

# DATA STRATEGY FROM SCRATCH

Boulder Startup Week 2018

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Data Analytics Architect at CirrusMD



# DATA STRATEGY



- Definition
  - Implementation
  - Lessons Learned
- 

# GOALS

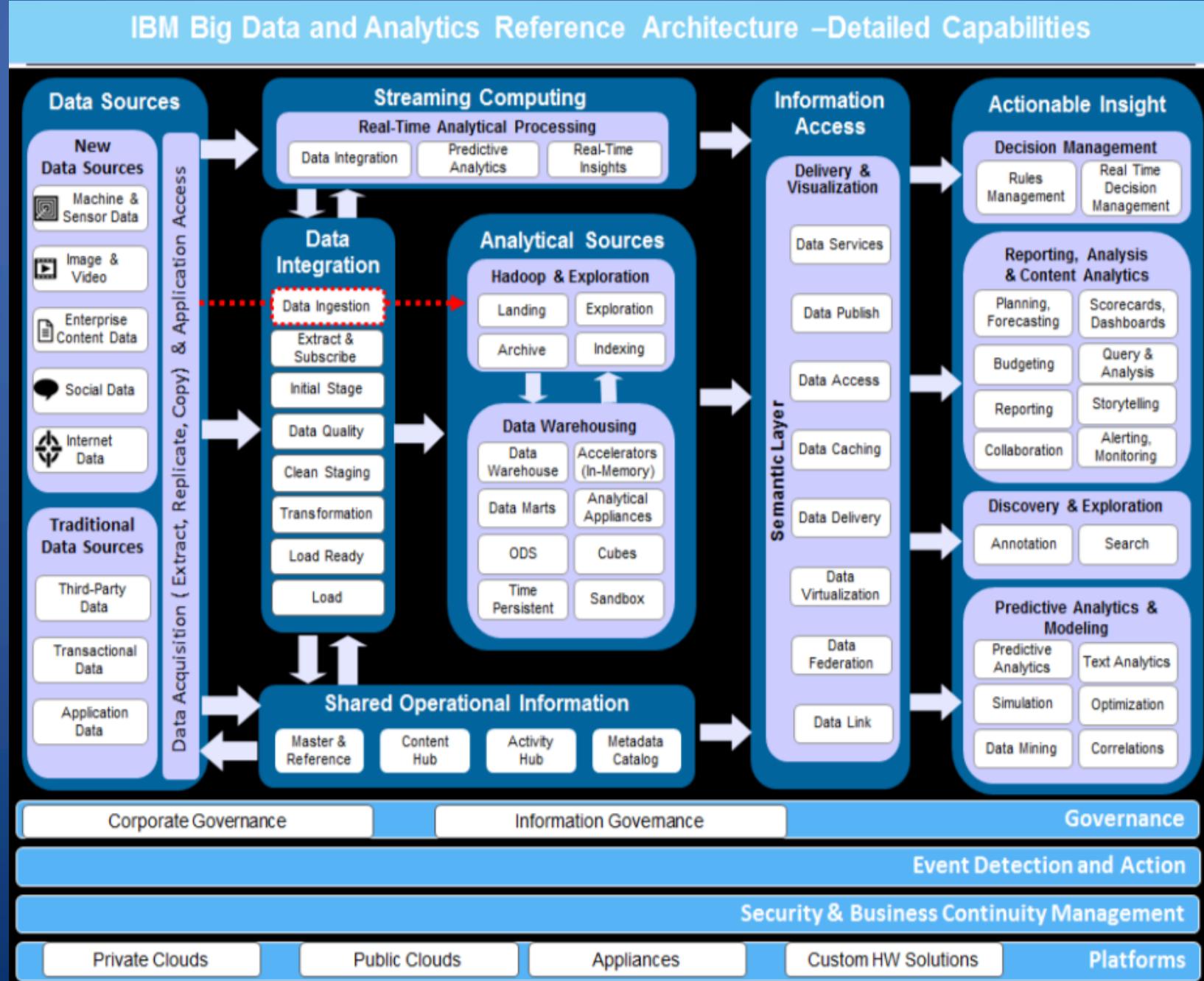
- Data
  - Well Understood
  - Trusted
  - from Single Source of Truth
- Access
  - Controlled and Secure
  - Broad and Easy, Self-Serve



