

The background features a vibrant, abstract design with a color gradient from dark blue on the left to bright yellow and white on the right. The design consists of overlapping, wavy horizontal bands and a radial pattern of lines emanating from a bright white point on the right side, creating a sense of motion and energy.

CISCO *Live!*

Let's go



The bridge to possible

Webex Contact Center Routing and Flow Orchestration

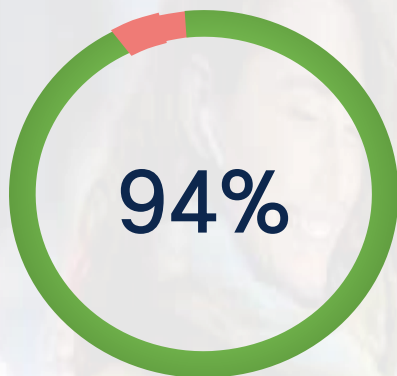
Elevating Customer and User Experiences

Krishna Tyagi, Technical Leader
@ krishnatyagii



BRKCCT-2028

Revolutionizing Experiences & Delivering Outcomes



Cloud enablement is vital to achieving CX and EX goals



Digital era

Experience is as important as the product itself



Empowered customers

Customers have more choices and can easily share experiences, impacting brand reputation



Increased competition

Focus on customer retention and reducing churn



Time to value

Quickly deliver value to customers

Enhancing customer satisfaction and improved efficiency is the universal goal of all businesses

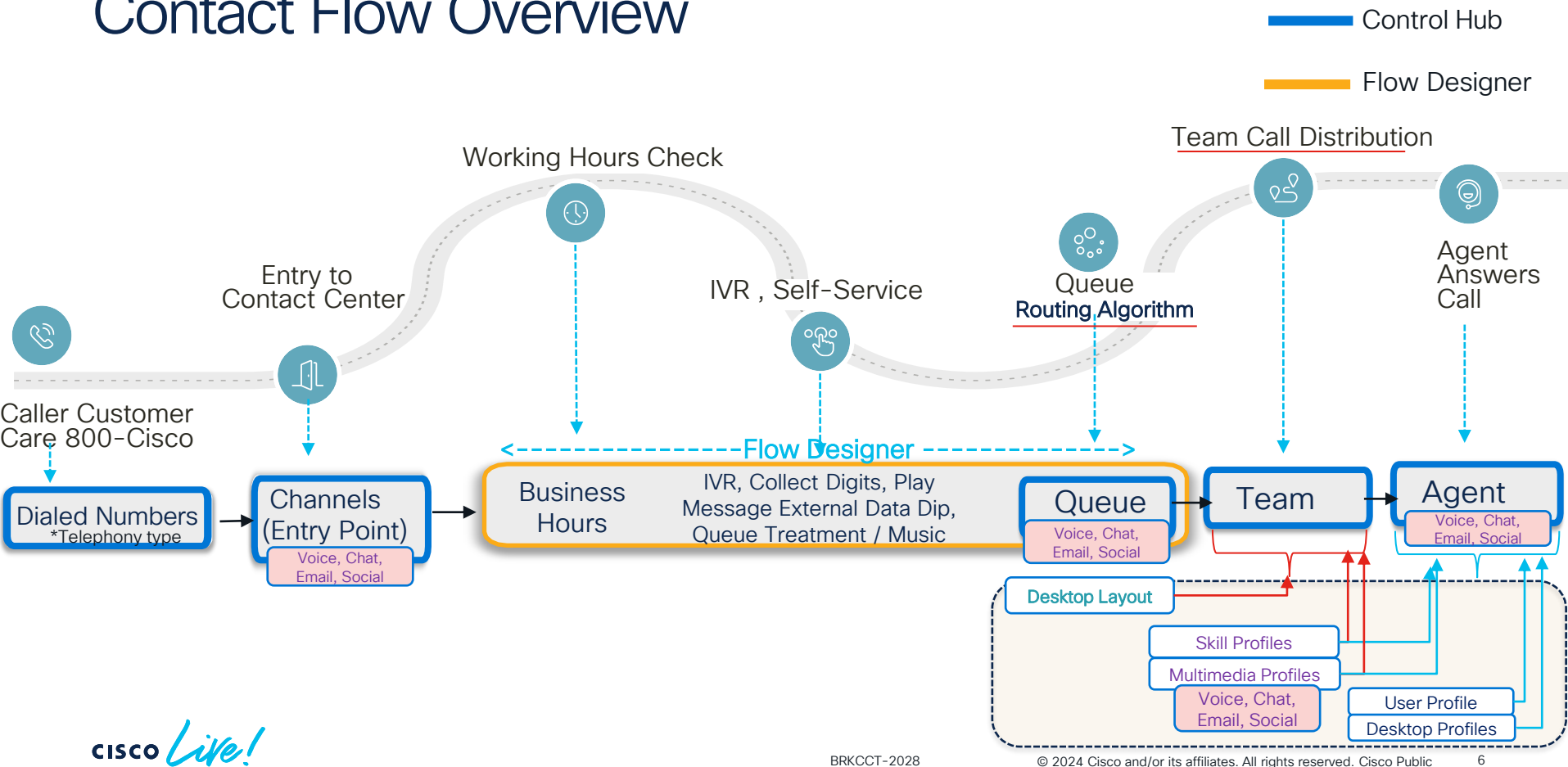
Agenda

1. Webex Contact Center Routing and Flow Foundation
2. Customer and User Experience Contextual, Dynamic, Personalized
3. Admin experience Improved Efficiency and Serviceability
4. Conclusion

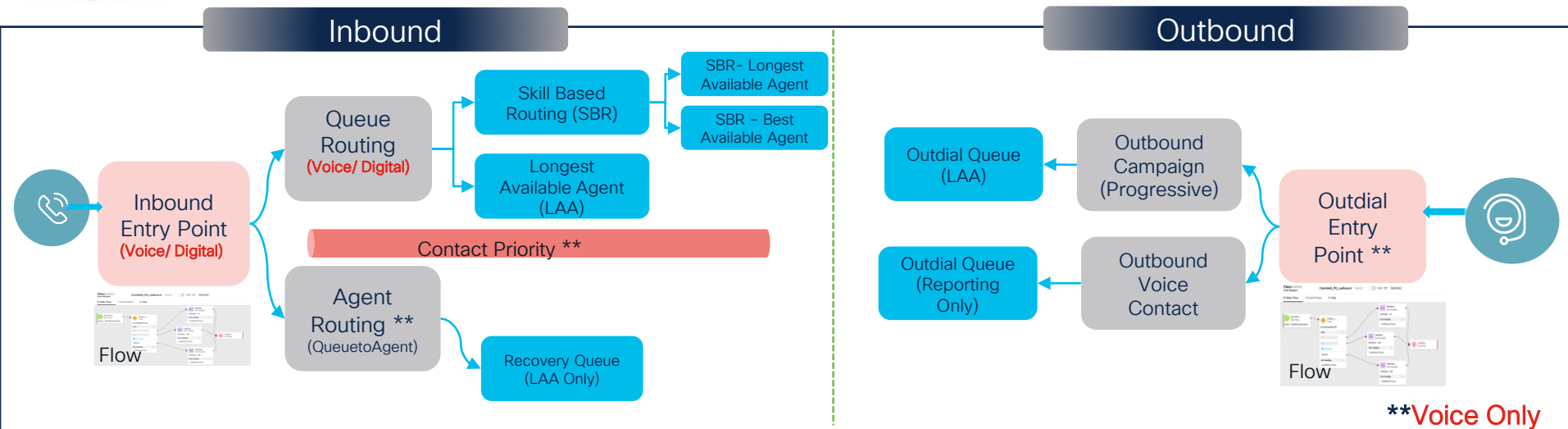
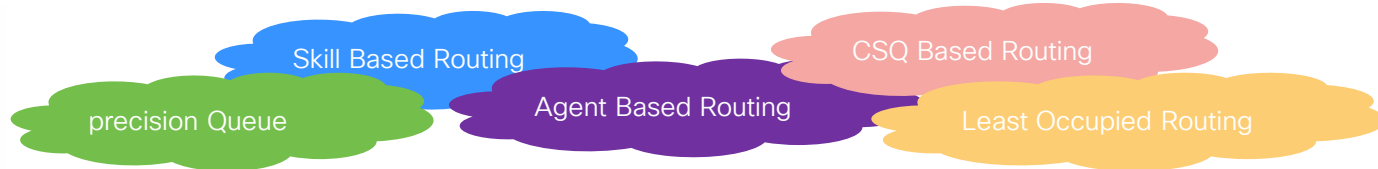
Webex Contact Center

Routing and Flow Foundation

Contact Flow Overview



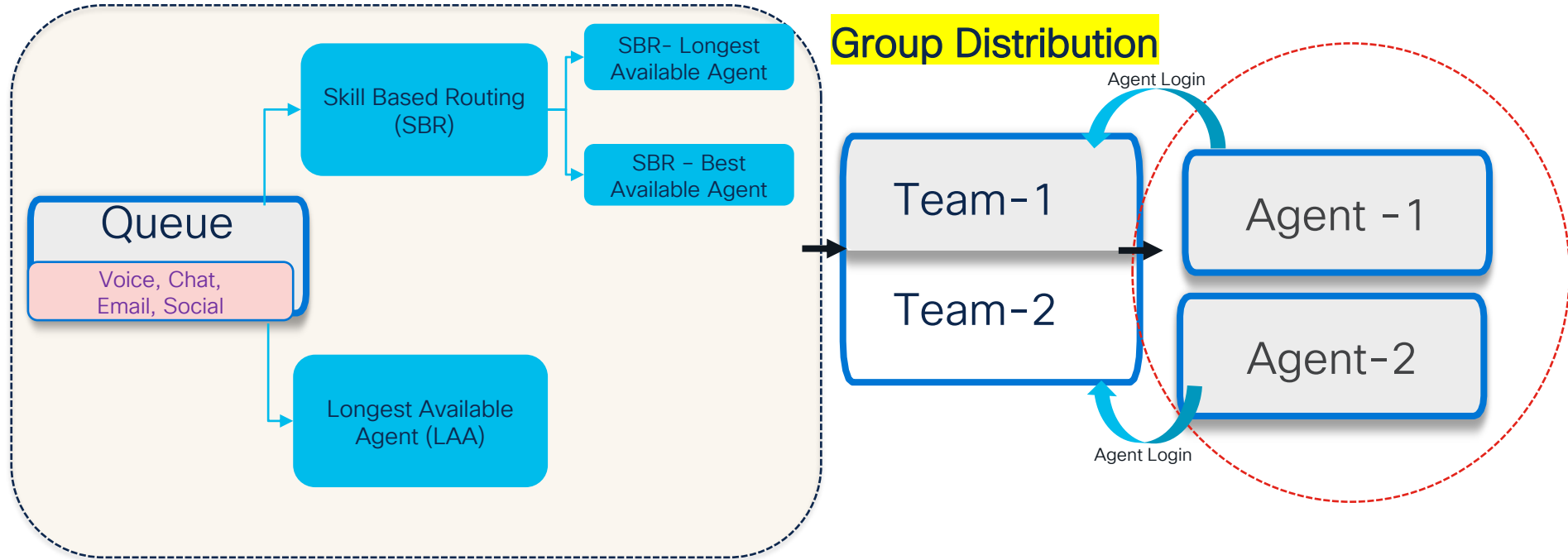
Contact Routing Types



- Time-Based (Business Hours)
- Percentage Based Routing**

Demystify Contact Routing - A Clear Path Forward

The **TEAM** plays a central role in contact routing. **Group Distribution** enables the use of multiple teams as a single group.



Demystify Contact Routing – A Clear Path Forward

01

Routing Type

02

Group Distribution & Skill Type

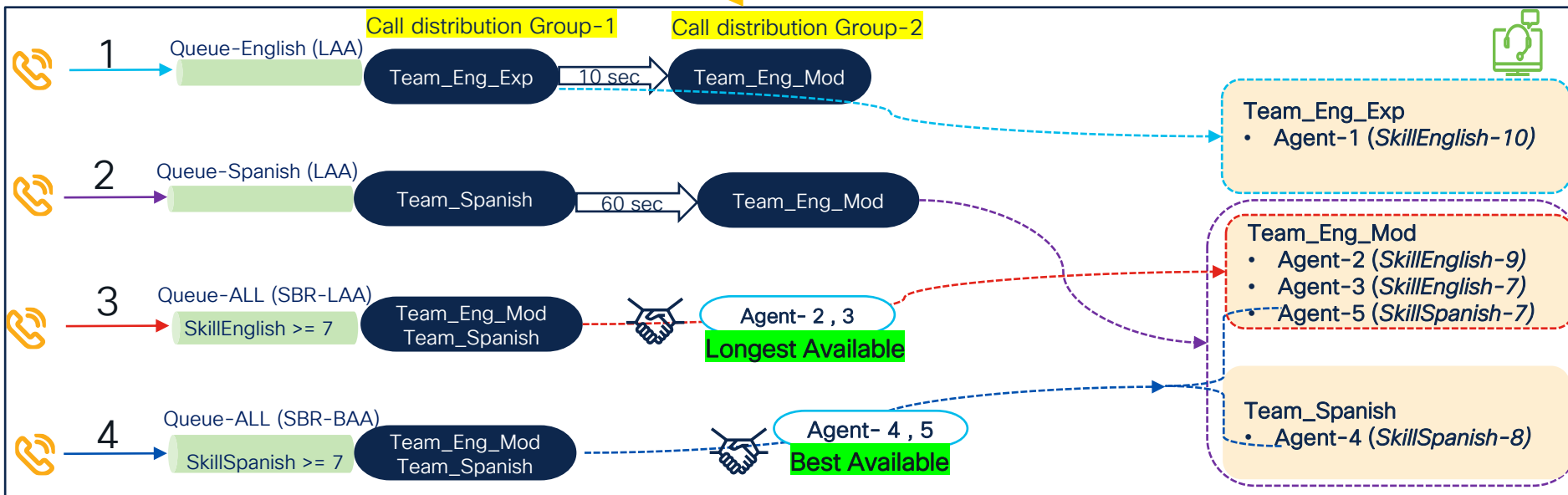
03

Call Priority

04

Reporting

Review business CX requirements along with team performance management and reporting to devise the optimal routing design



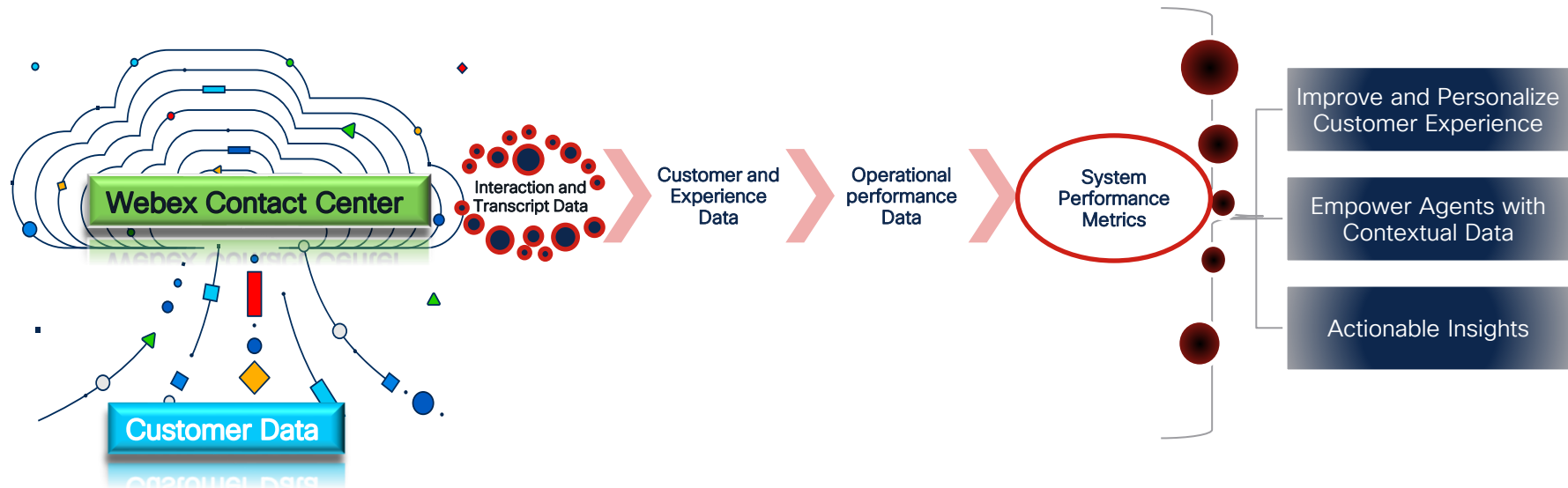
Skill Type: Text, Proficiency, Boolean, Enum

Skill Based Routing – Skill Types



Skill Type	Description	Examples	Character Limits
Text	A free-form text skill that must be matched exactly.	Skill named ' Extension ' for routing to a specific agent's extension number.	Up to 40 characters , including spaces.
Proficiency	Agent's expertise level on a scale of 0 to 10 .	Skill for each language with varying levels of proficiency .	Value range from 0 to 10 . With 10 as most skilled
Boolean	A True/False value indicating agent possesses a skill	Skill named 'VipSupport' . Experienced agents = True and less Exp = False	True or False .
Enum	A set of predefined values .	Skill named 'LOB' with values such as Sales, Service, and Billing.	Each value can include up to 20 characters , including spaces.

