



W E B I N A R

Enhancing Customer Experience: AI/ML Analytics in Amazon Connect

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Agenda

- Customer segmentation
- Amazon Connect
- Overview and key objectives
- Demo – using generative AI to Improve CX
- Architecture deep dive
- Call to action

Customer segmentation

Customer segmentation...Why?

“We see our customers as invited guests to a party, and we are the hosts. It's our job every day to make every important aspect of the customer experience a little bit better.”
Jeff Bezos



Targeted marketing
and messaging



Personalized
experiences



Growth
opportunities



Improved
customer service

Key considerations for customer segmentation success

Identify the right segmentation model



Select the appropriate criteria to segment customers for a tailored experience

Streamline customer data collection



Utilize customer data stored in various sources to fuel segmentation efforts

Leverage powerful AI/ML tools



Leverage AI/ML capabilities such as conversational analytics and text generation for high value use cases

Amazon Connect



Amazon Connect

ACCELERATE CX INNOVATION WITH AMAZON'S NATIVE CLOUD CONTACT CENTER



Globally redundant telephony 30+ providers, 85+ inbound & 230+ outbound countries

350+ feature launches since 2017

Amazon Connect

EASY-TO-USE CLOUD CONTACT CENTER



OMNICHANNEL CUSTOMER EXPERIENCE

Easily delight customers while
saving them time and effort



AGENT EMPOWERMENT AND PRODUCTIVITY

Empower agents to deliver
great customer experience



ANALYTICS, INSIGHTS AND OPTIMIZATION

Turn your data into action
and continuously improve



**Easily delight customers
while saving them time
and effort**

**OMNICHANNEL
CUSTOMER EXPERIENCE**



Omnichannel experiences



Personalized automation that delights



Proactive outbound engagement



Empower agents to deliver great customer experiences

**AGENT EMPOWERMENT
AND PRODUCTIVITY**



Flexibility for your workforce



Unified agent workspace



AI/ML-powered



**Turn your data
into action and
continuously improve**

**ANALYTICS, INSIGHTS,
AND OPTIMIZATION**



