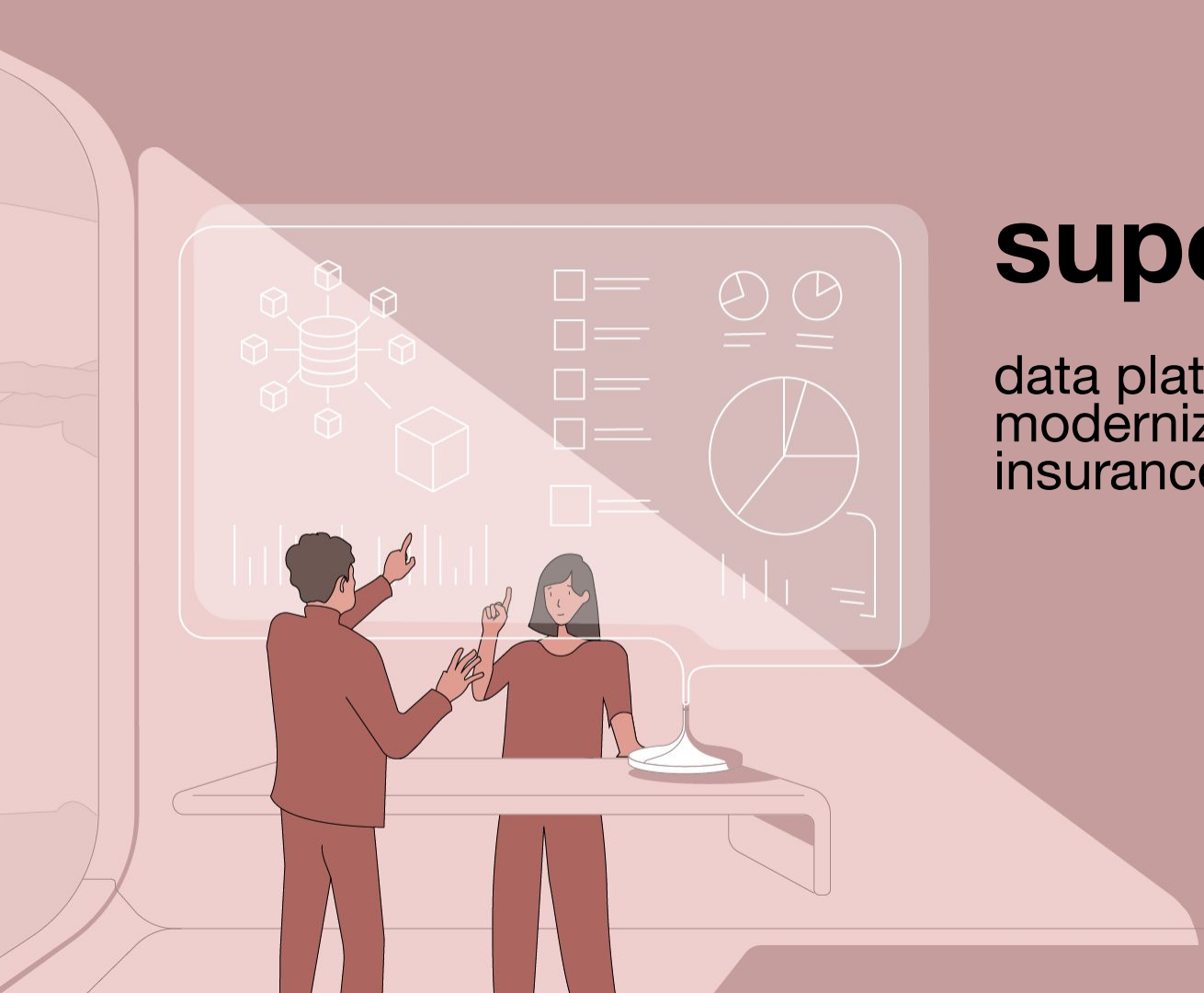


supercharge

data platform modernization at an US insurance company

SUPER CHARGE

agenda

01 intro

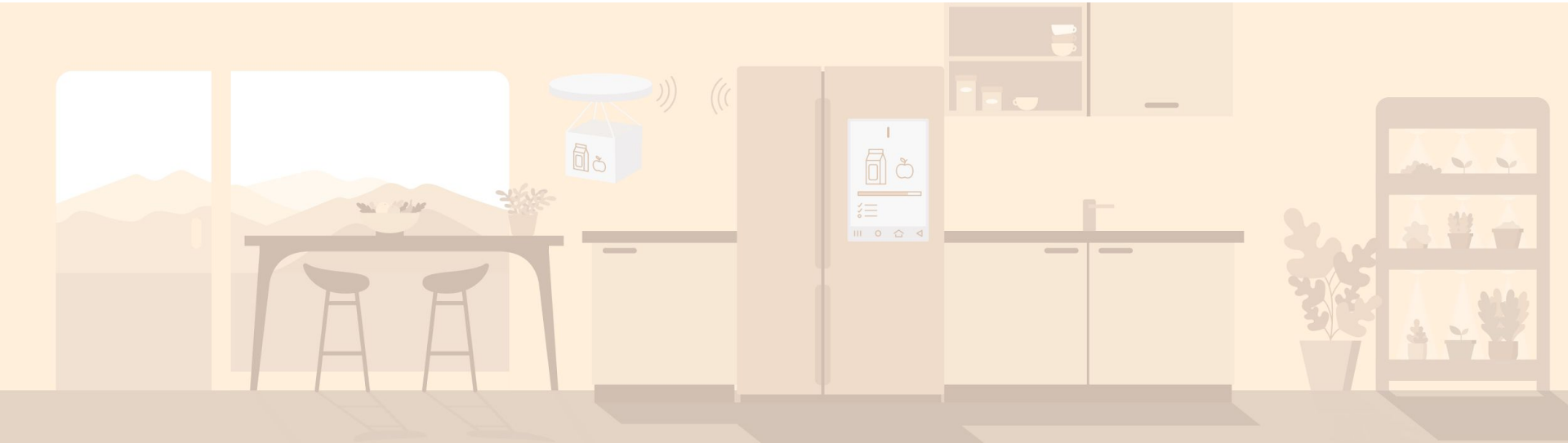
02 introducing Vyrd

03 scope of work

04 data features and architecture

05 final thoughts

01
intro



Gergo Pota

Head of Data and Analytics

Hey there! I'm Gergő Póta, and I've been immersed in the exciting world of data and analytics for over 13 years now. Throughout my journey, I've had the incredible opportunity to gather valuable experience across various industries, including telco, finance, airline, energy and more.

Currently, I have the privilege of leading the remarkable data and analytics team at Supercharge. My main goal is to drive business success by leveraging the power of data-driven product development and incorporating machine learning into our product features. We are constantly probing the business landscape, using data and analytics to uncover valuable insights and make informed decisions.

