



The bridge to possible

# How Cisco uses GenAI to make TAC Engineers Super-Human

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in:David-White-Jr  
AIHUB-2008

CISCO *Live!*

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# Cisco Webex App

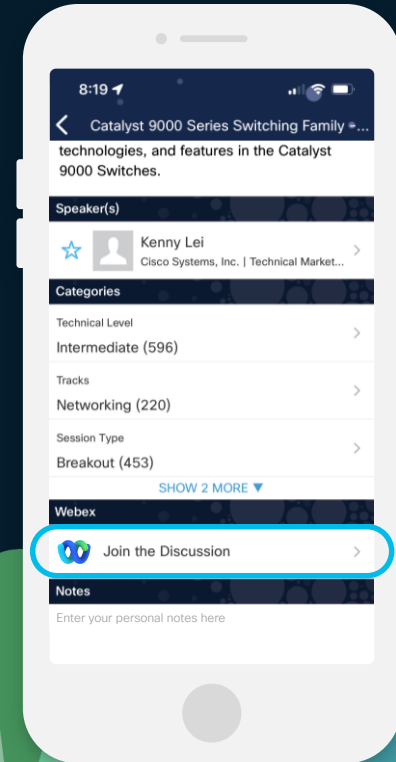
## Questions?

Use Cisco Webex App to chat with the speaker after the session

## How

- 1 Find this session in the Cisco Live Mobile App
- 2 Click “Join the Discussion”
- 3 Install the Webex App or go directly to the Webex space
- 4 Enter messages/questions in the Webex space

Webex spaces will be moderated by the speaker until June 7, 2024.





# Agenda

- Goal
- Cisco's Approach to AI
- Architecture of Solution
- TAC Engineer's workflow
- Measures: Usage, Value, and Accuracy
- Feedback from our Engineers
- Conclusion



# Goal: Super-Human TAC engineers

- Generative AI models (e.g. Large Language Models) hold immense knowledge
- Can we leverage them – and infuse them with all the internal knowledge TAC has – to enable an assistant for TAC
- Thereby empowering our Engineers to be Super-Human

# Cisco's Approach to AI



Expertise  
Human + AI



Analytics  
Smarter decisions  
faster



Automation  
Faster time  
to resolution

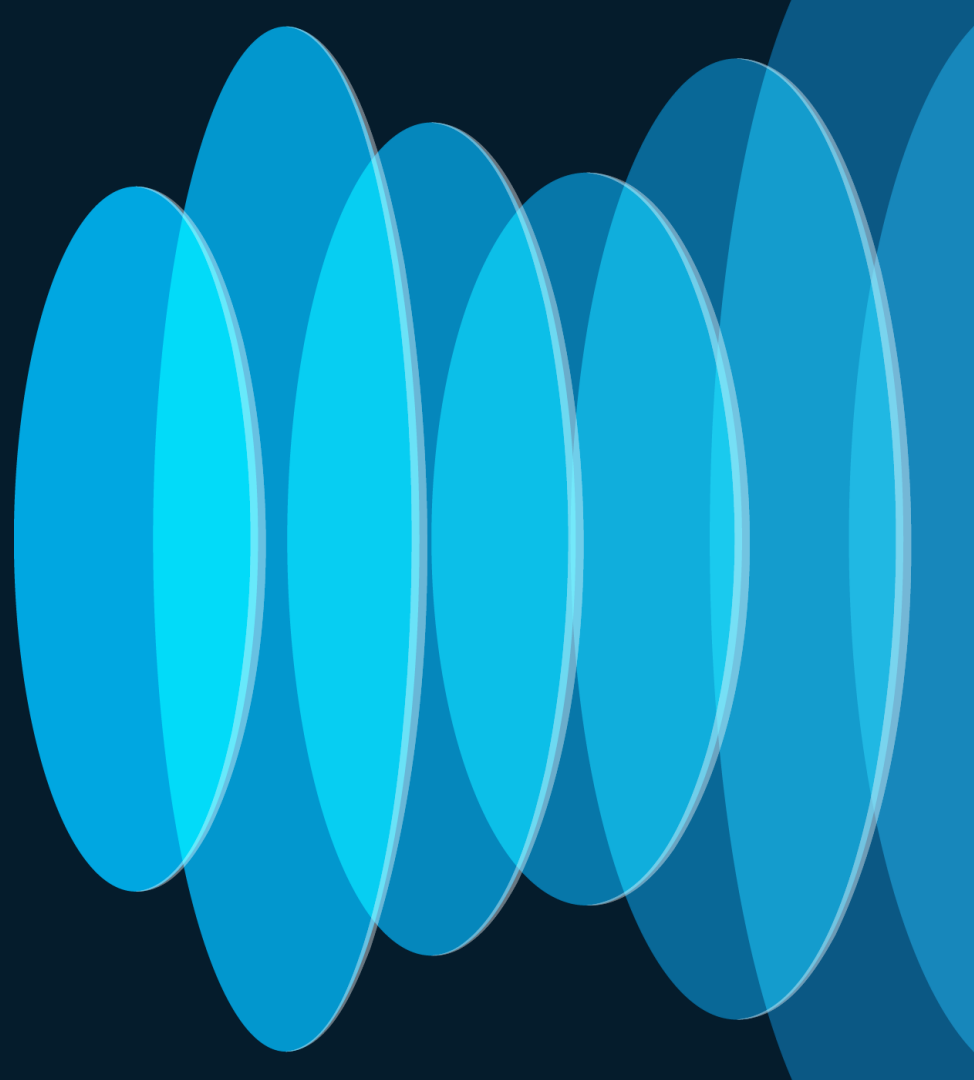
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Cisco Responsible AI Framework