Real-time and historical analytics



Forecast, plan, and schedule your agents



ML-powered conversational analytics



Self-service configuration

Overview and objectives

Overview and objectives

AMAZON CONNECT AND GENERATIVE AI USE CASES



Contact Lens Analysis




Contact Evaluations




Contact Records



Agent Events



Amazon Connect Customer Profiles




Forecasts, capacity plans, and schedules




Amazon Connect




Amazon Bedrock
LLMs tuned for contact center use cases



Agent assistance

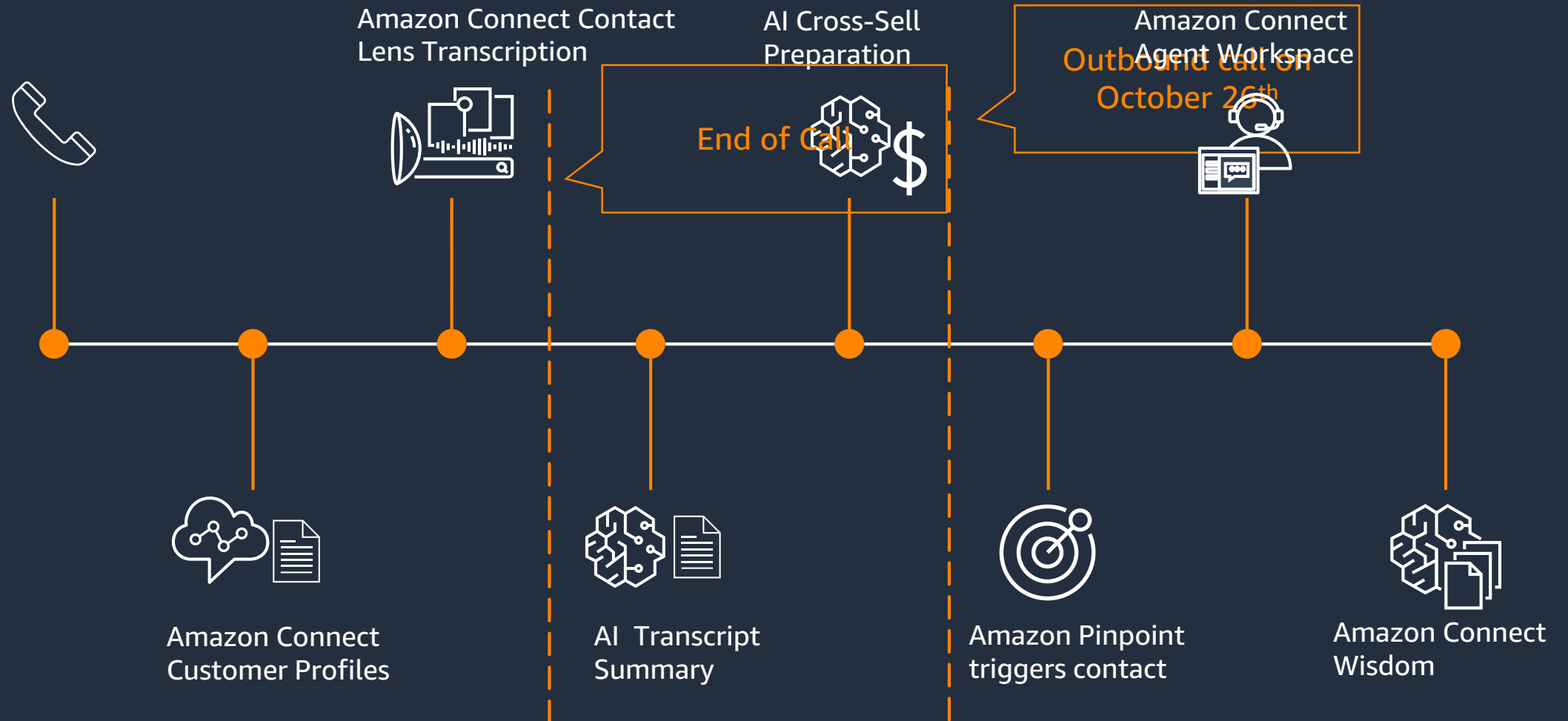


Personalization

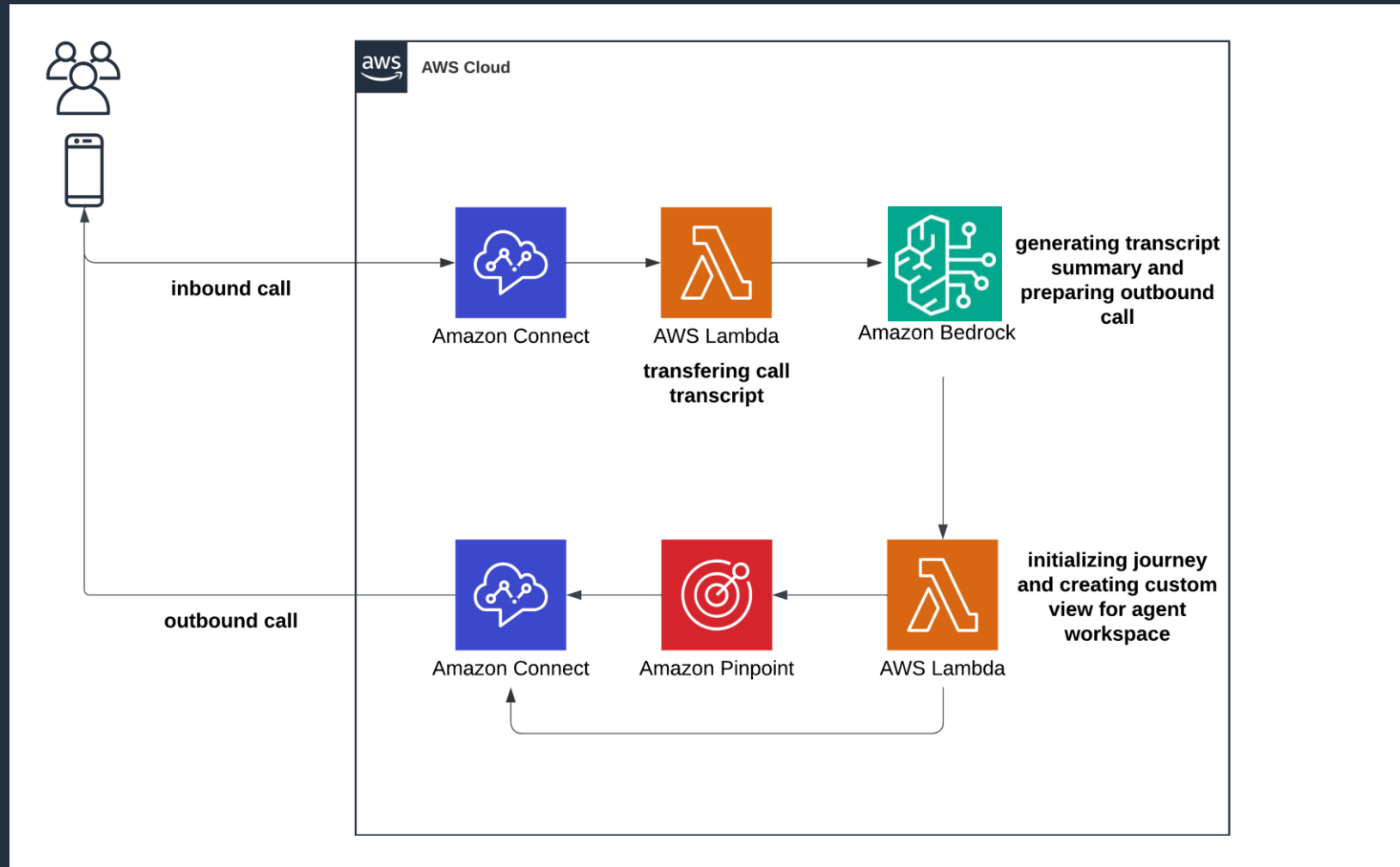


Customer self-service

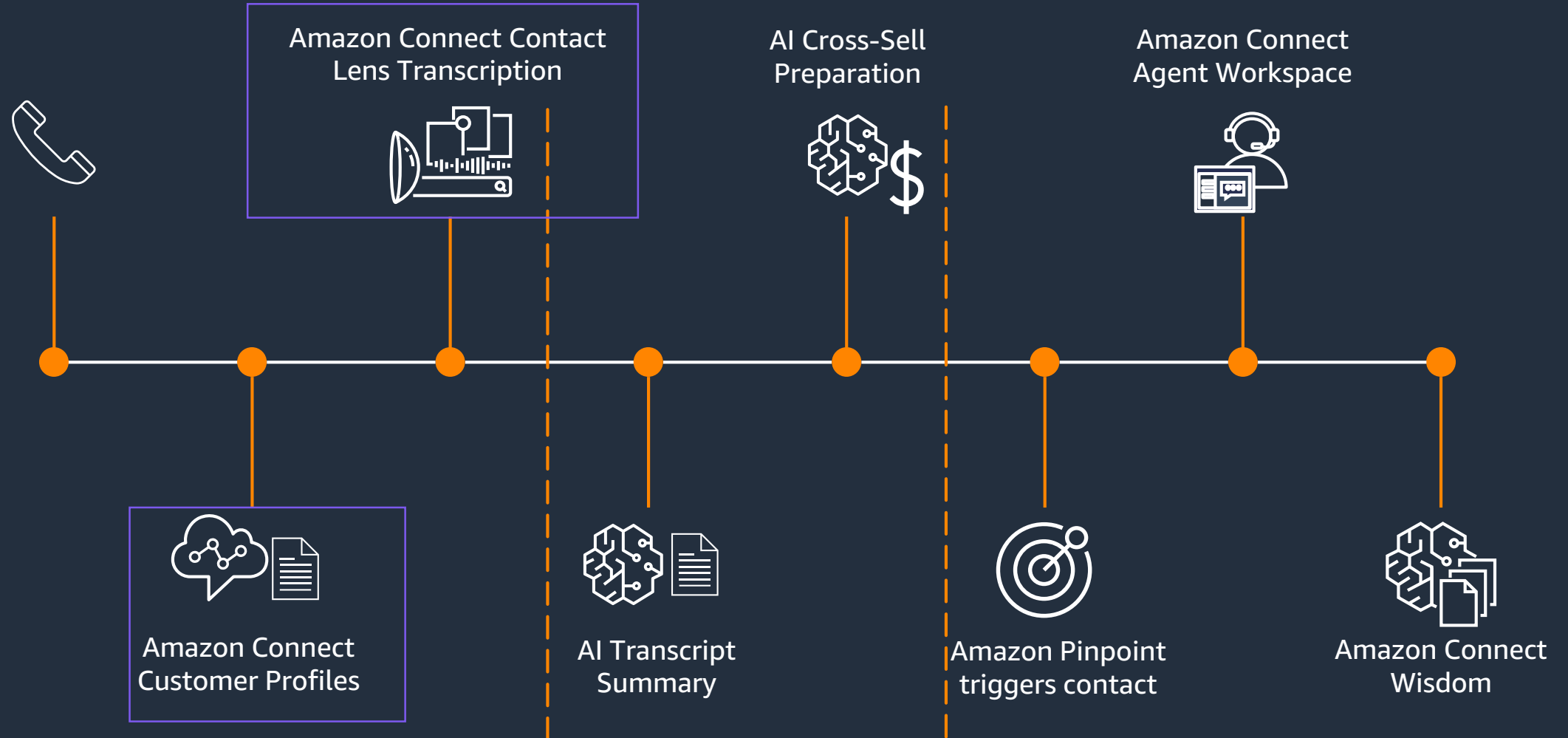
The Customer Journey of John Smith



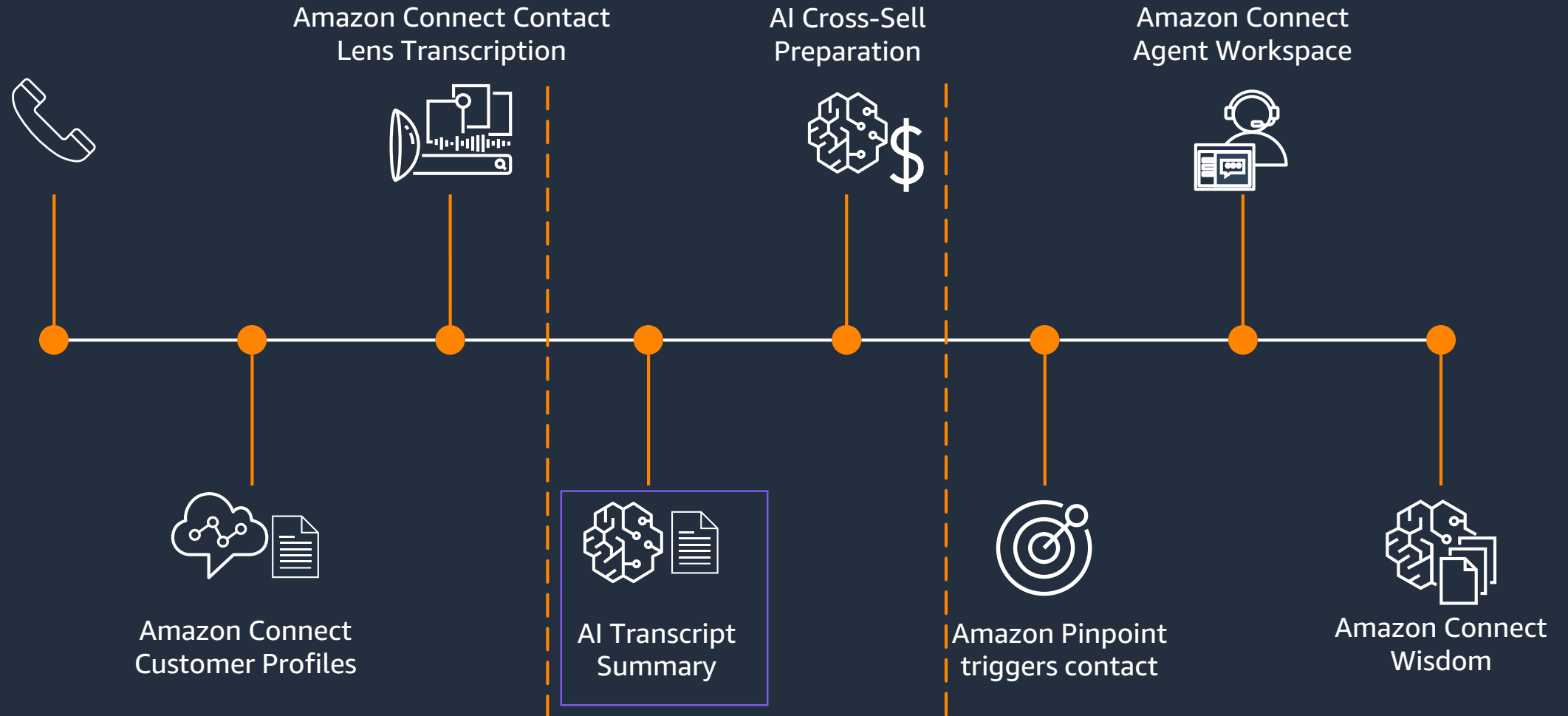
Architecture



The Customer Journey of John Smith



The Customer Journey of John Smith



From speech to summary

Amazon Connect with Contact Lens

- Transcribe customer calls
- Analyze customer sentiment
- Redact sensitive data and more
- Post call or in real-time natively within Amazon Connect