Flow Designer – The power of Data Variables

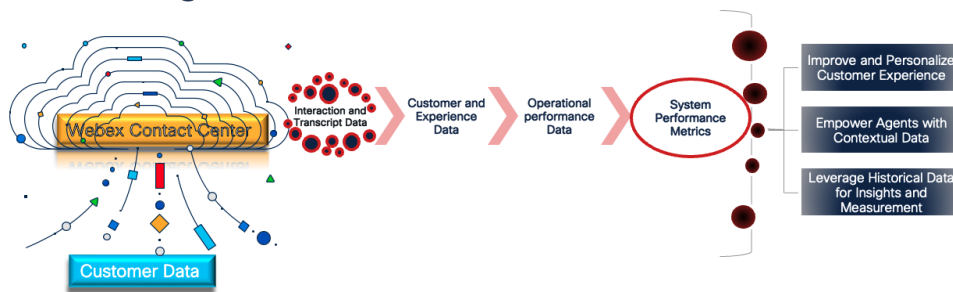


“

Data is a precious thing and will last longer than the systems themselves

Tim Berners-Lee

Flow Designer – The power of Data Variables



Variable Type	Description	Agent Viewable	Agent Editable	Reportable	Default Values	Marked Secure	Data Type	Channel Applicable
Local (Flow) Variables	You Create in the Flow Configurable variables of different data types that you can use throughout the flow.	YES	YES	NO	YES	YES	- String - Date Time - Decimal Integer Boolean JSON	Telephony
Global Variables	Custom variables that are defined in the Provisioning module and accessible throughout a flow.	YES	YES	YES	YES	NO	- String - Date Time - Decimal Integer Boolean	Telephony Digital
Output Variables	Store the data captured from activities.	NO	NO	NO	NO	NO	- String - Integer JSON	Telephony

JSON object as Variable Type



- ❖ Allow to handle complex JSON data structures natively in the flows
- ❖ Use dot(.) separated access in Pebble expression for JSON Object
- ❖ Index access in Pebble expression for JSON array

Add Flow Variable

Name: myJSON

Description:

Variable Type: JSON

Default Value:

```
{
  "firstName": "John",
  "lastName": "doe",
  "age": 26,
  "address": {
    "streetAddress": "naist street",
    "city": "Nara",
    "postalCode": "630-0192"
  },
  "phoneNumbers": [
    {
      "type": "iPhone",
      "number": "0123-4567-8888"
    },
    {
      "type": "home",
      "number": "0123-4567-8910"
    }
  ]
}
```

Enter a valid JSON Object, such as {"key": "value"}

Cancel Save

HTTPRequest
HTTP Request Activity Settings

KEY VALUE

Add New

HTTP Request Headers

KEY VALUE

Add New

Content Type: Application/JSON

Request Body: {{myJSON}}

Response Timeout: 2000 milliseconds

Number of retries: 1

HTTPRequest
HTTP Request Activity Settings

Response Timeout: 2000 milliseconds

Number of retries: 1

Parse Settings

Content Type: JSON

Output Variable: myJSON

Path Expression: \$.phoneNumbers

Add New

Activity Output Variables

- HTTPRequest.httpStatusCode
- HTTPRequest.httpResponseBody
- HTTPRequest.httpResponseHeaders

PlayMessage_xtb
Play Message Activity Settings

Prompt

Enable Text-to-Speech

Connector: Google TTS

Override Default Language & Voice Settings

Output Voice: en-US-Standard-A

Text-to-Speech Message

```
1 Welcome {{myJSON.firstName}}
   {{myJSON.lastName}}.
   Your Phone type {{myJSON.phoneNumbers[0].type}}
```

- The maximum number of a JSON variables supported in the flow is 5.
- The maximum size of a JSON document should be < 16 kb
- The JSON flow variables are not allowed in flow chaining
- The JSON flow variable cannot be marked as secured CAD
- The JSON flow variable cannot be passed to agent desktop

Let's Dive Into a Quick Tour

admin.webex.com/overview

webex Control Hub

Search

What do you think of Webex? Share your thoughts on Gartner Peer Insights and they'll send you a [\\$25 Visa gift card](#)

Overview

Alerts centre

MONITORING

Analytics

Troubleshooting

Reports

Customer Journey D...

MANAGEMENT

Users

Groups

Locations

Workspaces

Devices

Apps

Account

Organisation settings

SERVICES

Updates & Migrations

Messaging

Calling

Solution Assurance RTMS

Overview

Here's how to get the most out of Webex!

Meetings experience

Strengthen security

Provide a powerful meeting experience

You'll see all engagement data here when your users start using Webex. After 60 days of engagement, you'll also see data trends.

Goal

Promote human connection through video collaboration

Goal

Upgrade meeting experiences with Messaging

Is this helpful?

Set-up guide

Start using Webex

Is this helpful?

Updates

Update your services to the new Webex experience. [Learn more](#)

Devices

No devices added

New offers

Webex Webinar 5,000

Free trial

Host webinars that scale with your organisation. [View trial](#)

Basic Meetings

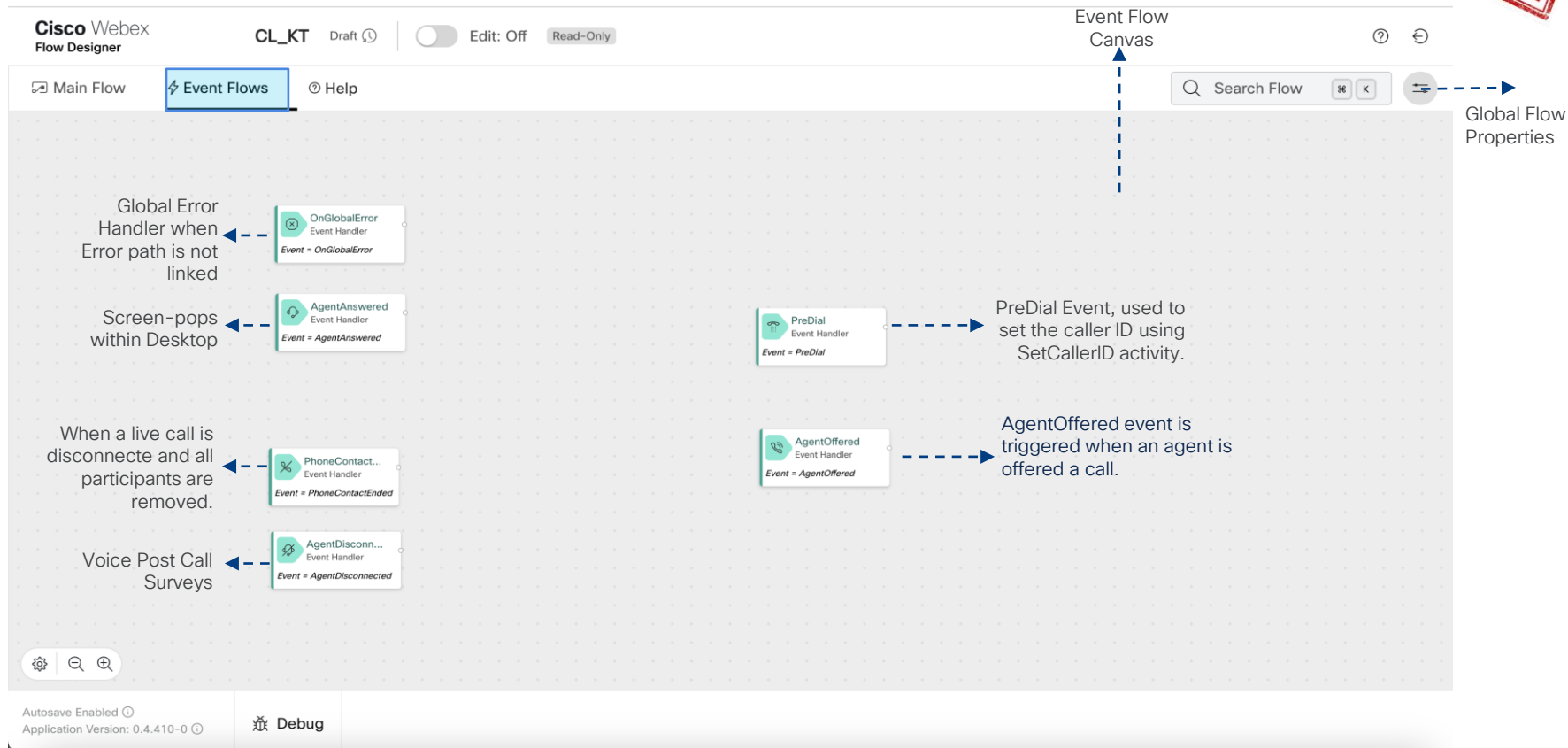
New offer

Allow everyone in your organisation to host a Webex Meeting with a Basic Meetings licence. [View offer](#)



Flow Designer – Event Flow

REFERENCE

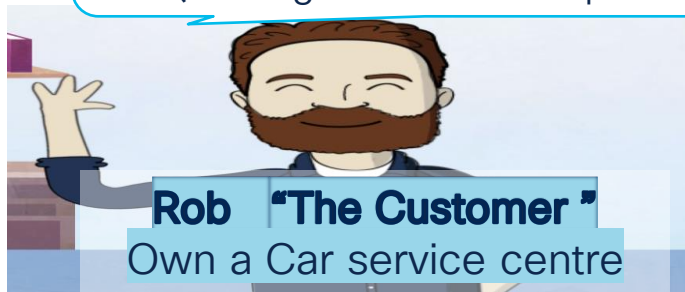


Customer and User Experience

Easy, Dynamic, Contextual

Customer Experience and Business Outcomes

- 24x7 coverage
- Self-service when possible
- Quick Agent access and personalized Exp



71%

Customers expect businesses to
use their data to provide
personalized service.

Source: McKinsey

92%

CEOs agree that CX
improvements directly impact
net profit.

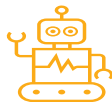
Source: NTT Data

ACME CARS

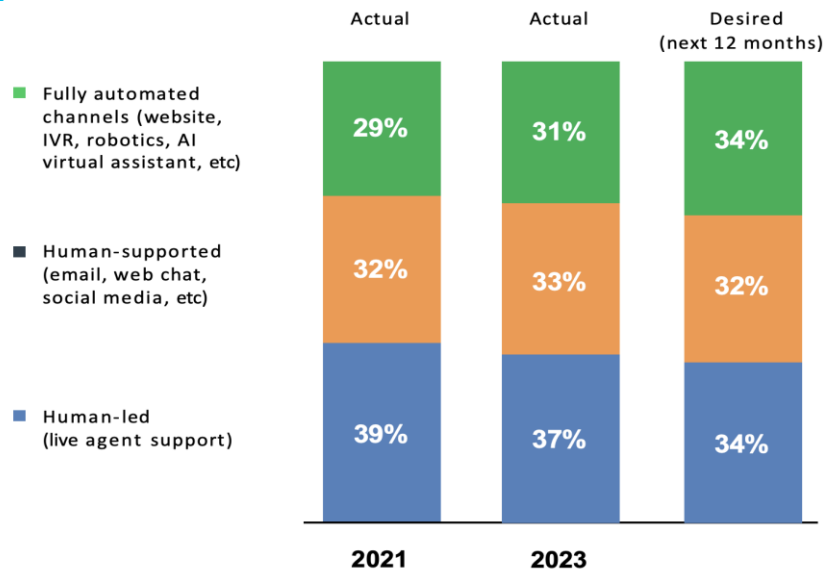
- Improve Customer Experience
- Meet high demand with Limited agents
- Control Cost of serving 24x7



A Glimpse of Future CX



Self-Service



Source: NTT Data 2023 Global Customer Experience Report



Data Insights



Virtual Agent with Dialogflow CX – Voice

Outcome

- Handle more Complex and customizable conversations
- More Natural and Interactive experience

❖ **State Event** : Better End user experience , custom payload feature help to send payload information from CX to client side

- Event Name
- Event Data

❖ Support Custom Exit using **Custom Payload**

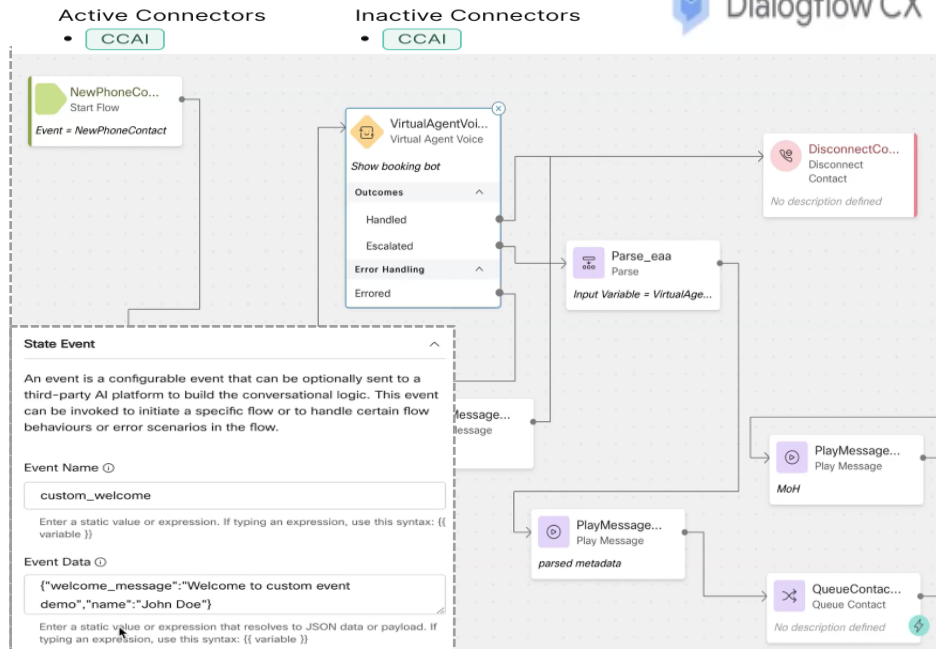
❖ Output Variable

- StateEventName
- Metadata
- TranscriptUrl

❖ Support Partial Response up to 30 seconds

Git Sample: [Link](#)

Google Contact Centre AI



Virtual Agents



24/7 Customer Support

Virtual agents are available anytime, anywhere to answer customer questions and resolve issues.



Handle Simple Inquiries

Virtual agents address basic customer requests, freeing up human agents for more complex issues.



Collect Customer Data

Virtual agents gather valuable customer information to personalize the experience.

