Cisco TechClub

Lokální edukační on-line webináře každých 14 dní

Cisco TechClub
hlavní portál

Cisco TechClub
registrační stránka

Cisco TechClub
Webex Space

The bridge to possible

AI in Collaboration

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21.1.2025

Agenda

- Introduction
- Real-time Media Models
- AI Agent
- AI Assistants

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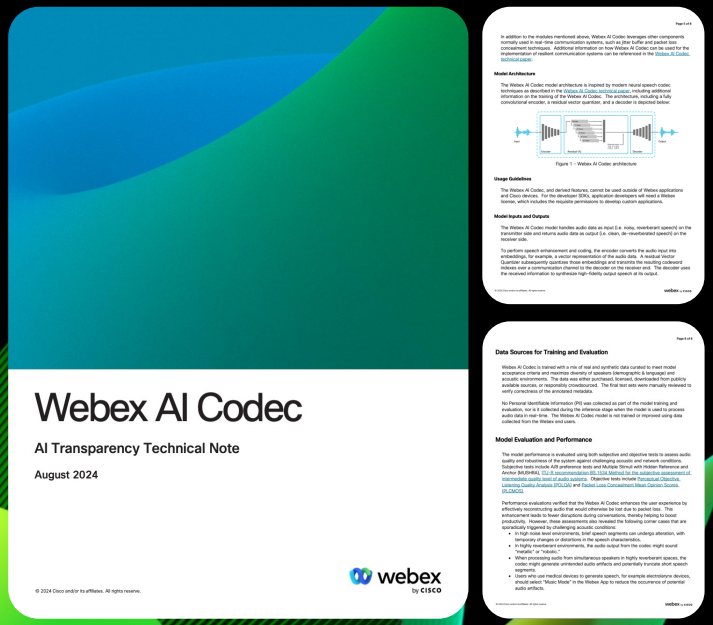
Introduction

Preserving your trust with AI governance



Example of 22 Webex AI Transparency Technical Notes available from Cisco Trust Portal

- Transparency
- Fairness
- Accountability
- Reliability
- Security
- Privacy

Cisco **Responsible AI** Principles

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Incredible AI momentum

Webex Suite

AI Codec

Meeting Summaries

Be-right-back Detection

Call Summaries[1]

Format, tone, translation

Vidcast Highlights

Ask AI Assistant – recordings

Custom Dictionary

Cisco Devices

Meeting Zones

Frames & People Focus

Cross-view

Cinematic Meetings

Virtual AI Lens

Extended Speaker Tracking

Webex Contact Center

Agent Wellness

Suggested Responses[1]

Auto CSAT

Dropped Call Summaries

Topic Analytics, Volume Drivers

Native Voice Virtual Agent [1]

Webex Connect

Code Generation with Evaluate Node

Chat Summarization

Multilingual Chatbots

'Cold Start' Bot training data generation

AI Outbound Video[1]

Webex Control Hub

AI Assistant for Control Hub

AI Assistant for Developers[1]

AI Workspace Ranking [1]

[1] in beta

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Real-time Media Models

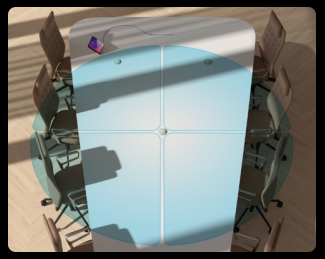
Business Cases – Distance Zero Meetings

Eyes

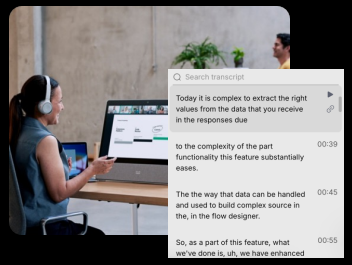
Knowing where people are in the room

Knowing who is in the room

Ears



Knowing where the active speaker is sitting



Knowing who is speaking (Recording transcript)

Brain

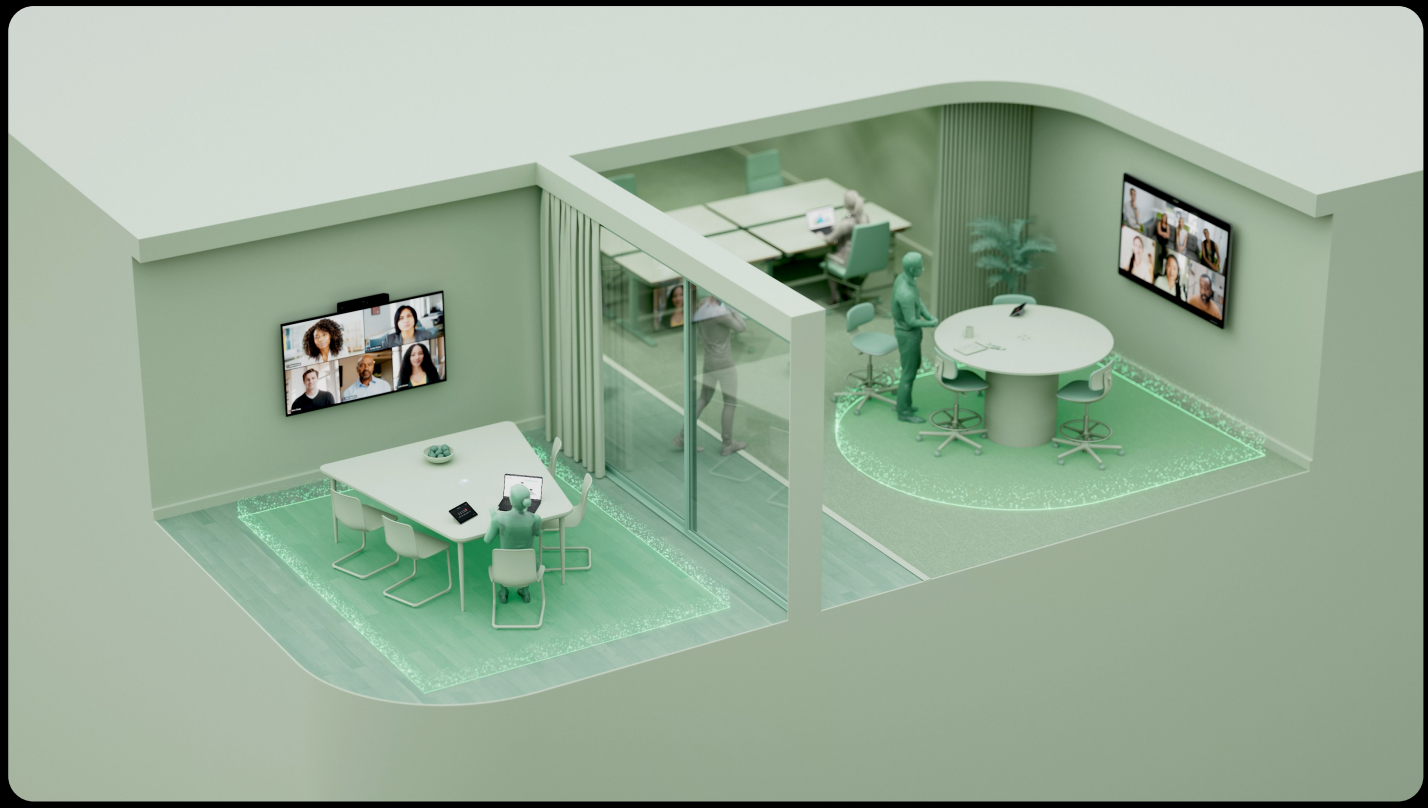
Give the best view of the room

Framing is a blend of art and science

Focus only on those in the meeting

Meeting Zones

Distraction-free meetings in open spaces framing and tracking only people in the meeting zone