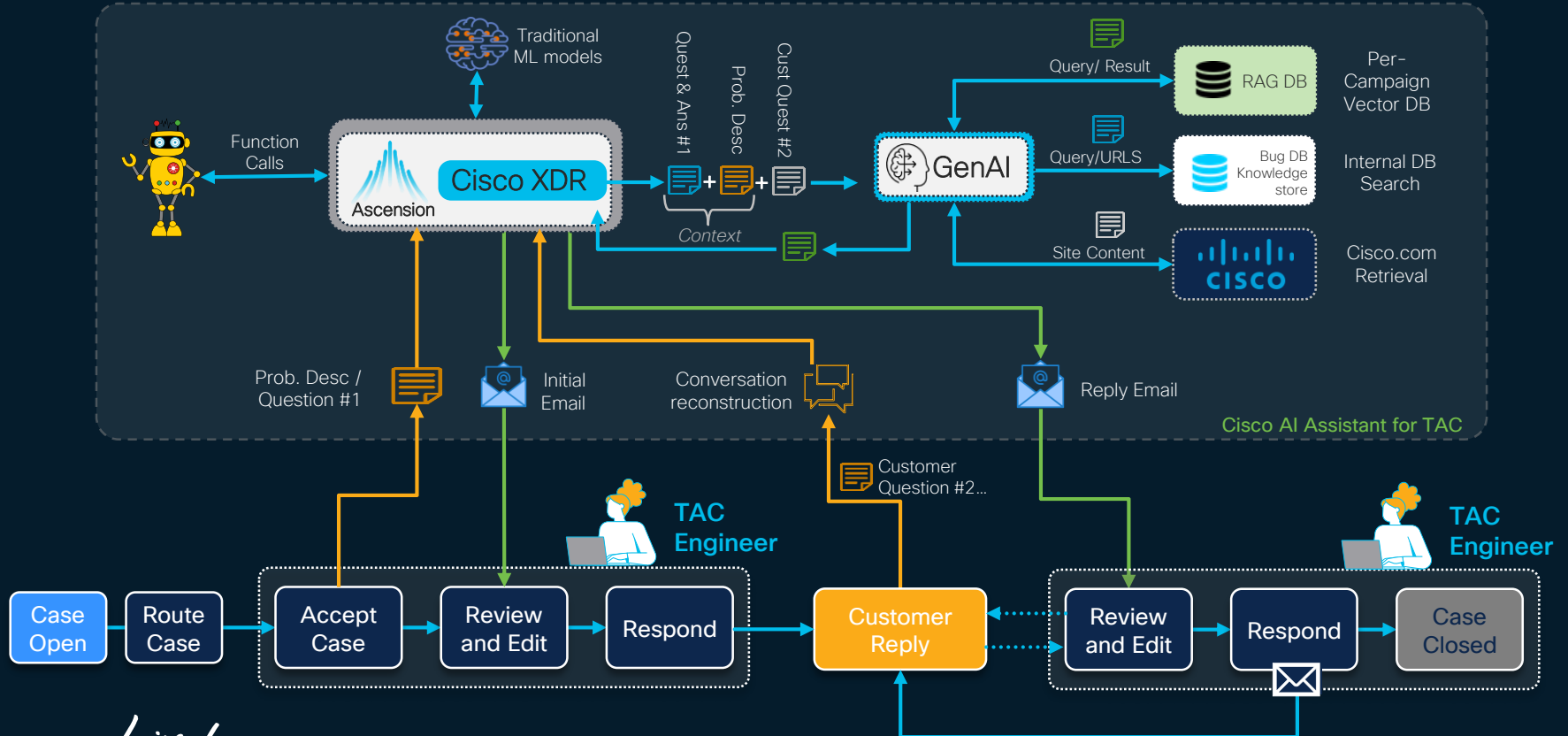
# Cisco AI Assistant for TAC – What Can it Do?