Dialogflow ES (Essential)

Dialogflow CX (Customer Experience)

Agent Type

Standard, suitable for small to medium complexity

Advanced, suitable for large or very complex agents

Conversation Design

Flat structure of intents and contexts for conversation paths

[State machine approach](#) with flows, pages, and state handlers

Agent Management

Supports one agent per project

Supports up to 100 agents per project

Integration

Suitable for simpler integrations

Designed for [complex integrations](#) with external systems

User Interface

Standard Dialogflow console

[Advanced Dialogflow CX](#) console with visual flow builder

Scalability

Does not scale well for complex conversation flows

Better scalability for complex and broad agents

Webex CC Supportability

Supported

Supported

Digital Channels support

[Yes](#)

[Yes](#)

Drive experiences with Data (HTTP)

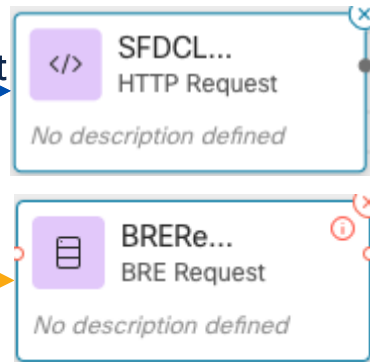
Outcome

- ❖ Personalize customer interactions in real-time
- ❖ Boost agent productivity with faster data retrieval and presentation

Data Retrieval → Data Processing → Data Utilization → Storing Data

❖ The HTTP Request activity can **fetch and send information from/to an external data source / Endpoint**

- Salesforce Native Connector
- Custom Customer Database
- Business Rule Engine (BRE)



- ❖ Type of authentication: Basic Auth and OAuth 2.0
- ❖ Support Methods (GET, POST, PUT, DELETE etc..)
- ❖ Content Type: JSON, XML, **File** etc.

Git Samples: [CRM HTTP Connector Samples](#)

CISCO *Live!*

SFDCLookup
HTTP Request Activity Settings

Connector

Request Path

Method

Query Parameters

KEY	VALUE

[Add New](#)

HTTP Request Headers

KEY	VALUE

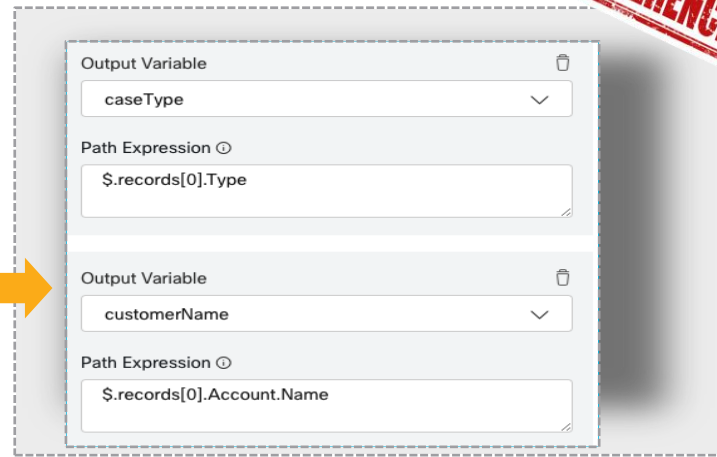
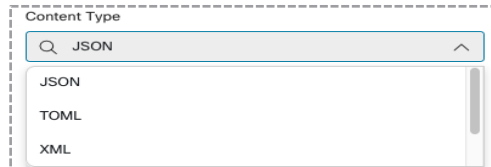
[Add New](#)

Content Type

Request Body

Data Parsing

Parsing Results from Response



K

Create json expression to extract postal code: {

```
"firstName": "John",
"lastName": "doe",
"age": 26,
"address": {
  "city": "Nara",
  "postalCode": "630-0192"
},
"phoneNumbers": [
  {
    "number": "0123-4567-8888"
  },
  {
    "type": "home",
    "number": "0123-4567-8910"
  }
]
```



To extract the postal code from the given JSON expression, you can use the following JSONPath expression:

javascript

Copy code

```
$.address.postalCode
```

This expression targets the "postalCode" field within the "address" object. Applying this expression to the provided JSON, you will obtain the postal code "630-0192".



- Jayway Path expression guide - <https://github.com/json-path/JsonPath/blob/master/README.md>
- Validate online using <https://jsonpath.com/>

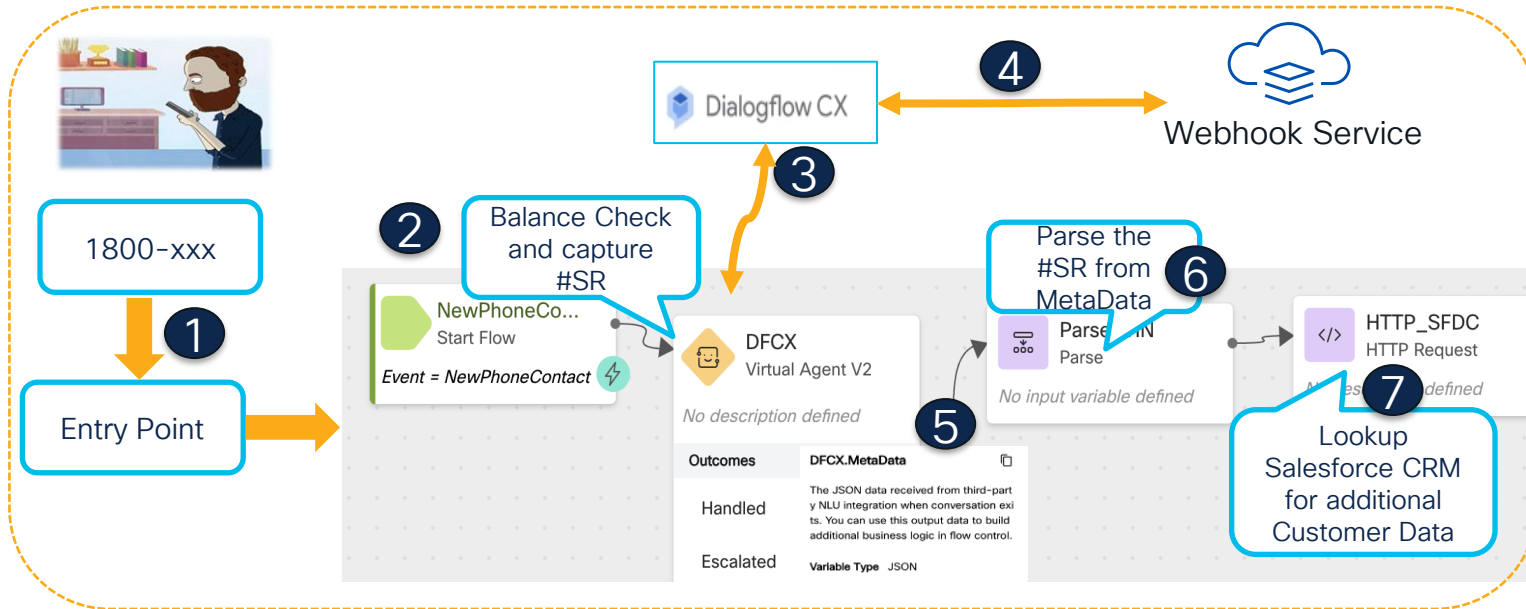
A Day in the Life of Rob...



"Allow me to **verify the pending payment amount.**"

"Service Request Status?"

Let's build that experience for Rob!



Self-Service Experience



Something wrong
here?



Text-To-Speech and SSML

Outcome

- Dynamic and Natural experience
- Allow Pauses, and audio formatting for acronyms, dates, times, abbreviations
- Faster onboarding and Change

Text-to-Speech capability powered by Google's Text-to-Speech service



Prompt

☒ Enable Text-to-Speech

Add the ability to read dynamic messages. These messages can contain variables and be used in a sequence with audio files. If typing variables, use this syntax: {{ variable }}. You can also use SSML to construct the message. If using SSML, insert it inside the `< speak>` tags.



SSML allows for tweaking the emphasis, speech intonation, Pause, Humanizing of IVR, customization settings of how the text is spoken

Text-to-Speech Message

1 `< speak>`
Welcome Rob, `< break time="500ms"/>` your
current balance is `< say-as interpret-as="currency">`EUR263.56`</ say-as>`.
`</ speak>`

[Add Audio File](#) [Add Audio Prompt Variable](#)

[Add Text-to-Speech Message](#)

Text-to-Speech Settings

These settings apply to all Text-to-Speech messages configured for this prompt.

Speaking Rate ①

Volume Gain ① decibels



CISCO Live!

<https://cloud.google.com/text-to-speech/docs/ssml>

Personalization of IVR using SSML



Expression

Description

<say-as interpret-as="ordinal">1</say-as>call</speak>

ordinal "First call"

<say-as interpret-as="characters">cisco</say-as></speak>

characters "C I S C O"

<say-as interpret-as="fraction">9+1/2</say-as></speak>

fraction "nine and a half"

<say-as interpret-as="expletive">sensor this</say-as></speak>

expletive or bleep

<say-as interpret-as="date" format="yyymmdd" detail="1">2022-06-12</say-as></speak>

date format "The twelfth of June twenty twenty two"

<prosody rate="slow" pitch="-2st">Can you hear me now?</prosody></speak>

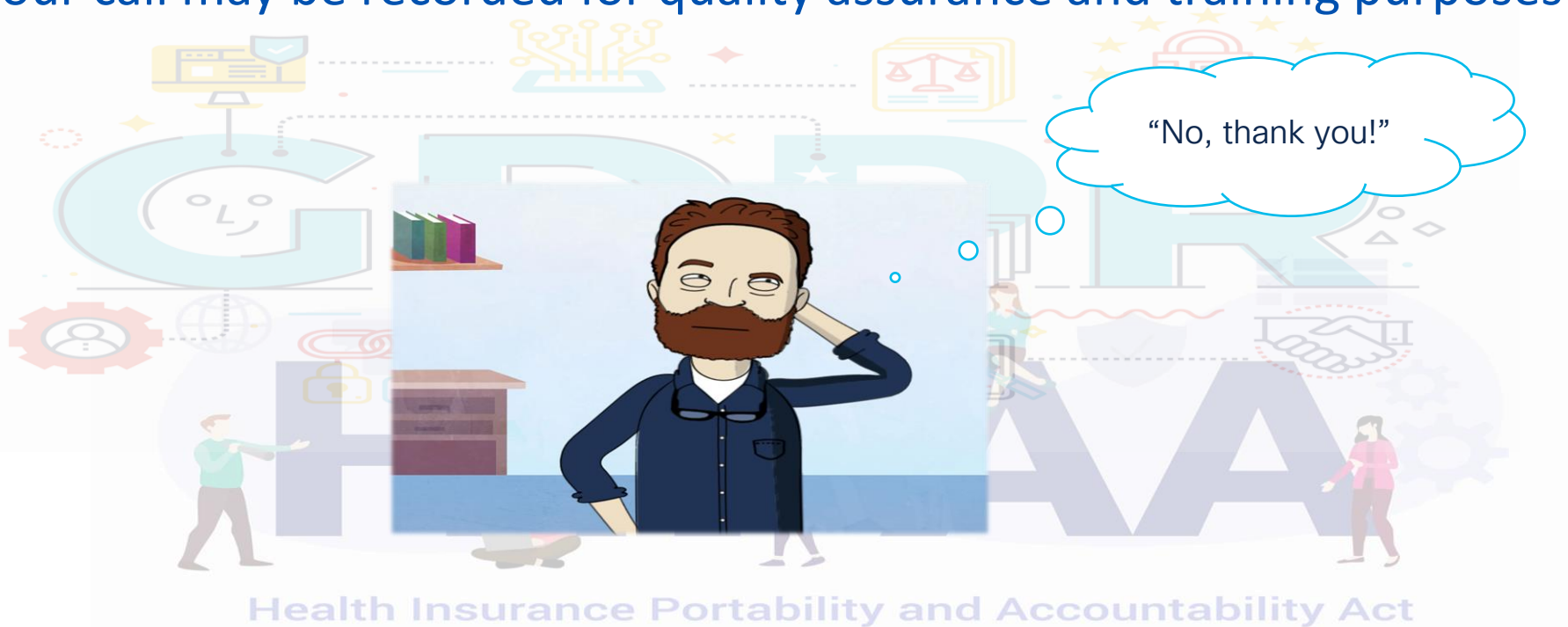
uses the <prosody> element to speak slowly at 2 semitones lower than normal



<https://cloud.google.com/text-to-speech/docs/ssml>

Customer's Choice and Compliance

“Your call may be recorded for quality assurance and training purposes”

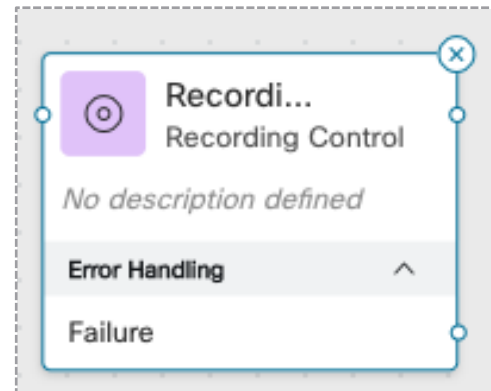


Content based call recording

Outcome

- Respect customers preference and privacy concerns
- Regulatory Compliance requirements

- ❖ Call Recording Options:
 - Tenant Level
 - Queue Level
- ❖ The customer should be able to choose if the call can be recorded or not during the IVR options
 - Contact Level
- ❖ Reporting data insights available on customers selection
- ❖ Use Boolean Global variable and set to enable or disable
- ❖ Consent must be captured before Queueing



The Waiting Game - Customers and Queue Expectations



"How much longer should I expect to wait here before speaking to an agent?"

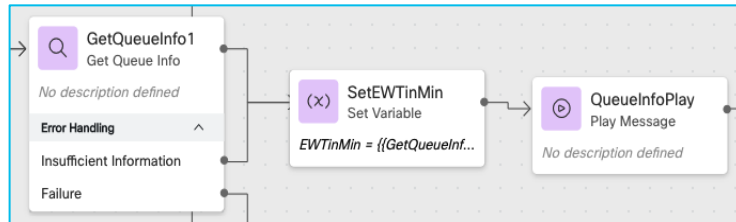
Queue Wait Information

Outcome

- ❖ Manage Customer Expectation and Enhance experience
- ❖ Trigger Actions: Queueing or Alternative Routing (Different Queue, Callback etc.), Notify supervisors

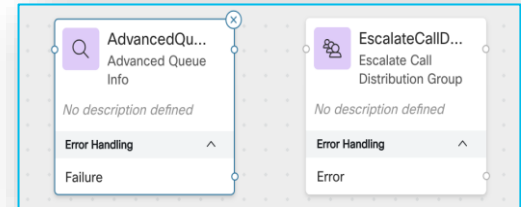
GetQueueInfo

- ❖ Provides Expected Wait Time and Position in Queue
- ❖ Recommended only for **LAA Routing**
- ❖ Should be used after Queue activity



AdvancedQueueInfo

- ❖ Account for contact skill requirements (**support both LAA and Skill Based Queue**)
- ❖ Support Position in Queue
- ❖ Can be Used before or after Queue activity**
- ❖ Escalate Call Distribution offers the ability to move to subsequent call distribution group(s) after the contact is queued.



** Resulting varying output variable data

Espresso Yourself - Waiting in the Queue with Coffee



Enough time for my
Coffee break!



Tick-Tock - Tracking the Sneaky Climb of Wait Times

It appears the wait time has
sneakily climbed higher
let's ring an alarm





Empowering Rob with Choices: Wait or....?



Still Waiting...

Courtesy Callback

Outcome

- Enhances Customer Satisfaction
- Reduce Abandonment Rate

- ❖ Maintain call Skills, Priority, position and contextual Data for the callback
- ❖ Callback can be to the Original Queue or a dedicated callback Queue
- ❖ Support Variable Queue

 **Callback1**
Callback Activity Settings

Callback Settings

Define the callback number and queue in which the contact should be placed for the callback request. The caller's place in queue is reserved. Note: You must use a Disconnect contact activity to terminate a flow branch that uses a Callback activity.

Callback Dial Number ⓘ

NewPhoneContact.ani

Callback Queue ⓘ

☒ Variable Queue

QueueContact1.QueueId

Choose a variable that yields a valid Queue ID. Default is set to the queue in which the caller is placed.

☐ Static Queue

Oops! Did I Miss That Call?