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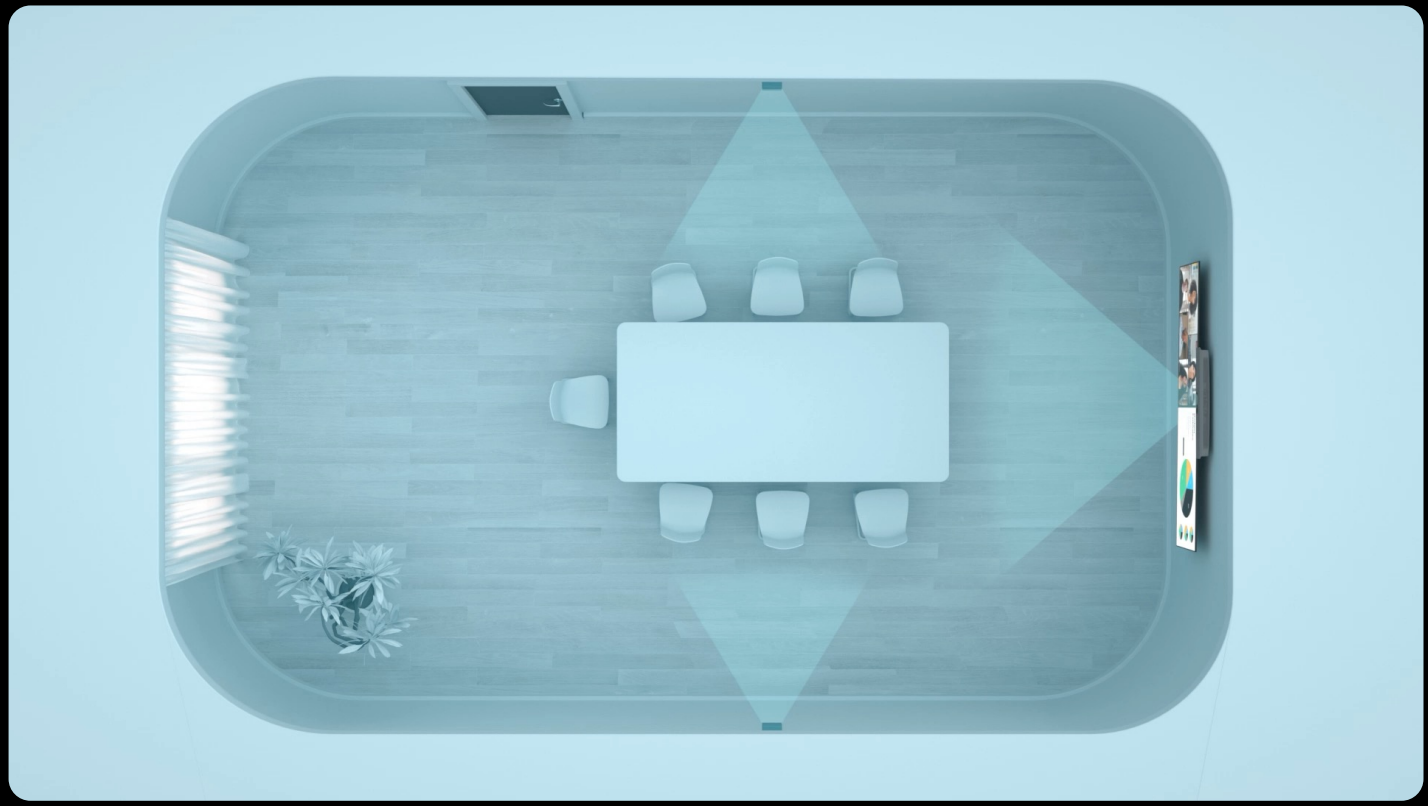
Cross View

Follow where the speaker is looking



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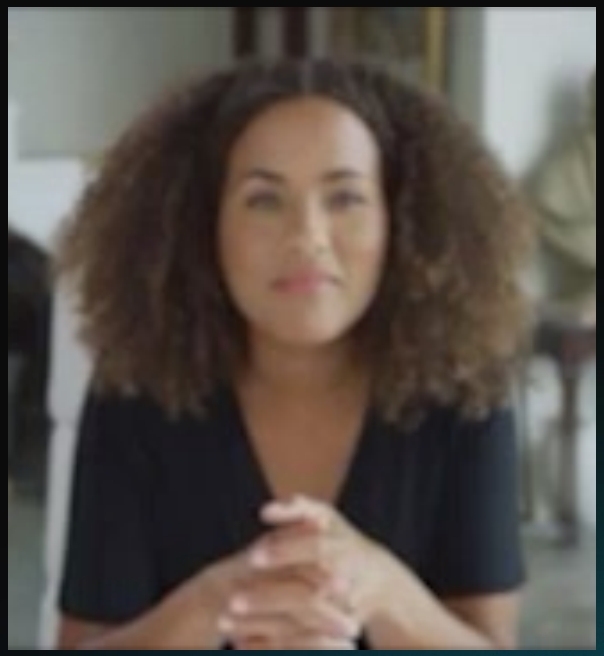
Be right back

Blur your camera and mute microphone automatically when you step away

Revolutionizing video with super resolution

Generative AI video will rebuild packets in poor bandwidth conditions



Low resolution video captured at 270p

Super Resolution rescales 270p back into 1080p

Methodology

Working with Deep Learning

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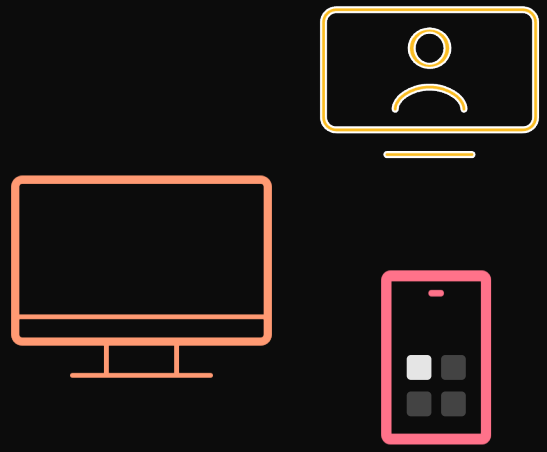
Cloud or Edge?