- Assisting Support Engineers
  - Initial Responses
  - Follow-Up Responses
- Troubleshooting Net-New Customer Issues
- Taking Actions on cases – in cooperation with traditional ML models
- Generating Current Case Statuses / Action Plans
- Generating Resolution Summaries
- Generating Root Cause Analysis (RCA) Documents
- Articulating the customer's sentiment on a case

# Architecture of Solution

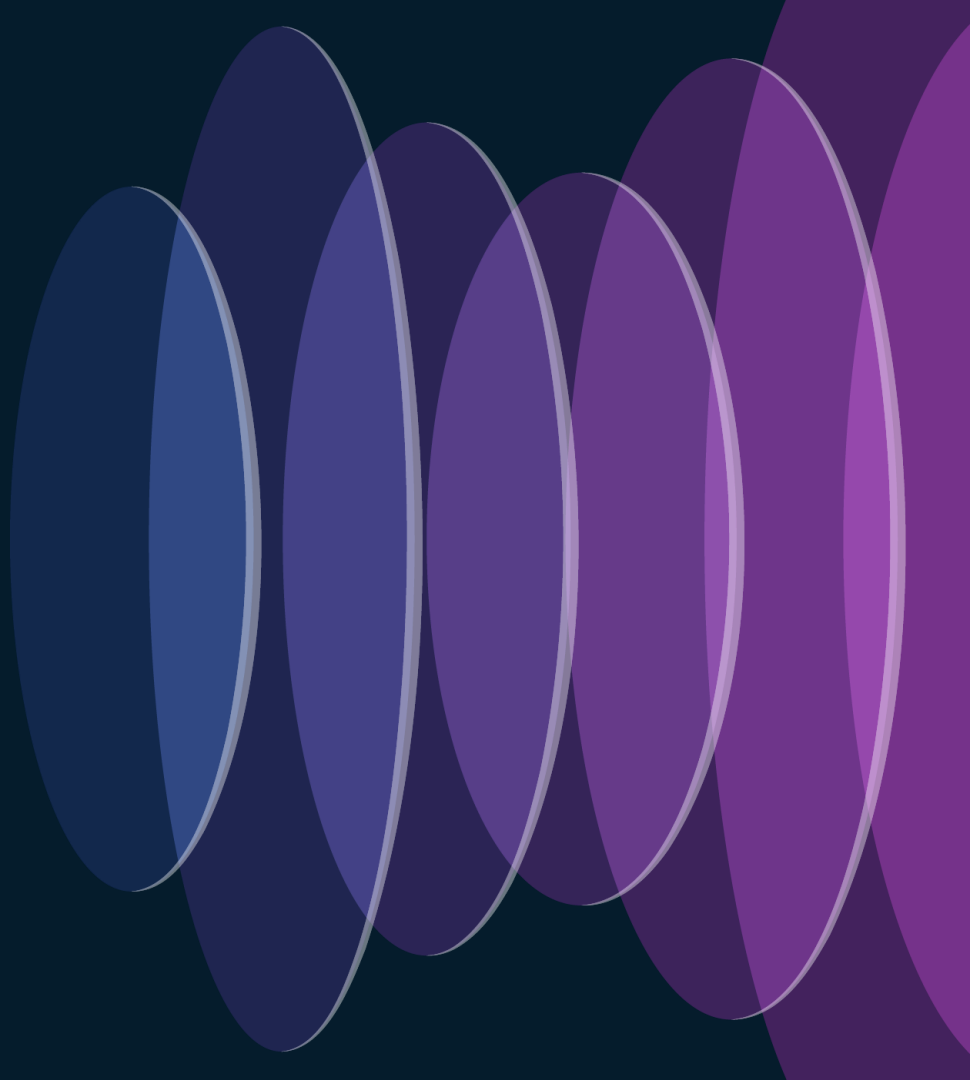


# Cisco AI Assistant for TAC - Architecture



# Demo

## TAC Engineer's workflow



# TAC Engineer's Workflow

The screenshot displays the Cisco Quicker CSONE interface. At the top, the browser address bar shows the URL `https://scripts.cisco.com/app/quicker_csone/?sr=697245668`. The page title is "Quicker CSONE". The main content area shows a customer problem with ID `697245668` titled "I am unable to route traffic via outside interface". A "Cisco AI Assistant SUGGESTED RESPONSE" is displayed in a light green box. The response text is as follows:

Thank you for contacting Cisco TAC. My name is David White and I am the owner of your case 697245668. I understand from your problem description that you're facing an issue with routing the output traffic via the ISP router on your ASA 5585 after configuring a new ISP connection. It seems that the connection is timing out. To start with, there could be several reasons for this issue. It could be related to the configuration, the ISP setup, or even a software issue. Here are a few initial steps we can take to troubleshoot this issue:

