

A photograph of three business professionals (two women and one man) sitting around a table in a meeting, engaged in conversation. The image is overlaid with a blue tint. The text 'Data for Breakfast' is written in a white, cursive font across the center of the image.

# Data for Breakfast



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# Data for Breakfast





# Carrot Health

Brian Repko and Derek Rucker

# ***ABOUT TEMPLATE: Options to represent customer use cases***

- *Please choose 1 and customize to your customer use case*
- *Use case must be about use of Snowflake*
- *Please choose one of the options*
  
- *All uses cases must have:*
  - *Scenario (previous setup)*
  - *Negative Consequences of previous scenario*
  - *After*
  - *Positive Outcomes (Snowflake Value)*

# ABOUT CARROT HEALTH



Consumer analytics company translating data into intelligent action

*Why:* **We believe in enabling a future with no barriers to better health**

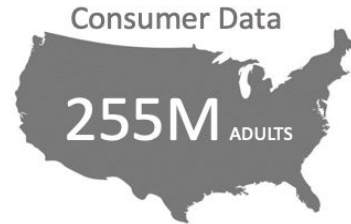
*How:* **We curate and analyze consumer data to provide a 360° view of the individual**

*What:* **We provide actionable insights to inform Growth, Health, and Quality**



# ABOUT CARROT HEALTH

Using the power of one of the largest datasets in the health industry



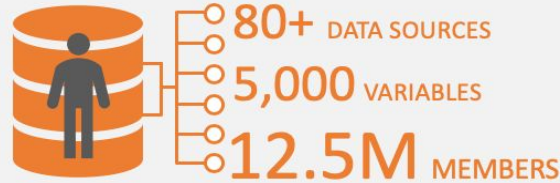
Claims/Clinical



Public Data



CARROT HEALTH DATA  
& ANALYTICS



Market Data



Proprietary Geospatial



Voice of Consumer



# OUR SITUATION BEFORE



## Scenario

Provide and perfect over 14 different data products that help universities facilitate learning online



## Pain Points

Disparate data  
Challenges integrating data  
Semi-structured data



## Solution

Replace existing Hadoop and RDBMS system with Snowflake



Everything that we did left our jaw on the table. 'Wait – we've never done anything like that.' Or, 'How did that just run so fast.' We are getting 16x performance from Snowflake.

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*Jay White*  
*Director, Software Engineering*



# OUR SITUATION BEFORE



Unified data

Simplified data transformation

Existing tools integrate seamlessly

16x performance improvement over SQL

1 PB by the end of 2017



# Our Situation Before



Snowflake enabled our ability to effectively work with more data - and from a cost perspective - enabled our start-up company to easily grow

*Brian Repko*  
*Director of Data Engineering*



## Scenario

Turn one of the largest datasets in the healthcare industry into useful actionable insights



## Pain Points

Security a must - HIPAA / SOC2 compliant  
Data analysis of large (over-time) data sets  
Enabling processing of non-standard data



## Solution

First attempt was data warehouse solution from our cloud vendor - we then moved to Snowflake



# OUR SITUATION BEFORE

## BEFORE



## Previous bottlenecks

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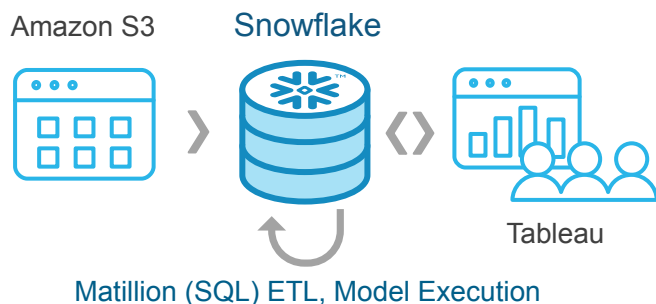
Data silos