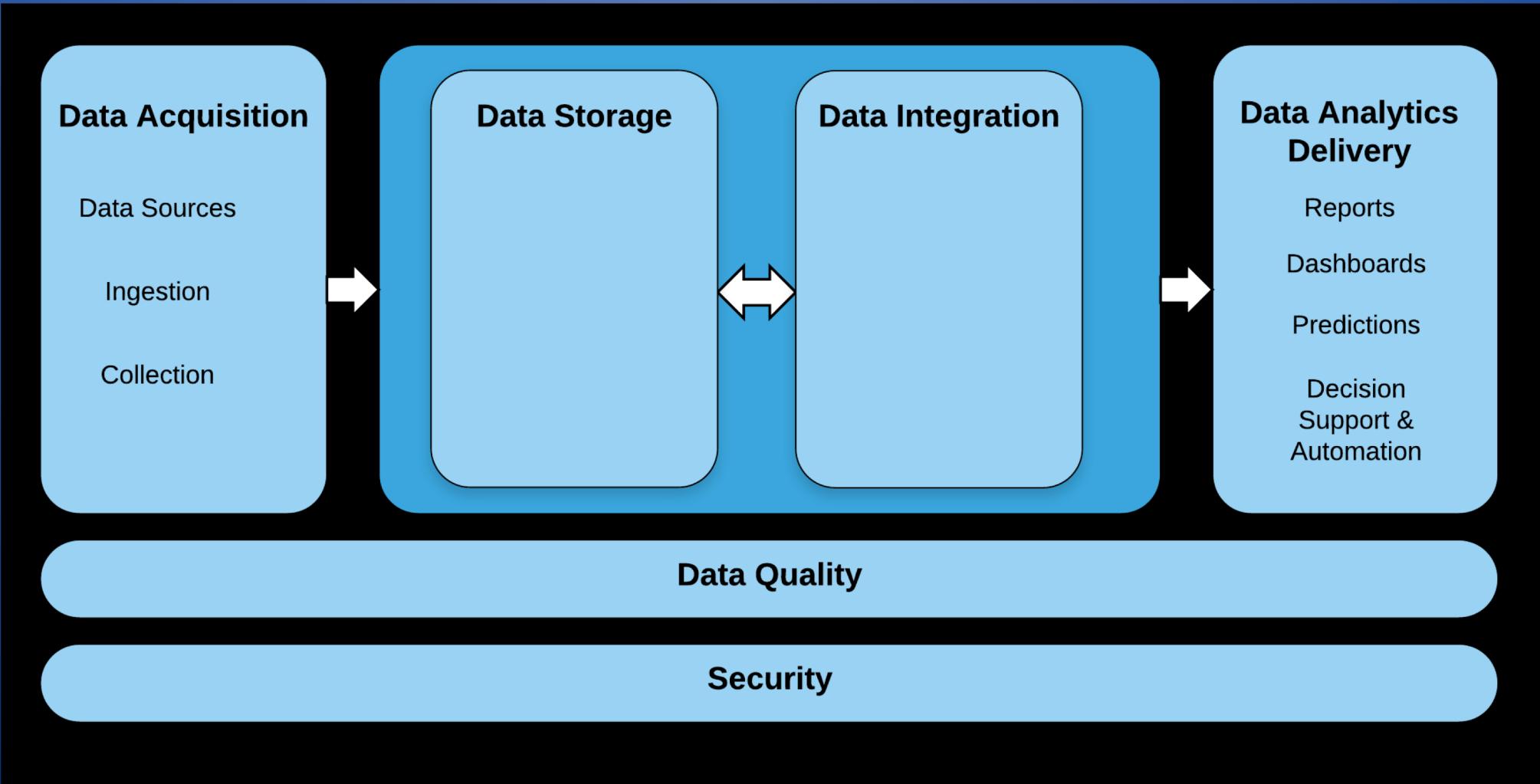
# GOALS

- Data Driven
    - Data Analytics → Insight → Decision or Action
  - Tech Stack that is
    - Scalable
    - Maintainable
    - Cost effective
    - Performant
- 
- 