Performance(?)
Scalability (LLMs)



Image/audio quality
Low latency
Feature granularity

webex

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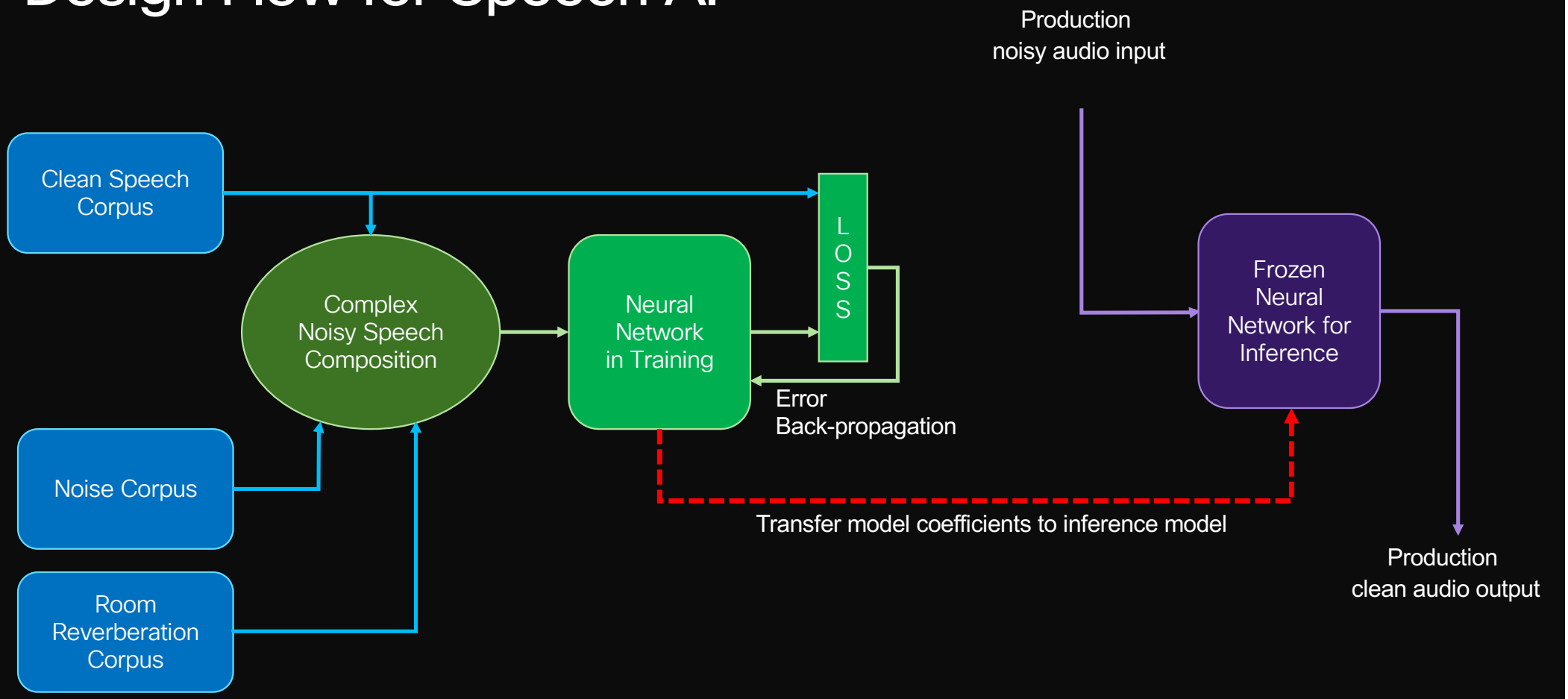
Processing Audio

Design Flow for Speech AI



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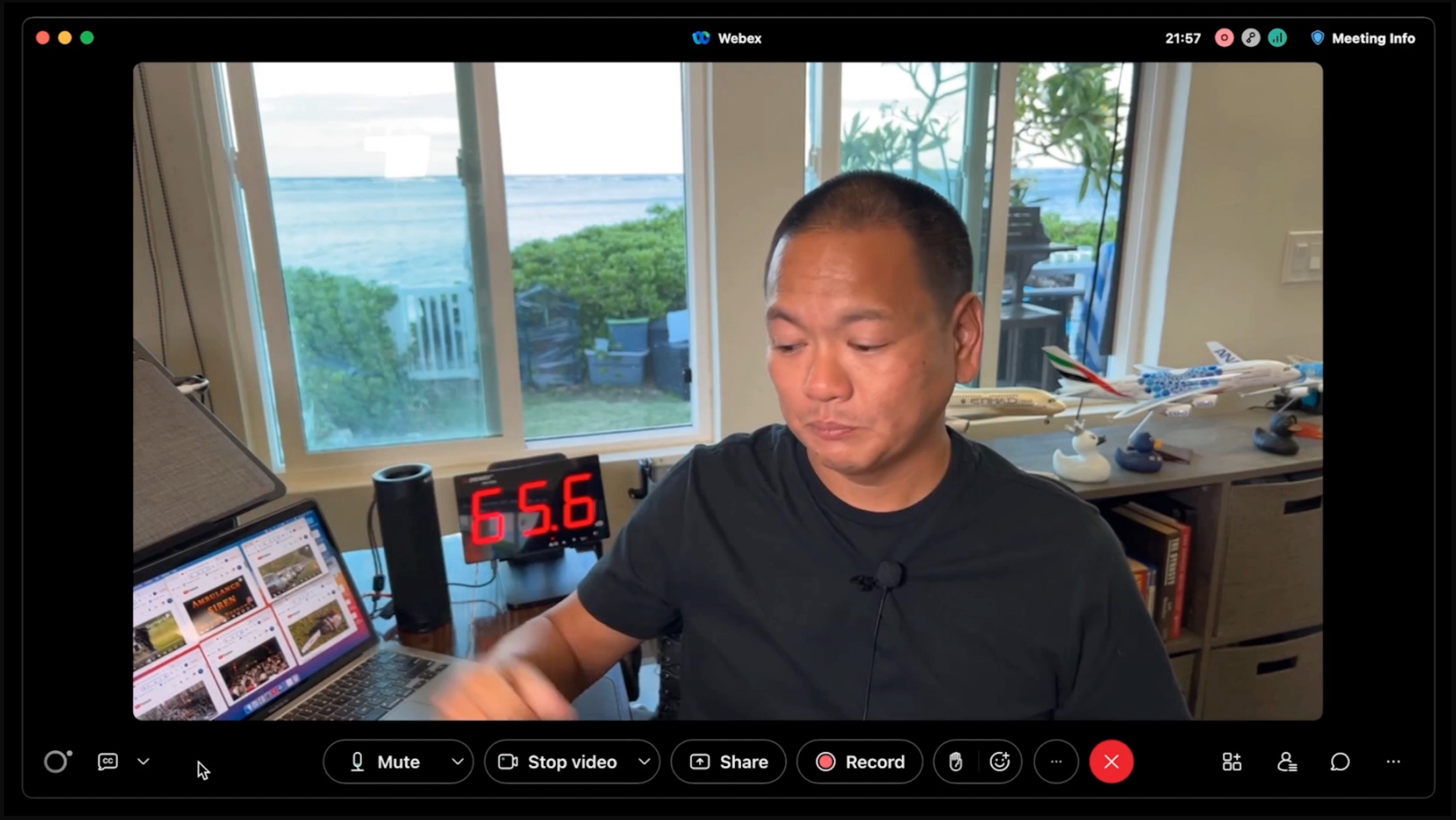
Processed at Endpoint or in Cloud