Transfer transcript

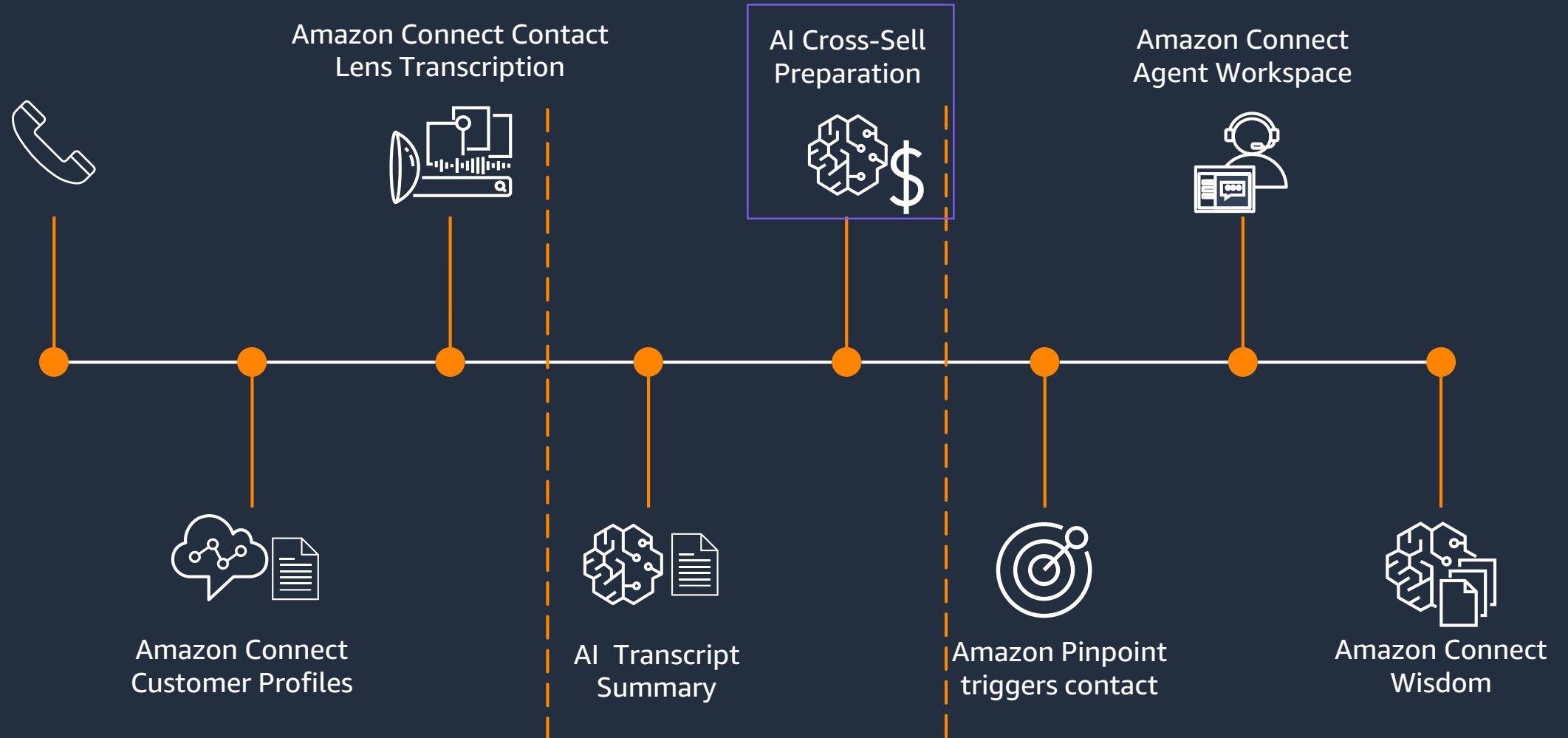
- Transcripts are saved in Contact Trace Records
- Stored in S3

AI Summary

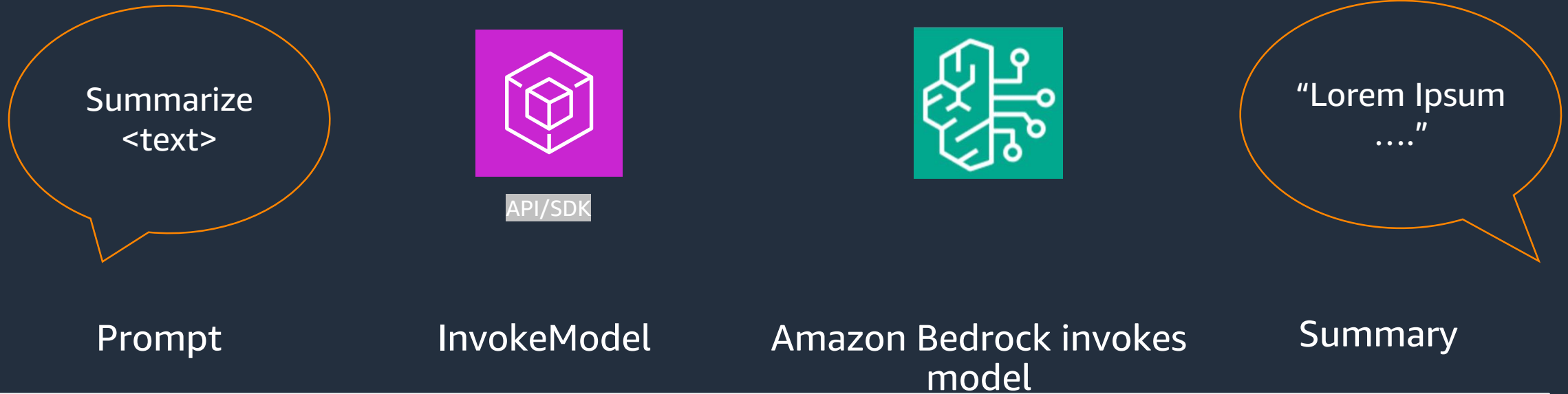
- Engineer a prompt
- Try different instructions to alter the output to your needs
- Load transcript
- Invoke model



The Customer Journey of John Smith



Amazon Bedrock – behind the rock

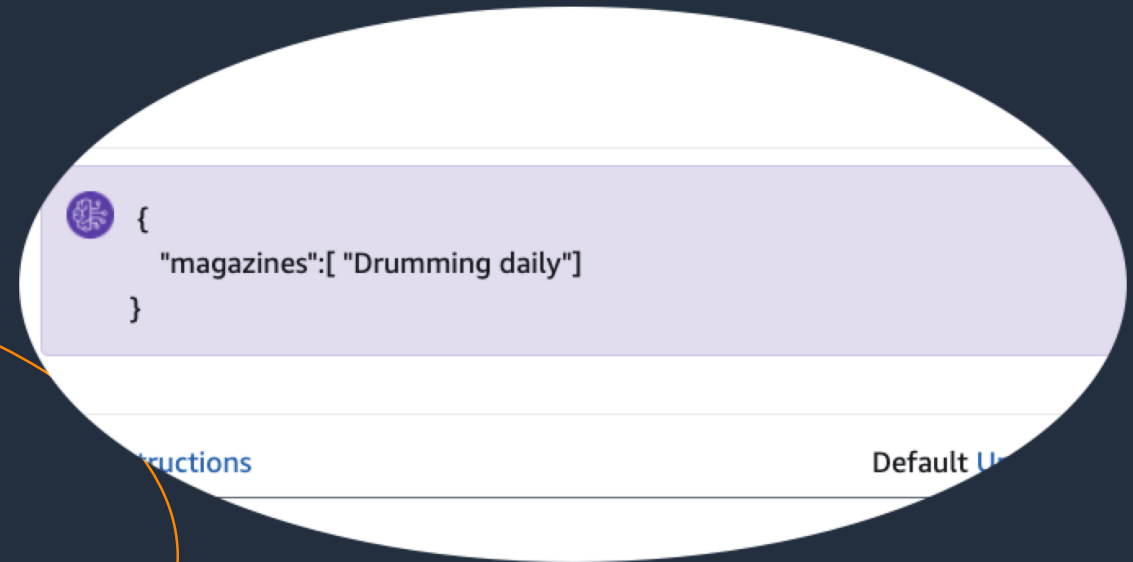


A callout box with a white thermometer icon on the left and the text "Temperature & Model Parameters" in the center. The box has a white border and a white background.

