After processing a voice command, Invocabot uses text-to-speech to give feedback to the user, indicating whether the command was successful or not.

**Our Solution**

Our solution to these problems is Invocabot. Invocabot is your hands-free, voice-activated phone assistant that listens to you while you’re on a call. At any point in the call, you can say “Invocabot!” and it will begin listening for your voice command. Our code will analyze the command, and choose the appropriate API to invoke it.

**Java Task Manager**

Acts as an intermediary between the FreeSwitch server and the implemented APIs. After receiving a voice-command, the task manager analyzes and determines the most appropriate API to use.

**Java TCP Sockets**

We use a Java implementation of the Event Socket Library to connect to the JavaScript code and receive voice command as text. Our code then passes the command to our Java Task Manager.

**EC2 Server**

We use Amazon’s EC2 as our cloud computing platform to run FreeSwitch and host our source code.

**FreeSwitch**

Serves as the intermediary between voice recognition and task management. It routes phone calls and sends feedback to the Java Task Manager through mod event TCP sockets.

**Mod Event Socket**

An add-on to FreeSwitch that hooks into any events generated during a FreeSwitch session (i.e. when a call is answered, put on hold, etc.) and notifies our Java client code when such events happen. Custom events are also used to invoke API calls when a command has been recognized by PocketSphinx.

**Text-to-Speech**

After processing a voice command, Invocabot uses text-to-speech to give feedback to the user, indicating whether the command was successful or not.

**PocketSphinx**

A voice-recognition software that converts audio to text. PocketSphinx uses phonemes, which are the distinct sounds that make up words, to choose which words it “heard” the user say. Our code then saves the utterance to a variable for later use.

**Invocabot Compatibility**

Invocabot is compatible with Android, iOS, Windows, and Landlines.

**Invocabot**

“The world’s first on-call voice-activated phone assistant.”

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**Invocabot is open source**