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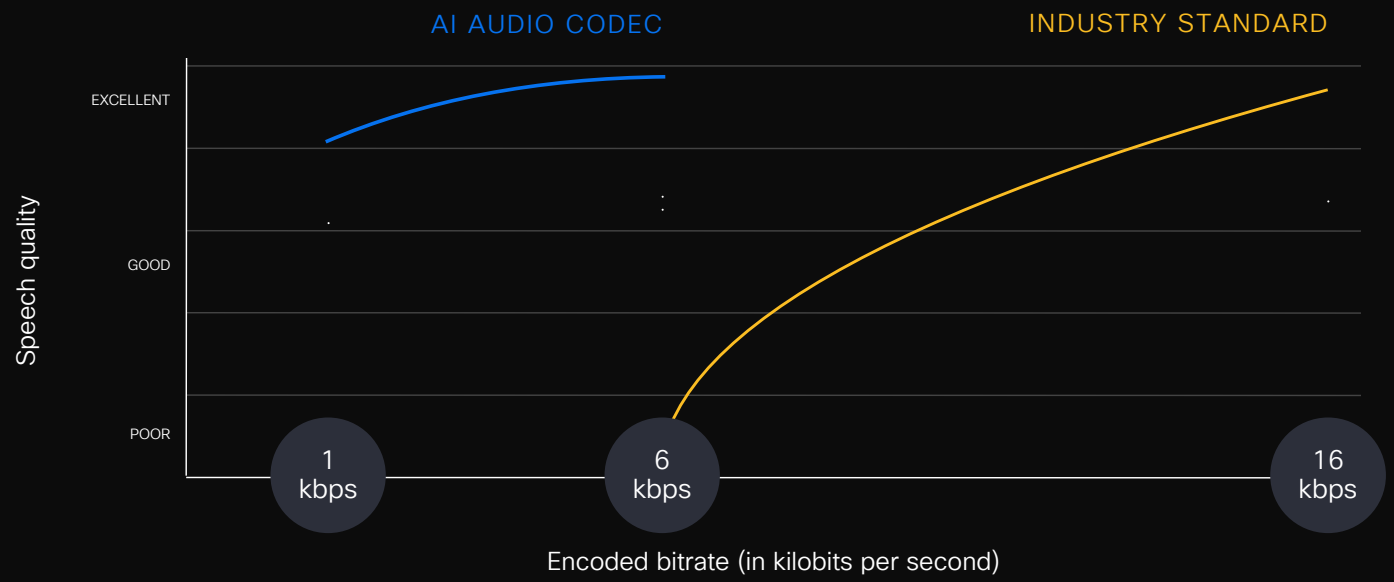
INTRODUCING

AI Audio Codec

Optimal quality audio at a fraction of the bandwidth



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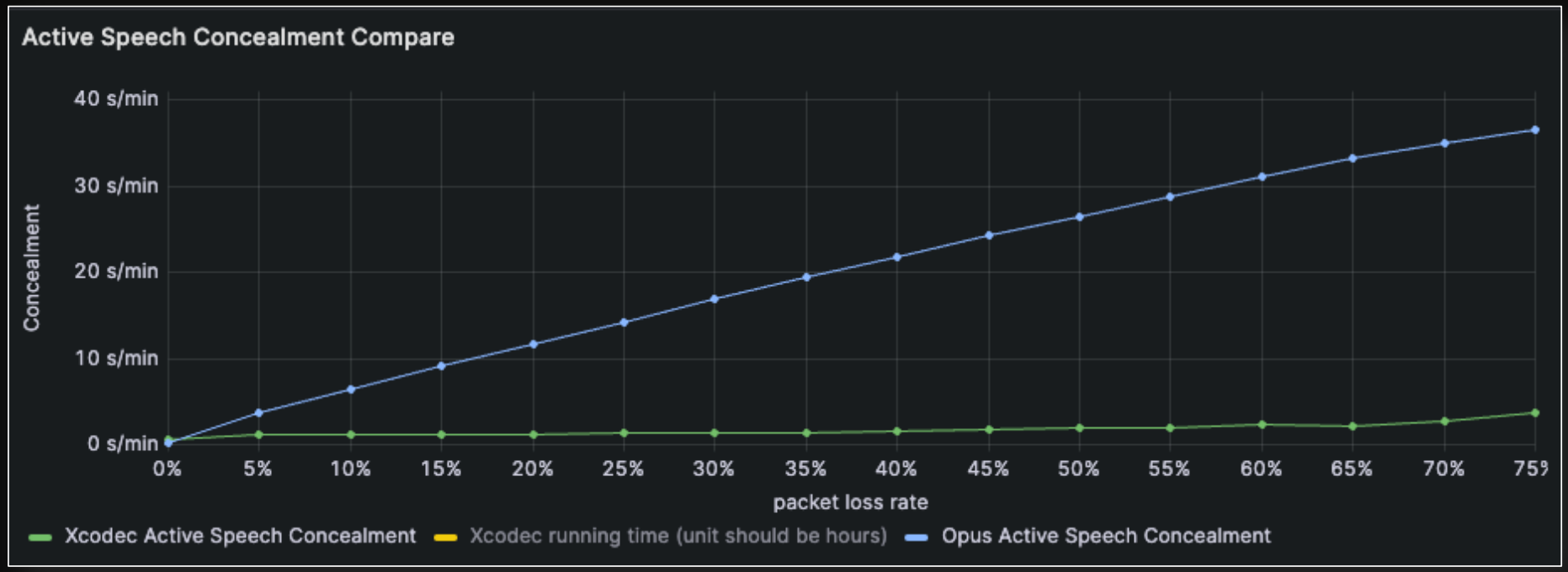

Even with high packet loss, AI Codec maintains speech concealment close to 0 sec, while Opus' speech concealment increases linearly with packet loss.