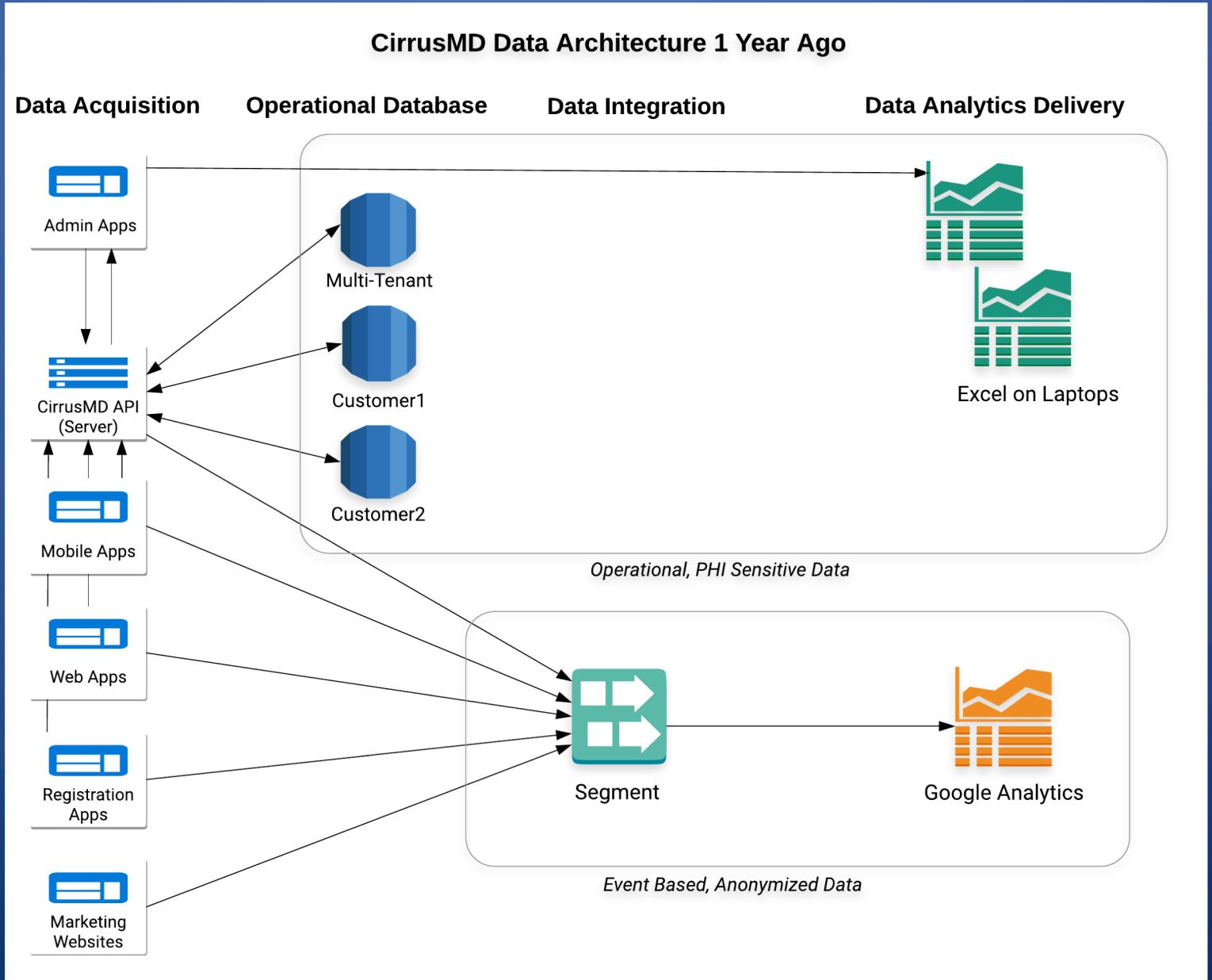
# ROADMAP