1. Verify the configuration: Ensure that the configuration for the new ISP connection is correct and complete.
2. Check the ISP setup: Verify that the ISP setup is correct and that the ISP router is functioning as expected.
3. Test the connection: Try to ping the ISP router from the ASA to see if there is any response.
4. Review logs: Check the logs on the ASA for any error messages or indications of what might be causing the issue.

To gain a better understanding of the issue and provide a more accurate solution, I need more details:

- Can you provide the configuration details for the new ISP connection?
- Have you been able to successfully establish a connection with this ISP before?
- Are there any error messages in the logs related to this issue?
- Can you share the results of a traceroute to the ISP router?

Please provide these details at your earliest convenience so we can proceed with the troubleshooting.

Below the suggested response, there is a section for "CUSTOMER SYMPTOM" with the following details:

Technology: Adaptive Security Appliance  
Subtechnology: ASA 5500-X Devices - Non-VPN  
Problem Code: Software Failure

Product: NA  
Product Family: N/A  
Software Version: N/A  
Router/Node Name: N/A

At the bottom of the page, the problem details are: "After configuring a new ISP connection on my 5585, I am not able to route the output traffic via the ISP router. Seems to timeout."

A dark blue callout box on the right side of the screen contains the text "GenAI response based on Customer Problem Description" with an arrow pointing to the suggested response area.





