

Contact Center: Auto CSAT

AI Transparency Technical Note

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At Cisco, we appreciate that Artificial Intelligence (AI) can be leveraged to power an inclusive future for all. We also recognize that by applying this technology, we have a responsibility to mitigate potential harm. That is why Cisco adheres to our [Responsible AI Framework](#) (the “Framework”), which is based on six principles of Transparency, Fairness, Accountability, Privacy, Security and Reliability. Cisco translates these principles into product development requirements, which ultimately form part of the product development lifecycle alongside our Security by Design, Privacy by Design, and Human Rights by Design processes.

Accordingly, Webex by Cisco (Webex) features that leverage AI are built with transparency, fairness, accountability, privacy, security, and reliability at their core. Each feature powered by AI undergoes an AI Impact (AI) Assessment – a best-in-class review of how the technical underpinnings of the functionality measure against the Framework Principles.

Auto CSAT is built with the Framework principles at the center of how Cisco delivers the AI-powered technology. This Technical Note describes more information about the feature, and how Cisco responsibly leverages AI to deliver the functionality. These features are optional; organization administrators can disable or allow individual users to choose whether and to what extent they use the features.

Feature Overview

Customer Satisfaction (CSAT) is an important metric for contact centers to understand how happy customers are with their service. CSAT is gathered using customer surveys; however, response rates typically are very low. Responses often come from customers who had either very good or very bad experiences, which can skew the overall feedback received. The Auto CSAT feature predicts and assigns a customer satisfaction score automatically for all interactions. The Auto CSAT scores can be used by customers to identify training requirements, select calls for auditing, and ensure swift resolution for dissatisfied customers, as well as being leveraged to facilitate real-time actions such as call routing. The Auto CSAT score is available in Webex Contact Center Analyzer for generating reports by customers.

Model Overview

Introduction

The Auto CSAT model is a Cisco native AI model leveraging deep learning techniques to predict the CSAT score for every customer interaction. The CSAT scores predicted are unique to every customer to account for their individual customer service experiences delivered. Survey data is used, as well as using interaction data to predict and assign a CSAT score to that interaction. The Auto CSAT scores generated for every interaction are stored in the contact records, which can be retrieved by authorized partners and customers for delivering insights and action insights to maximize customer satisfaction and agent performance.