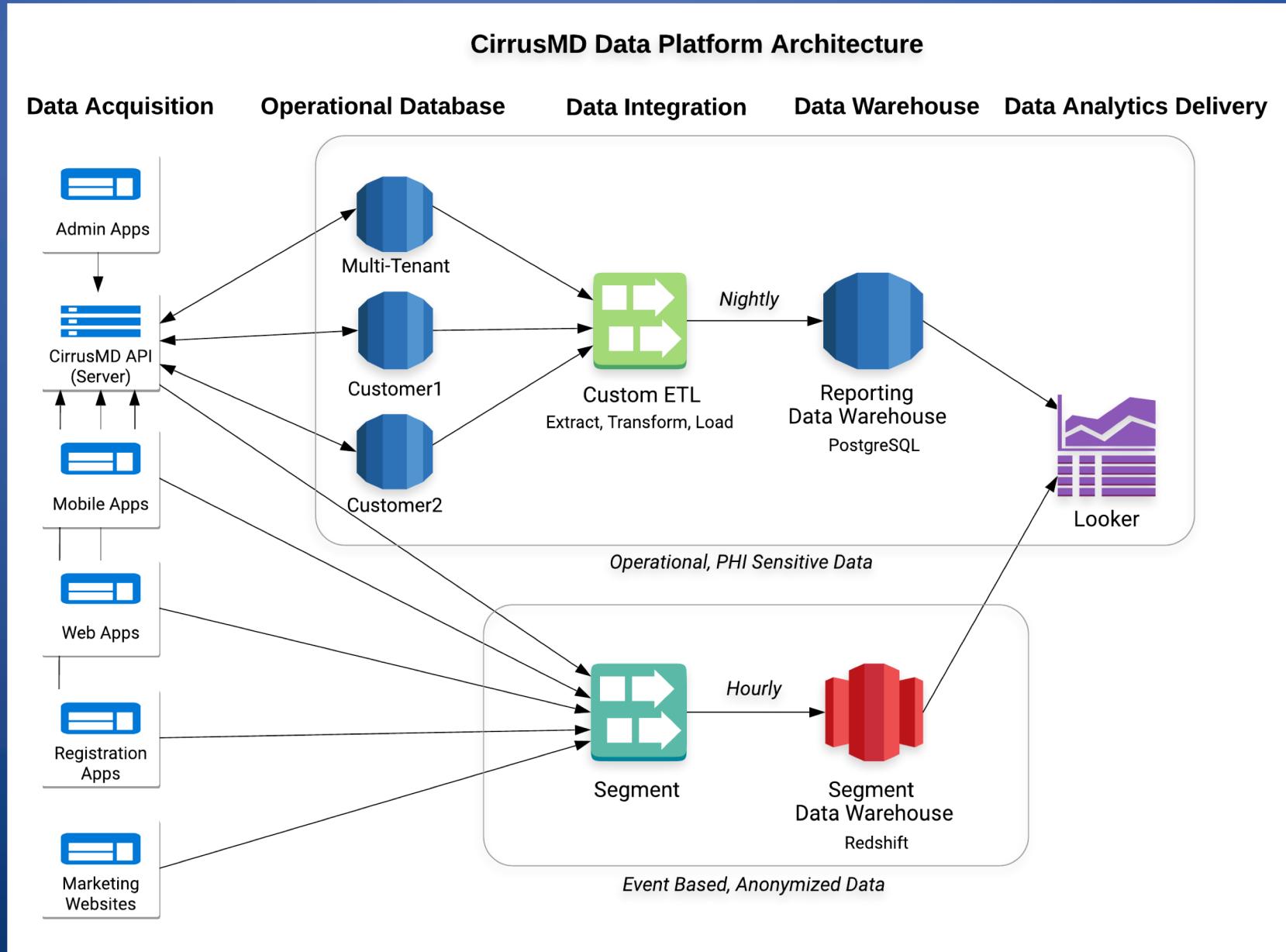
# ROADMAP



# STARTING HERE