Cross-sell with prompt engineering

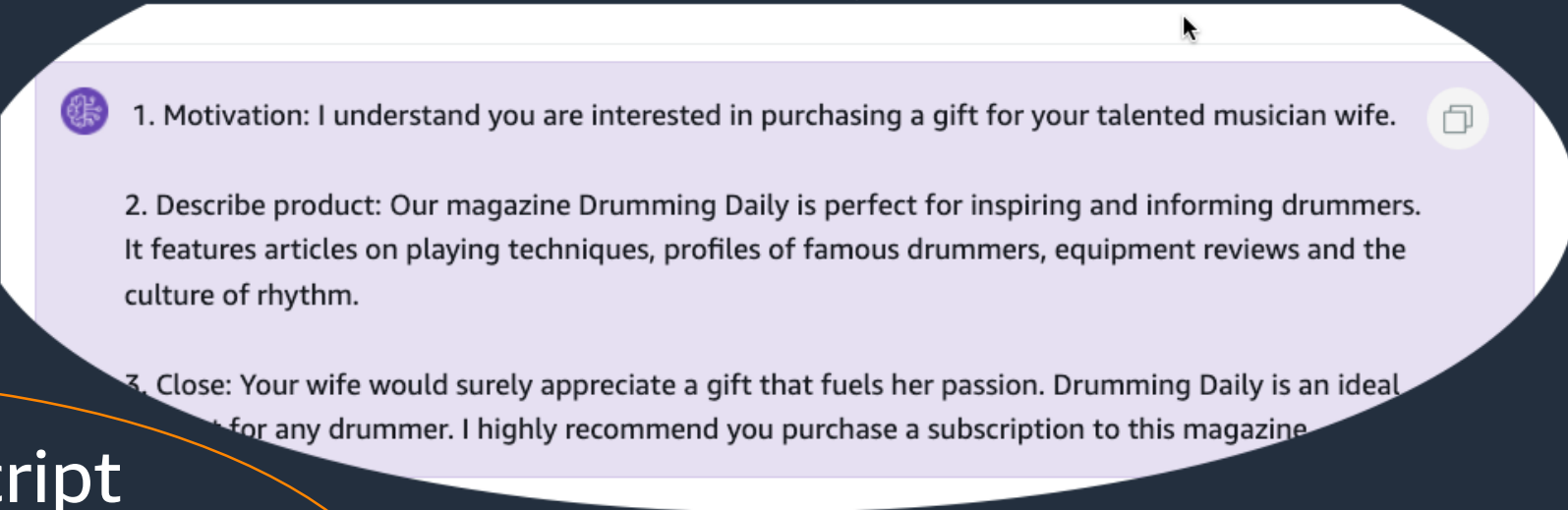
- Describe your potential offers
- Get the transcription

Prompt: In the <chat> section there is a chat transcript. Analyze the chat and write which product is for the customer.



Generate an outbound call script for the agent

- Get the proposed offer
- Get the information about



The screenshot shows a call script interface with three numbered steps:

1. Motivation: I understand you are interested in purchasing a gift for your talented musician wife.
2. Describe product: Our magazine Drumming Daily is perfect for inspiring and informing drummers. It features articles on playing techniques, profiles of famous drummers, equipment reviews and the culture of rhythm.
3. Close: Your wife would surely appreciate a gift that fuels her passion. Drumming Daily is an ideal gift for any drummer. I highly recommend you purchase a subscription to this magazine.

Prompt: Make script
from
<offer>
for customer
<transcript>

Call script provided by Amazon Bedrock in Agent Workspace

The screenshot displays the Amazon Connect Agent Workspace interface. At the top, there's a navigation bar with 'Available' status and a search bar containing 'architecture'. Below this, a call information bar shows a phone icon, a number starting with '+49', a 'New' badge, and a timer at '00:15'. The main workspace is divided into several sections:

- Customer Profile:** Shows 'Agent Name: Friendly Agent' and 'Call Duration: 00:00:15'. Below this is a 'Back to Dashboard' link.
- Customer Information Table:**

Customer Name	Wife's Name	Wife's Birthday	Product
John Smith	Jane	26th November	Magazine Subscription
Purpose	Incentive	Potential Objections	Rebuttals
Birthday Gift for Wife	Romantic Dinner Coupon	Price, Not Interested, Already Subscribed	Discount Offers, Interest Specific Magazines, Gift Option
- Script Instructions:**
 - Remember to highlight the benefits of the magazine subscription.
 - Emphasize the romantic dinner coupon incentive.
 - Find out Jane's interests to suggest a suitable magazine.
- Test Script:**

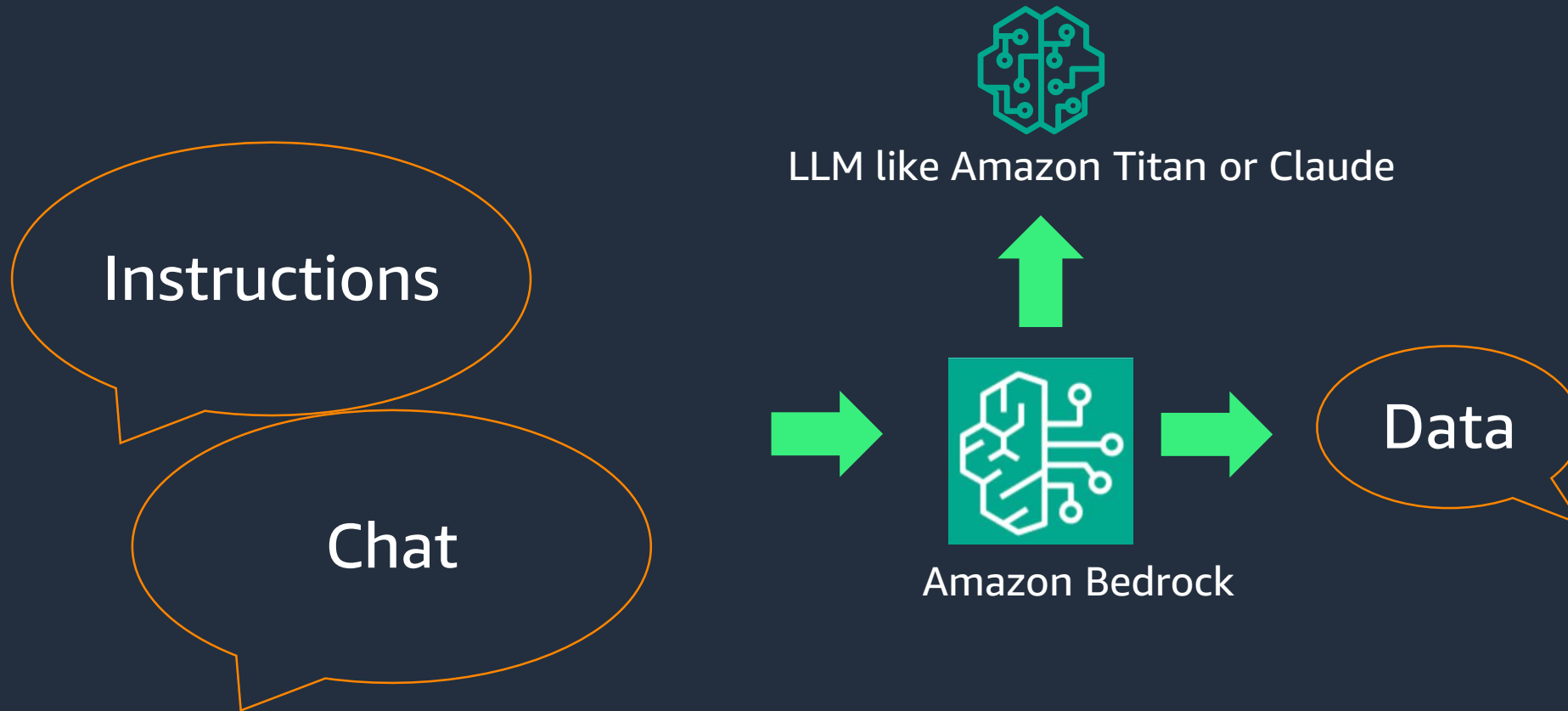
Script Start
Hello Mr. Smith, I'm calling from **AnyCompany Publishing**

