

INTERNAL PRODUCT CASE STUDY

AI Voice Screening Platform

Telephony-based candidate screening, response capture and interview-readiness automation.

Simplify Job Search was developed as an AI-powered job application and hiring platform that helps candidates prepare better applications and helps recruiters manage hiring workflows. This case study focuses on the AI Voice Calling Agent, a separate module designed to simulate voice-based screening rounds and improve candidate interview readiness.

Project classification: This internal Byond Boundrys product module is part of the Simplify Job Search platform.



INDUSTRY HRTech & Recruitment	CLIENT TYPE Internal product - Simplify Job Search	PROJECT STAGE Internal product
EVIDENCE Pilot-observed	DELIVERY SCOPE Voice agent, telephony, speech processing and candidate workflow	

Realistic HR and recruiter-screening practice

Candidates can practise role-aware screening conversations through a repeatable telephony workflow.

Repeatable voice-based preparation without another interviewer

The system can place calls and capture responses without requiring another person to conduct each practice round.

Lower anxiety through repeated practice

Repeated practice provides a structured way to prepare before live interviews.

01 / BUSINESS CONTEXT

Who needed the solution

Simplify Job Search was developed as an AI-powered job application and hiring platform that helps candidates prepare better applications and helps recruiters manage hiring workflows. This case study focuses on the AI Voice Calling Agent, a separate module designed to simulate voice-based screening rounds and improve candidate interview readiness. Modern hiring increasingly includes phone screening, automated first-round interviews, recruiter screening calls, and communication-based evaluation. Many candidates may have strong technical skills but still struggle to explain their profile confidently in a live voice interaction.

02 / CHALLENGE

What needed to change

Candidates often prepare resumes and job applications but remain underprepared for the first screening conversation. The first recruiter or HR call is usually short, fast, and judgment-heavy, and many candidates lose opportunities because they are unable to communicate their value clearly.

Candidates had limited access to realistic phone-screen practice

Candidates usually practice written applications but do not get enough realistic voice-based interview practice.

Nervousness affected pacing, clarity and confidence

Many candidates are nervous during phone screening rounds and struggle with confidence, pacing, and clarity.

Screening questions were repetitive but still needed personalised responses

HR screening questions are repetitive but still require structured, confident, and personalized responses.

Candidates struggled to introduce their experience effectively

Candidates often do not know how to introduce themselves, explain experience, discuss strengths, or answer role-fit questions in a live call.

Traditional mock interviews required another person

Traditional mock interview preparation requires another person, coach, recruiter, or mentor, which may not be available on demand.

03 / WORKFLOW TRANSFORMATION

Before and after

Previous workflow

- Candidates had limited access to realistic phone-screen practice
- Nervousness affected pacing, clarity and confidence
- Screening questions were repetitive but still needed personalised responses
- Candidates struggled to introduce their experience effectively
- Traditional mock interviews required another person

Structured workflow

- Unlock and schedule a voice round
- Place the telephony call
- Ask role-aware questions
- Capture and review responses
- Review structured outputs

04 / SOLUTION

How we approached it

The Simplify Job Search AI Voice Calling Agent was designed as a voice-first interview preparation and screening automation module. Instead of limiting candidates to text-based AI outputs, the platform uses calling, real-time speech processing, AI-generated interview flow, and human-like voice responses to create a practical screening experience.

01

Unlock and schedule a voice round

Manage payment, access and candidate readiness before starting the call.

02

Place the telephony call

Use a voice workflow to connect with the candidate and manage call state.

03

Ask role-aware questions

Generate or select screening questions using candidate and job context.

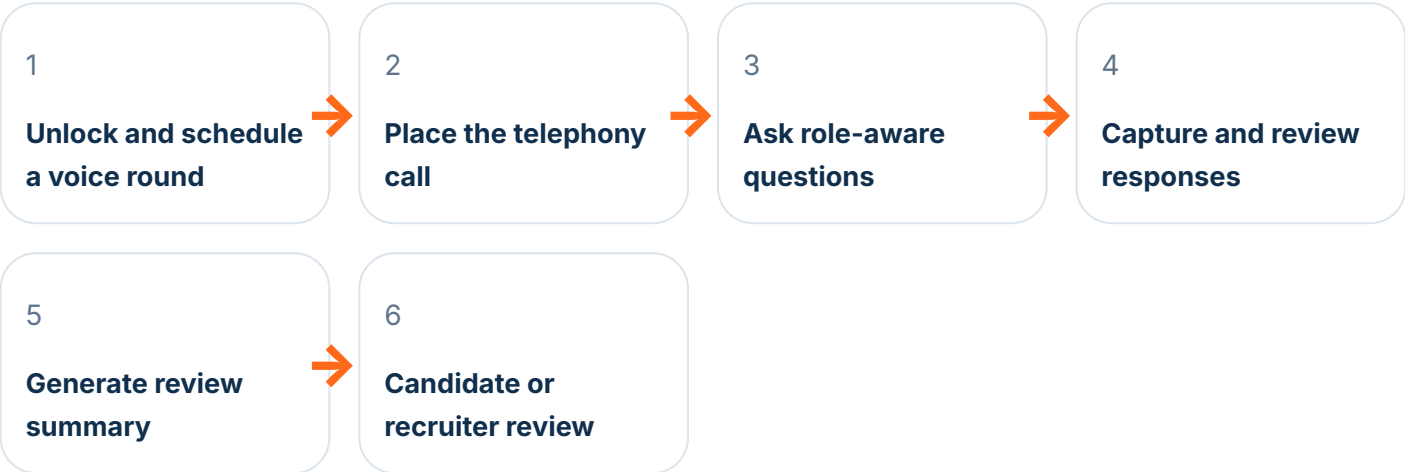
04

Capture and review responses

Transcribe answers, store the interaction and present structured review information.