we are Supercharge

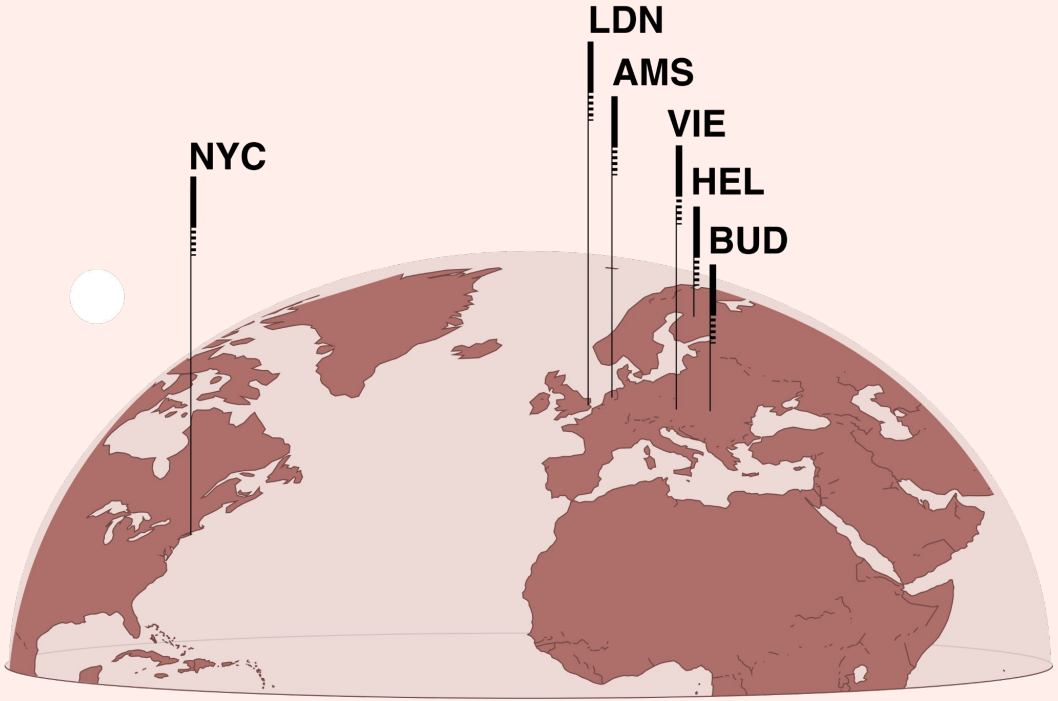
Supercharge is one of the fastest-growing tech companies in Europe. Our international experts are united in the pursuit of discovering and building better futures.

We work in close-knit, multifunctional teams to make sure your product innovation will be a success. We measure our impact through lives that our products have enriched through technology.