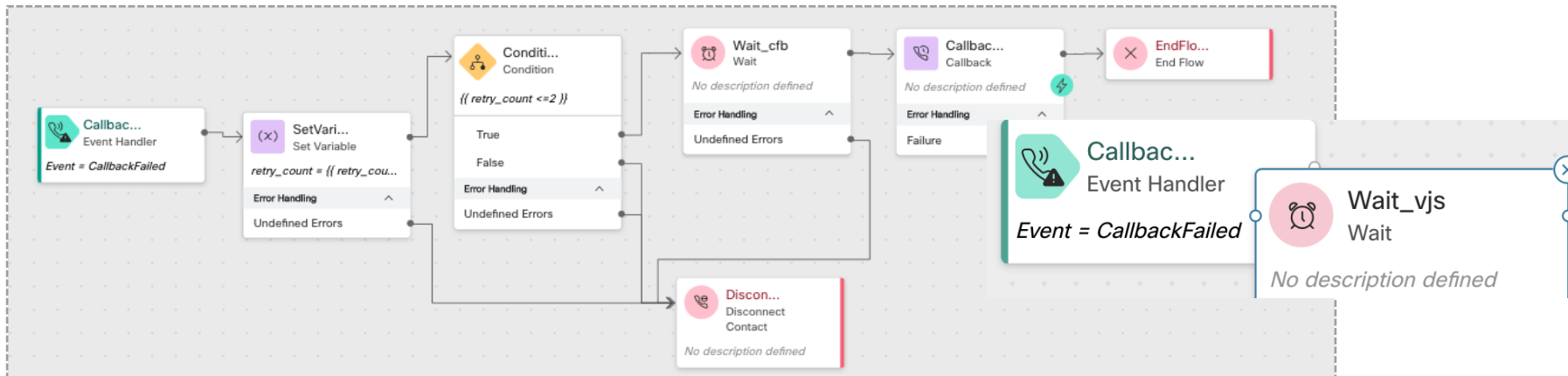
"Oh, I missed the
callback?"

Callback Retry Attempts to Customer

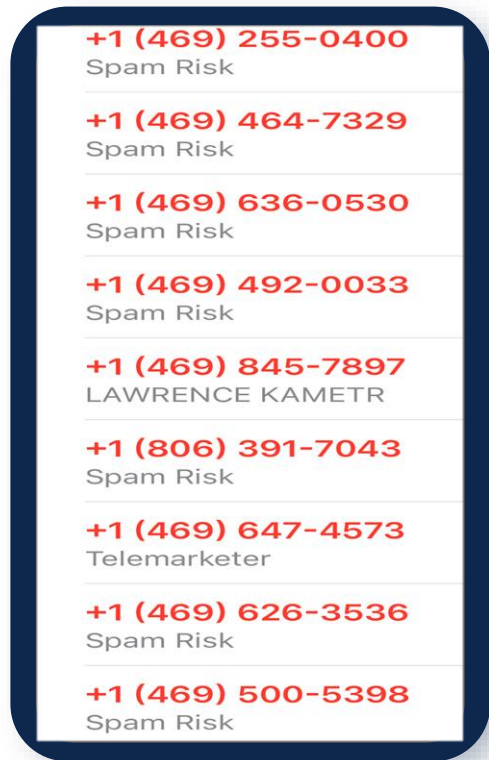
Outcome

- Ensure a more reliable customer experience
- Improved Issue Resolution, reducing abandoned calls.

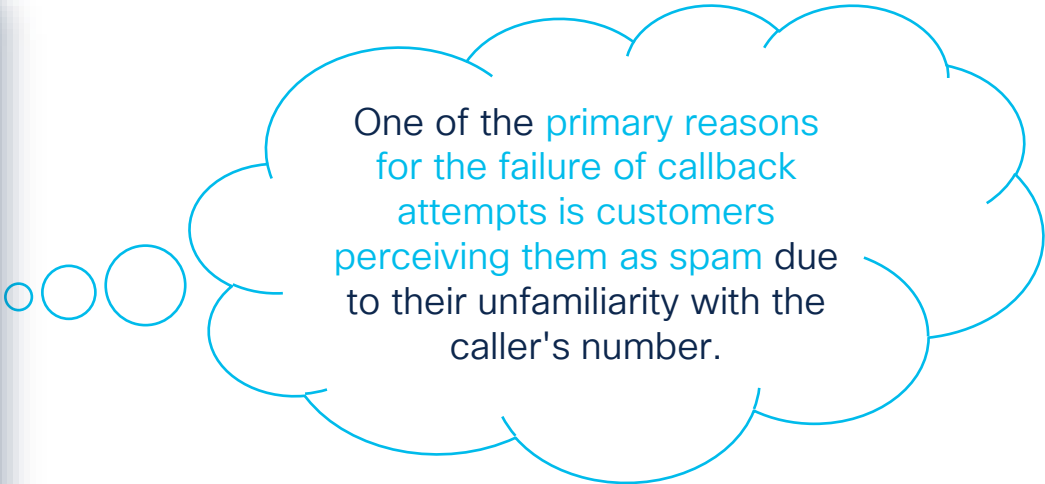
- ❖ Designed in the Event Flow on triggering the Event “CallbackFailed”
- ❖ Allow you to retry to the customer as specific interval (Max 10 retries across 14 days using **Wait**)
- ❖ Callback Retry attempt Data, failure reason insight available
- ❖ Minimum delay interval between retry is 10 seconds, and Max is 72 hours.
- ❖ Possible to customize the experience depending upon the callback failure reasons (output variable)



When Callbacks Go Unanswered: The Spam Risk Dilemma



+1 (469) 255-0400
Spam Risk
+1 (469) 464-7329
Spam Risk
+1 (469) 636-0530
Spam Risk
+1 (469) 492-0033
Spam Risk
+1 (469) 845-7897
LAWRENCE KAMETR
+1 (806) 391-7043
Spam Risk
+1 (469) 647-4573
Telemarketer
+1 (469) 626-3536
Spam Risk
+1 (469) 500-5398
Spam Risk



One of the primary reasons for the failure of callback attempts is customers perceiving them as spam due to their unfamiliarity with the caller's number.

Configurable ANI for Callback

Outcome

- Ensure Brand Consistency
- Reduce the possibility of Call rejection with recognizable Caller ID

- ❖ Allow you to customise the ANI during a Courtesy call-back (CCB)
- ❖ Choosing a Callback ANI in the activity is OPTIONAL
- ❖ DN mapped with an Entry point in the Org are only supported to be used as ANI
- ❖ If using Variable ANI, it must be string data type and a valid DN with an EP-DN mapping for that org

The screenshot displays the 'Callback_jzt' configuration window, titled 'Callback Activity Settings'. It contains the following sections:

- Callback Dial Number**: A dropdown menu currently showing 'NewPhoneContact.ani'.
- Callback Queue**: Two radio buttons are present. 'Static Queue' is selected, and its corresponding dropdown menu shows 'KT_SBR_BA'. The 'Variable Queue' option is unselected.
- Callback ANI**: Two radio buttons are present. 'Static ANI' is selected, and its corresponding dropdown menu shows '+1-2064240000'. The 'Variable ANI' option is unselected. Below this, a note states: 'Choose a Dial Number(DN) mapped to an Entry Point. If no selection is made, it uses the DN mapped to the Entry Point where the call is received.'
- Activity Output Variables**: A section at the bottom with two toggleable variables: 'Callback_jzt.FailureCode' and 'Callback_jzt.FailureDescription'.

The Personal Touch: Where is my Account Rep?



Amanda
“The Problem Solver”

Would be great if I can
talk to Amanda instead
of dealing with
someone New!



Preferred Agent Routing

Outcome

- Enables Personalized and Improved Customer experience
- Faster Issue Resolution
- Agent Empowerment

- ❖ Allow you to route to Preferred agent dynamically by **AgentId or Agent's Email**
- ❖ Allow you to set the **contact Priority**
- ❖ Supports Reporting and Recovery Queue
- ❖ Recovery Queue Support Longest Available agent Routing

The image shows a workflow diagram on the left and a configuration panel for the 'QueueToAgent1' activity on the right.

Workflow Diagram: A box labeled 'QueueToAge...' (Queue To Agent) is shown. It has a 'No description defined' note and an 'Error Handling' section with an 'Error' option. A lightning bolt icon indicates a dynamic routing action.

QueueToAgent1 Configuration Panel:

- General Settings:**
 - Activity Label: QueueToAgent1
 - Activity Description: Enter a Description
- Contact Handling:**
 - Agent Variable: Global_VoiceName (Select a flow variable of type "string" that yields either Agent's valid ID or Email. Define a flow variable that indicates which agent should be selected with each flow execution.)
 - Agent Lookup Type: Email (Select a type of Agent identifiers that the flow variable yields)
- Reporting Queue:**
 - Queue: QueueToAgent (The Reporting Queue is used to report this contact against (including service level). In addition configuration for recording, default music in queue, etc will be taken from this queue)
 - ☒ **Park Contact if Agent Unavailable** (Enable this feature to queue the contact to this particular Agent until the Agent becomes available.)
- Recovery Queue:**
 - Queue: RecoveryQueue (This Queue will be utilized if the contact can't be delivered to the Agent. The Recovery Queue always honors Longest Available Agent routing. If the selected queue uses Skills Based Routing, skills cannot be configured.)

Park in Queue-to-agent option

IF RONA happens

Preferred agent callback

Outcome

- Improved customer experience and Personalization
- Providing flexibility and customization in managing the callback requests

- ❖ Allow to request a callback from with the preferred Agent or alternatively any other agent in Queue
- ❖ “Register Callback to different destination”
- ❖ Callback Retry applicable and can be used

**Callback1**
Callback Activity Settings

Callback Dial Number ⓘ

NewPhoneContact.ani

☐ Register callback to different destination?
Enable this option if the flow designer needs to select a different callback destination. If you disable this option, the callback will be registered on a queued destination – queue or agent. If you enable this option, the flow designer can select a new callback destination.

Callback ANI ⓘ

☒ Static ANI

+1-2064240000

Customer Delight - A Successful Call with Amanda



I know I am in good hands!

Hey Rob, How are you doing. I have all the details here for your recent service order, let me check...



Data Display on the Agent Desktop

Outcome

- Agents presented with valuable & call-relevant data in the popover and interaction details
- Improved Customer experience and Agent productivity.

- ❖ Customized **Pop-Over** pane and **Interaction pane**
- ❖ Pop-over upto 6 and Interaction Pane up to 30 variables
- ❖ Allow **ability to re-order** the Variables for Agent view
- ❖ Set Data Agent Editable

Desktop Viewability & Order

Exec_Demo_KT
Global Flow Properties

Configuration | **Desktop Viewability & Order**

Incoming Popover
A popover can display from 3 to 6 variables during a call and 3 additional variables for a consult call. The variables appear in the following order in the incoming popover.

- 1 Phone Number
- 2 DNIS
- 3 Queue Name

Select Variables

Interaction Pane
Interaction Pane can display up to 30 variables.

- 1 AgentState
- 2 callPriority
- 3 caseType

1 Call Ringing

Webex Contact Center

Incoming Call Ringing

+1 (412) 288-3782
IVR_Queue_1 - 00:05

Phone Number: +1-412-288-3782
DNIS: +1-800-090-8989
Queue: IVR_Queue_1
Custom variable: Some value here
Custom variable: Some value here
Custom variable: Some value here which is long

2 Call Answered

Contact Center Desktop Available 02:03 TP

+3227045654 01:53 Hold Consult Transfer Pause Recording End

Phone Number +3227045654
Queue dbokatov_Q_CiscoLive

DNIS +14806754094
Primary Number +3227045600 Revert Save

Agent Editable Data

Following Up with Rob - A Customer Care Chronicle

After a Week **Outdial** Call to Rob...



Let me check back with Rob to see if he is all good with the the service!

It would have been great to have all account details on the screen...

Workflows in Outdial Entry Point

Outcome

- Allow customise Agent experience for Outbound calls
- Simplify administrator configuration

- ❖ Offer Agents Contextual customer information during Outbound calls.
- ❖ The **AgentOffered** event is triggered when an agent is offered a call.
- ❖ Customized Outbound experience. Customising ANI, Screen Pop-up, Global CAD support for outbound workflow etc.
 - HTTP Request
 - Condition
 - Business Hours
 - Set Variable
 - Parse
 - Screen Popup
- ❖ Configure Outbound flow, queue and Music On Hold(MoH) at Out dial Entry Point

The screenshot displays the 'Outdial Entry Point' configuration page. It is divided into three main sections: General Settings, Advanced Settings, and Event Details.

General Settings:

- Name: [Text Field]
- Description: [Text Field]
- Type: Outdial Entry Point
- Channel Type: Telephony

Advanced Settings:

- Service Level Threshold: 0
- Time Zone (Routing Strategies Only): Default (Tenant Time Zone)
- Flow: Select [Dropdown]
- Music on Hold: Select [Dropdown]
- Outdial Queue: Select [Dropdown]

Event Details (AgentOffered Event Settings):

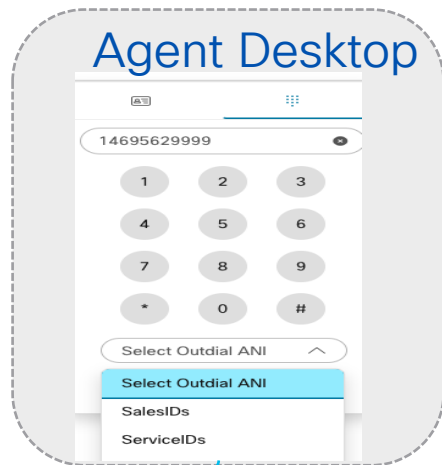
- Event:** AgentOffered
- Event Description:** The AgentOffered event is triggered when an agent is offered a call.
- Recommended Event Flow:** Use the Screen-pop activity to send custom content to the Agent Desktop.
- Event Output Variables:**
 - AgentOffered.AgentID
 - AgentOffered.AgentName
 - AgentOffered.AgentSessionID
 - AgentOffered.QueueID
 - AgentOffered.QueueName
 - AgentOffered.TeamID
 - AgentOffered.TeamName
 - AgentOffered.TenantID
 - AgentOffered.CAD

Ability to customize ANI for Different Call Scenarios

Outcome

- Ensure Brand Consistency and Reduce the possibility of Call rejection
- Improve Agent Productivity

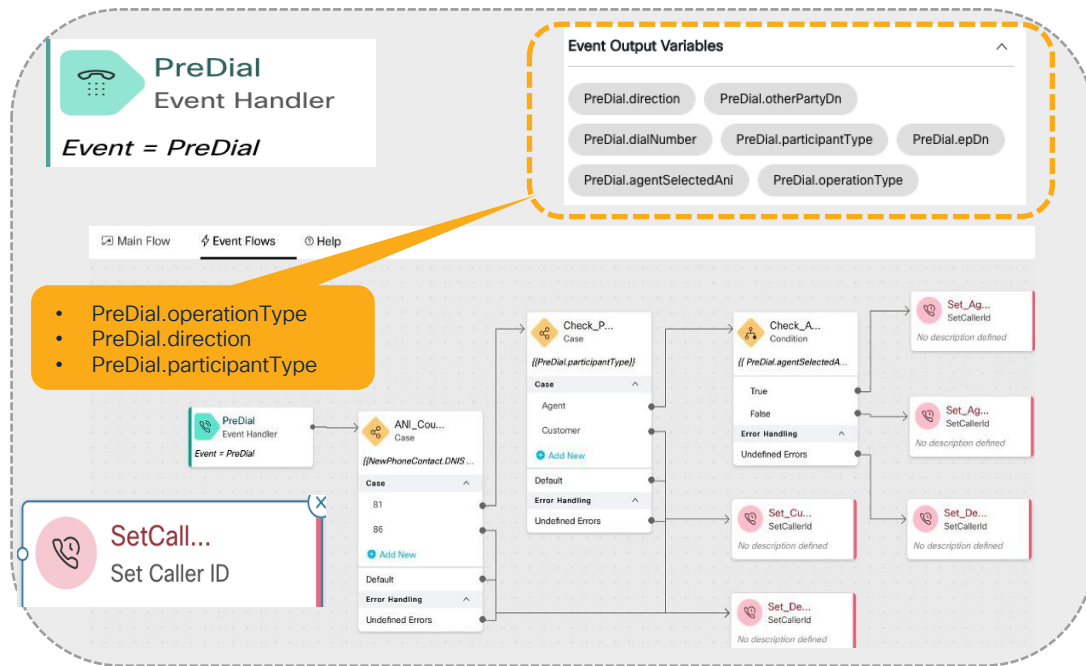
- ❖ Enable ANI customization for Outdial, Callback, Transfer, Consult scenarios
- ❖ Customize uniquely for Caller and Agent Leg
- ❖ **PreDial** Event, used to set the caller ID using **SetCallerID** activity.