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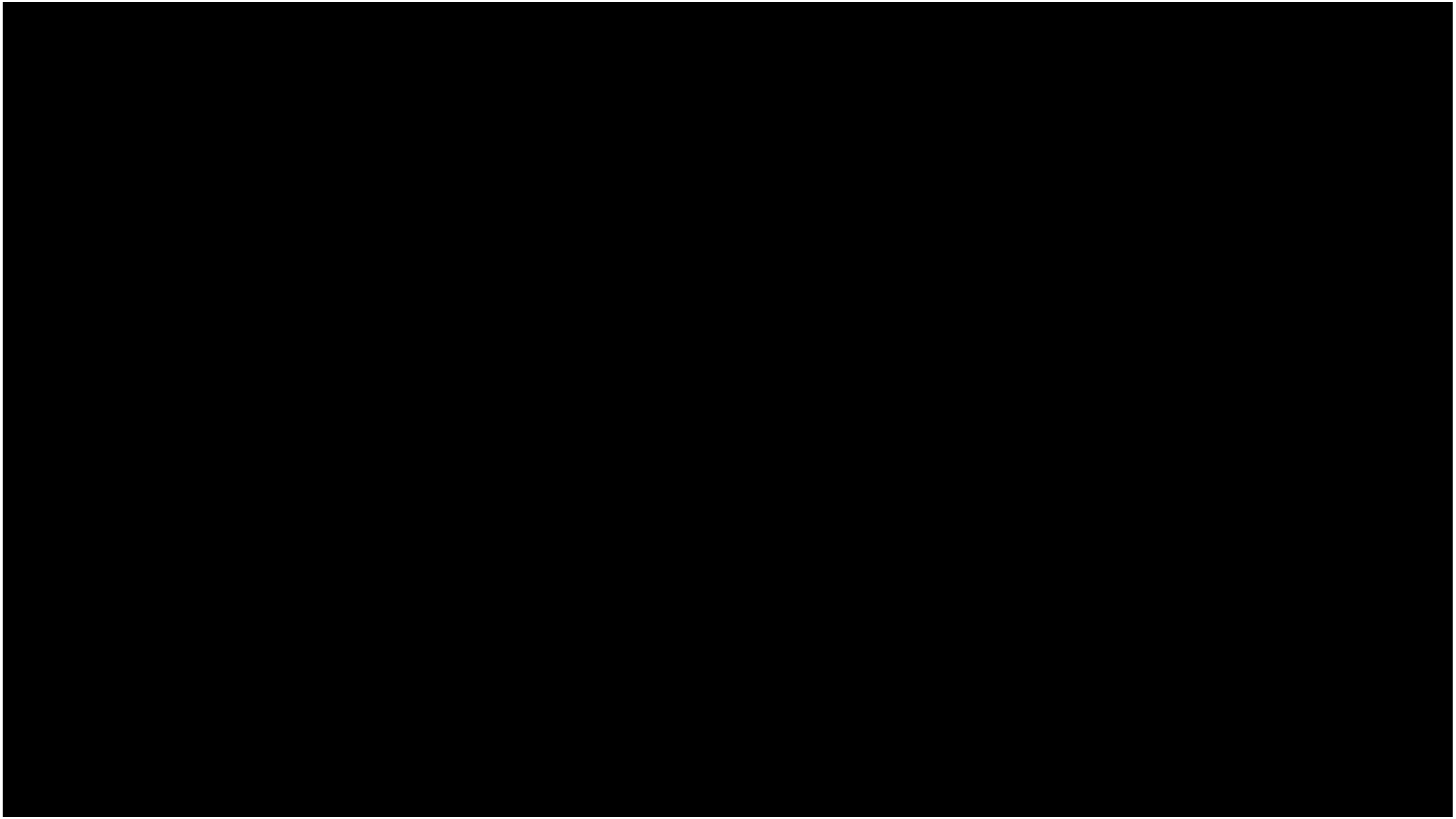
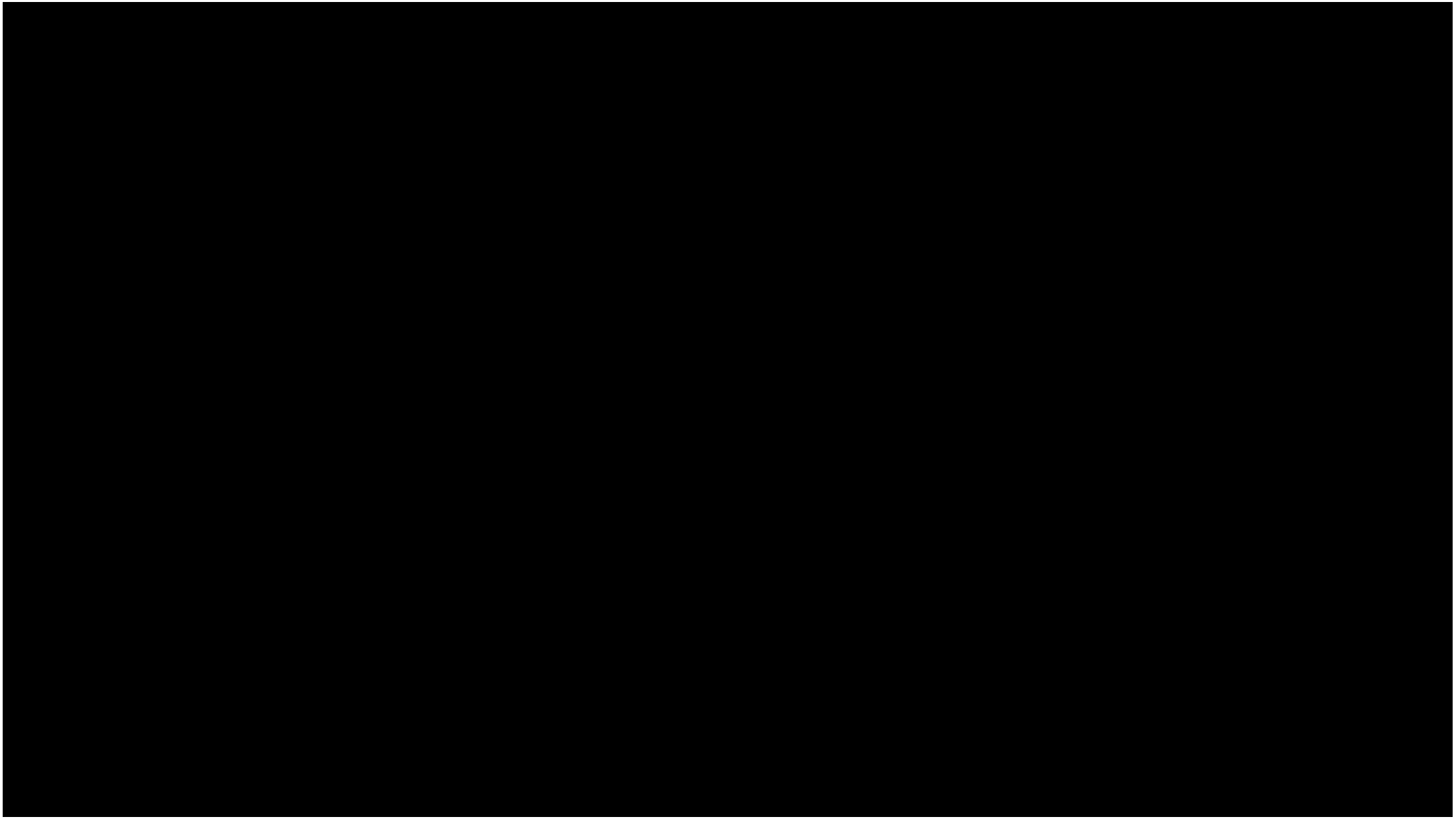
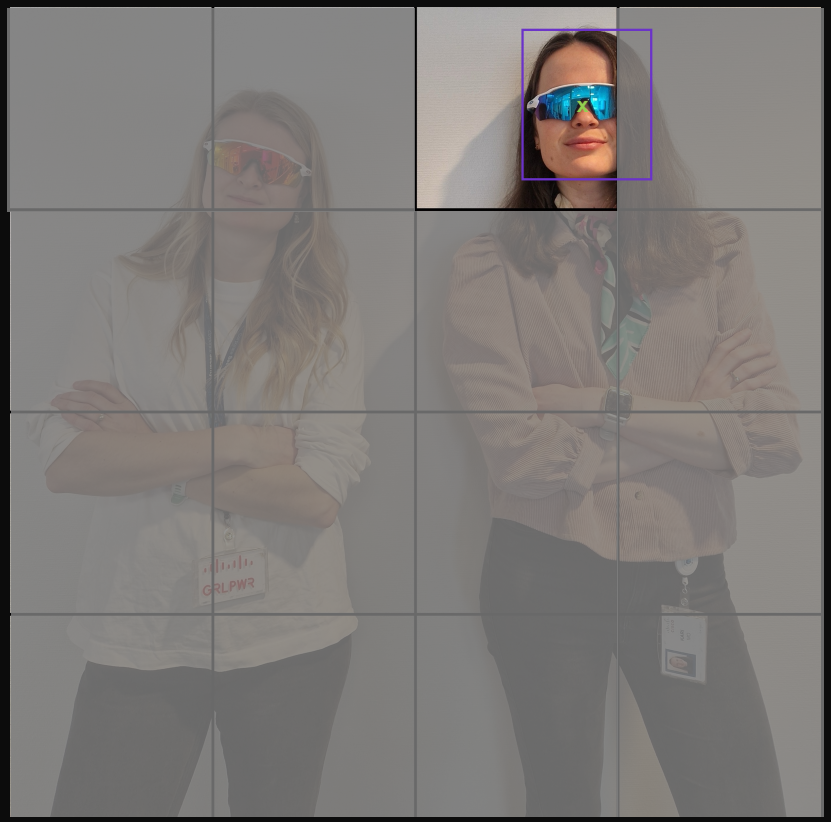