13 years

220+ experts

20M lives impacted



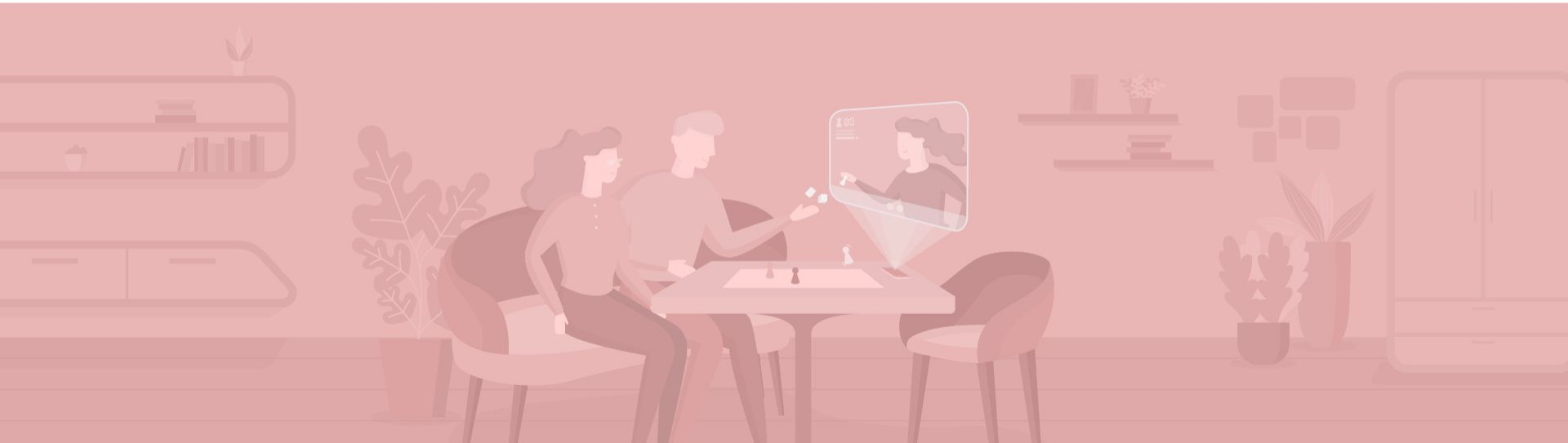
selected awards

reddot winner 2020

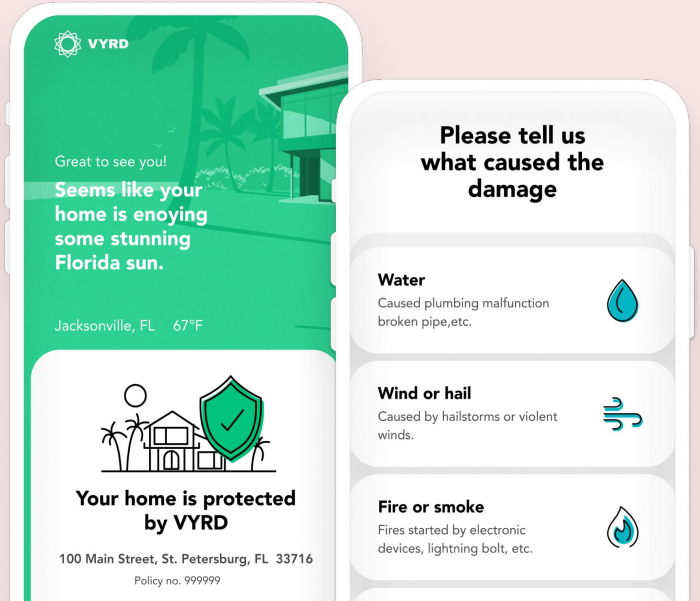
GOLD AWARD 2020

BIMA Awards

02
introducing Vyrd



what is VYRD?

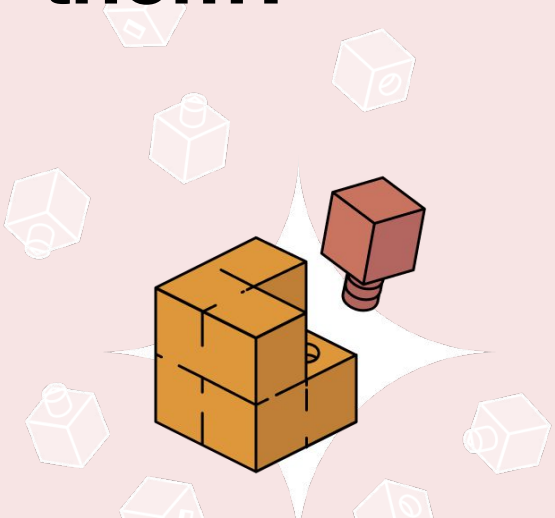


VYRD is a technology focused **home insurance** provider in Florida

their USP is not only their financial strength but their **smart home protection** program as well

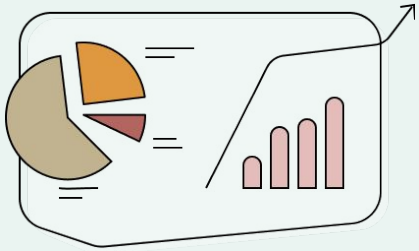
also they are a classical **platform business** working together with several 3rd parties in case of different services that are available on their platform

why data is important for them?



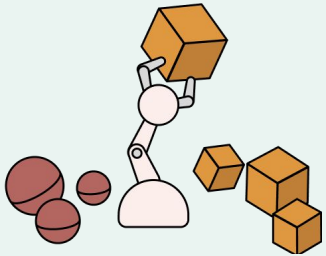
- **data silos** with different 3rd party providers slow down decision making
- they want to be able to **understand** all aspects of their **business** from simple questions to complex learning objectives
- they want to see their user **data,** agency performance, user behaviour, IoT data **in-house,** and **connect it all together**

03
scope of work



what **business capabilities** they were looking for?

