFLOWS

Global Collective Insight



Our Solution

ThousandEyes Internet and Cloud Intelligence

VISIBILITY

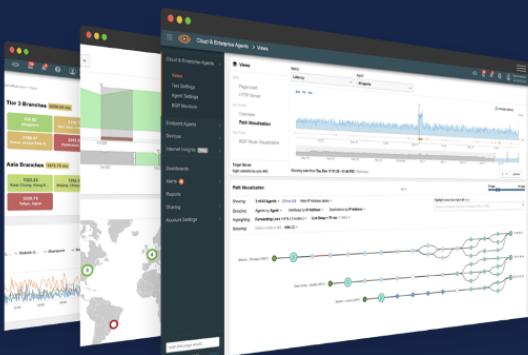


Surface fault domain, root cause, and attribution to responsible party



See digital experience in context with deep correlations across layers

INTELLIGENCE



WORKFLOWS



Gain global insight into Internet and SaaS App Outages



Drill down to quality of experience of individual users and groups in your workforce

Our Solution

ThousandEyes Internet and Cloud Intelligence

VISIBILITY



- REST API
- OTEL and Native Integrations
- Custom webhooks
- Cloud templates
- Infra as Code tools
- Sharelinks for easy sharing across teams



SREs / App owners
Troubleshoot and optimize App, APIs and delivery services

INTELLIGENCE



NetOps (Service delivery)
Tune BGP and peering and monitor for anomalies, hijacks and sub-optimal routing



Customer Support
Build trust with timely, data-driven communication



IT Helpdesk
Rapidly prioritize, resolve and direct issues to the right team to ensure workforce productivity

WORKFLOWS



External Teams
Receive detailed, actionable information to quickly resolve issues



Enterprise WAN Ops
Proactively manage and improve SD-WAN and cloud connectivity to assure app performance for users across sites

Now that you have a great background on ThousandEyes it's time to go back and verify the lab has started and login. Task 3.

Also feel free to check our awesome TE Blog and Webex site.

1.4 Task 3: Log into the Lab Environment

Click My Demo Sessions select your ThousandEyes demo and click the green View button

The screenshot shows the 'Webex Demo Toolbox' interface. On the left, there's a sidebar with 'DASHBOARD' and 'DEMOS & TOOLS' sections. The 'DEMOS & TOOLS' section is expanded, showing categories like All, Calling, Devices, Feature VODs, Integrations, IT Admin, Meeting, Messaging, Security, and Tools. The 'My Demo Sessions' item in the main menu is highlighted with a red arrow pointing to it. The main content area is titled 'My Demo Sessions' and features a large orange eye icon. Below the icon, there's a title 'Troubleshooting Webex Meetings & Devices with ThousandEyes'. A detailed description follows: 'Demo the power of Webex and ThousandEyes working together to troubleshoot Webex meetings and devices using the Control Hub/ThousandEyes integration.' Below this, it shows 'Status: Active' and 'Ends: in 2 days'. Under 'Using:', there's a profile picture of a user named 'Omer Ilyas' with a red arrow pointing to it. At the bottom, there are three buttons: a green 'View' button, a blue 'Refresh' button, and a blue 'Actions' button.

Lab Administration Information (New Read Only Admin User)

- Webex Control Hub/ThousandEyes Admin Access - A new read only admin user will be created. This is the new user you'll use to access the Webex ControlHub and ThousandEyes Platform (Note: Your user will most likely be different than this one as they are randomly assigned.)
- Email Address will be used for the SSO login access as well as the Password

Control Hub/ThousandEyes Read Only Admin

Character for logging into Control Hub/ThousandEyes with to view troubleshooting.

The screenshot shows a user profile for Abbigail Macejkovic. It includes a circular profile picture, the name 'Abbigail Macejkovic', and contact information: Email (abigail.macejkovic@cumulusorg.com), Password (redacted), and Extension (700555). A 'Refresh' button is at the bottom.

Abbigail Macejkovic

Email: abigail.macejkovic@cumulusorg.com

Password: [.....]

PMR

Extension: 700555

Refresh

- Access information to the Webex ControlHub Portal - right click and use an Incognito Browser

Control Hub URL

TIP: Right click link and choose open in incognito/private browser.

[Control Hub Administration](#)

- Access information to the ThousandEyes Portal be sure to right click and use an Incognito Browser

ThousandEyes Portal

TIP: Right click link and choose open in incognito/private browser.

ThousandEyes Administration  

First thing will be to get your VM set up

- Click the Workstation 1 link. You should see a Windows Desktop show up in new browser tab.