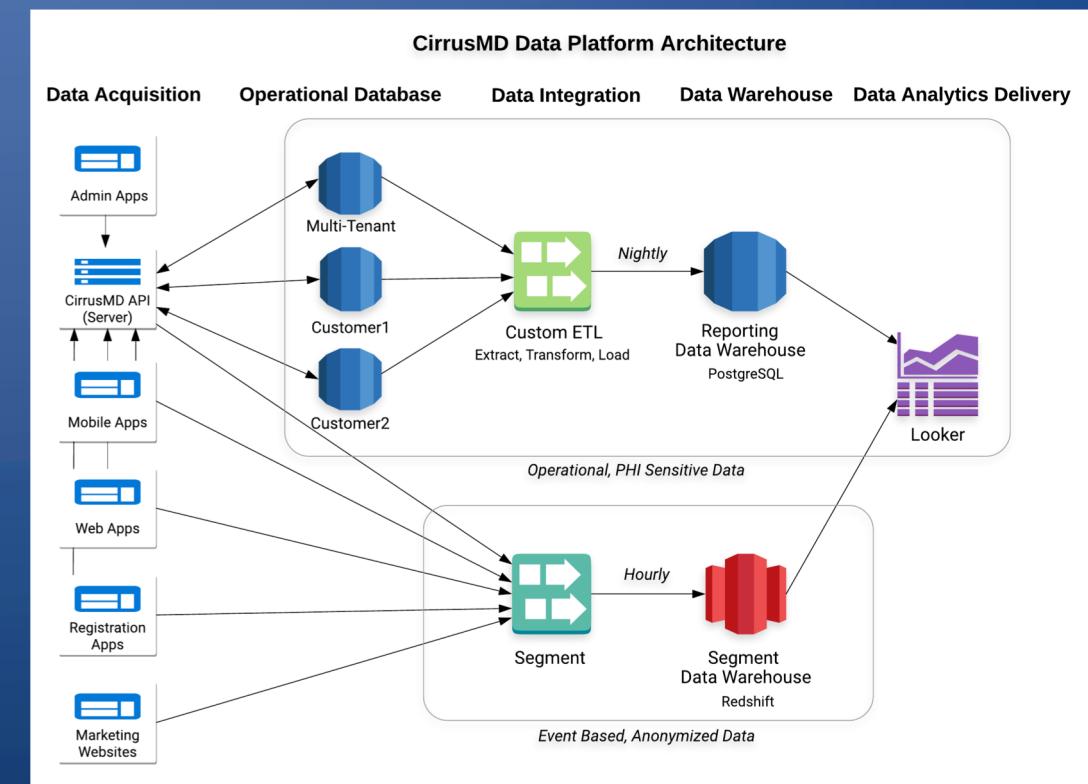
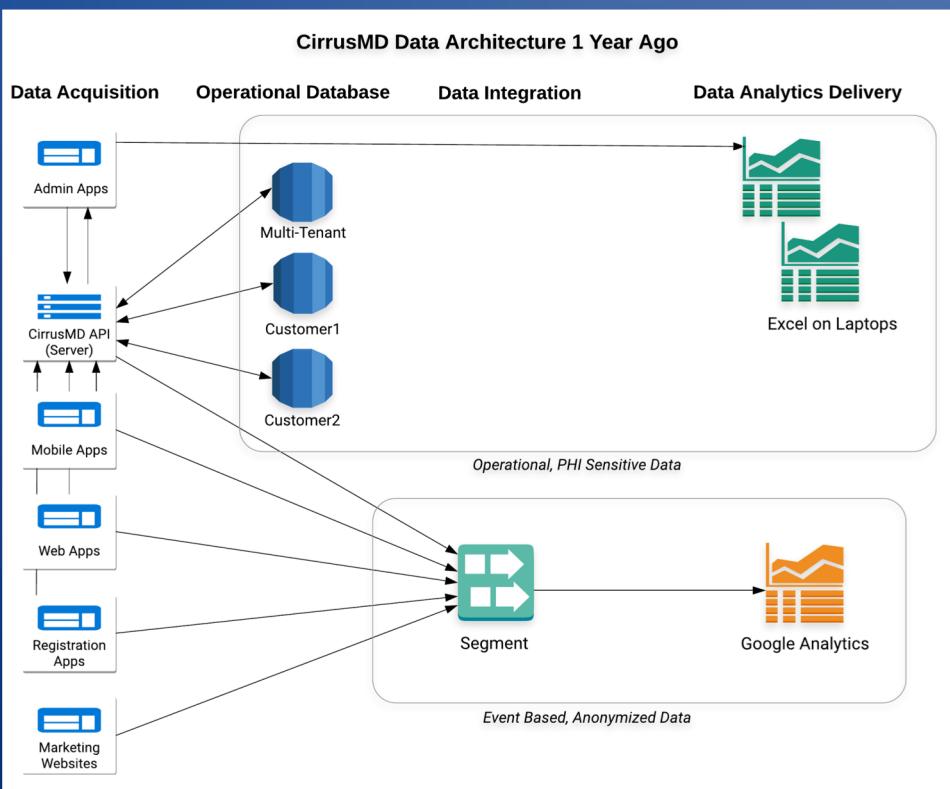