05 / EXAMPLE WORKFLOW

From input to reviewable output



What the delivery covered

Business and product workflow

- Voice Round Unlock and Payment Flow
- Candidate Practice Call Start Flow
- Asynchronous Queue and Worker Processing

AI, data and automation

- Google Gemini
- Azure OpenAI

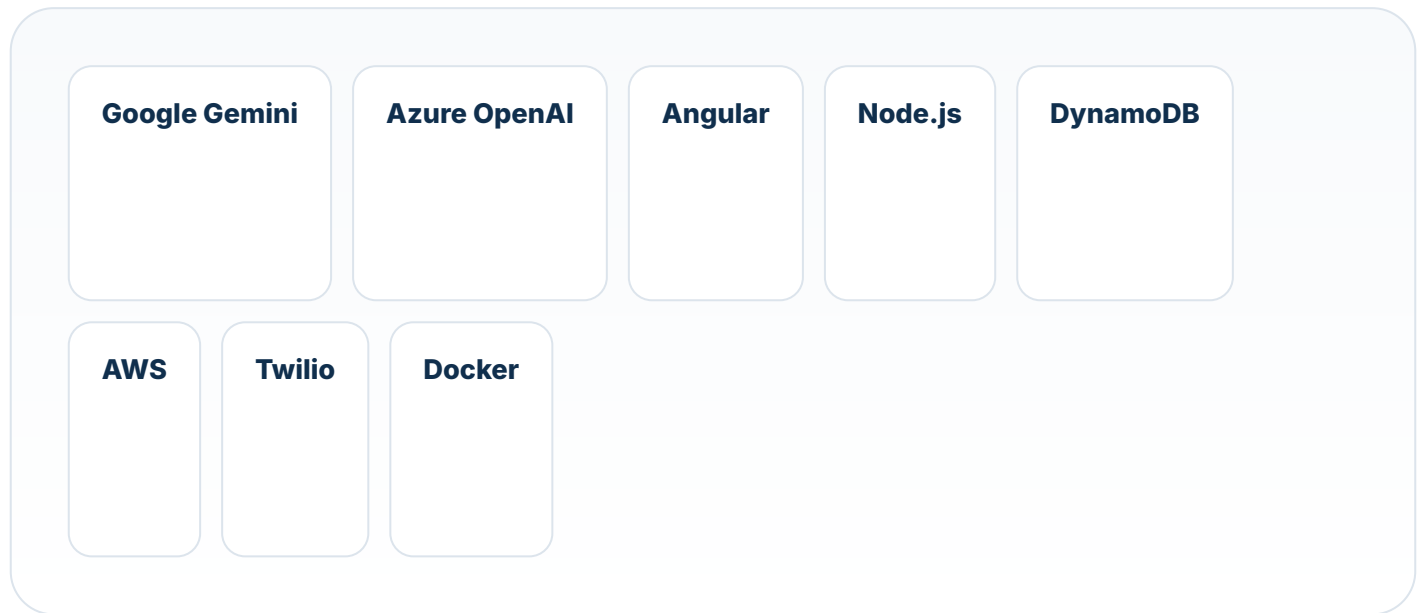
Application and cloud engineering

- Angular
- Node.js
- DynamoDB
- AWS
- Docker
- Nginx

Scope boundary

The page covers the implemented voice workflow. Production use requires accurate consent, recording-purpose and data-retention disclosures.

How the system is organised



Candidate consent

Voice calls and recordings require clear consent and purpose disclosure.

Asynchronous reliability

Queue and worker processing separate long-running speech and AI tasks from the request flow.

Human review

AI-generated summaries support candidate or recruiter review and do not make final hiring decisions.

Operational monitoring

Cloud logging and queue handling support retry, observability and production troubleshooting.

Value observed during validation

- | | | |
|-------|--|----------------|
| 1 | Realistic HR and recruiter-screening practice
Candidates can practise role-aware screening conversations through a repeatable telephony workflow. | Pilot-observed |
| <hr/> | | |
| 2 | Repeatable voice-based preparation without another interviewer
The system can place calls and capture responses without requiring another person to conduct each practice round. | Pilot-observed |
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| 3 | Lower anxiety through repeated practice
Repeated practice provides a structured way to prepare before live interviews. | Pilot-observed |
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| 4 | Structured capture of candidate responses
Recorded or transcribed responses can be reviewed after the call. | Pilot-observed |
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| 5 | A monetisable AI voice-round workflow
Queue-based processing supports retry, monitoring and recovery for long-running voice tasks. | Pilot-observed |
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Technology and component roles

GO

Google Gemini

Structured extraction, reasoning or generation

AZ

Azure OpenAI

Managed LLM inference and reasoning

AN

Angular

Web application interface

NO

Node.js

Backend and integration services

DY

DynamoDB

Scalable application and workflow data

AW

AWS

Cloud infrastructure and managed services

TW

Twilio

Telephony and voice communication

DO

Docker

Containerised deployment

NG

Nginx

Reverse proxy and production serving

VE

Vertex AI

Managed Gemini and AI model integration

Explore related case studies

HRTECH & CAREER SERVICES

Candidate Intelligence & Resume Automation

Resume analysis, job-fit scoring and AI-assisted career-document workflows for candidates.

HRTECH & RECRUITMENT OPERATIONS

Recruitment Automation Platform

AI-assisted job posting, candidate management, screening and recruiter operations.

HRTECH & MOBILE APPLICATIONS

Mobile Career Companion

A mobile-first career companion for job discovery, resume services, payments and candidate workflows.

Working on a similar challenge?

Discuss the workflow, data, integrations and evidence required for a practical first release.