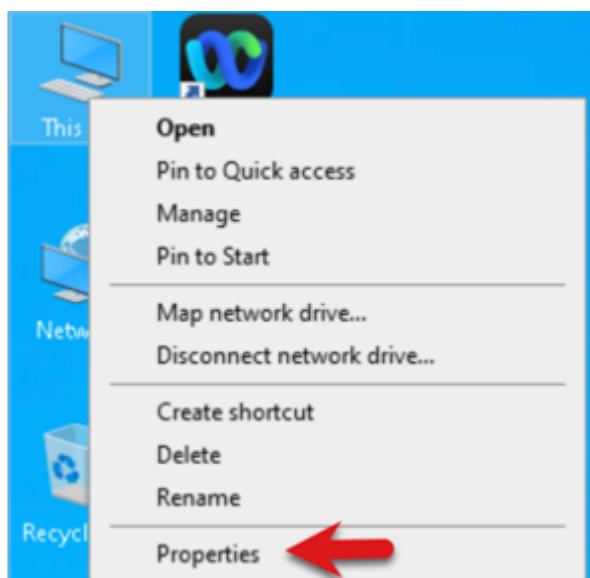
Workstation

Your virtual workstation. Workstation should already be powered on and accessible by clicking the Workstation 1 link. Use the green and yellow buttons for troubleshooting purposes only. If you don't see a link, then you didn't schedule the demo with one.

Workstation 1



Right Click on the This PC desktop icon and click Properties so you can rename the VM.



Click Rename this PC

Settings

Home

Find a setting

System

- Display
- Sound
- Notifications & actions
- Focus assist
- Power & sleep
- Storage
- Tablet
- Multitasking

About

Your PC is monitored and protected.

See details in Windows Security

Device specifications

Device name	Workstation1
Processor	Intel(R) Xeon(R) CPU E7- 2830 @ 2.13GHz 2.70 GHz (2 processors)
Installed RAM	8.00 GB
Device ID	33B895B8-DA7E-4199-9608-A7835E1687C4
Product ID	00331-20300-00000-AA122
System type	64-bit operating system, x64-based processor
Pen and touch	No pen or touch input is available for this display

Rename this PC

Copy

Name the PC your-name-Roadshow (no spaces), click Next and click Restart Now

Rename your PC

You can use a combination of letters, hyphens, and numbers.

Current PC name: Workstation1

Omer-Roadshow

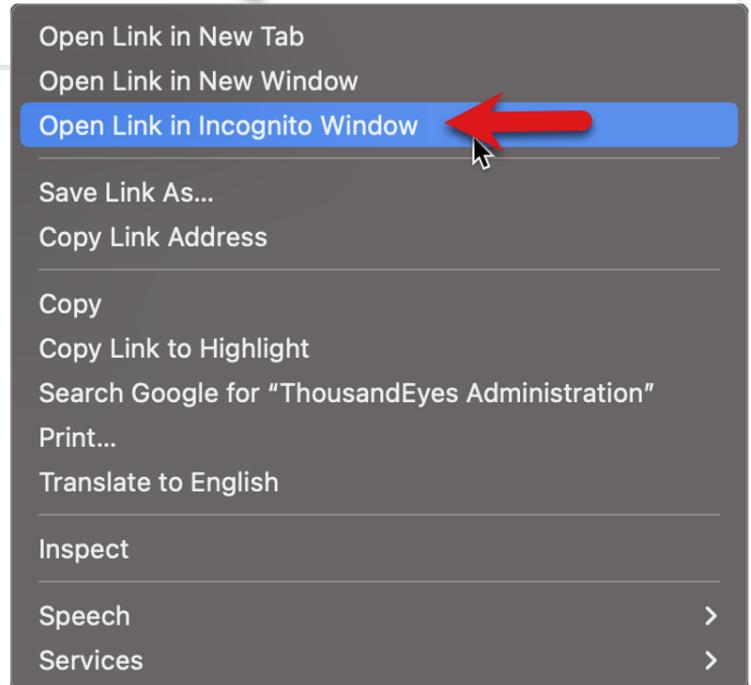
Next **Cancel**

While the VM reboots go back to your previous tab for demo . Right click the Control Hub URL and ThousandEyes Administration Portal link and open both in incognito browsers as we will be using them in the coming steps. The same creds can be used to login into Webex Control Hub and ThousandEyes

ThousandEyes Portal

TIP: Right click link and choose open in incognito/private browser.

ThousandEyes Administration 



Use the credentials from the ControlHub/ThousandEyes Read Only Admin in the next steps.

Control Hub/ThousandEyes Read Only Admin

Character for logging into Control Hub/ThousandEyes with to view troubleshooting.

The screenshot shows a user profile for 'Abbigail Macejkovic'. It includes a circular profile picture, the name 'Abbigail Macejkovic', an email address 'Email: abbigail.macejkovic@cumulusorg.com' with a copy icon, a password field 'Password: [.....]' with a copy icon, and a 'PMR' status with a copy icon. Below these are 'Extension: 700555' and a blue 'Refresh' button.

Your incognito browser will open to the ThousandEyes SSO login page as shown in the below image. Use the Username and Password from the ThousandEyes Read Only Admin to complete the login process. Click Don't show this again and Yes in the pop up window after you have completed the SSO login process.

The screenshot shows the ThousandEyes Single sign-on login page. It features the ThousandEyes logo, a 'Single sign-on' section with the email 'abbigail.macejkovic@cumulusorg.com' in a text input field, and a large orange 'Log In' button. A red arrow points to the 'Log In' button. Below it is a link 'Log in with a password'.



Sign in

abigail.macejkovic@cumulusorg.com

[Can't access your account?](#)



Back

Next



← abigail.macejkovic@cumulusorg.com

Enter password

.....|

[Forgot my password](#)



Sign in