Default Outdial ANI

+1-3013051234 ⓘ

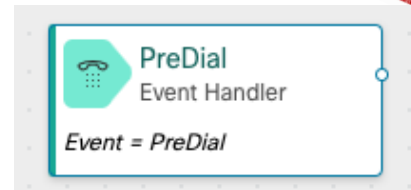
CISCO *Live!*



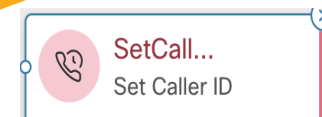
Ability to customize ANI for Different Call Scenarios



OutputVariable	Description
PreDial.direction	Specifies whether the contact direction is inbound or outbound.
PreDial.participantType	Indicates whether the call is being sent to a caller, an agent, or a DN.
PreDial.dialNumber	Represents the DN associated with the participant for whom this PreDial is triggered.
PreDial.otherPartyDn	Represents the DN associated with the other party - caller or agent.
PreDial.epDn	Represents the DN associated with the Entry Point.
PreDial.agentSelectedAni	Denotes the ANI selected by the agent, if any.
PreDial.operationType	Specifies the type of operation, such as:



- INBOUND
- OUTDIAL
- COURTESY_CALLBACK
- SCHEDULED_CALLBACK
- PREVIEW_CAMPAIGN
- WEB_CALLBACK
- EXECUTE_FLOW
- TRANSFER_TO_DN
- TRANSFER_TO_AGENT
- CONSULT_TO_DN
- CONSULT_TO_AGENT
- CONSULT_TO_QUEUE
- CONSULT_TO_EP_DN



A Happy Customer - Feedback After a Positive Experience



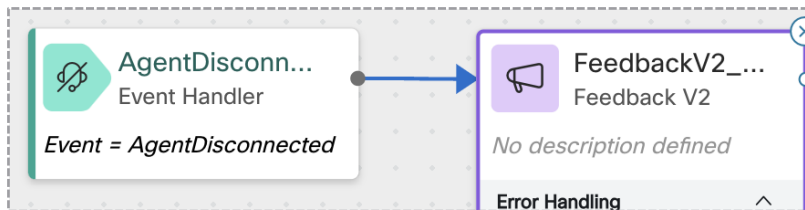
I am all Set, Thank you for the Great Experience!

Happy to help and please as always!
**Please take few seconds to
provide your feedback...**



Voice of Customer Post-Call surveys

- ❖ New and integrated Experience Management for post-call surveys
- ❖ Easy to configure and manage surveys in multiple languages using the [Survey Builder in Control Hub](#)
- ❖ IVR surveys collect feedback with audio-based questions, supporting metrics like NPS, CSAT, and CES
- ❖ [Downloaded survey from the Control Hub](#) for analysis
- ❖ The [Feedback V2](#) activity in the Flow Designer triggers the IVR post-call survey
- ❖ Flow control includes opt-in/opt-out functionality for voice surveys using `Global_FeedbackSurveyOptin` variable



The screenshot shows the 'webex Control Hub' interface. The 'Surveys' section is highlighted with a dashed orange box. It contains a table with the following data:

Name	Type	Responses	Status
Test PCS 4 (DND)		17	Incomplete
Test PCS 5 (DND)		5	Incomplete
PCS_CH_2	IVR	1	Complete
TEST_PCS	IVR		Complete
Test_PCS_Demo	IVR		Complete

Below the table, the 'Summary' section is visible. It shows the 'Survey type' as 'Please select one survey option:'. There are two options: 'Digital surveys' (a visual based survey) and 'IVR surveys' (an audio based survey). The 'IVR surveys' option is selected. The 'Survey name' is 'TEST_SURVEY'. The 'Languages to support' dropdown shows '1 item selected'. The 'FeedbackV2' activity settings are also visible, including 'General Settings' (Activity Label: FeedbackV2, Activity Description: Enter a Description) and 'Survey Method' (Voice Based, PCS_CH_2). The 'Language Settings' section indicates that the language will fallback to English if not supported.

Innovation at Velocity

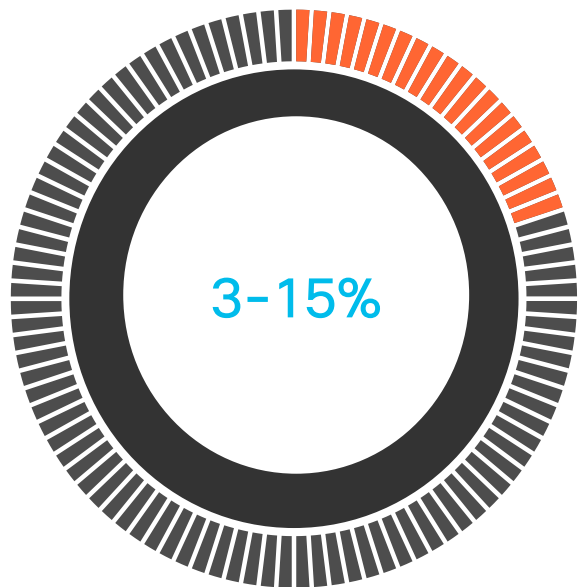
- Driving Customer Delight
- Business Excellence



AI is voted as the #1
enabler of future CX
and EX strategies

Source: NTT Data 2023 Global Customer Experience Report

Engagement Gap - Low CSAT Survey Response Rates



Response rates for traditional
CSAT surveys are low

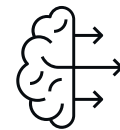
Immediate Customer Follow-up

Enables swift action and follow-up
with unsatisfied customers,
preventing potential customer churn

Enhanced Decision Making

Enhanced Decision Making and
assists in evaluating agent
performance more accurately and
Training needs

Auto CSAT



Maximize Customer satisfaction & Agent performance.

Predictive CSAT Scoring

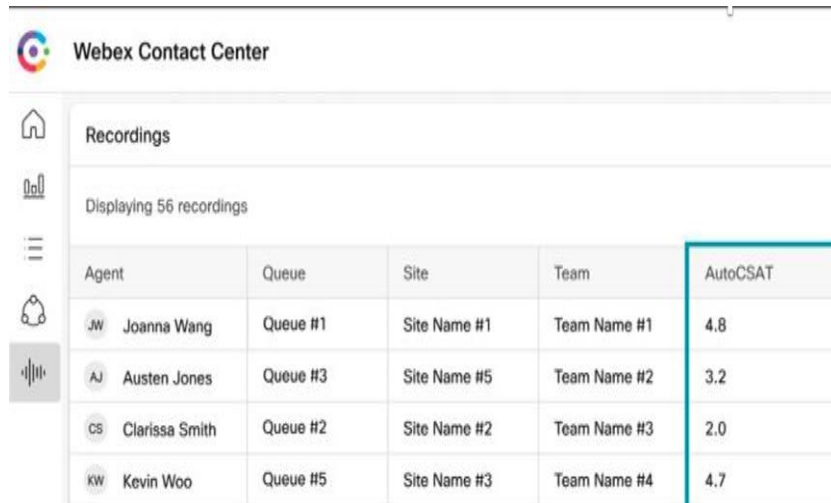
Audit and Training
Indicator

Immediate Customer
Follow-up

Enhanced Decision
Making

- ❖ CSAT score will be assigned automatically using sample Survey data and operational metrics
- ❖ Training Dataset CSAT scores from Experience Management IVR Survey will be used as training datasets
- ❖ CSAT data assigned to Contact session (CSR) and available in Analyzer and via GraphQL SEARCH API

Trials Completed, soon available for Beta
<https://gobeta.webex.com/> ask-ccai@cisco.com



Webex Contact Center

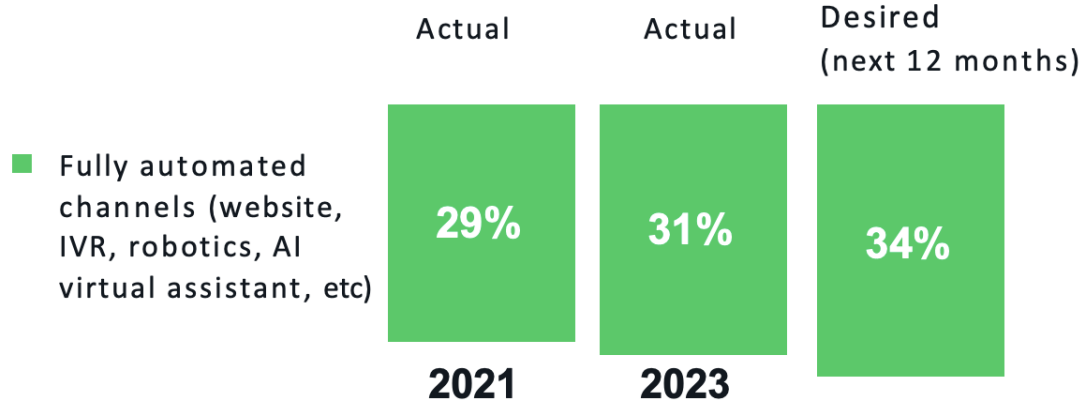
Recordings

Displaying 56 recordings

Agent	Queue	Site	Team	AutoCSAT
JW Joanna Wang	Queue #1	Site Name #1	Team Name #1	4.8
AJ Austen Jones	Queue #3	Site Name #5	Team Name #2	3.2
CS Clarissa Smith	Queue #2	Site Name #2	Team Name #3	2.0
KW Kevin Woo	Queue #5	Site Name #3	Team Name #4	4.7

Continuous improvement of Automation

How to **identify suitable opportunities** for implementing automation and self-service solution?



Source: NTT Data 2023 Global Customer Experience Report

Automation analytics using Topic Analysis



Outcome

- Enhancing customer service efficiency and satisfaction
- Increased Self-service and IVR containment

Customer inquiries Trend → Automation/ Self-Service

- ❖ AI-driven analytics with actionable insights
- ❖ Identification of Self-Service and Automation opportunities
- ❖ Flexible User interface to run the automation based on:
 - ❖ Date Range
 - ❖ Specific Queue, Site, Team and Agents
- ❖ Monthly limit: Upto 50K transcription & 5 Analytics modelling
- ❖ Topic and Top Call Drivers
- ❖ Language Support: English
- ❖ Available for Beta <https://gobeta.webex.com/> ask-ccai@ciscom

The screenshot displays the Cisco Automation Analytics interface. At the top, a 'Create a topic collection' dialog is open, showing options to select a date range (01/01/23 - 08/30/23) and filters (Queues, Sites, Teams, Agents). A green arrow points from the 'Control Hub' label to the dashboard area. The dashboard shows a 'Test Model' with 12,437 transcriptions analyzed. Below this, a table lists topics and their associated transcriptions.

Topic	Transcriptions	Percentage
Technical support	3,000	25%
Ordering and payments	1,800	15%
Customer service	1,800	15%
Status and promotions	1,200	10%
Complaints and issues	1,000	8%
Account management	500	4%
Feedback	400	3%
Training and onboarding	300	2%

Noise vs. Clarity - Bridging the Communication Gap



Before



After

Background Noise Removal



Outcome

- Remove frustration and misunderstanding in conversation due to excessive background noise, eventually leading to improved customer experiences

❖ Eliminating Customer Background Noise in Webex Contact Center

❖ Breakthrough AI noise removal technology

❖ Enhanced agent productivity

❖ Improved customer satisfaction



Business Problem and Outcomes

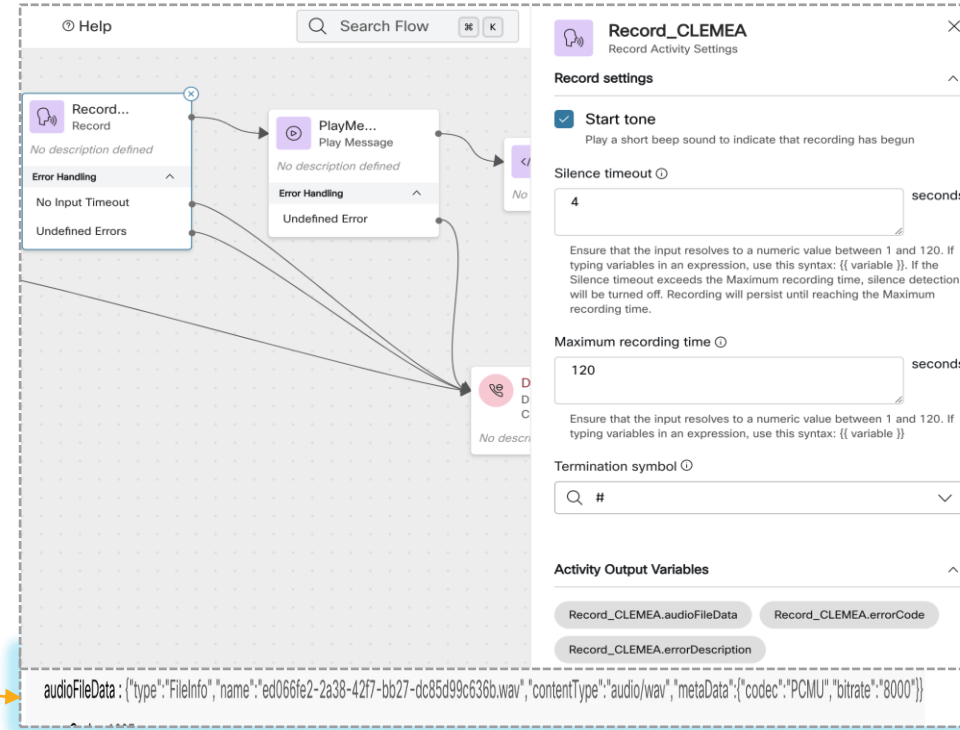


Voice Verifications..
Audio Feedback...
Record Prompt...
Leave a Message...

Record Utterance (IVR)



- ❖ Allows for recording caller audio and using these recordings within the same call.
 - Audio can be played back using "Play Message", "Menu", and "Collect Digits" activities
 - Audio can be sent to an external server using the HTTP Request activity (POST).
- ❖ The recording will be deleted once the call ends and 60 min expiry time
- ❖ Configurable Max Recording Time up to 120 Sec
- ❖ Output Variables:
 - `audioFileData` (JSON Variable type: *Filename, codec, bitrate etc.*)
 - `errorCode` and `errorDescription`



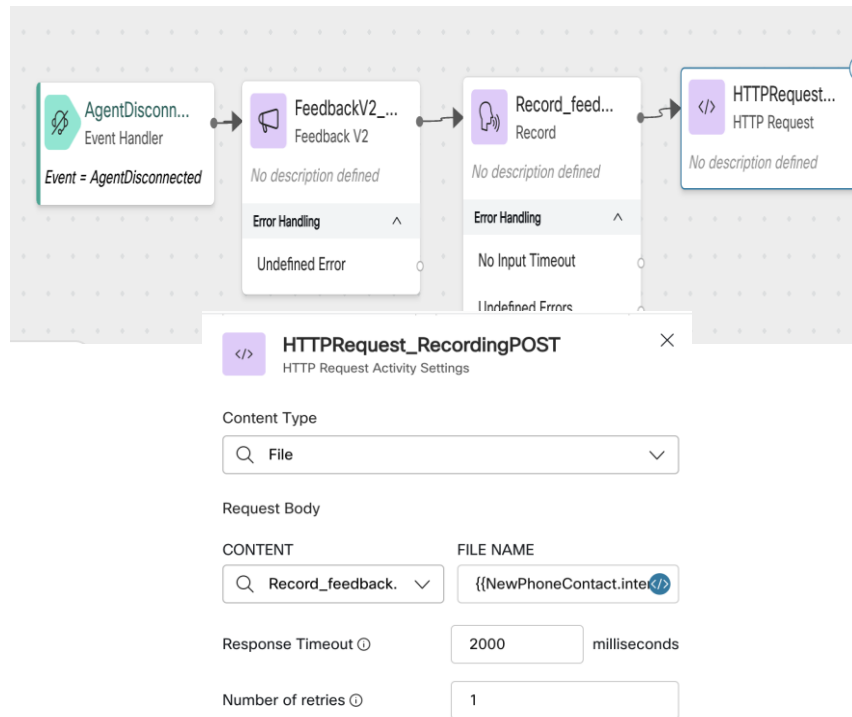
Record Utterance (IVR)



Enhanced HTTP Request

- ❖ Enhanced HTTP Node support Content Type “File”
- ❖ Allow you to POST the recorded file to external service
- ❖ 2 MB Max file size
- ❖ CONTENT – Output Variable (audioFileData) out of list all JSON Variables
- ❖ File Name : Support variable

Ex: {{NewPhoneContact.interactionId}}



Record Utterance (IVR)

Output Variables : errorCode and errorCode

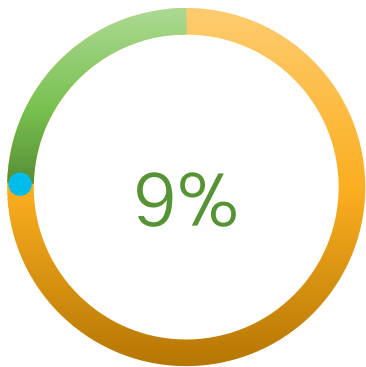


errorCode	Error Description	Reason
1001	INVALID_SILENCE_TIMEOUT	Configured Silence timeout is out of the valid range 1 and 120secs
1002	INVALID_MAXIMUM_RECORDING_DURATION	Configured Maximum record time is out of the valid range 1 and 120secs
1003	INVALID_TERMINATION_SYMBOL	Configured Termination symbol is not one of the allowed ones *, #
1004	RECORD_API_FAILURE	Error occurred in the API to start the recording
1005	FEATURE_DISABLED_FOR_ORG	Feature is not enabled for the Tenant/Org
1006		No input audio detected to record. The recorded audio file may contain only the silence.
1007		Error occurred in the media services while recording
1008	JSON_PARSING_ERROR	Failed to parse the input event from the Record activity
1009	DECODING_ERROR	Failed to decode the input event from the Record activity
1010	START_NEW_IVR_SESSION_FAILED	Failed to start a new IVR Session for the Recording
1011	INVALID_SELFSERVICE_URL	Invalid Self-Service URL is received for the IVR Session

Proactive Customer Engagement

REFERENCE

Event → Outreach



Customer's value enhancement score who receiving proactive service leads.

