



eMergency Assistant with aleXa

0. Introduction

1. Technologies

2. Basic functionality

3. Front-end

4. Back-end

5. Calling function

6. Demo

7. Video

0. Introduction



ALEXA

“Amazon’s cloud-based voice-controlled intelligent personal assistant”

→ Allows to build natural voice experiences to interact with technology

ECHO

“Smart speaker connected to Alexa”

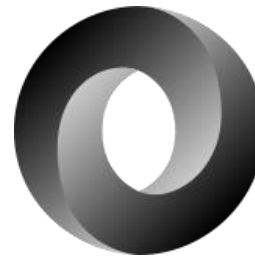
SKILL

“Conversational application that interacts with ALEXA”



Echo dot

1. Technologies



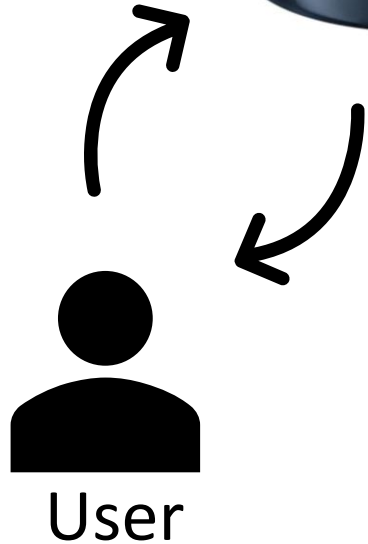
2. Basic functionality



3. Front-end



Amazon echo



Alexa, open MAX

Wake word

Starting phrase

Skill invocation name

Alexa, tell MAX to make a call

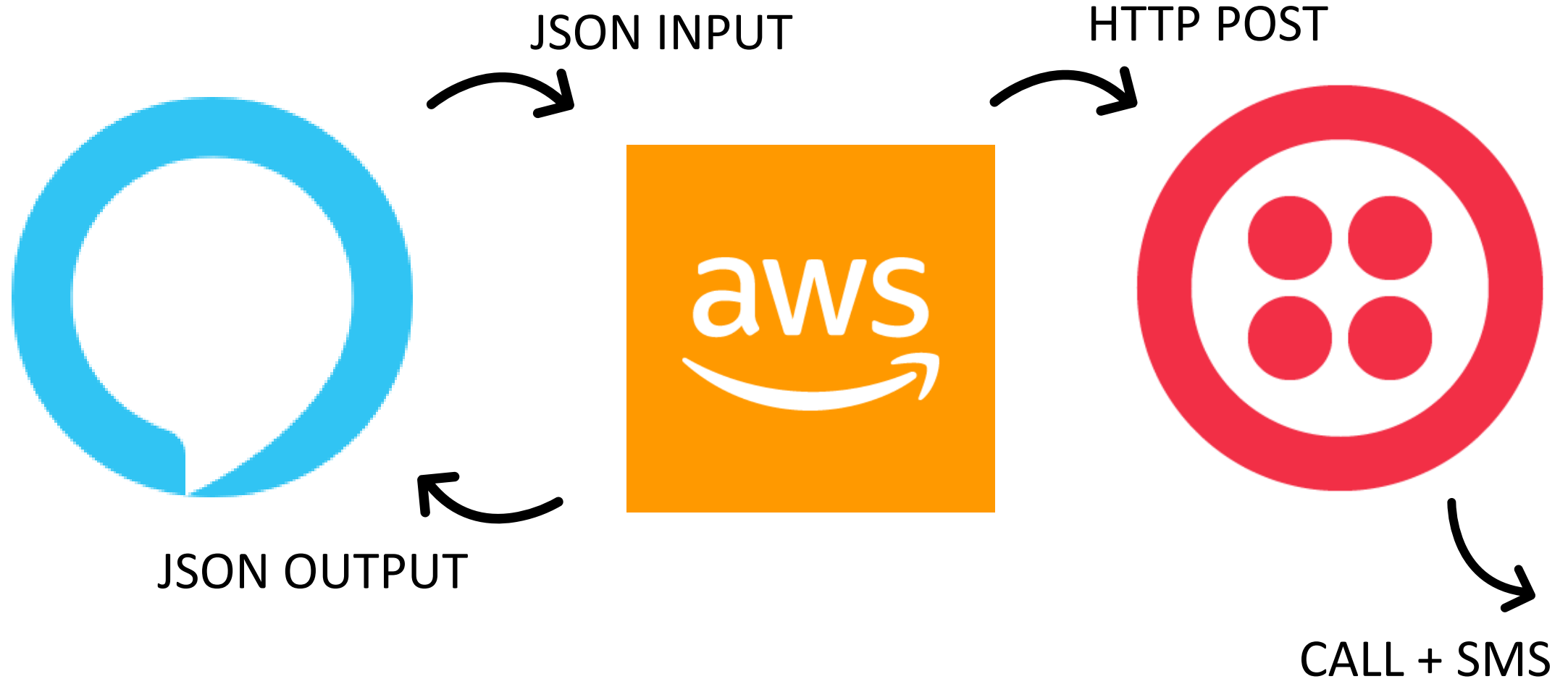
Wake word

Starting
phrase

Skill
invocation
name

Utterance

4. Back-end



4.1. Back-end. AWS tools



AWS cloud

Lambda function



(Main logic)

- Functions
- Intents
- Error handling
- ...



IAM

(Security)

- Encryption keys
- User permissions
- Policies
- ...



DynamoDB

(Data management)

- User id
- Session attributes
- Global index
- ...



CloudWatch

(Debugging)

- Alarms
- Logs
- Rules
- ...

4.2. Back-end. Twilio



“Developer platform for communications which allows to add capabilities like voice, video, and messaging to their applications”



STANDARD PHONE CALL



SMS



SIP CALL

5. Calling function



Calling function



```
const accountSid = '...';
const authToken = '...';
const client = require('twilio')(accountSid, authToken);

client.calls
  .create({
    url: 'http://demo.twilio.com/docs/voice.xml',
    to: '+14155551212',
    from: '+15017122661',
  })
  .then(call => process.stdout.write(call.sid));
```

Twiml

"The Twilio Markup Language"

Twiml BINS

"Twiml executable code"

```
<?xml version="1.0" encoding="UTF-8"?>
<Response>
  <Pause length="2"/>
  <Say loop="5">
    Hello, this is a SIP call demo.
  </Say>
</Response>
```



DEMO



Let's code and try...

1 volunteer with a smartphone to receive a call



VIDEO

Thanks for your time!



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