

Hey Google, send 20\$ to Mum!?

An introduction to voice assistants and banking APIs

Side Projects

Side Projects

A black and white photograph of two people, a man and a woman, smiling. The man is on the left, wearing glasses and a dark zip-up hoodie. The woman is on the right, wearing a light-colored towel around her neck. They appear to be in an indoor setting with vertical blinds in the background.

December 2018

INTERNET OF STUFF



And using your voice!



This talk





JFUTURE²⁰¹⁹

PSD2 : In short

The Payment Services Directive¹ (2015/2366) is an EU Directive, administered by the European Commission (Directorate General Internal Market) to regulate payment services and payment service providers throughout the European Union (EU) and European Economic Area (EEA). The Directive's purpose was to increase pan-European competition and participation in the payments industry also from non-banks, and to provide for a level playing field by harmonizing consumer protection and the rights and obligations for payment providers and users.[2]

PSD2 : Cryptic name, simple idea

- 14 September 2019
- Increase competition
- Increase participation non-bank industries
- Harmonize customer protection rights and obligation

3 big APIs

Account Information Services

Overview of your bank accounts and payments

Confirmation of Available Funds

Can I actually buy this car right now?

Payment Initiation Services

**Execute payment on your behalf (Alternative to
Paypal)**

Generics about voice assistants

Vocabulary:

- **Action**: 'App'. Something Assistant can do
- **Intent** : User request. What does the user want
- **Context** : Where is the user at in his conversation ?
- **Fulfillment** : What are we gonna do? What's happening.

Entities

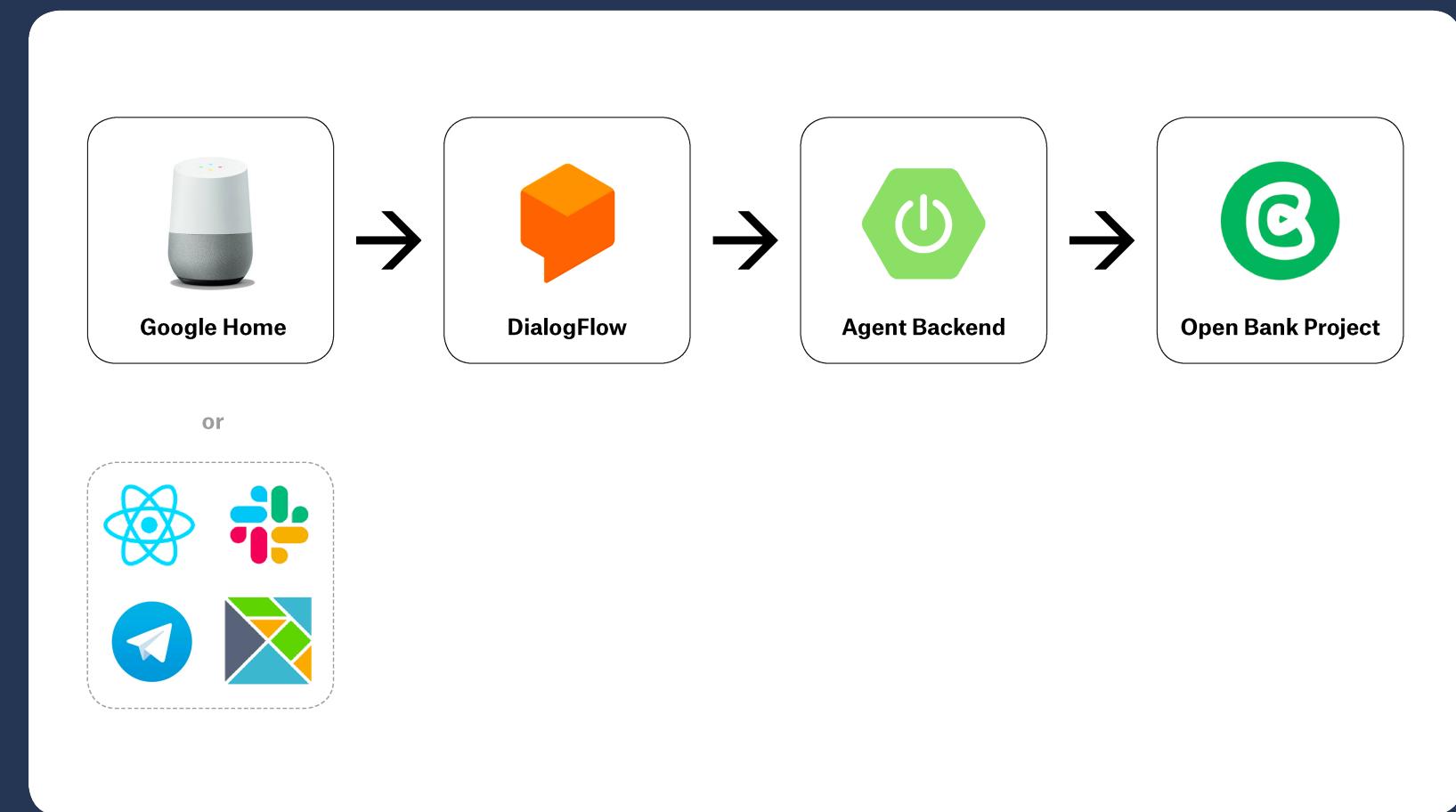
- Parts of the **intent** needed to fulfill it
- Size, type, options, amount, person, location, ...
- Can also help personalize the experience

Demo time!