# TAC Engineer's Workflow

The screenshot displays the Cisco TAC Quicker CSONE interface. At the top, the browser address bar shows the URL `https://scripts.cisco.com/app/quicker_csone?sr=697245668`. The page title is "Quicker CSONE". The main content area shows a suggested response from the Cisco AI Assistant for case 697245668. The response text is as follows:

Thank you for contacting Cisco TAC. My name is David White and I am the owner of your case 697245668. I understand from your problem description that you're facing an issue with routing the output traffic via the ISP router on your ASA 5585 after configuring a new ISP connection. It seems that the connection is timing out. To start with, there could be several reasons for this issue. It could be related to the configuration, the ISP setup, or even a software issue. Here are a few initial steps we can take to troubleshoot this issue:

1. Verify the configuration: Ensure that the configuration for the new ISP connection is correct and complete.
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3. Test the connection: Try to ping the ISP router from the ASA to see if there is any response.
4. Review logs: Check the logs on the ASA for any error messages or indications of what might be causing the issue.

To gain a better understanding of the issue and provide a more accurate solution, I need more details:

- Can you provide the configuration details for the new ISP connection?
- Have you been able to successfully establish a connection with this ISP before?
- Are there any error messages in the logs related to this issue?
- Can you share the results of a traceroute to the ISP router?

Please provide these details at your earliest convenience so we can proceed with the troubleshooting.

At the bottom of the response area, there is a green "Edit & Send" button. To the right of the response area, there is a feedback button that says "Is this helpful/useful?". A black arrow points from a dark blue box containing the text "Built in Feedback" to this button. The feedback button also includes thumbs up and thumbs down icons.

Below the response area, there is a section for "CUSTOMER SYMPTOM" dated "Wed 24 Apr 2024 12:45 pm -04:00" by user "mamorten". The symptom details are:

Technology: Adaptive Security Appliance  
Subtechnology: ASA 5500-X Devices - Non-VPN  
Problem Code: Software Failure

Product: NA  
Product Family: N/A  
Software Version: N/A  
Router/Node Name: N/A

At the bottom of the page, the problem details are: "Problem Details: After configuring a new ISP connection on my 5585, I am not able to route the output traffic via the ISP router. Seems to timeout."

# TAC Engineer's Workflow

The screenshot displays the Cisco Quicker CSONE interface. The main content area shows a suggested response from the Cisco AI Assistant regarding a routing issue. A feedback modal is open over the response, prompting the user to provide helpful comments. A dark blue callout box at the bottom of the screen contains the text: "All feedback reviewed. Negative feedback with text auto-opens GIT issue to resolve".

Quicker CSONE

Feedback

Please include any comments that you think would be helpful.

Submit Cancel

All feedback reviewed. Negative feedback with text auto-opens GIT issue to resolve

697245668 I am unable to route traffic via outside interface

Cisco AI Assistant SUGGESTED RESPONSE

Thank you for contacting Cisco TAC. My name is David White and I am the owner of the ticket. I understand from your problem description that you're facing an issue with routing traffic via the new ISP connection. To start with, there could be several reasons for this issue. It could be related to the configuration of the new ISP connection. Here are a few initial steps we can take to troubleshoot this issue:

1. Verify the configuration: Ensure that the configuration for the new ISP connection is correct.
2. Check the ISP setup: Verify that the ISP setup is correct and that the ISP router is reachable.
3. Test the connection: Try to ping the ISP router from the ASA to see if there is connectivity.
4. Review logs: Check the logs on the ASA for any error messages or indications of the issue.

To gain a better understanding of the issue and provide a more accurate solution, please provide the following details:

- Can you provide the configuration details for the new ISP connection?
- Have you been able to successfully establish a connection with this ISP before?
- Are there any error messages in the logs related to this issue?
- Can you share the results of a traceroute to the ISP router?

Please provide these details at your earliest convenience so we can proceed with the troubleshooting.