Processing Video

X: 2.97
Y: −0.04
Z: 0.02
face−95%
NVIDIA
cisco
webex

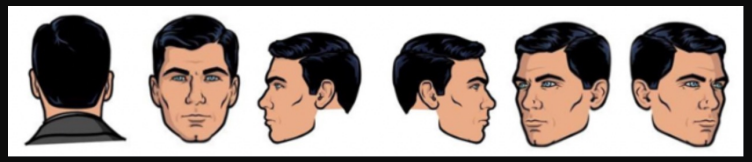
Output of Head Detect model



The last 6 numbers are probabilities that the head belongs to one of 6 *head pose classes*

$$[t_x, t_y, t_w, t_h, P_{obj}, P_0, \ldots, P_{C-1}]$$

```
0 = head (back of the head)
1 = frontal
2 = full_left
3 = full_right
4 = half_left
5 = half_right
```



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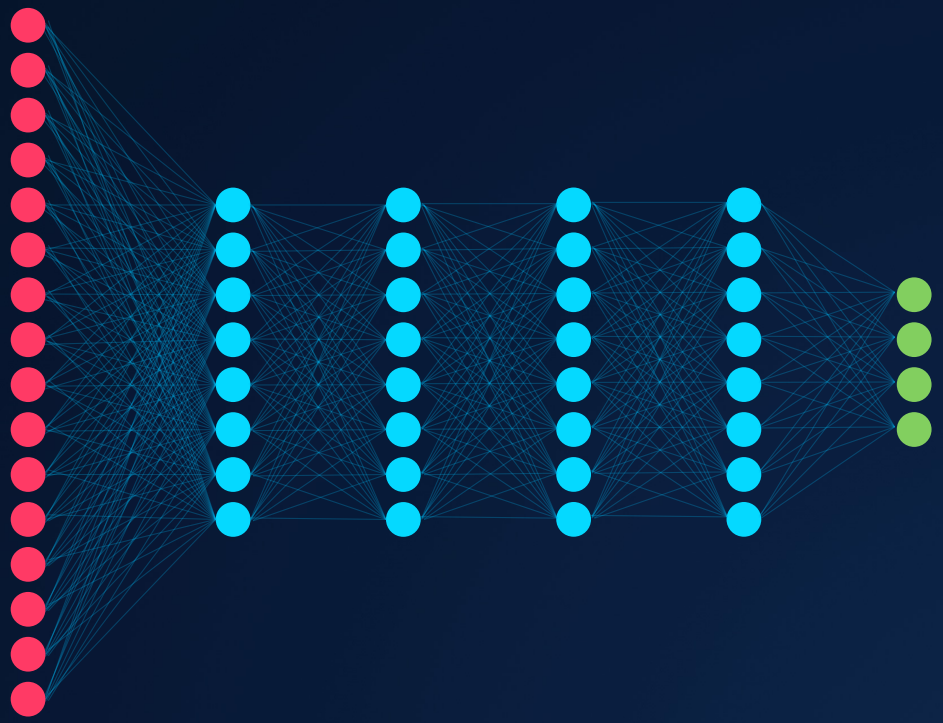
Artificial neural networks for machine vision

Source pixels



Background segmentation

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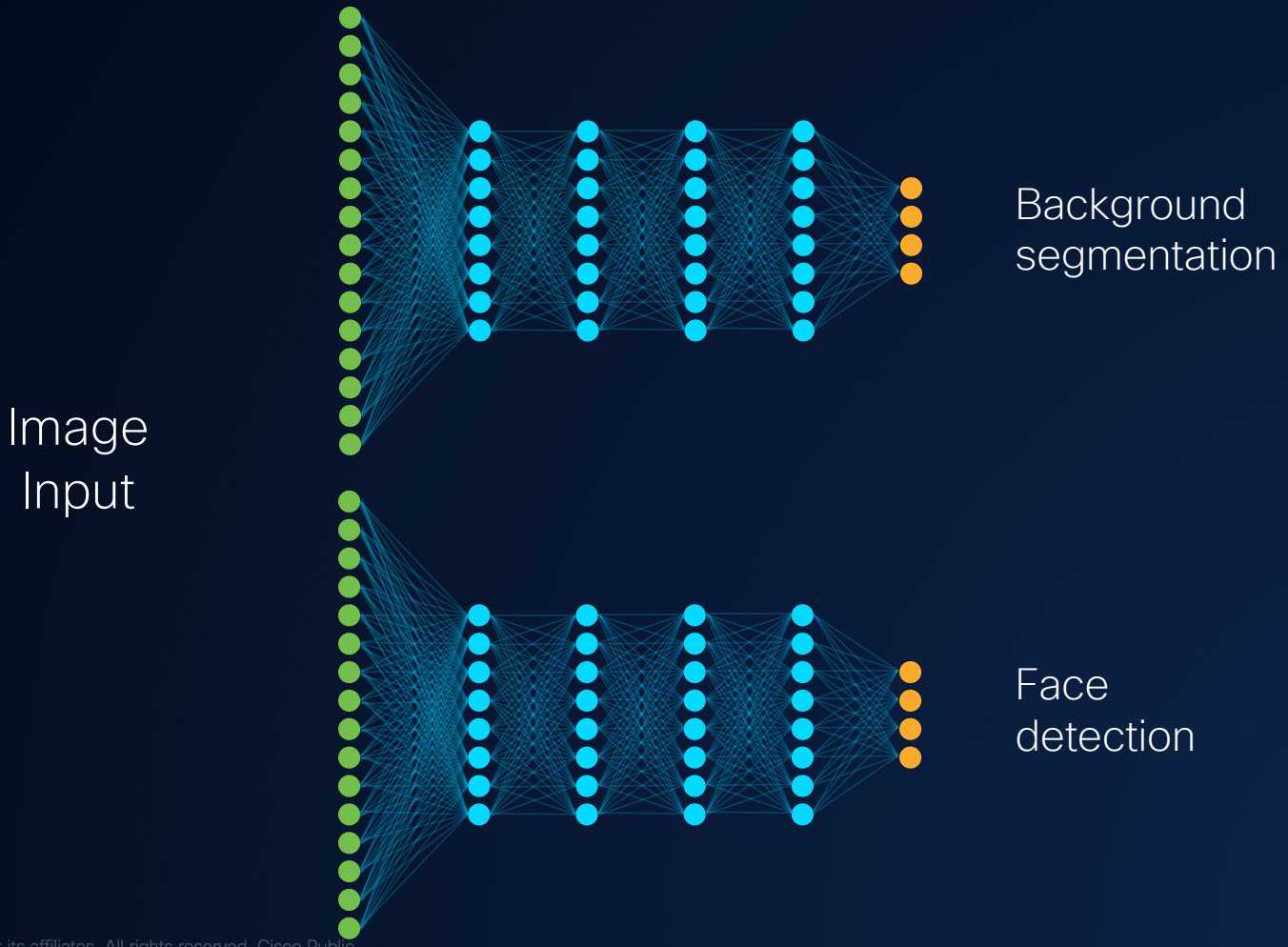
Optimizing the Architecture