Eric Keller [Gartner](#)



Outreach for service and Urgent issues



Customer Acquisition & Expansion



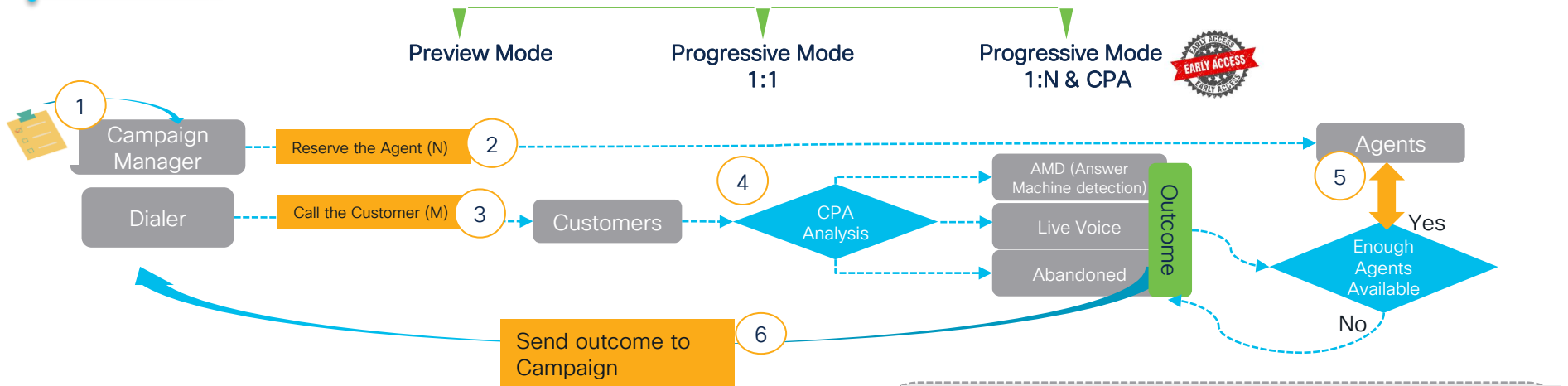
Customer Engagement

Outbound Campaign Manager : Progressive

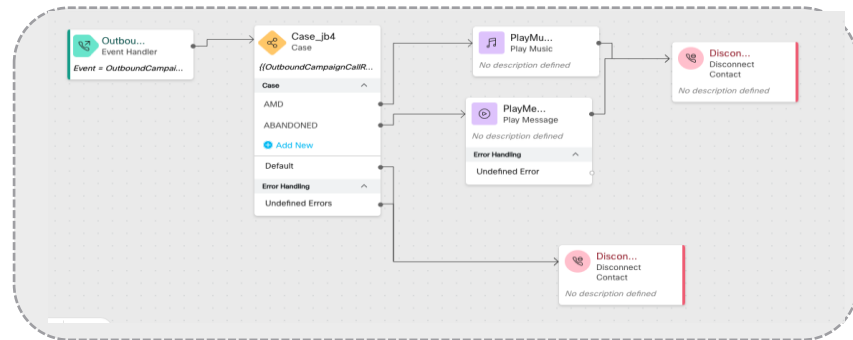
REFERENCE

Outcome

- Improved Customer Engagement with proactive engagement
- Leverage for Competitive Advantage and sales growth



- ❖ Dialing Rate (Max 10 calls per Agent)
- ❖ Flow Manages : Custom ANI, Agent Desktop Data Display, Experience (AMD , Abandoned)
- ❖ Support blended Inbound and Outbound calls (Inbound take preference over Outbound)



Admin Experience

Improved Efficiency and Serviceability



60%

Contact centre administrators reported that their top challenge was **managing and optimizing contact centre technology**. ICMI