# INITIAL END GOAL



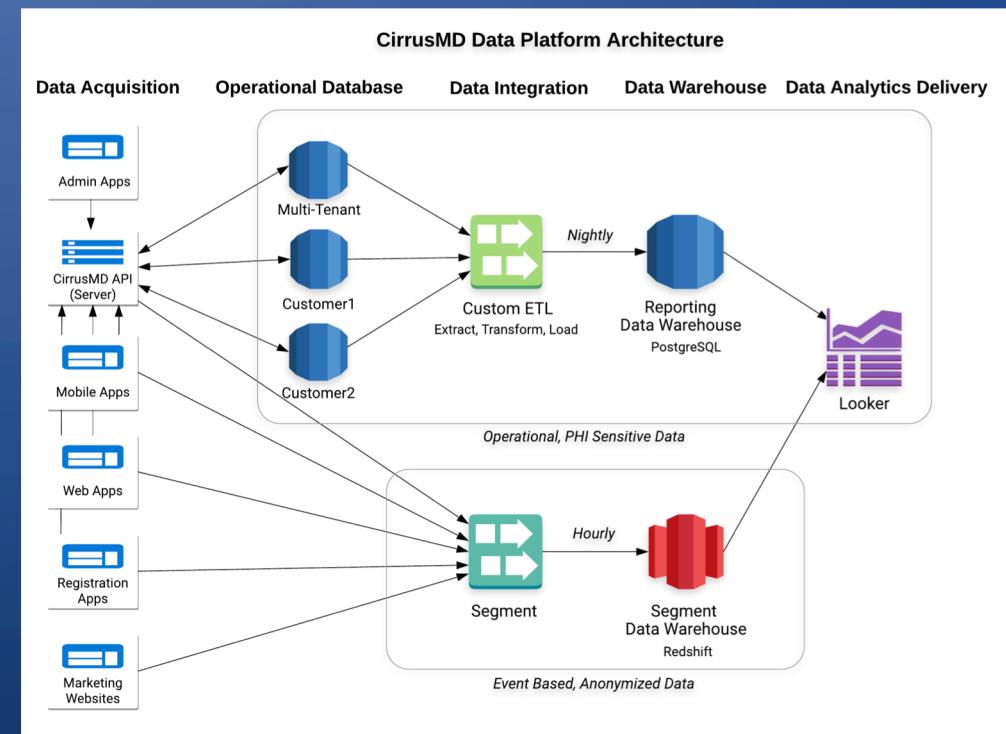
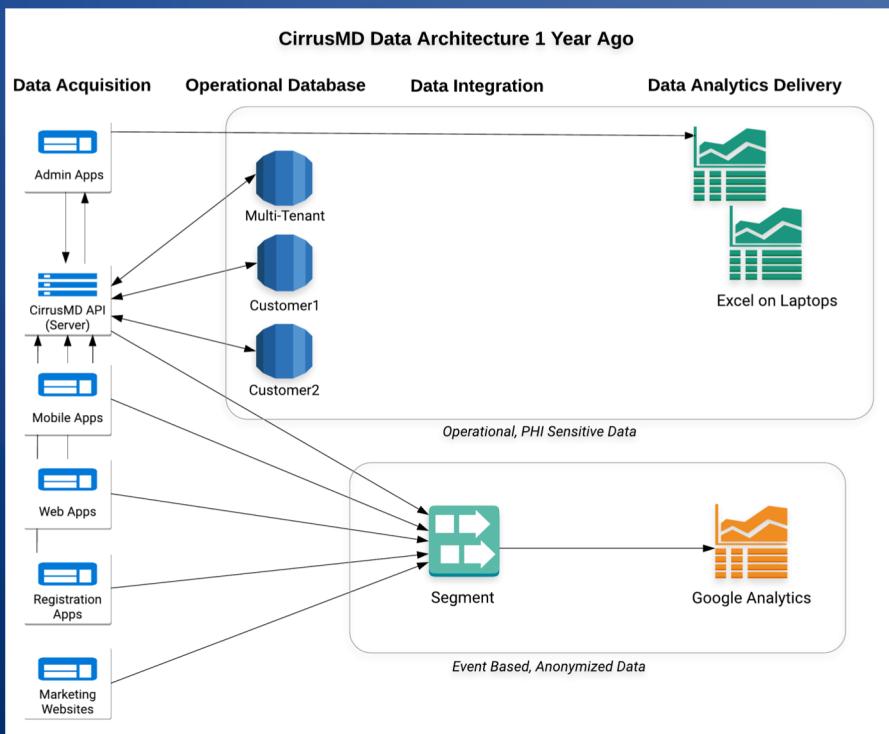
# DATA TECH STACK

