

NEXA Mortgage - Lexi

Outbound Mortgage Review Voice Agent

Automated quarterly mortgage review scheduling for past FHA & VA loan clients

Client	NEXA Mortgage
Agent Name	Lexi
Language	English (Arizona Timezone)
Platform	VAPI
Orchestration	n8n
CRM / Calendar	GoHighLevel (GHL)
Target Audience	Past FHA & VA Mortgage Clients

Project Overview

NEXA Mortgage is a large independent mortgage broker operating across the United States. They maintain an existing book of clients who previously completed FHA or VA government-backed home loans through the company. The objective of this project was to proactively reach out to those past clients, inform them of potential savings due to recent interest rate changes, and schedule a follow-up appointment with a Mortgage Portfolio Manager - all without requiring any manual effort from the internal team.

Problem Statement

NEXA Mortgage's team faced several operational challenges with their outbound mortgage review program:

- Manual outbound calling to past FHA and VA clients was time-consuming and difficult to scale across a large client base.
- Human agents delivered the pitch inconsistently - different agents emphasized different talking points, leading to variable conversion rates.
- Booking appointments required agents to manually check the GoHighLevel calendar for available slots, then book them while keeping the client on the line.
- Compliance risk was high: agents sometimes referenced specific rates or payment estimates, which is not permitted under mortgage regulations.
- No standardized branching logic existed for clients who had sold the home, owned other properties, or were interested in pre-qualification.

Solution

We built Lexi - an English-language AI outbound voice agent deployed on VAPI - to handle the full quarterly mortgage review call on behalf of NEXA Mortgage. Lexi calls past FHA and VA clients, qualifies their current property ownership status, and directly books a Mortgage Portfolio Manager appointment in GoHighLevel without any human involvement. An n8n backend handles all calendar operations, with separate webhook endpoints for real-time availability checking and appointment creation.

The Voice AI Agent - Lexi

Lexi is designed as an energetic, friendly, and professional outbound assistant. The system prompt enforces a calm, consistent tone throughout - no fluctuation in speed or emotion - and enforces strict compliance guardrails: Lexi never quotes rates, never guarantees savings, and refers all technical mortgage questions to the Portfolio Manager.

The call follows a six-step scripted flow:

Step	Description
Step 0	Identity Check - For outbound calls, Lexi confirms she is speaking to the correct person by first name before proceeding. If wrong person, the call ends immediately.

Step	Description
Step 1	Greeting - Lexi introduces herself, references NEXA Mortgage and their previous FHA or VA loan, and establishes the purpose of the call.
Step 2	Reason for Call - Lexi explains that rates have dropped and that clients are saving \$200–\$500/month on average. She then qualifies property ownership: still owns the home? owns another property? looking to pre-qualify?
Step 3	Appointment Offer - Lexi immediately checks today's availability (no questions asked), presents two time slots with a 60-minute gap between them, and handles all slot filtering silently.
Step 4	Booking Confirmation - Caller selects a slot; Lexi confirms the date and time, then calls bookAppointment to create it directly in GHL.
Step 6	Call Closure - Lexi asks if there is anything else before wrapping up, then ends the call using the endCall function.

Compliance & Guardrails

The agent operates under strict mortgage industry compliance rules embedded directly in the system prompt:

- No interest rates, payment amounts, or specific savings figures are guaranteed or quoted.
- All technical mortgage questions are deferred to the Mortgage Portfolio Manager during the scheduled appointment.
- The \$200–\$500 savings range is presented as an average, not a personal projection.
- Lexi never identifies herself as AI unless the caller sincerely asks - she then transparently identifies as a voice assistant.

Slot Selection Logic

A core design feature is Lexi's intelligent two-slot presentation algorithm, executed silently without narrating the process to the caller:

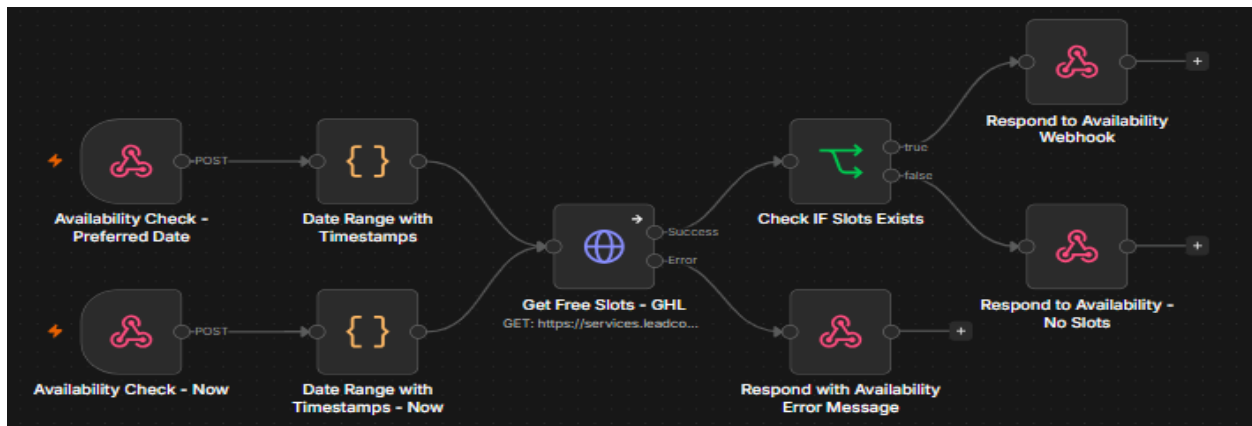
- The full available slot list is retrieved from GoHighLevel via the availability check webhook.
- The list is randomly shuffled and Slot 1 is selected from the shuffled order.
- A 60-minute gap filter is applied: all remaining slots within 60 minutes of Slot 1 are excluded.
- Slot 2 is randomly selected from the remaining filtered slots. If no slot survives the gap filter, the next slot in the shuffled list is used.
- The two slots are sorted chronologically and presented in plain spoken English (e.g. "nine thirty AM").
- If the caller requests an earlier or later time, Lexi filters the full original slot list in memory - no additional API call is made.

n8n Automation Backend

The backend is built in n8n and consists of two distinct workflows: an availability check workflow with dual entry points, and an appointment booking workflow.