Onboarding and customer Lifecycle



Onboarding Excellence



Simplified Administration

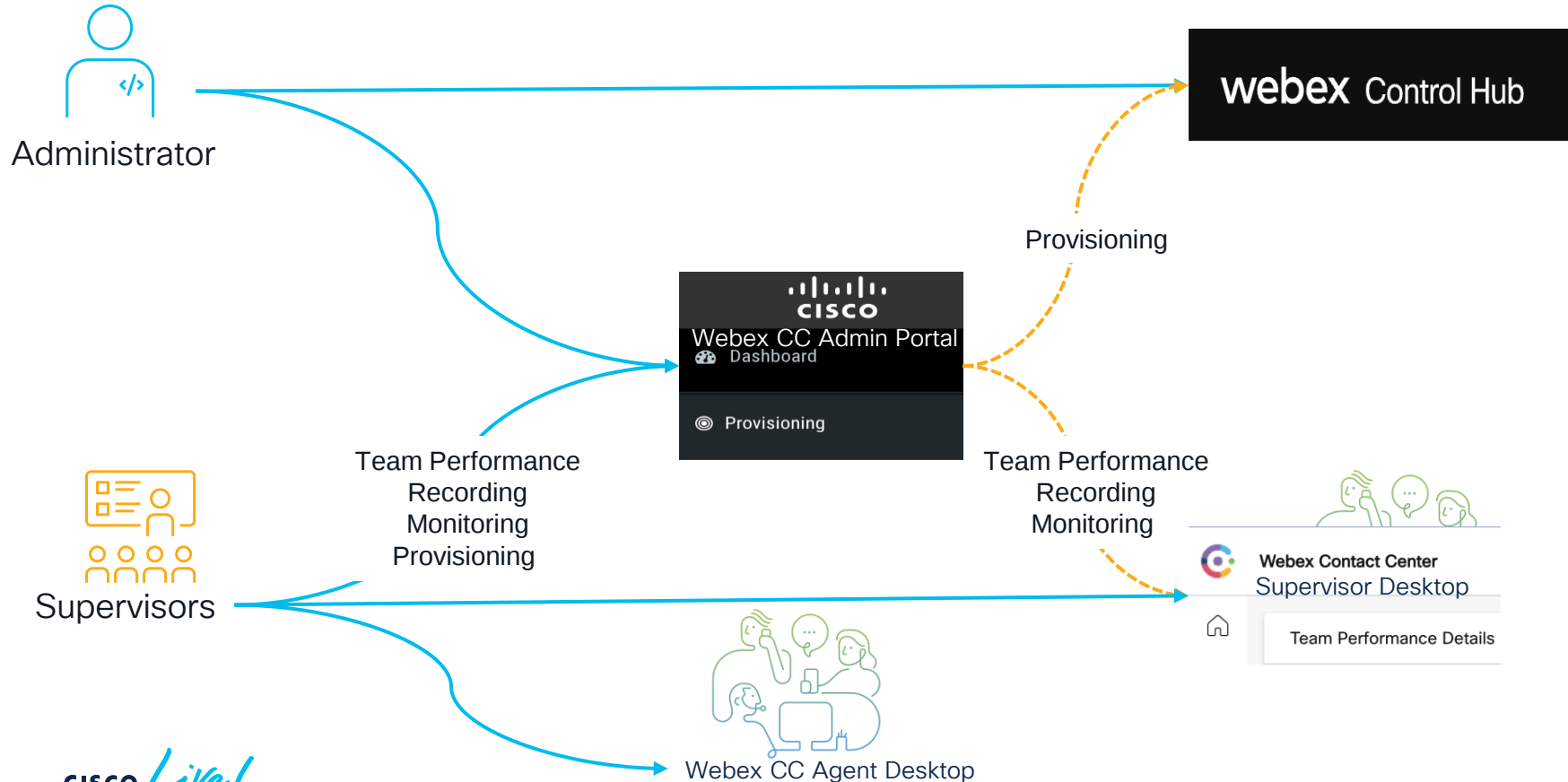


Easy Technology
Adoption

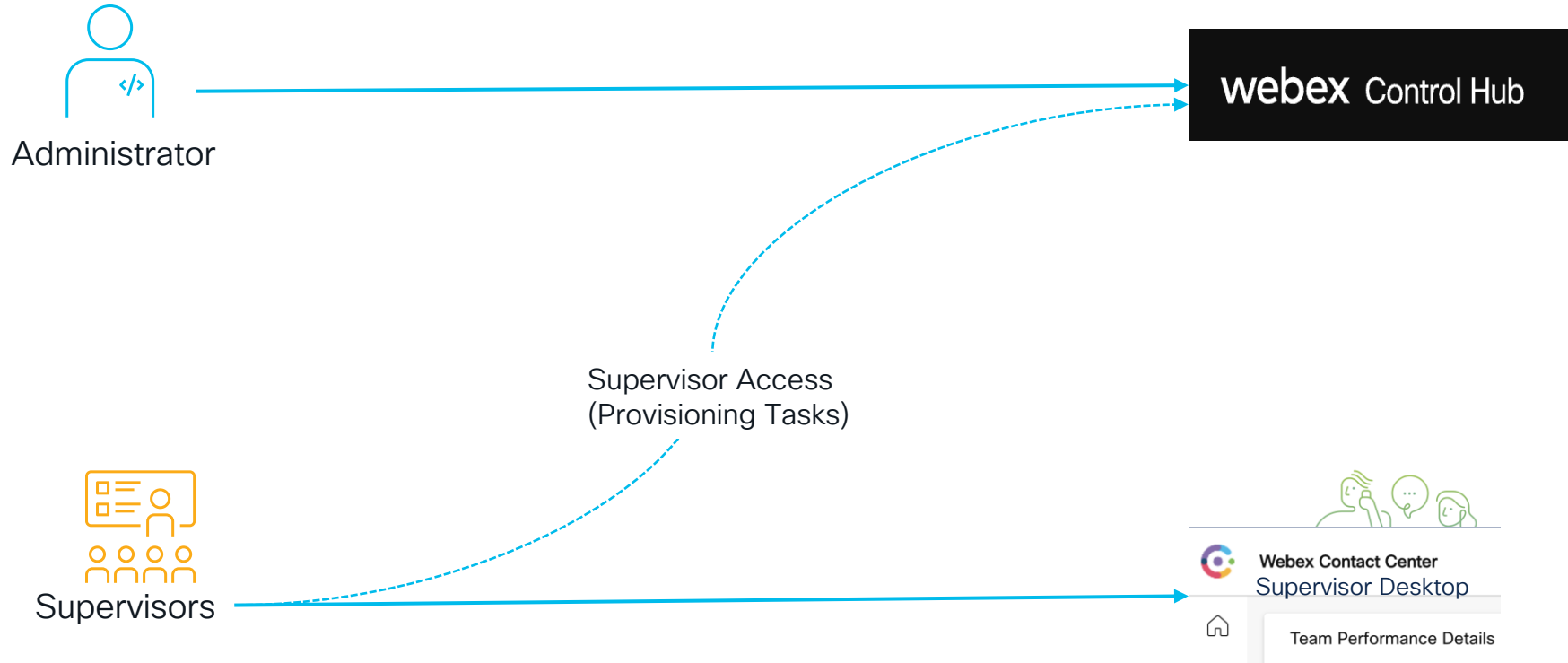


Serviceability

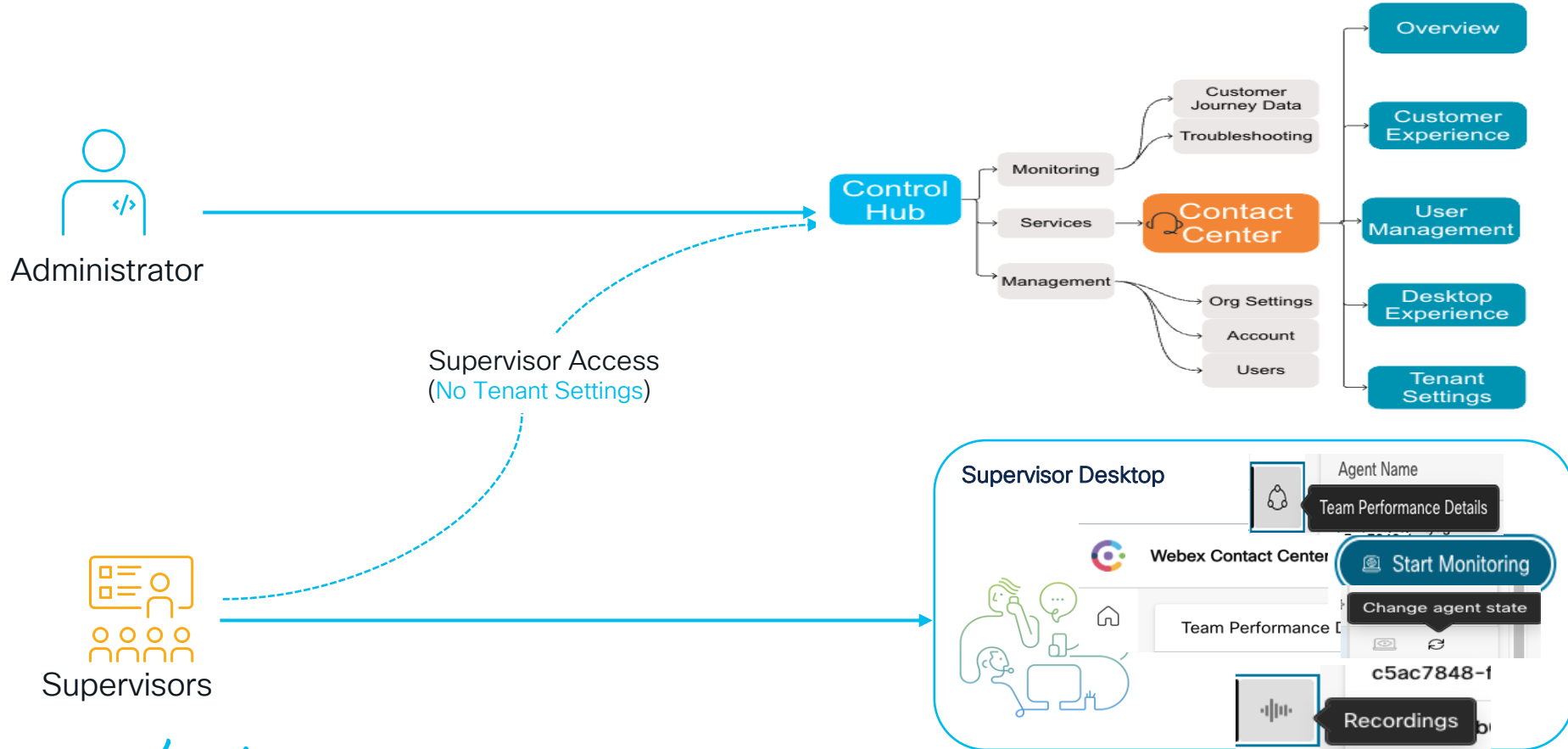
Webex Contact Center Administration



Webex Contact Center Administration

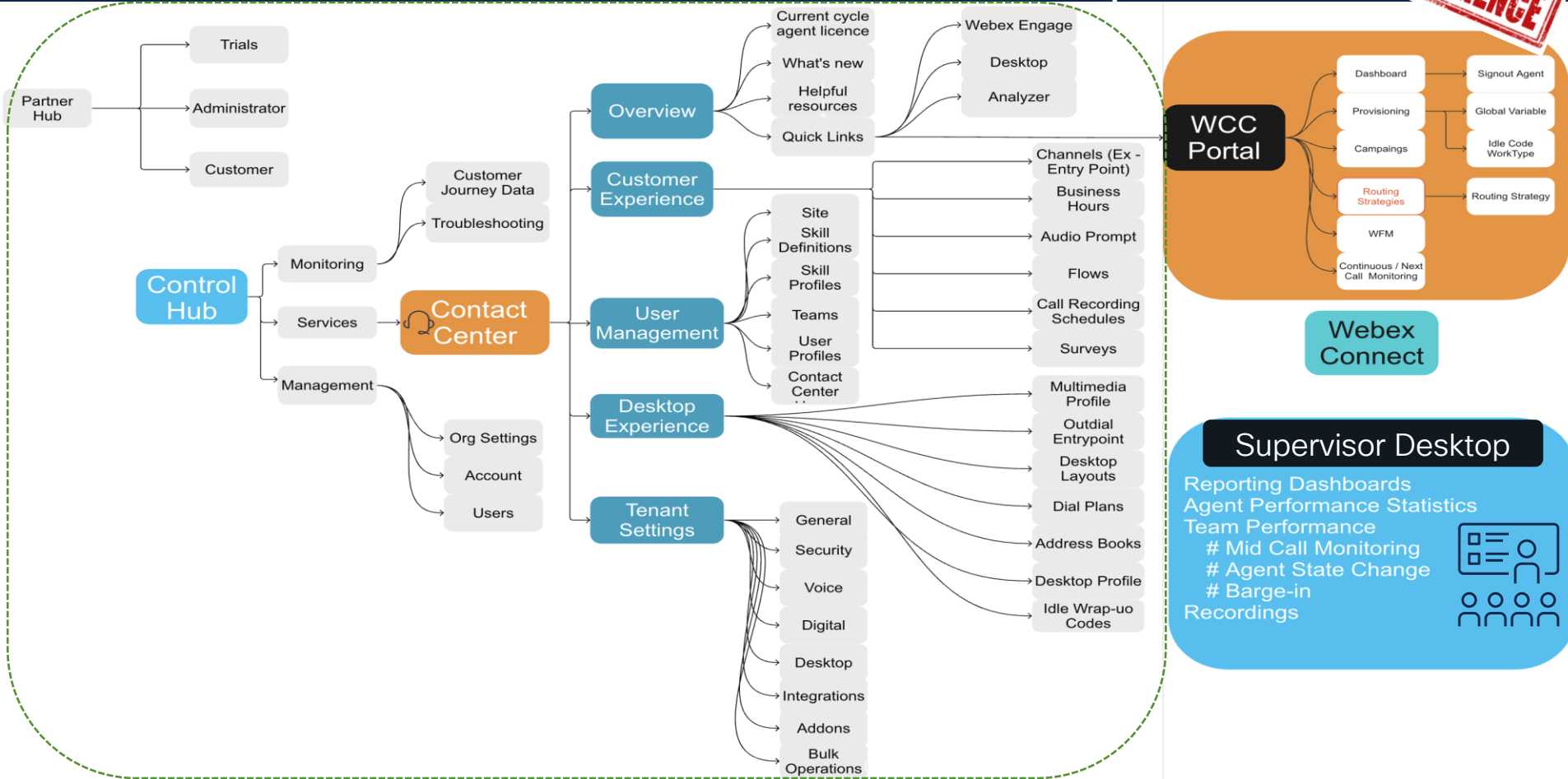


Webex Contact Center Administration – Today!!



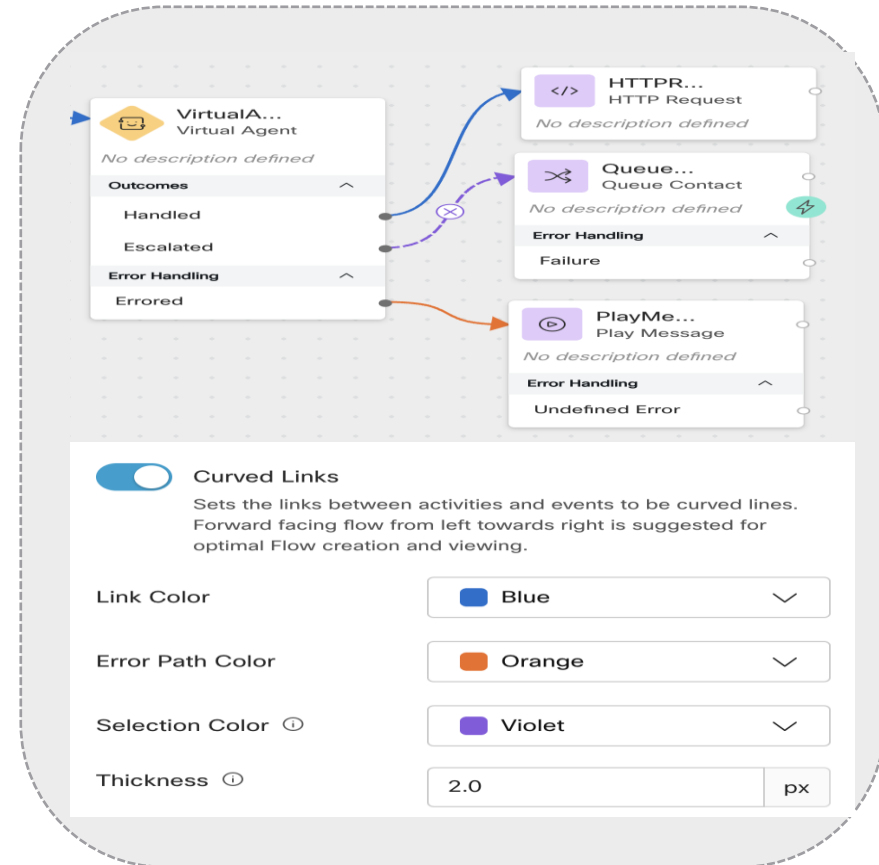
The Evolution of CC Administration Simplification

REFERENCE



Flow Aesthetic Improvements

- ❖ **Enhanced Design:** Introducing curved connector lines for improved flowchart visualization and aesthetics.
- ❖ **Customizable Clarity:** Toggle between curved and straight lines to enhance visual clarity.
- ❖ **Complex Flow Simplified:** Use curved lines to prevent overlap and simplify path tracing in complex diagrams.
- ❖ **Color Customization:** Set specific colors for successful activities, errors, and highlights
- ❖ **Personalized Thickness:** Adjust line thickness for clear distinction of activity states and highlights.

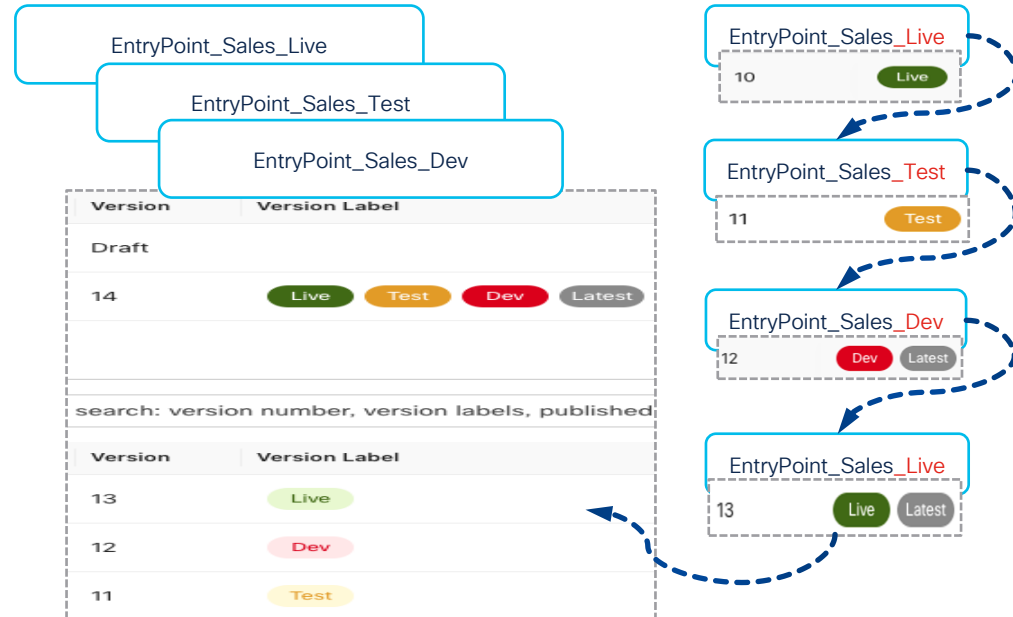


Enhanced Flow Versioning

Outcome

- Streamlined Maintenance & improved change Management
- Enhanced Risk Management and Auditing Capabilities
- Optimized UAT, System Testing, and DR Protocols

- ❖ Environment Tagging (**Live**, **Dev**, **Test**, **Latest**) and “Publishing Note” for organized version management
 - Flow can be tagged to a or multiple tags. “Latest” tag is the default tag
 - **Edit ON/OFF** option to prevent unintentional edits
- ❖ Tagging support for “GoTo” Flow node, **Debugging**
- ❖ Reported as “IVR Script Tag Name” in CSR/CAR
- ❖ **Locking Mechanism** for Flow Editing to prevent simultaneous editing



Demo



6:55



(206) 424-1670

00:05

1

2

3

ABC

DEF

4

5

6

GHI

JKL

MNO

7

8

9

PQRS

TUV

WXYZ

*

0

#

+



Hide

Webex Contact Center App Launcher

Search...

Webex Contact Ce... App Launcher

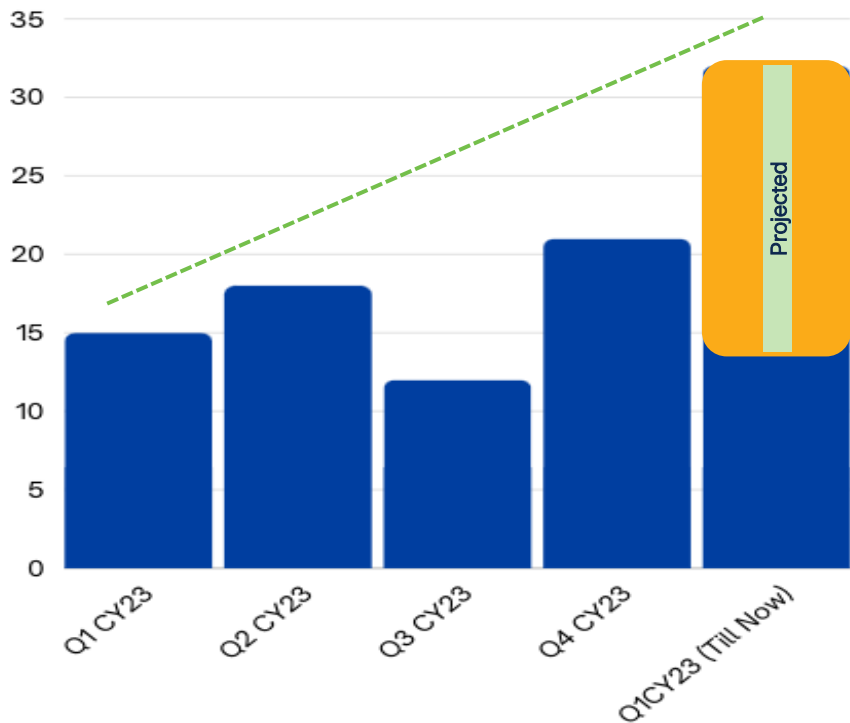
▼ All Apps

- Service**
Manage customer service with accounts, contacts, cases, and more
- Marketing**
Best-in-class on-demand marketing automation
- Community**
Salesforce CRM Communities
- Salesforce Chatter**
The Salesforce Chatter social network, including profiles and feeds
- Content**
Salesforce CRM Content
- Sales Console**
(Lightning Experience) Lets sales reps work with multiple rec...
- Service Console**
(Lightning Experience) Lets support agents work with multiple...
- Sales**
Manage your sales process with accounts, leads, opportunities, and more
- Lightning Usage App**
View Adoption and Usage Metrics for Lightning Experience
- Digital Experiences**
Manage content and media for all of your sites.
- Salesforce Scheduler Setup**
Set up personalized appointment scheduling.
- Bolt Solutions**
Discover and manage business solutions designed for your industry.
- Webex Contact Center**
This app provide seamless integration with Cisco Webex Contact Center.

Phone

Conclusion

Webex Contact Center - Velocity and Innovation



Webex Contact Center What's New

Digital or Voice

Customer or User Experience

Proactive or Reactive

Self-Service AI

Webex Contact Center



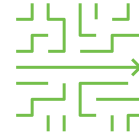
Solve real business problems

Delivering Experiences at every customer touchpoint and Business outcomes



Building for Future

Innovation and velocity



Keep it simple

Remove complexity for our Admin and Partners

With a **focus on simplicity, solving real business problems, and rapid delivery of value**, we can transform customer experiences and outcomes.



Continue your education

Agenda

CISCO *Live!*

Webex Contact Center

Breakout

BRKCCT-2723

Understanding Voice Media and
Real-Time Media handling for
Webex Contact Center

BRKCCT-2017

The Cisco Omnichannel Contact
Center

BRKCCT-1008

Empowering Agents and
Supervisors for Customer Service
Excellence

BRKCCT-1656

Enable your Contact Center with
Intelligent Data

Lab

LTRCCT-3001

Webex Contact Center New
Digital Channels Bot Capabilities
Lab

BRKCCT-2011

Webex Contact Center – Data
and Analytics Lab



The bridge to possible

Thank you

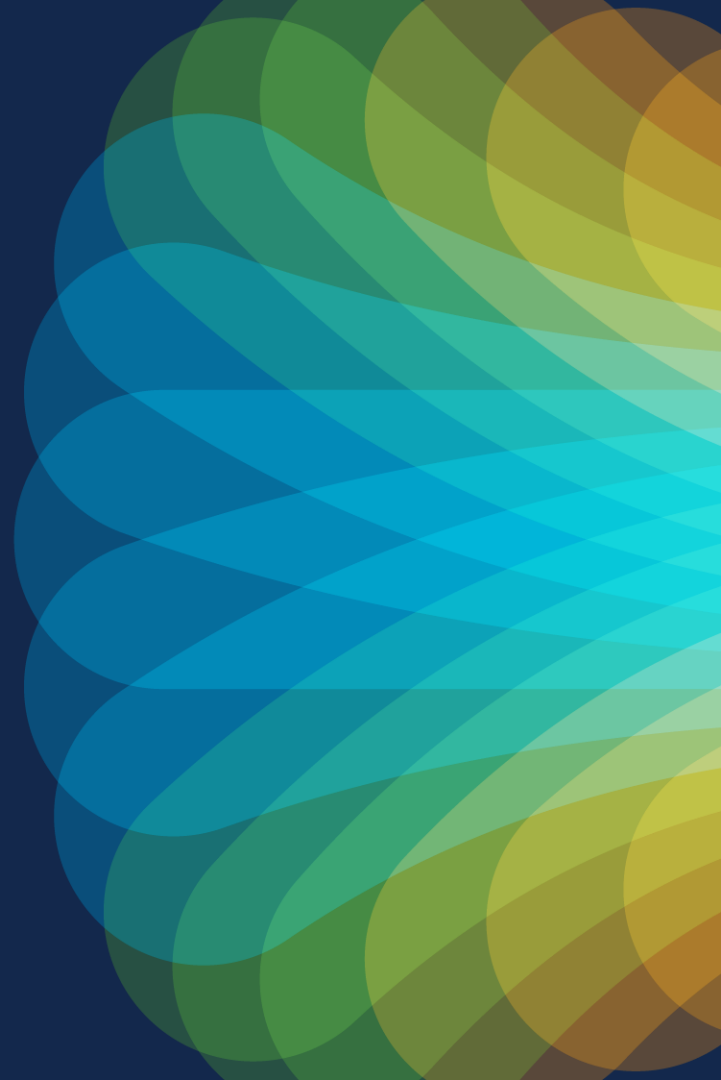
CISCO *Live!*

The background features a vibrant, multi-colored abstract design. On the left, there are horizontal, wavy bands of color in shades of red, orange, yellow, and green. On the right, a bright white light source emits a series of colorful rays in shades of blue, green, and yellow, creating a sunburst effect.

cisco *Live!*

Let's go

Appendix



Appendix

Customer and User Experience

Easy, Dynamic, Contextual

Webex Contact Center Delivering Real-World Experience

Seamless Health Service Experience: Instant Access & Personalized Care



Vertical: Healthcare

- **Goal:** Automate the appointment scheduling to Improved patient Experience, agent productivity and lesser wait times for the patients
- **Agent Count:** 50-100



Webex Contact Center Solution:

- Webex Contact Center Virtual Voice Agent
- G-CCAI -Dialog Flow fulfill intent using node.js scripting
- EPIC lookup integration



Outcomes Delivered

- ✓ **No Call Waiting:** Enhanced satisfaction with immediate service.
- ✓ **EPIC Integration:** Streamlined access to patient records for up-to-date health data and efficient service.
- ✓ **Real-time Scheduling:** Simplified voice navigation for health appointments with flexible modifications, elevating patient experience.