Our goal

- Hey Google, what was my last transaction?
- Hey Google, Send 20\$ to my mum using My Money Agent.

How it looks like



Final thoughts

PSD2 : Danger of opportunity?



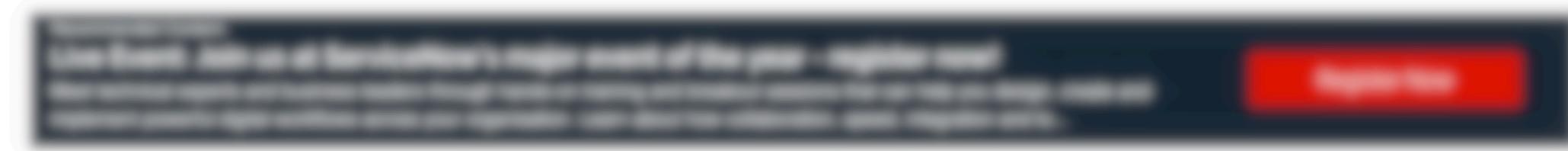
Voice assistants: Who's listening?

Google exec says you should warn guests about your spy speakers

Rick Osterloh says he's never really thought about it before, but people should really tell their visitors in advance about their smart speakers.

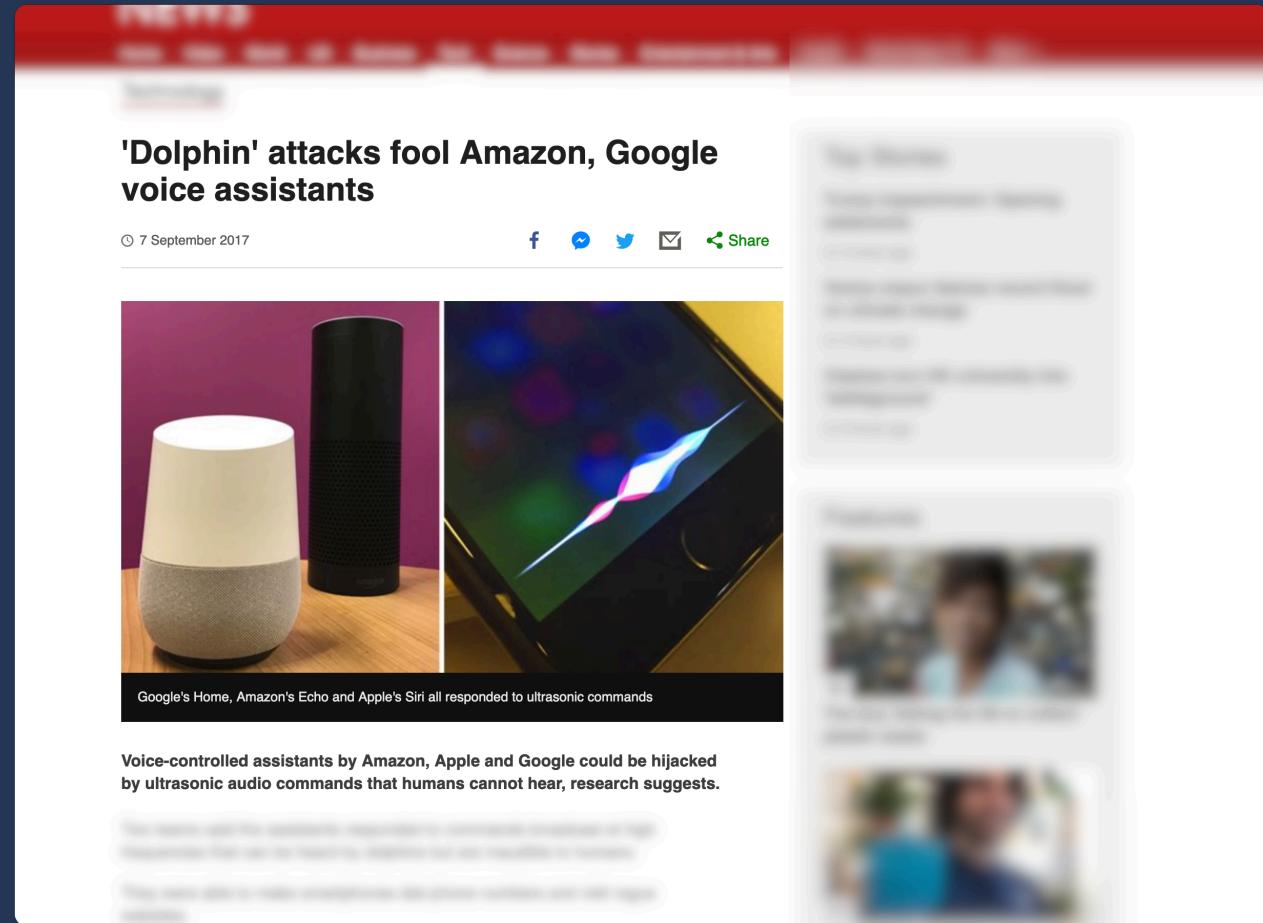


By [Chris Matyszczyk](#) for [Technically Incorrect](#) | October 16, 2019 -- 12:58 GMT (13:58 BST) | Topic: [Google](#)



Apparently someone is

Voice assistants : security



Dolphin attacks are a thing

Would you like to know more?



WOULD YOU LIKE TO KNOW MORE?

Would you like to know more?

- Code for this project and Slides
- PSD2
- Open Bank Project
- Dialogflow

Thanks!



@jlengrand and Github

**If you see this,
something really
wrong happened**

Fetching the last transaction

The screenshot shows the Dialogflow web interface in a Chrome browser. The URL is <https://dialogflow-fun.appspot.com/>. The left sidebar shows the agent name "dialogflow-fun-agent-live" and language "en". The "Intents" section is selected. The main area displays the "Intents" page with a search bar and two listed intents: "Default Fallback Intent" and "Default Welcome Intent". A message indicates "No regular intents yet." with a link to "Create the first one.". Below this, a description of intents is provided, along with links to "Prebuilt Agents" and "Read more here.". On the right side, there's a "Try it now" button, a "See how it works in Google Assistant" link, and a test interaction window showing a user saying "hey there!" and an agent response "Greetings! How can I assist?". The "DIAGNOSTIC INFO" section shows the intent and action for the welcome message.

CREATE INTENT

Intents

Search intents

Default Fallback Intent

Default Welcome Intent

No regular intents yet. [Create the first one.](#)

Intents are mappings between a user's queries and actions fulfilled by your software. [Read more here.](#)

Before you start, check out [Prebuilt Agents](#), a collection of agents developed by the Dialogflow team.