- they wanted to call better **data driven decisions**
- enabling their leadership to evaluate **product** performance and **impact vs business goals**
- running personalized **marketing** campaigns
- **owning** all angles of their **customer data**
- make **decisions** about **product** roadmap based on user interaction data
- replace manual reporting process with **automation**

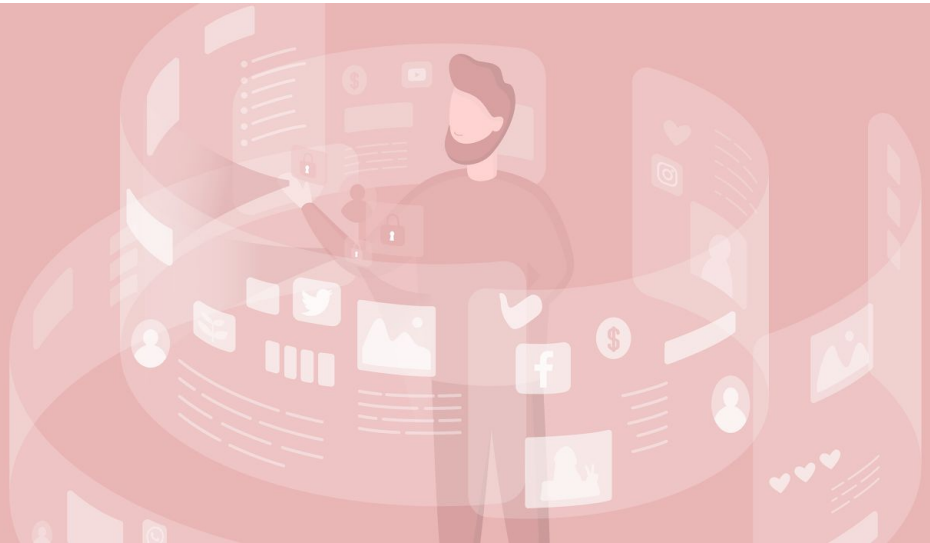


what **technical capabilities** they were looking for?

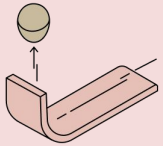
- they were looking for a centralized data **platform** owned by them
- **integrating data** points sitting with their 3rd parties
- automated **scalable business reporting** system
- easy way to **segment** their customers
- run their **campaign management** tool w/ utilising the connected data points

03

data features and architecture

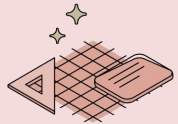


delivered data features



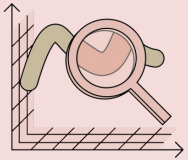
product analytics

defined clear data collection points and implemented best practices to start building VYRD's data infrastructure



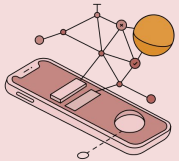
data warehouse

developed a fully fledged data warehouse incorporating all of the 3rd party vendors' data



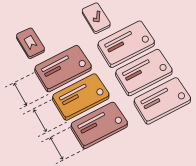
business reporting

created an interactive dashboard to keep the key stakeholders informed



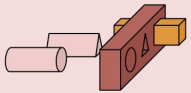
marketing automation

marketing automation made possible due to our datamart implementation and serving data to the tool



agent performance monitoring

created solution for agent performance monitoring in business reporting and acting on it using marketing automation



problematic payment alerting

developed a solution for VYRD's finance team to proactively catch problematic payments before it's too late

integrated 3rd party vendors

different sources systems comes with various type of data endpoints:

from some we receive file extracts, other are providing REST APIs, for some we have database level access