Inbound Call to Contact Center

Patient calls into the contact center and is greeted by a virtual agent.

Information Capture & Verified

Virtual agent captures necessary information like name, contact number, DOB, SSN by integrating with Epic EHR system.

Appointment Scheduling

Virtual agent accesses real-time calendar to schedule health check appointment, allows patient to modify appointment details.

JSONPath Expressions

Filtering List of objects returned from HTTP call (JSON parsing)



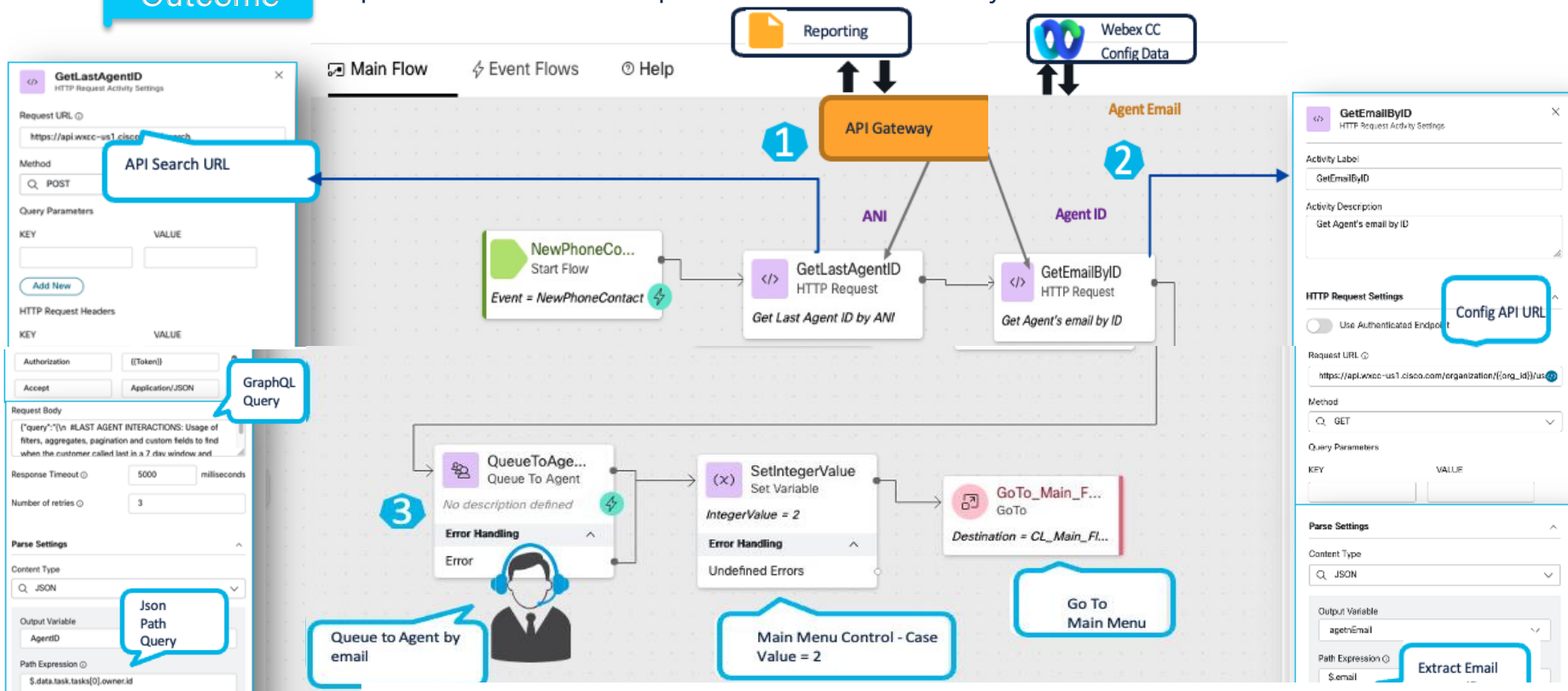
Requirement	Expression
All Records	<code>\$.*</code>
First Records	<code>\$.[0]</code>
Last Records	<code>\$.[-1:]</code>
First two Records	<code>\$.[0:2]</code>
Last two Records	<code>\$.[-2:]</code>
Second from last	<code>\$.[-2:-1]</code>

Requirement	Expression
All the pins	<code>\$..pin</code>
All the names	<code>\$..name</code>
Pin value more than 70000	<code>\$..[?(@.pin > 70000)]</code>
Account equal to 87305901	<code>\$..[?(@.account == "87305901")].*</code>
Name of account 70579265	<code>70579265: \$.[?(@.account == "70579265")].name</code>

Last Agent Routing

Outcome

Improved Customer experience with continuity of service



Token Generation <https://developer.webex-cx.com/documentation/authentication>

GitHub Token Auth Sample: <https://github.com/CiscoDevNet/webex-contact-center-api-samples/tree/main/token-management-samples>

Vidcast: <https://app.vidcast.io/share/embed/9cb70fed-e006-4f7a-bcb2-6d02a94013a3>

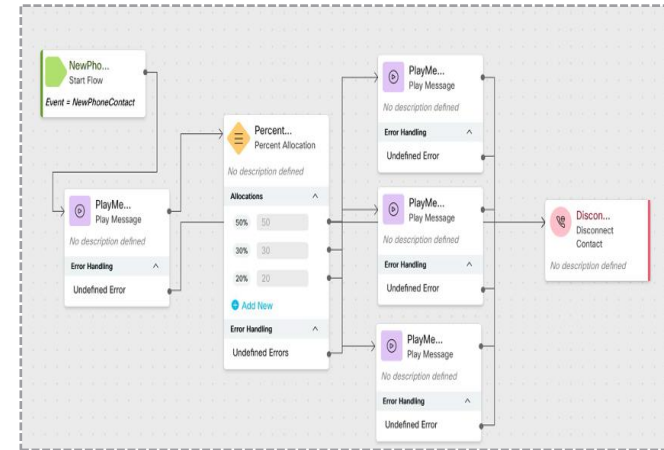
Percent Call Distribution

WHY?

Distribution of calls to different queues, sites, or locations.
Sending % of customer feedback surveys via Email or Voice..



- ❖ Percentage based flow path forking allows for the **distribution of call traffic across different paths**. *Percent Allocation Node*
- ❖ The percent value can be configured from 1 - 100 with a maximum allowed breakup of 10 parts
- ❖ The system uses a Weighted Round Robin (WRR) algorithm to distribute traffic
- ❖ The algorithm resets every time you publish the flow.



Flows Error Handling

Outcome

- Proactive Issue Prevention
- Improved Customer Experience and Serviceability

❖ Critical to ensure minimal impact of customer Experience when error occurs.

❖ Type of Error handling:

- Activity error : Activity error handling is optional
- Global error

❖ Error Types:

- Defined Errors: These are the errors which are already known to flow designers or the activity owner while creating a flow.
 - Undefined Error: Undefined errors are a way to handle unexpected system conditions.
- ❖ Allow Error Logging and Reporting that help identify corrective actions.

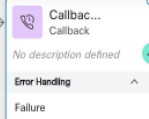
CallBackFailure.Value

```
val INVALID_REQUEST  
val CALLBACK_NOT_SUPPORTED_ON_CHILD_INTERACTION:  
val INVALID_QUEUE: CallBackFailure.Value  
val INVALID_DESTINATION  
val FEATURE_NOT_ENABLED  
val SYSTEM_ERROR
```

CallBack1.FailureCode

This variable stores the failure code, it will be set only when the activity fails.

Variable Type Integer



Activity Output Variables

CallBack1.FailureCode

CallBack1.FailureDescription



QueueToAgent - New Output variables

Outcome

- Offering Agent state awareness and **choices to the customer**
- Trigger Actions: Alternative routing, Callback etc.

- ❖ The following output variables are added to the QueueToAgent activity:
 - **AgentState:** Idle and Available
 - **AgentIdleCode:** Meeting, Lunch, Coffee, Break and so on.
- ❖ This allow to customer call routing based on the Agent State and Idle code to another queue, agent or callback.

QueueToAgent_2pd.AgentState

QueueToAgent_2pd.AgentIdleCode

QueueToAgent_2pd
Queue To Agent Activity Settings

☐ **Park Contact if Agent Unavailable**
Enable this feature to queue the contact to this particular Agent until the Agent becomes available.

Recovery Queue ⓘ
Q KT_SBR_Q

This Queue will be utilized if the contact can't be delivered to the Agent. The Recovery Queue always honors Longest Available Agent routing. If the selected queue uses Skills Based Routing, skills cannot be configured.

Activity Output Variables ^

- QueueToAgent_2pd.AgentId
- QueueToAgent_2pd.RecoveryQueueId
- QueueToAgent_2pd.ReportingQueueId
- QueueToAgent_2pd.AgentState
- QueueToAgent_2pd.AgentIdleCode
- QueueToAgent_2pd.FailureCode
- QueueToAgent_2pd.FailureDescription

Appendix

Admin Experience

Improved Efficiency and Serviceability



Administrator and Supervisor Enablement

Outcome

Simplify and improve administration efficiency

Allowed Overlapping Override for Business Hours

Overrides

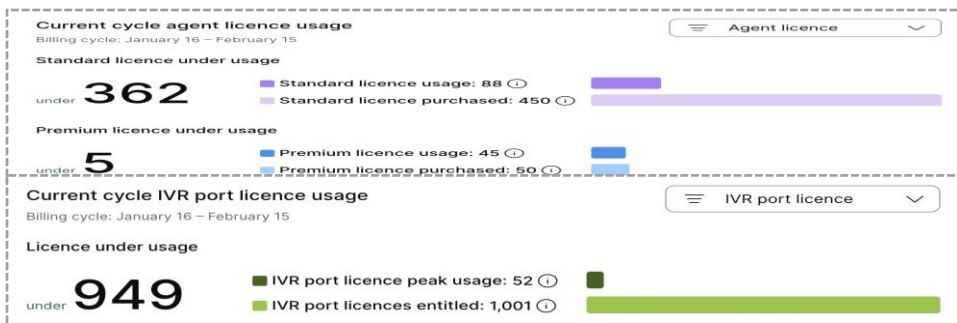
* indicates a required field

Number	Name *	Duration *	Status	Action
1	test11	01/19/2024 11:55 PM → 01/19/2024 11:59 PM	☒	 
2	test23	01/19/2024 11:58 PM → 01/19/2024 11:59 PM	☐	 

Agent & IVR license Usage on Control Hub

[Webex Contact Center License Consumption and Reporting Document](#)

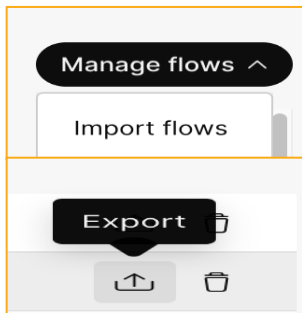
** This feature is currently only in the US and UK regions



Elevating Flow Management and Error Handling

Export Import Flow

- ❖ Onboarding efficiency and excellence
- ❖ Export a current flow to a .csv as a template to develop similar flows.



Flow Search

- ❖ Search across the entirety of flow
- ❖ Replace strings (Except variable name or activity label)



Enhanced Flow Error Handling

- ❖ Critical to ensure minimal impact of customer Experience when error occurs.
- ❖ Error Handling Options:
 - **Activity Error:** Optional handling at the activity level.
 - **Global Error:** Overarching error management.
- ❖ Error Logging and Reporting for corrective actions.

Activity Output Variables

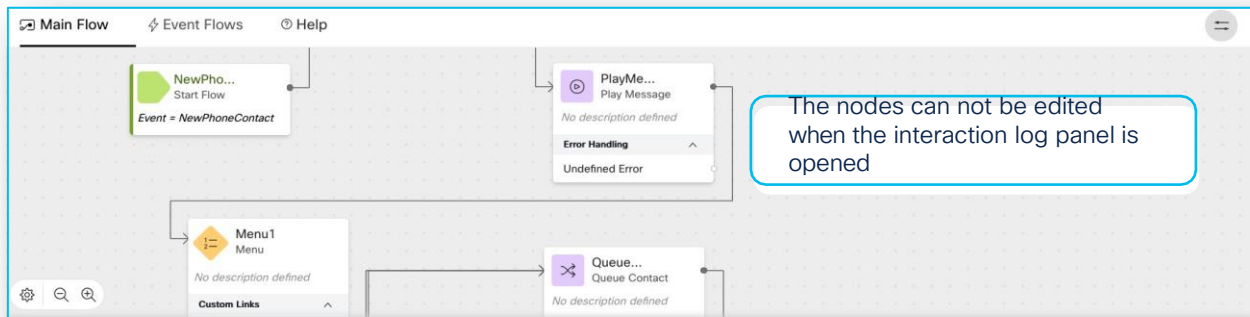
Callback1.FailureCode

Callback1.FailureDescription

Flow Tracing

Outcome

- ❖ Onboarding and Administration efficiency
- ❖ Faster troubleshooting and lowers potential business impact duration



Interactions

8892d108-3717-4035...

Search by interaction ID or filter by date range to narrow down the interactions.

Search Interaction ID

Date Range

*The list below only displays the latest 100 interactions.

Time Stamp	Interaction ID	Entry Point	Last Executed Activity
01/28/2023 18:43:52	8892d108-3717-4035-b32b-27bf...	SA_Voice_EP	EndFlow2
01/28/2023 18:43:33	732bce4-0f24-4c87-ab80-2322b...	SA_Voice_EP	EndFlow2
01/27/2023 12:42:59	c6d39550-7603-485c-8fdb-4920...	SA_Voice_EP	EndFlow2

Search by
Interaction ID or
the Date Range

Expand the Debug panel

The details of the
selected activity.

Interactions

09a2f094-d553-4deb-a8d9-e39cca696273

Sequence	Activity Name	Outcome
1	NewPhoneContact	Success
2	PlayMessage1	Success
3	Menu1	Success
4	EndFlow1	Success

Autosave Enabled
Application Version: 0.4.231-0

Debug

Volume Gain : "0"
promptsTts : "[{"type":"tts","value":"Press 0 or 1 to talk to an agent"}]"
Make Prompt Interruptible : "true"
Connector : "806eadc7-3ae5-478a-9924-cb9739f6fddc"
Speaking Rate : "1"
Override Default Language & Voice Settings : "true"
Output Voice : "en-GB-Standard-C"

The background of the slide is a vibrant, abstract graphic. It features a large, stylized cloud shape on the left side, composed of overlapping, semi-transparent layers of orange, red, and yellow. To the right of the cloud, a bright, multi-colored sunburst or starburst pattern radiates from a central point, with rays extending towards the right edge of the frame. The colors in the sunburst transition through a spectrum from blue and purple on the left to yellow and orange on the right. The overall effect is energetic and colorful.

cisco *Live!*

Let's go