Ability to scale based on machine size

Skills for data science <> skills for data engineering

Lack of tool integration

## AFTER



## Snowflake value

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Scale and performance

Accessible to the entire team - and still secure

Ability to define data environments

SQL-based ETL (and more) via Matillion

# OUR SITUATION BEFORE (OPTION 3)



## Before

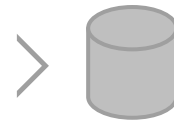
20+ hours to run reports

>\$500K cost to upgrade current warehouse—for only 2x improvement

Overburdened staff

## Legacy DW

Profiles  
Ratings  
Losses



## Microstrategy



1-2 days

## With Snowflake

120x faster—from 20+ hours to 45 minutes

Get business users analysis in minutes

Pay-per-use as they grow

Easy deployment + no maintenance

## Pentaho

Profiles  
Ratings  
Losses



## Microstrategy



1-2 minutes



# OUR SITUATION BEFORE (OPTION 4)



## Scenario

Company sells last minute hotel inventory

Enormous data scale and volume

Every analysis is time sensitive

## Before

40 ETL jobs, 2m records per hour,  
10b total records

Existing cloud DW unable to scale  
compute effectively

“Lookers down”... but actually one big  
query was slowing down the DW

Compute limited

## After

Cloud DW



1-2 days



Platform data  
Transactions  
Marketing data



1-2 mins

Looker



100+  
analysts

## Snowflake Value

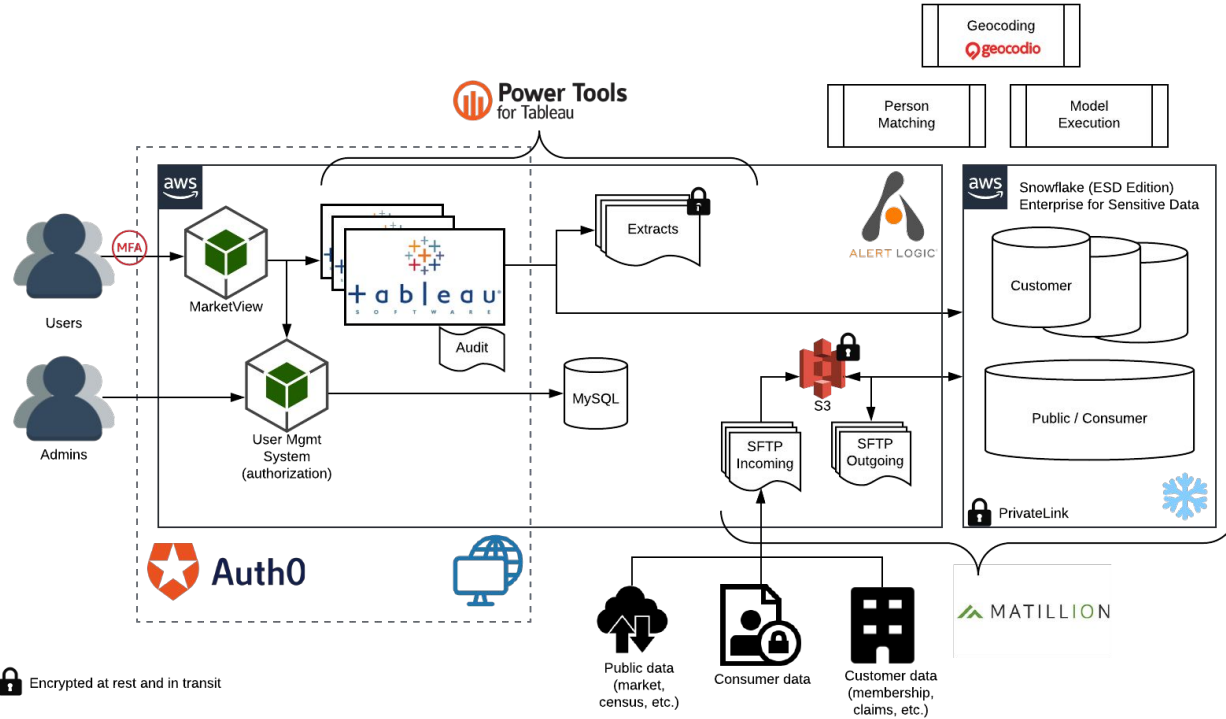
Scale dynamically in real time

Free up data engineering

95% of queries under 10s



# OUR SITUATION NOW



Aug 15, 2019

# SNOWFLAKE VALUE HIGHLIGHTS



## What makes Snowflake valuable for us...

- Price profile for a start-up - separation of storage and compute
- Security - PrivateLink capability, IP whitelisting, MFA, robust role/permission scheme
- S3 integration (COPY INTO) as well as performant MySQL replication
- Ability to work with structured and semi-structured (JSON) data
- Query caching / history / profiling - no need for a DBA
- Long list of built-in functions / pivot and unpivot as well as custom UDFs
- Fast clone for data migration and backups

## And there is more for us to try...

- Data sharing across accounts (with our data vendors - or potentially public data)
- Data analysis / Data science tool integrations
- Performance for live Tableau-Snowflake integration

# CLOSING THOUGHTS

## Snowflake enables

- Our ability to handle more customers (of any size)
- Our ability to do data analysis and data science on larger datasets
- Our ability provide high-level security
- All in a way that allows us to track our costs

## Which allows Carrot Health to

- Effective grow and work with varying healthcare industry partners and customers
- Provide a deep and custom view (our 360° view) of individuals
- Provide insights for Growth, Health, and Quality

# THANK YOU

*Data for Breakfast*



# ICONS



Snowflake DB



Data Warehouse



Data Lake



Datamart



BI Analytics



Server



Enterprise



Optimized Structured Data



Structured Data



S3 Data Protection



Alert



Process



User / Customer



Web App



Tools



Third Party



World / Global



Azure Blob



Check



GCS



Desktop



Mobile



Application



Document



IoT



Data Science



Cloud



Optimization



Metadata



Transactions



Refresh



Services



Metadata / Tag



Security



Results



Third Party Apps



Access Control



Easy Management



Dev



Communicate



Results



No



Edit



Optimize