claims system

FIELD PROS DIRECT

policy administration

WATERSTREET COMPANY

payment system

forte A CSG Company

IoT sensor provider

notion

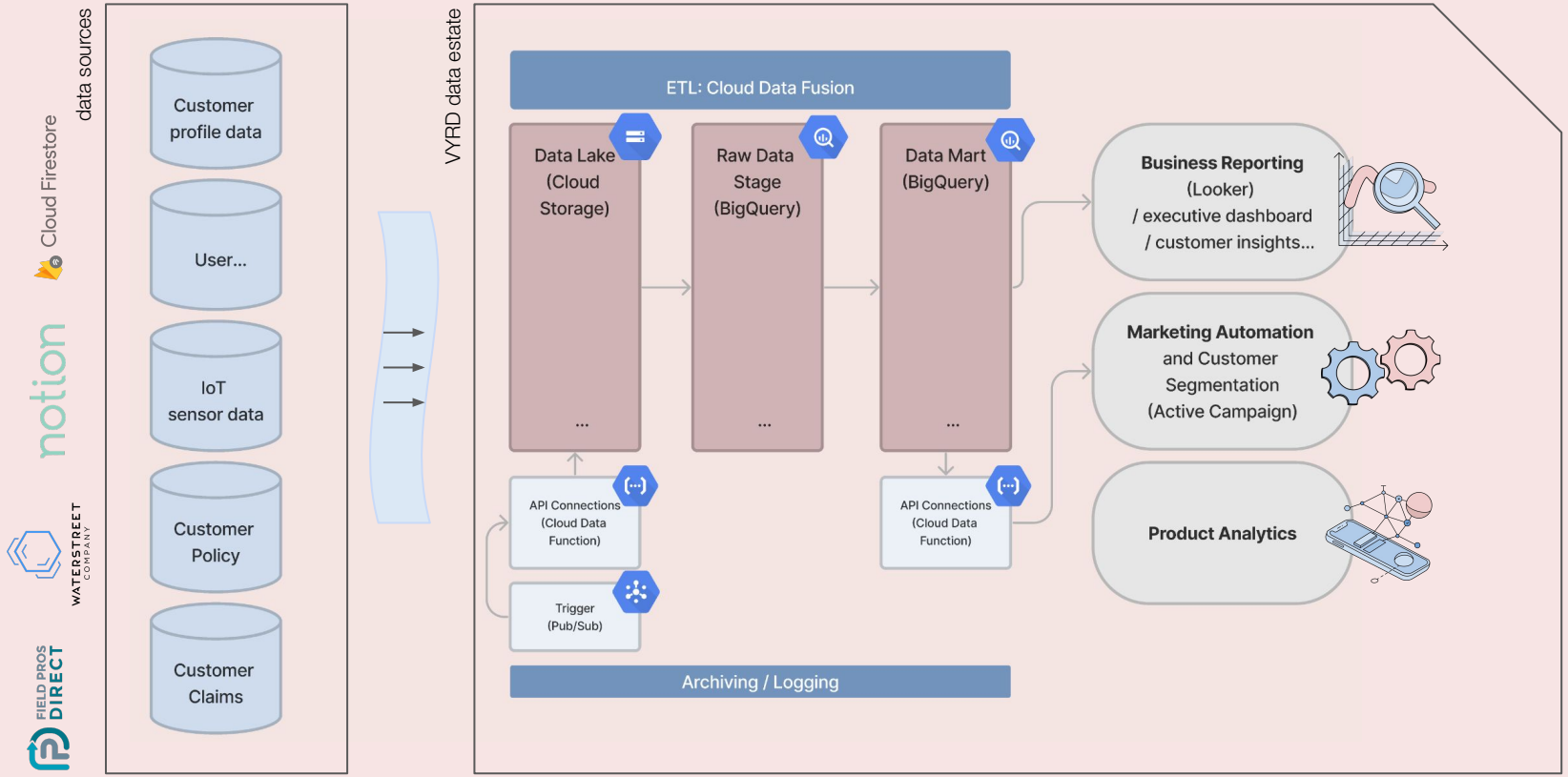
agent crm

monday.com

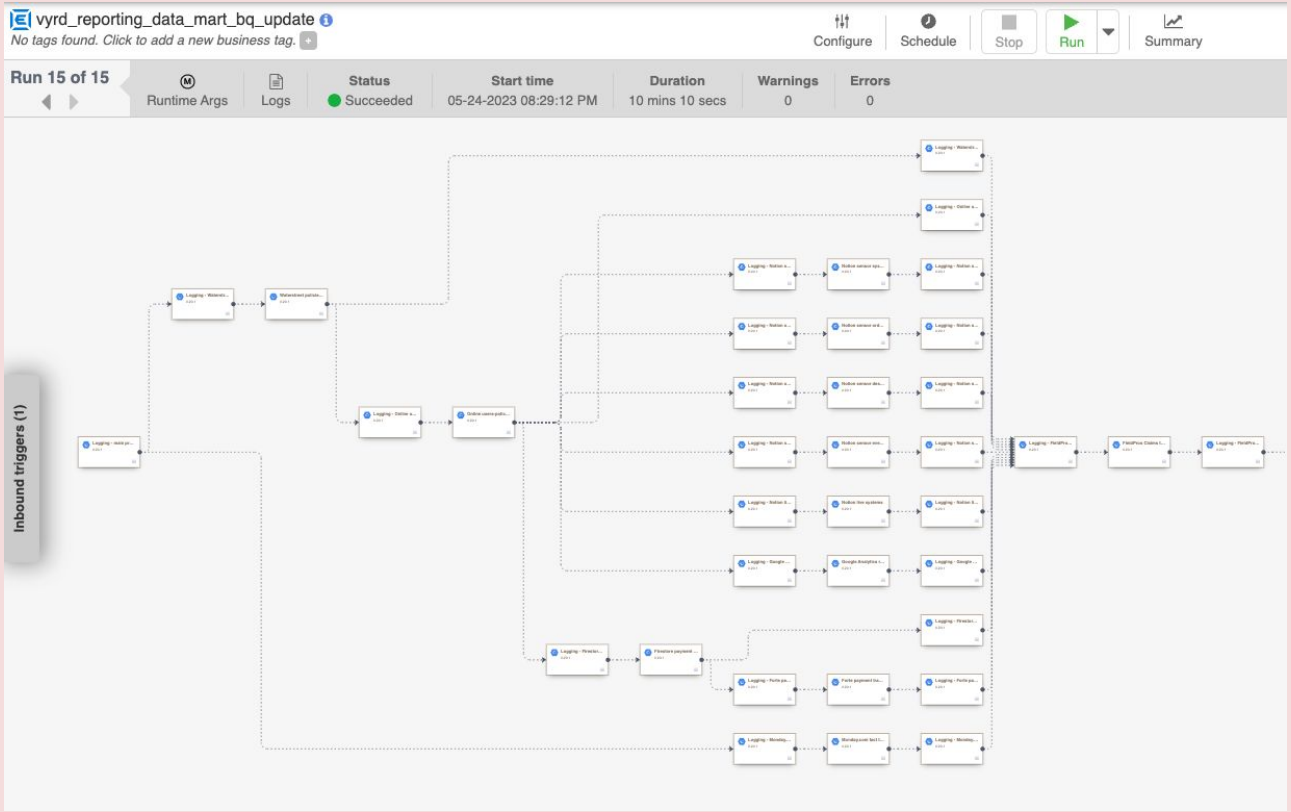
marketing automation

ActiveCampaign

vyrd's serverless data architecture



building the data warehouse



tools used

- big query
- data fusion
- cloud functions

cloud data fusion

opportunities and challenges

Opportunities

/ Easy to use graphical UI that makes data lineage easier.

/ Several available nodes to resolve problems coming around.

/ Easy chain triggering, and good level of integration with other GCP functionalities.

Challenges

/ Resource allocation in dev is very limited, no parallel running there - only if you pay significantly more.

/ Inconsistent logic across the same functionalities of different nodes - e.g. regex used differently in different nodes.

/ Actual testing of the pipelines is painful, as they need to be deployed first, then duplicated and removed, if we need to change it.

marketing automation

tools used

- cloud functions
- pub/sub
- active campaign

pub/sub

opportunities and challenges

Opportunities

/ Generic **triggering of Cloud Functions** that can be used in GCP pretty much everywhere, and very easily. It makes Cloud Functions integrated with all other GCP products (e.g. Data Fusion, Scheduler, etc).

/ **Easy to use**, easy to set up, nothing heavy rocket science.

/ Flexibility: can introduce **Cloud Functions** with the usage of Pubsub **triggered in parallel or chain**. Gives a massive level of freedom to the developers.

Challenges

/ Sometimes **unstable** - simply doesn't trigger due to unknown reasons. Restart works fine. Can be painful in a production environment.

/ Cloud functions with pubsub triggering have a strong **limitation** in terms of **timeout** (max 540 seconds) - this might require some workaround if the process to be done is at least takes a bit longer.