Wed 24 Apr 2024 12:45 pm -04:00 mamorten CUSTOMER

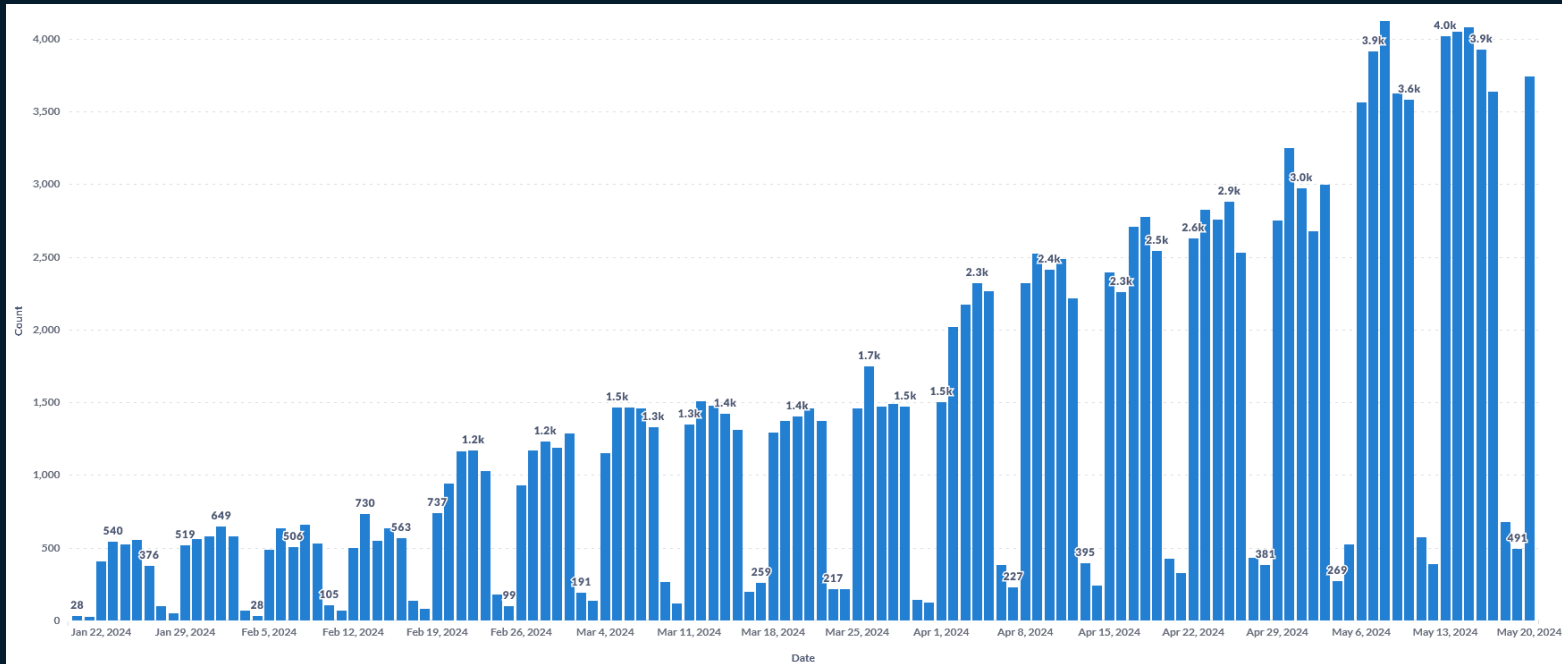
Technology: Adaptive Security Appliance  
Subtechnology: ASA 5500-X Devices - Non-VPN  
Problem Code: Software Failure

Product: NA  
Product Family: N/A  
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Router/Node Name: N/A

Problem Details: After configuring a new ISP connection on my 5585, I am not able to route the output traffic via the ISP router. Seems to timeout.

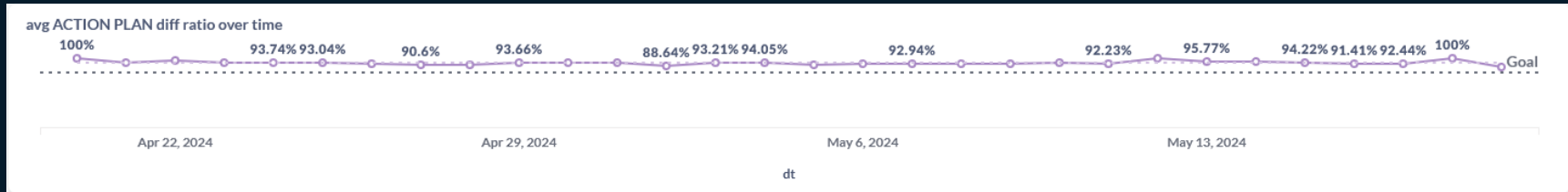
# Measures: Usage, Value, and Accuracy

- Monitor the number of users using the capability



# Measures: Usage, Value, and Accuracy

- Monitor how much GenAI text is retained



# Feedback from our Engineers

*This tool has improved over the last few months. Emails are clear and well organized.*