Script Middle
...As a special offer, we're also including a romantic dinner coupon. Wouldn't this be a wonderful surprise for Jane's birthday on the 26th of November? Can you tell me more about Jane's interests so we can choose the perfect magazine for her?

Script End
Thank you very much for trusting **AnyCompany Publishing**
- Action Buttons:** 'Done Deal!', 'Customer not interested', and 'Send offer via Email'.

At the bottom left, there are 'Accept call' and 'Reject call' buttons. The right sidebar shows search results for 'architecture', including a 'Structure & Style' section with terms like 'Architecture, Style, Structure, Design, Blueprint, Construction, Innovation, Aesthetics, Sustainability, Urban Planning, Landscaping, Interior Design, Exterior Design, Modernism, Classic Architecture, Minimalism, Futuristic Structures, Historic Buildings, Renovation, Artistic Style, Symmetry, Geometry'.

Amazon Bedrock



Extract data for call script from transcript

The screenshot shows the Amazon Bedrock Chat playground interface. On the left is a navigation sidebar with the following items: Getting started, Overview, Examples, Foundation models, Base models, Providers, Playgrounds, Chat (highlighted), Text, Model access, Settings, User guide, and Bedrock Service Terms. The main area is titled 'Chat playground' and shows the AI provider set to 'Anthropic' and the model set to 'Claude V2 v2'. A chat message from a user asks for JSON extraction from a transcript. The transcript text is: 'The <result> tags describes a json structure. It has the following values: [<Name of Customer>, "<name of wife>","<birthday of wife>"] In the <chat> section there is a chat transscribe. Extract the values from the chat, insert it into the result and respons with the result json <result>'. Below the transcript is a JSON structure for the result: { "Sections": [{ "Columns": "4", "Items": [{ "Label": "Customer Name", "Value": "<Name of Customer>" }] }] }

The LLM extracts the data

The screenshot displays the Amazon Bedrock Chat playground interface. On the left is a navigation sidebar with the following items: Amazon Bedrock (with a close icon), Getting started (with a dropdown arrow), Overview, Examples, Foundation models (with a dropdown arrow), Base models, Providers, Playgrounds (with a dropdown arrow), Chat (highlighted in blue), Text, Model access, Settings, User guide (with an external link icon), and Bedrock Service Terms (with an external link icon). The main content area shows the breadcrumb 'Amazon Bedrock > Chat playground' and the title 'Chat playground' with an 'Info' link. Below the title, there are two dropdown menus: the first is labeled 'AI' and set to 'Anthropic', and the second is set to 'Claude V2 v2'. The chat history shows a customer message: 'Customer: Her birthday is on the 26th of November. Could you remind me a week before this date?' followed by an agent response: 'Agent: Thank you for these details, Mr. Smith. We will call you to suprise her! </chat>'. Below the chat history, the LLM's output is shown in a purple box as a JSON object:

```
<result>
{
  "Sections": [
    {
      "Columns": "4",
      "Items": [
        {
          "Label": "Wife's Birthday",
          "Value": "26th of November"
        }
      ]
    }
  ]
}
```