Scalable and Secure



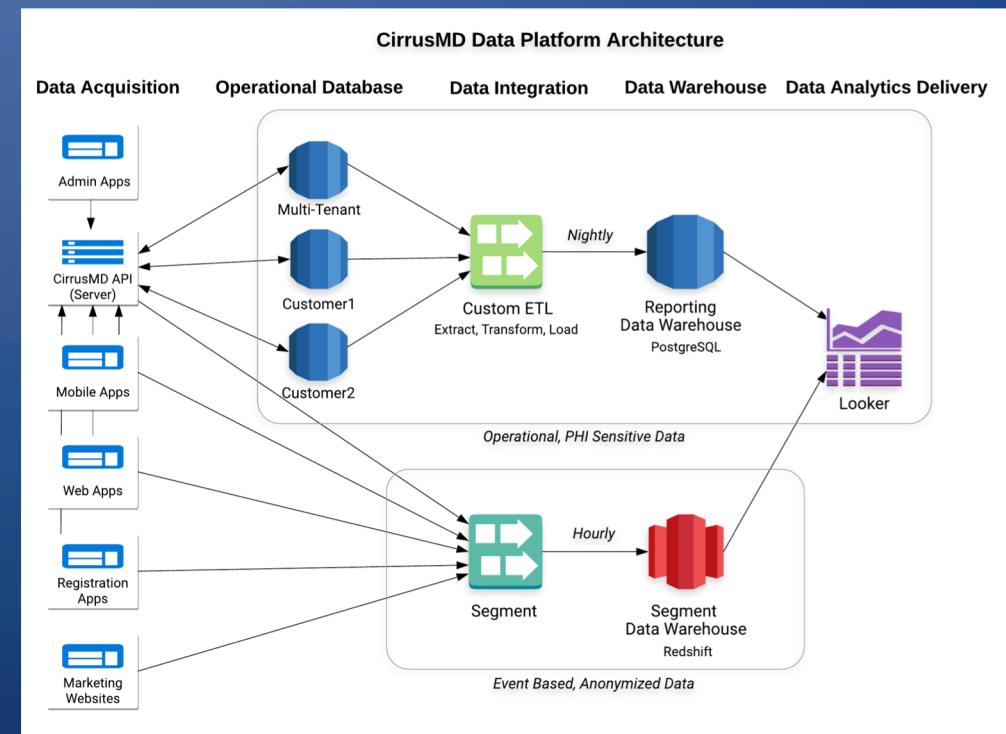
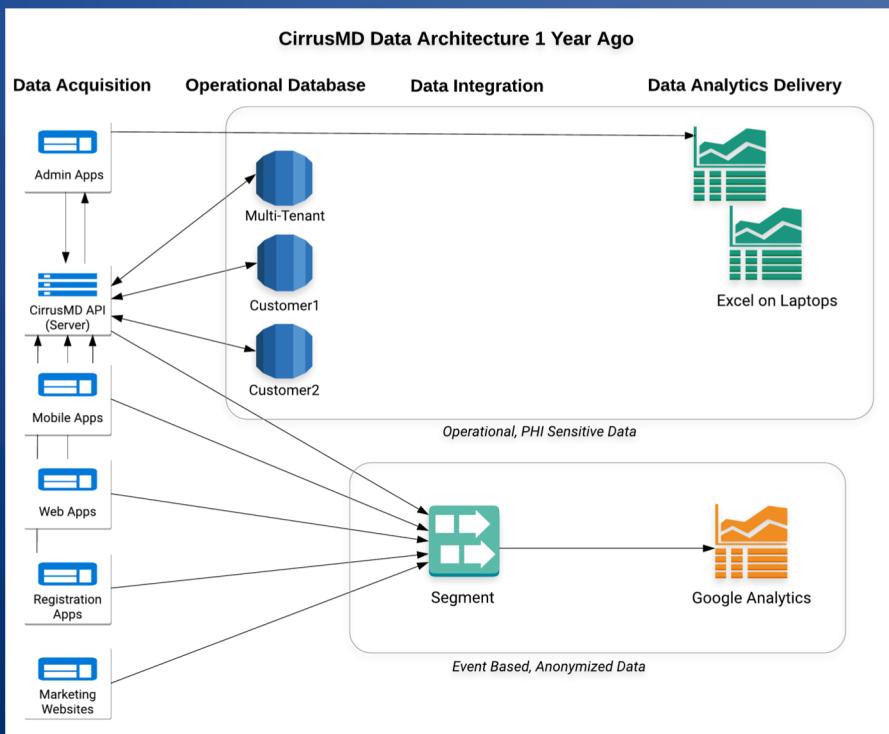
# WELL UNDERSTOOD DATA