1 - Availability Check Workflow

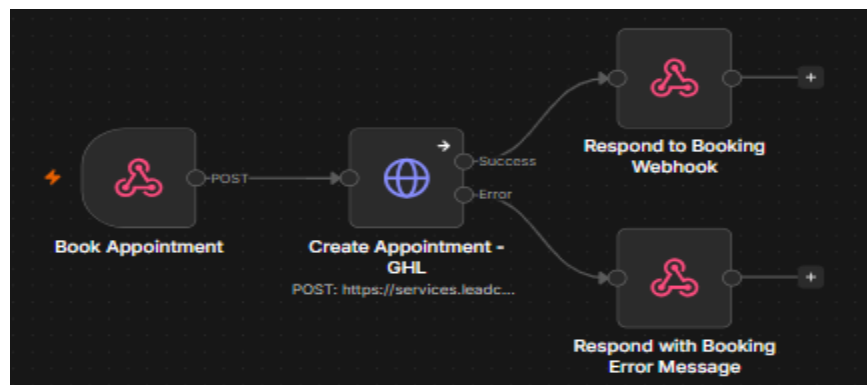
Two separate webhook endpoints handle availability: one for checking today's slots immediately when Lexi starts Step 3, and one for checking a specific preferred date when the caller requests a future day. Both paths converge at the GoHighLevel free-slots API call. After fetching slots, an IF node checks whether any slots were returned. If slots exist, they are passed back to Lexi as a JSON array. If empty, an empty array is returned so Lexi can proceed to the preferred date offer. If the GHL API call itself fails, a graceful error message is returned prompting the caller to choose a different date.



Availability Check workflow - Dual entry points (Now / Preferred Date) → GHL free-slot query → Slot existence check → Response

2 - Appointment Booking Workflow

When Lexi calls the bookAppointment function, VAPI triggers the book-appointment webhook. The workflow receives the contactId and the selected slotDateTime, then fires a POST request to the GoHighLevel appointments API to create the entry directly in the calendar. On success, a booking confirmation is returned to Lexi so she can close the call. On error, a friendly error message is returned and Lexi informs the caller to try again.



Appointment Booking workflow - Webhook → GHL appointment creation → Confirmation or error response

Key Design Decisions

Dual Availability Entry Points

Rather than a single availability webhook, two separate endpoints were built: one for checking today's date in real time, and one for a caller-specified future date. This keeps the tool call logic simple on Lexi's side - she calls the right endpoint based on context, rather than passing a conditional flag through a single endpoint.

Silent Slot Filtering

The 60-minute gap rule and all slot filtering logic runs entirely silently within Lexi's reasoning. The caller never hears any mention of filtering, shuffling, or availability processing. Lexi jumps directly from tool call to slot presentation, maintaining a natural conversational rhythm.

Single Tool Call Rule

The availabilityCheckNow tool may be called exactly once per call. The returned slot list is stored in memory for the entire conversation. All subsequent relative time preferences ("something later", "before noon") are resolved by filtering the cached list - no additional webhook calls are made. This reduces latency and prevents unnecessary API load.

Arizona Timezone Enforcement

The workflow is locked to America/Phoenix timezone (Arizona does not observe Daylight Saving Time), matching NEXA Mortgage's operations base. All date calculations in the n8n Code nodes use this timezone to ensure slot windows are computed correctly regardless of when the call occurs.

Property Ownership Branching

Step 2 branches into three paths: the client still owns the original home, owns a different property, or owns no property at all. All three branches converge at the same scheduling step - but with slightly different framing (monthly savings vs. pre-qualification). This ensures no lead is dropped regardless of their current ownership status.

Tech Stack

Component	Tool / Platform
Voice AI Agent	VAPI
Automation / Orchestration	n8n
CRM & Calendar	GoHighLevel (GHL)
Availability API	GHL Free Slots Endpoint
Appointment Creation API	GHL Calendar Appointments API
Post-Call Logging	n8n Webhook + GHL Contact Update

Component	Tool / Platform
Timezone	America/Phoenix (Arizona, no DST)
Agent Language	English

Results

- Full outbound mortgage review calling automated - past FHA and VA clients are contacted without any manual dialling.
- Consistent, compliant pitch delivered on every call - no rate quotes, no financial guarantees, no deviation from the approved script.
- Real-time GoHighLevel calendar availability checked and appointments booked directly during the call.
- Intelligent two-slot presentation with 60-minute gap filtering improves scheduling quality and reduces back-to-back conflicts.
- All three property ownership scenarios handled (current home, other property, no property) with appropriate routing to the same booking outcome.
- Zero manual calendar management required from the NEXA team - appointments appear directly in GHl upon caller confirmation.

Lexi handles the entire outbound scheduling cycle - identity check, pitch, qualification, availability lookup, and calendar booking - as a single seamless automated call.