Advanced Bedrock Architectures

RAG – Augmented Retrieval

- Document search
- LLM summarize data

- Less hallucination
- Limit to defined scope

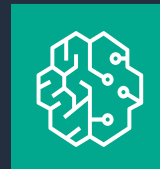


Amazon Kendra Index

Fine-Tuning

- Give additional examples
- Bedrock adds data to model

- Exact answers to specific questions



Amazon Bedrock/Sagemaker fine tuning

Embedding

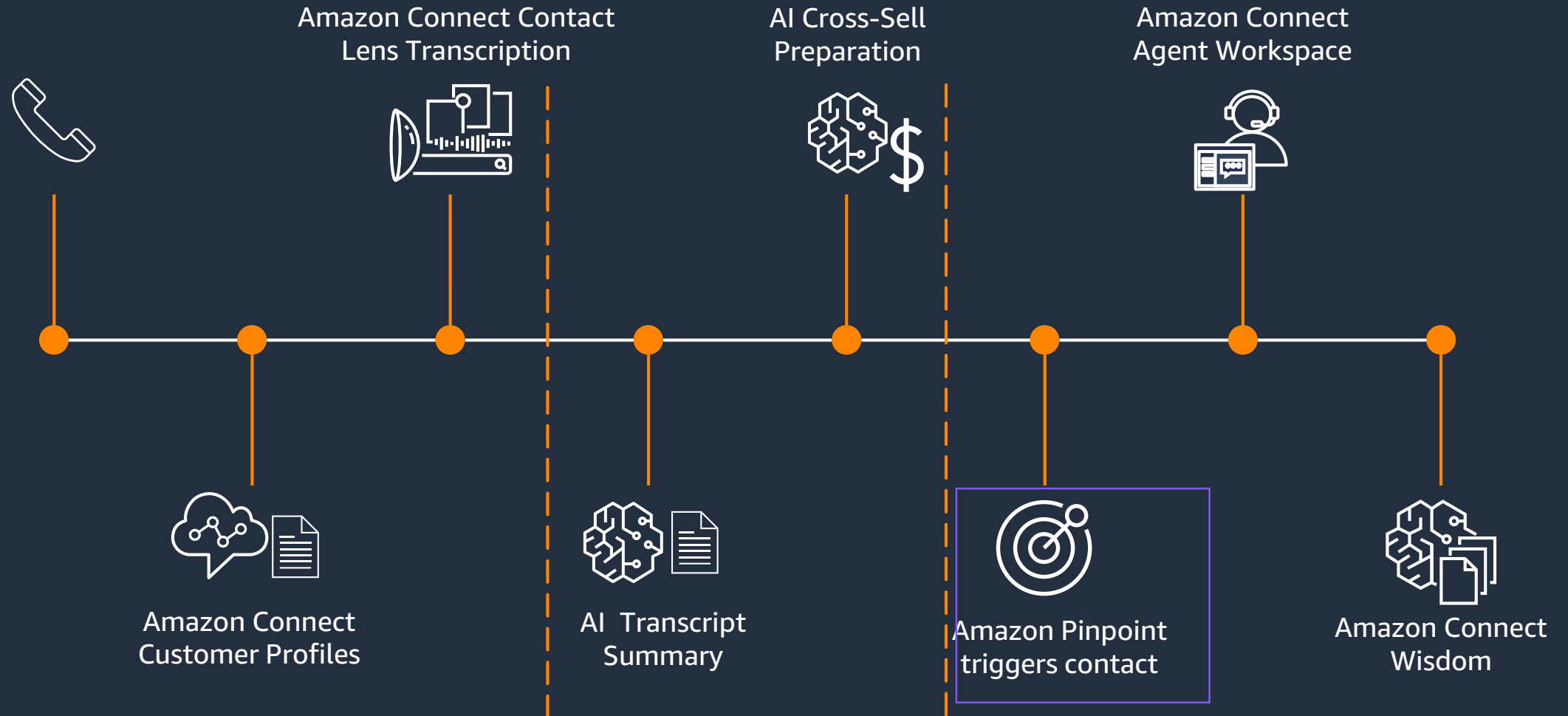
- Model encodes search data
- Model encodes query
- Vector database searches similarity

- Search meaning, not text



Amazon Aurora Postgres pgvector

The Customer Journey of John Smith



Amazon Pinpoint for Customer Engagement

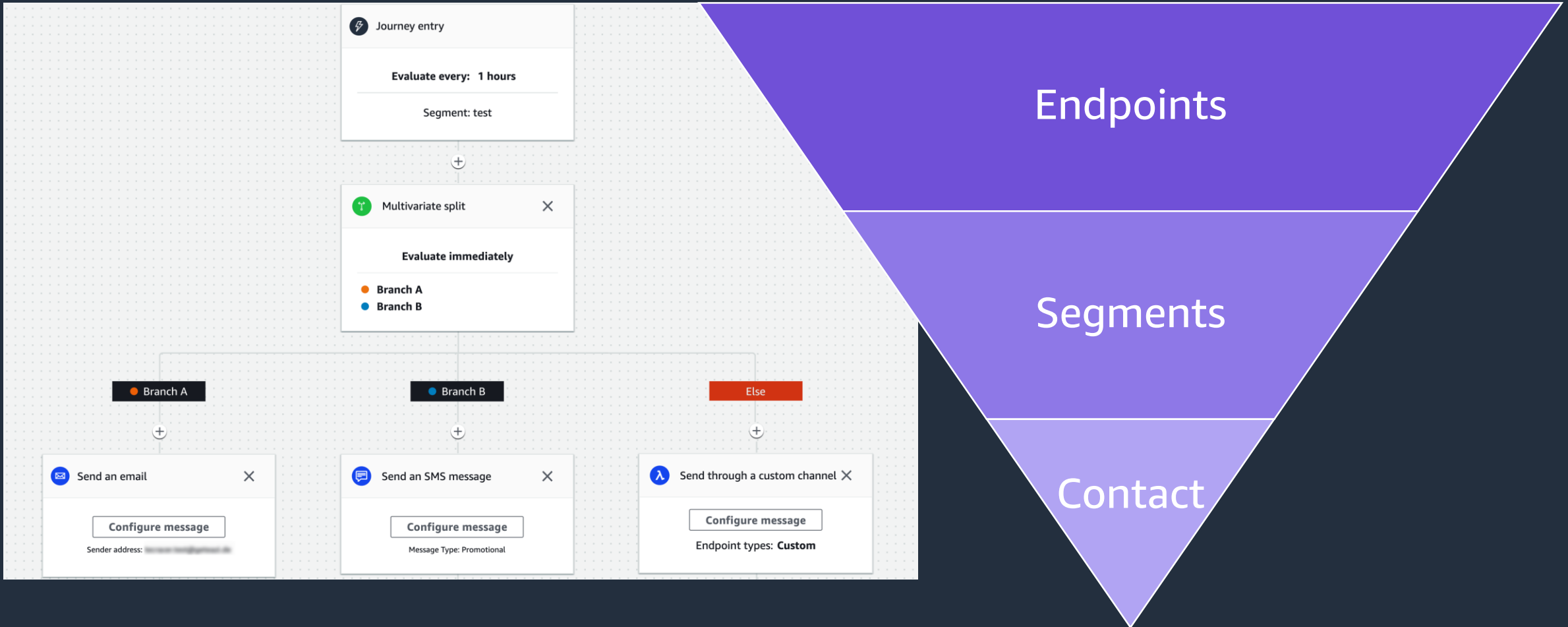
What is Amazon Pinpoint

- Flexible, scalable marketing communications service
- Multiple channels: email, SMS, push notifications, voice, and custom channels
- Offers audience segmentation, message templates, and analytics

How does Pinpoint work?