BigQuery

opportunities and challenges

Opportunities

/ Goes without saying that BigQuery **works like charm**, here you really don’t need to worry about much if you have a great expert team

/ Practically no operational cost

/ Easy to integrate in a best of suite setup in the GCP environment

/ GA regular data extract with a click

Challenges

/ You can push Google Analytics data to BigQuery and unless you don’t have a GA360 subscription, you get no SLA regarding the readiness of the daily table partitions.

Either you work from intraday and reload or live with some days of delay of your Google Analytics data piece.

Looker Studio

opportunities and challenges

Opportunities

/ It is coming free from the GCP package

/ All type of data connections there by default

/ Quick learning curve for any BI developer

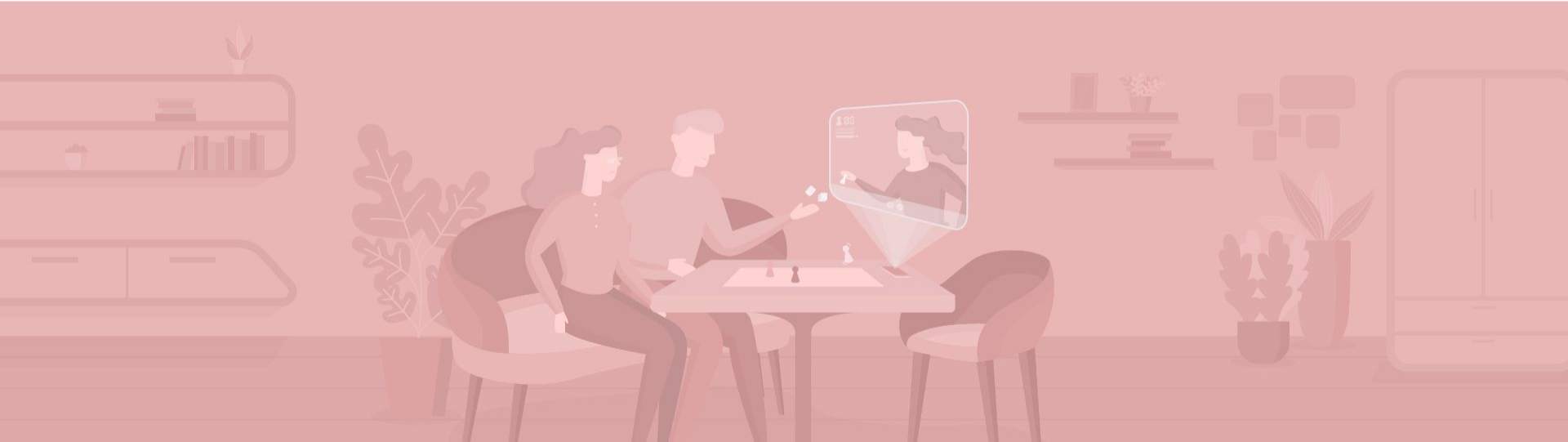
Challenges

/ Several limitations in terms of functionality comparing to other data visualization tools

/ Some well-known and not resolved bugs - for instance in case of some chart type it cannot properly aggregate the data

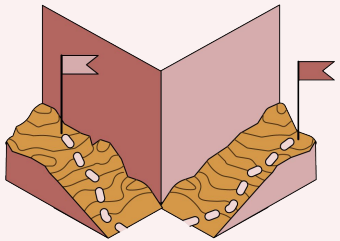
05

is this a good setup in the end?



verdict

final thoughts from the architecture



this selected architecture is good for:

/ if you need a serverless setup as you would like to avoid from operational burden

/ if you need full flexibility with small running cost

/ if you would like to maximize the functionality from a given infrastructure budget

when should you reconsider:

/ if you have multiple dev, uat and prod environments

/ if you need to develop several (50+) ETL pipelines

/ when you are comfortable moving away from a best of suite type of architecture

/ if you plan to have your own internal devops team

thank you for your attention

Gergő Póta

Head of Data and Analytics
gergo.pota@supercharge.io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