*A really great suggestions*

*Very accurate information*

*Great feedback. Seems to match up with the guides.*

*This comment was very accurate*

*A little to detailed and the 2<sup>nd</sup> sentence was unnecessary. Everything else 100% awesome*

# Feedback from our Engineers

Just WOW

Just WOW, I am amazed

Really useful, it saved approx. 20 minutes of my time. Amazing!

This is pretty cool it took my existing EEM script and built off of it to include new commands we were considering adding

This tool is wonderful. There is a special place in heaven for the developer(s) of this tool.

# Conclusion

- Start NOW on your **GenAI Journey**
- Engage early adopters and build a **community**
- Use GenAI to **Assist** rather than Replace
- **Integrate** into Workflows
- Measure, Feedback, Iterate

# Complete Your Session Evaluations



Complete a minimum of 4 session surveys and the Overall Event Survey to be entered in a drawing to **win 1 of 5 full conference passes** to Cisco Live 2025.

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**Earn 100 points** per survey completed and compete on the Cisco Live Challenge leaderboard.

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Level up and earn **exclusive prizes!**

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Complete your surveys in the **Cisco Live mobile app.**

# Continue your education

- Visit the Cisco Showcase for related demos
- Book your one-on-one Meet the Engineer meeting
- Attend the interactive education with DevNet, Capture the Flag, and Walk-in Labs
- Visit the On-Demand Library for more sessions at [www.CiscoLive.com/on-demand](http://www.CiscoLive.com/on-demand)

Contact me at: [dwhitejr@cisco.com](mailto:dwhitejr@cisco.com)

# Cisco Live AIHUB Sessions

## Software

Introducing Motific: The GenAI Control Hub for Policy, Privacy, and Observability - AIHUB-1011 (Mon. 3:00p)

How to Choose the Right LLM for Your Application  
AIHUB-2007 (Thur. 10:30a)

Retrieval Augmented Generation (RAG) with LangChain  
AIHUB-2002 (Mon. 2:15p)

## Security

Beyond Bias: Unlocking AI with Domain Expertise - AIHUB-1001 (Mon. 11:15a)

Securing Retrieval Augmented Generation (RAG) Implementations and the LLM Stack  
AIHUB-2001 (Wed. 11:15a)

## Operations

Unlock the Future: Leveraging Generative AIOps for Enterprise Innovation and Performance - AIHUB-1006 (Mon. 1:30p)

## Policies

Ethical AI in Action: Navigating Innovation with Integrity - AIHUB-1005 (Wed. 3:00p)

## Infrastructure

AI business strategies for successful transformation  
AIHUB-2003 (Wed. 4:30p)

PACKET BUDDY - Chatting with your PCAPs, via the Cloud or Locally on Your Own Machine! - AIHUB-2000 (Wed. 10:30a)

Enhancing Collaboration with the Future: Webex and Generative AI Integration - AIHUB-1000 (Mon. 10:30a)

Harnessing Intelligent Integration: Empowering Customer Support with Webex Cloud and TAC Virtual Engineer AIHUB-1007 (Thur. 12:00p)

## User Persona Experience

AI for Optimizing User Experience Across Networking, Security, & Collaboration  
AIHUB-2004 (Wed. 3:45p)

How Cisco Empowered Employees with Generative AI Services and Smarter Content  
AIHUB-2009 (Wed. 1:30)

## Learning & Development

Reskilling the Workforce for the Race to AI  
AIHUB-1002 (Tues. 1:30p)

## Talent

How Cisco uses Generative AI to make TAC Engineers Super-Human - AIHUB-2008 (Thur. 11:15a)



The bridge to possible

# Thank you

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