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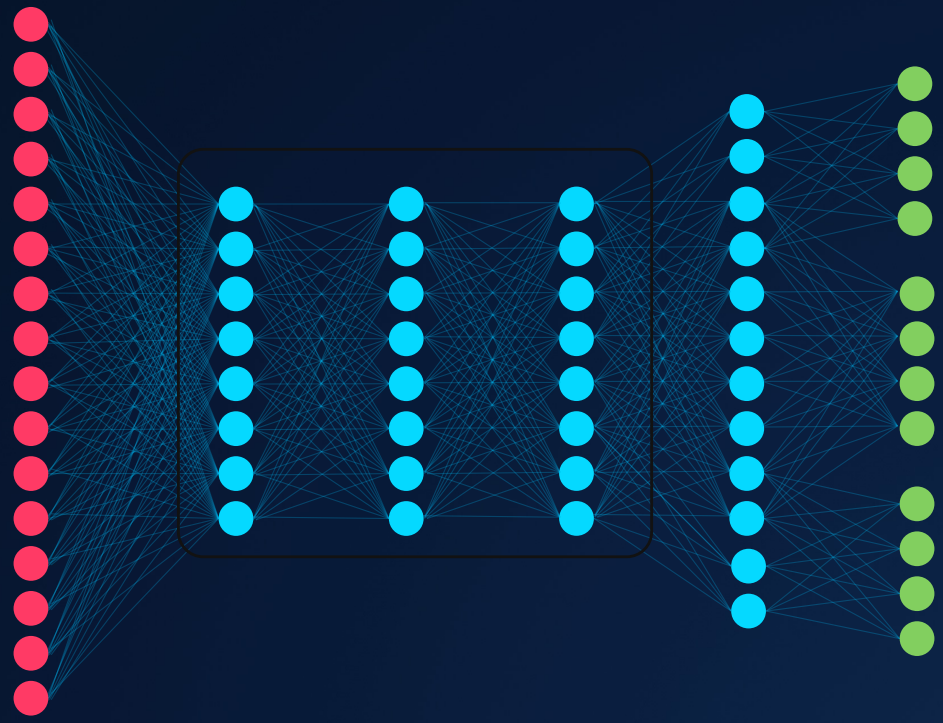
Artificial neural networks for machine vision

Source pixels



Gesture recognition

Background segmentation

Face detection

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From Lab to Product

Software

- Portability
  - Windows, Mac, Linux
  - iOS, Android
  - Cisco-specific hardware (Linux appliance)
- Modularity
  - activate features based on the hardware capabilities and performance
- Stability
- Privacy & Security
  - Responsible AI

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Hardware

- future-proof
- 5-7 years lifespan
- FPGA -> GPU

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Cisco AI Agent

AI Agent

Autonomous interactions, natural-sounding language, and true self service

AI Assistant

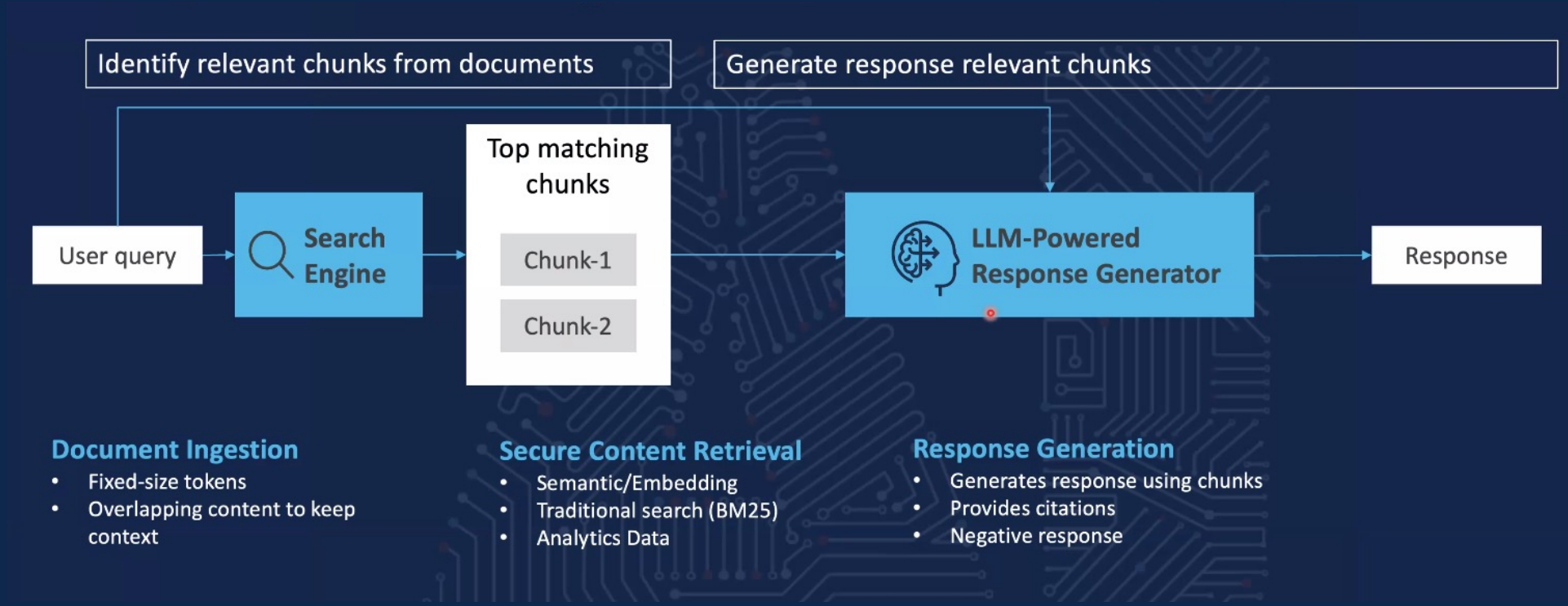
Suggested responses, automation of tasks, and greater agent efficiency

INTRODUCING

Webex AI Agent

Webex AI Agent

Retrieval Augmented Generation (RAG)



Document Ingestion
- Fixed-size tokens
- Overlapping content to keep context

Secure Content Retrieval
- Semantic/Embedding
- Traditional search (BM25)
- Analytics Data

Response Generation
- Generates response using chunks
- Provides citations
- Negative response