Model Architecture

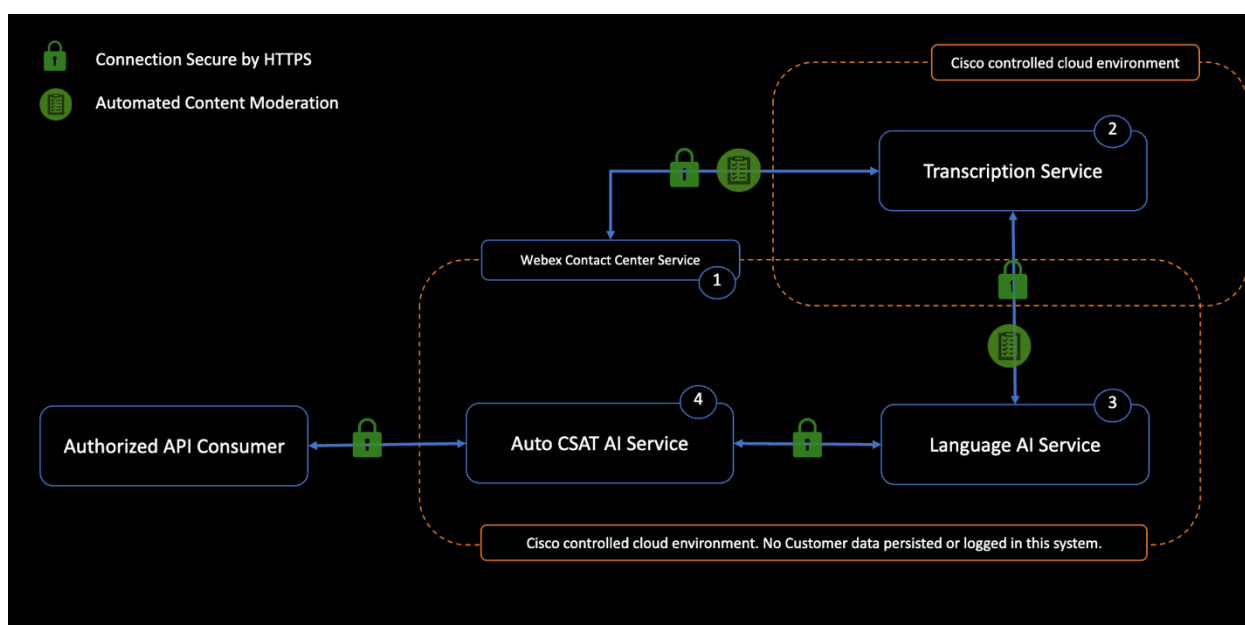


Figure 1 – Webex Contact Center Auto CSAT

Usage Guidelines

The model output can be used for many purposes, including but not limited to

1. Identifying areas of improvements for business operations.
2. Timely and proactive loop closure with unhappy customers.
3. Identifying potential coaching and training opportunities for agents.
4. Identifying best practices.
5. Orchestrating actions like customer satisfaction-based routing.
6. Identifying calls that may need to be audited.

The model's output should be handled with strict confidentiality and ethical consideration, ensuring that data is solely used to improve agent wellbeing and customer satisfaction. The model's output should not be used in isolation for the purpose of measuring agent performance, penalizing or compensating agents, or informing decisions on an agent's employment and right to work. These are a sample of potential intended and unintended use cases and is by no means exhaustive. Prior to making any critical decisions, customers should take into consideration that these scores are generated by AI/ML technologies and thus represent an approximation of the actual customer satisfaction.

Model Inputs and Outputs

Typical inputs to the auto customer satisfaction model include call and chat transcripts, CSAT scores from survey data, and call metrics like handle time, queue times, etc. Typical outputs are CSAT scores on a scale defined by the customer, for example, if a customer uses a 5-point scale, the output of the model will be a CSAT score on a scale of 1-5.

Data Sources for Training and Evaluation

The Auto CSAT general model is trained and evaluated on synthesized call data and survey data. Customer content is utilized exclusively for predicting CSAT scores for that specific customer's interactions and is not used for the development or improvement of the Auto CSAT general model.

Model Evaluation and Performance

Cisco frequently assesses the model to maintain and improve both performance and accuracy of generated output. The model is evaluated every 30 days for performance and accuracy. If accuracy drops below an acceptable threshold, the model is then retrained with the last 180 days of data. Additionally, the model is retrained every 30 days to account for data drifts and bias.

Safety and Ethical Considerations

Cisco assessed the Auto CSAT feature and its use of AI against the Framework principles through an AI Impact Assessment. Through that process, Cisco analyzed the use of the Auto CSAT model against safety and ethical considerations, including whether and to what extent the model mitigates bias, integrates fairness, and whether and to what extent it may compromise human rights. The underlying model was trained on diverse, balanced datasets that are representative of the relevant user base, and subsequent feature development. Webex allows customers to control enablement of the feature.

Please contact Cisco if you have concerns or feedback about your experience with the Auto CSAT feature.

Fairness

Every customer's approach to delivering customer experience is unique; therefore, the Auto CSAT score predictions are unique to each customer. This inherent design takes care of and helps ensure fairness is present in the model predictions.

Privacy and Security

Cisco addresses processing of and security around personal data, including retention periods for that data, in its Privacy Data Sheets, found on the [Cisco Trust Portal](#).

Updates and Maintenance

Cisco is not aware of any known biases associated with the Auto CSAT model or feature. Cisco routinely monitors and rebalances the training dataset that powers the Auto CSAT model to address user-identified unique behaviors after those issues are surfaced. The improvements made are well documented and based on those identified cases, including objective and subjective scores that measure the accuracy and performance of the model.

Ongoing Webex updates and product release documents include product updates and any improvements in user experience. Webex may also use customer email notifications and Webex Help Center documentation to inform customers of product changes, as well as communicate product updates in blogs and videos.

License

The Auto CSAT model is proprietary and not publicly available. Cisco uses it to deliver this feature only in the context of Webex applications or with Webex SDKs.

References

[RAI Principles](#)

[RAI Framework](#)

[Cisco Trust Portal](#)