USER SAYS

hey there!

COPY CURL

Agent

DEFAULT RESPONSE

Greetings! How can I assist?

INTENT

Default Welcome Intent

ACTION

input.welcome

DIAGNOSTIC INFO

**Sending monies to
Mum**

Chrome File Edit View History Bookmarks People Tab Window Help

93% Thu 9:49 PM

https://dialogflow-fun.appspot.com Dialogflow

dialogflow.cloud.google.com/#/agent/a1411fd6-a8de-4370-aa8b-0c9f94cd5136/newIntent

Intent name SAVE Try it now

Contexts

Events

Training phrases Search training phrases

Add user expression

Action and parameters

Enter action name

REQUIRED	PARAMETER NAME	ENTITY	VALUE	IS LIST
<input type="checkbox"/>	Enter name	Enter entity	Enter value	<input type="checkbox"/>

+ New parameter

Responses

DEFAULT GOOGLE ASSISTANT +

Text Response

1 Enter a text response

Please use test console above to try a sentence.

See how it works in Google Assistant

Intents +

Entities +

Knowledge [beta]

Fulfillment

Integrations

Training

Validation [beta]

History

Analytics

Prebuilt Agents

Small Talk

Docs

Standard Free Upgrade

Support

Account

Logout

Integrations and Goodies

The screenshot shows the Dialogflow web interface in a Chrome browser. The URL in the address bar is <https://dialogflow.cloud.google.com/#/agent/a1411fd6-a8de-4370-aa8b-0c9f94cd5136/intents>. The left sidebar contains navigation links for the agent 'dialogflow-fun-agent-live' (en), including Intents, Entities, Knowledge [beta], Fulfillment, Integrations, Training, Validation [beta], History, Analytics, Prebuilt Agents, Small Talk, Docs, Standard (Free), Upgrade, Support, and Account.

The main content area is titled 'Intents' and shows a list of intents:

- Default Fallback Intent
- Default Welcome Intent
- last.transaction
- send.money

On the right side, there is a 'Try it now' section with a microphone icon and a link to 'See how it works in Google Assistant'. Below this, the 'Agent' section shows a user input 'last transaction?' and a system response: 'Your last transaction was for mum at 11-14 20:56 with an amount of 20.0EUR. Your new balance is 996.0EUR'. The 'INTENT' field is set to 'last.transaction' and the 'ACTION' field is 'Not available'. A 'DIAGNOSTIC INFO' section is also present.