1. Import customer data
2. Create audience segments
3. Develop messaging campaigns
4. Schedule and send messages
5. Analyze customer engagement and campaign performance

Customer Journey in Pinpoint



Pinpoint endpoint & Segmentation

```
json
{
  "Address": "+1234567890",
  "channelType": "VOICE",
  "Attributes": {
    "FamilyMembers": [
      {
        "Name": "John",
        "Birthday": "1973-04-29"
      },
      {
        "Name": "Jane",
        "Birthday": "1972-10-26"
      },
      {
        "Name": "Tom",
        "Birthday": "2004-05-12"
      }
    ]
  }
}
```

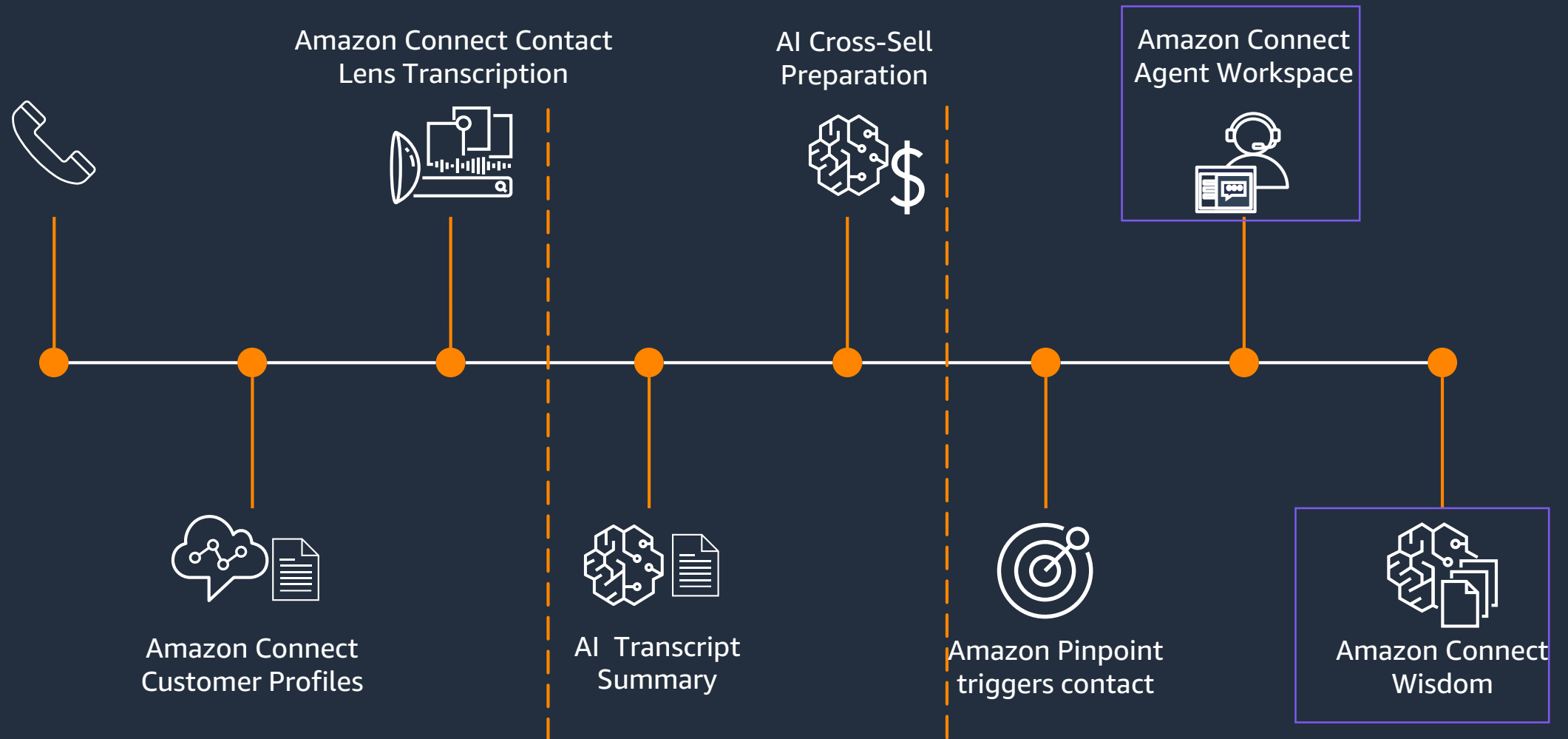
Criteria - optional [Info](#)

Attribute	Operator
<input type="text" value="Select an attribute"/>	<input type="text" value="Select an operator"/>
<input type="button" value="Add filter"/>	

OR

Attribute	Operator
<input type="text" value="Select an attribute"/>	<input type="text" value="Select an operator"/>
<input type="button" value="Add filter"/>	

The Customer Journey of John Smith



Amazon Connect Wisdom to find the right magazine

The screenshot displays the Amazon Connect interface. On the left, there's a call control panel with an incoming call from +49 [redacted] and buttons for 'Accept call' and 'Reject call'. The main area shows a customer profile for 'John Smith' with a call duration of 00:00:15. The profile includes details like 'Wife's Name: Jane', 'Wife's Birthday: 26th November', and 'Product: Magazine Subscription'. Below the profile, there are bullet points for call handling instructions and a script for the call. On the right, a search bar contains the word 'architecture', and a dropdown menu shows 'Suggestions' and 'Search Results'. The 'Search Results' section lists various architectural styles and terms.

Agent Name	Call Duration
Friendly Agent	00:00:15

Customer Name	Wife's Name	Wife's Birthday	Product
John Smith	Jane	26th November	Magazine Subscription

Purpose	Incentive	Potential Objections	Rebuttals
Birthday Gift for Wife	Romantic Dinner Coupon	Price, Not Interested, Already Subscribed	Discount Offers, Interest Specific Magazines, Gift Option

- Remember to highlight the benefits of the magazine subscription.
- Emphasize the romantic dinner coupon incentive.
- Find out Jane's interests to suggest a suitable magazine.

Test

Script Start
Hello Mr. Smith, I'm calling from **AnyCompany Publishing**

Script Middle
...As a special offer, we're also including a romantic dinner coupon. Wouldn't this be a wonderful surprise for Jane's birthday on the 26th of November? Can you tell me more about Jane's interests so we can choose the perfect magazine for her?

Script End
Thank you very much for trusting **AnyCompany Publishing**

[Done Deal!](#) [Customer not interested](#) [Send offer via Email](#)

Search Results for 'architecture':
Architecture, Style, Structure, Design, Blueprint, Construction, Innovation, Aesthetics, Sustainability, Urban Planning, Landscaping, Interior Design, Exterior Design, Modernism, Classic Architecture, Minimalism, Futuristic Structures, Historic Buildings, Renovation, Artistic Style, Symmetry, Geometry

Summary

Summary

- Overview – what we reviewed:
 - Customer segmentation in the context of CX
 - Amazon Connect data and generative AI
 - Demo of the improved agent and customer experience
- Benefits:
 - Increased customer engagement
 - Enhanced agent performance
 - Insights into upsell/cross-sell opportunities

Call to action

GET STARTED

Amazon Connect
Administration Guide



Amazon Bedrock
User Guide





Thank you!

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