- Complete the thread



# WELL UNDERSTOOD DATA

- Complete the thread
- Start small





## TRUSTED DATA

- Speak the same language

# Glossary

## Patients

Metric	Definition
SSO Patient	<p>Single sign-on (SSO) is an authentication process that allows a user to access multiple applications with one set of login credentials. Example:  users don't have to register with an email and set a password. Once logged into 's patient portal, they click a link and are immediately signed in.</p> <p>- <code>external_user_id</code> is <i>not null</i></p>
Registered Patient	<p>A patient who has completed a registration form. SSO Patients are considered to be Registered for the Company Scorecard.</p> <p>- <code>invitation_created_at</code> is <i>not null</i></p>



## TRUSTED DATA



- Speak the same language
  - Automate – buy some tools
- 

# Looker

Marketing Conversion Funnel

+ New Tile Looks Text Filters Settings

Campaign Date 2017/11/29

Conversion Funnel Chart

Number of Page Visits

Visit Type	Page Visits	Percent of Total
1. Marketing Page		100.00%
2. Registration Page		40.91%
3. Registration Attempt		16.41%
4. Registration Success		10.27%

Conversion Funnel

Visit Type ^	Page Visits	Percent of Total
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# TRUSTED DATA



- Speak the same language
  - Automate – buy some tools
  - Transitioning is hard
- 

# BE DATA DRIVEN

looker

Browse ▾ Explore ▾ Develop ▾

-Data Team ▾

## Top Looks Run by Business Users ❤

FILTERS (3) History Created Date is in the past 90 days Look Created Date "-null" User Name is null Reset Look | Explore from Here

VISUALIZATION

User Name	Look Created Date	Look Title	Look Link	History Query Run Count	History First Query Date	History Most Recent Query Date
1 [REDACTED]	2018-05-03	Production Patient Report	[Look]	1	2018-05-11	2018-05-11
2 [REDACTED]	2018-04-30	[REDACTED] encounter plus patient queue metrics	[Look]	4	2018-05-10	2018-05-11
3 [REDACTED]	2018-05-04	[REDACTED] Patient List	[Look]	3	2018-05-04	2018-05-09
4 [REDACTED]	2018-05-02	[REDACTED] Encounter Report	[Look]	4	2018-05-08	2018-05-08
5 [REDACTED]	2018-04-17	Weekly Registrations Chart	[Look]	1	2018-05-08	2018-05-08
6 [REDACTED]	2018-05-03	Production Patient Report	[Look]	3	2018-05-08	2018-05-08
7 [REDACTED]	2018-04-20	[REDACTED] Conversion Funnel	[Look]	3	2018-05-08	2018-05-08
8 [REDACTED]	2018-04-17	Weekly Encounters Chart	[Look]	1	2018-05-08	2018-05-08
9 [REDACTED]	2018-04-17	Weekly Encounters by Customer	[Look]	3	2018-05-08	2018-05-08
10 [REDACTED]	2018-05-04	[REDACTED] Employer Group Eligible Member Counts	[Look]	6	2018-05-04	2018-05-08

## BE DATA DRIVEN – USE QUALITATIVE DATA

- Investigate outliers
- Quantitative – What
- Qualitative – How, Why

# THANK YOU!

## QUESTIONS?

Get presentation at:

<https://github.com/lippertd/bsw2018-data-strategy>

Chat with me at Colorado Startups #boulder-startup-week Slack channel

Please vote today:

<https://www.denverstartupweek.org/panel-picker/4284-data-strategy-from-scratch>

# REFERENCES

IBM Big Data & Analytics RA\_V1.pdf

<https://www.ibm.com/developerworks/community/files/form/anonymous/api/library/e747a4bd-614d-4c5da411-856255c9ddc4/document/bbc80340-3bf4-4e0a-8caf-a43f64a22f05/media>

Counting is Hard

<http://daynebatten.com/2016/06/counting-hard-data-science/>

Tools for Early Stage Startups including Segment and Looker

<http://firstround.com/review/the-tools-early-stage-startups-actually-need-to-understand-their-customers/>

Segment compared to some other useful tools

<http://www.stephenlevin.co/segment-vs-fivetran-vs-stitch-which-data-ingest-should-you-use/>

TDWI Report – What it takes to be Data Driven

<https://tdwi.org/research/2017/12/bi-all-ppm-all-best-practices-report-what-it-takes-to-be-data-driven.aspx>

Analytics and Data Engineering Journey

<https://medium.com/wish-engineering/scaling-analytics-at-wish-619eacb97d16>

Pick up the phone and call outliers

<http://firstround.com/review/im-sorry-but-those-are-vanity-metrics/>