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Demo

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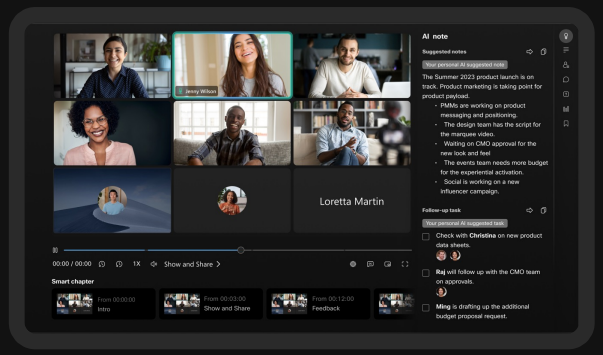
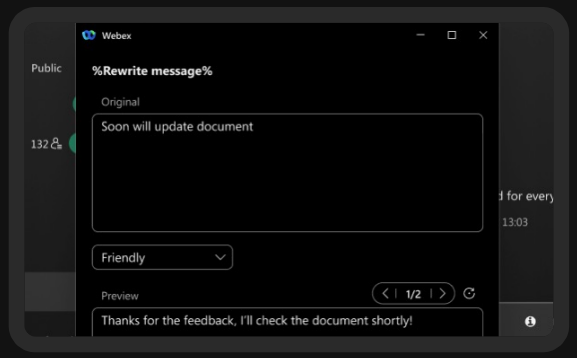
AI Assistants

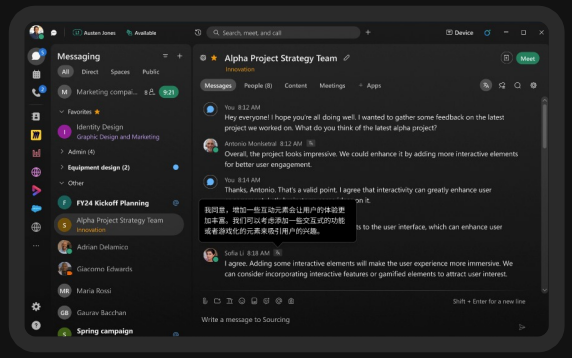
AI Assistants in Webex



Catch up quickly with
Meeting, Messaging, Vidcast, and Slido Summaries



Send the perfect message with
Change the Tone



Communicate globally with
Translation in 30+ languages

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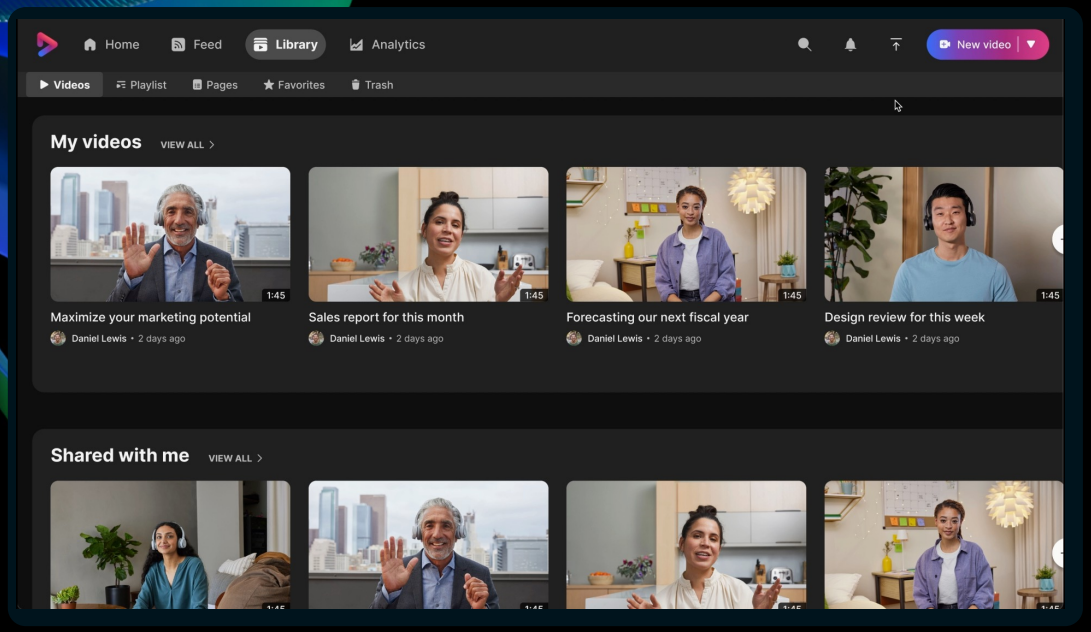

ANNOUNCING

Elevate engagement with AI-generated Vidcast

No script needed—generate scripts from slide content, with full editing control

Translate into language of your choice

Choose your tone and style

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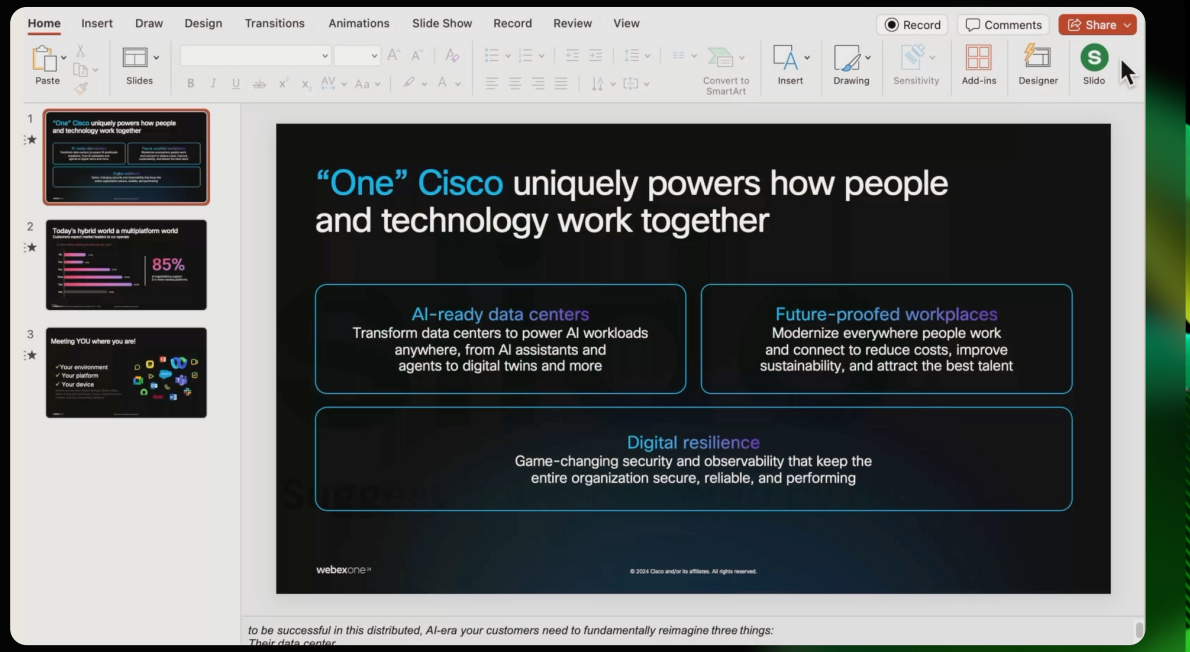
ANNOUNCING

Foster inclusivity with AI-generated Polls

Generates Slido polls based on presentation content

Increases participant engagement

Reduces workload and barriers to adoption for presenters



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