

Herding Cats



Our Journey of
Migrating Dozens of
Oddball Telemetry &
Analytic Systems to
Apache Spark





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Master Architect/Strategist



20 Years in R&D, ~5 in BigData

MSEE / MBA

Technology Savvy Business Leader

Business Savvy Technology Leader

*Passionate for all things
Data, Advanced Analytics
and Business Value that
can be extracted...*

*Bottom Line, Im a
Data Junkie...*

*Feel free to stop me
in the hall and talk
shop...*

**2017
NBA
Finals**



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~330K Employees WW





~330K Employees WW



~50K Employees WW
Dozens of Sites WW

Print, Personal Systems &
3d Printing Business Groups

Products and Services

Expectation



Reality



APACHE
Spark

+



databricks

+





History & Challenges

- Coming to Terms with Harsh Realities



Envisioning the Future

- Spark/Databricks as a Cornerstone



Building Together

- Renovating the House, While Living In It...



History & Challenges

1999-2009

Data Stone Ages

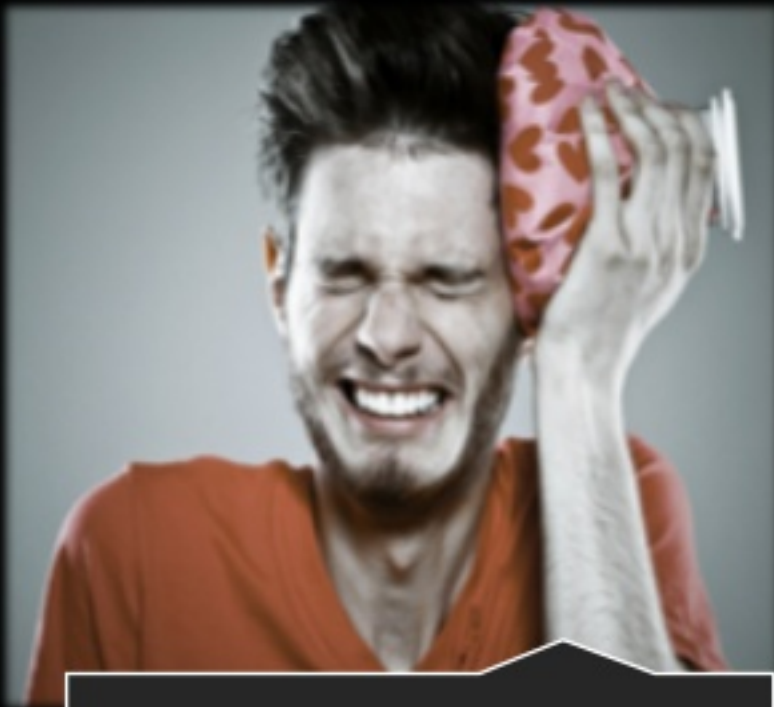


2010-2014

BigData Wild West



Circa 2015



**What have
we done...**



Inconsistencies



**Lots of
Problems**

Envisioning the Future



www.tesla.com/solarroof



Catalyst

- Acknowledging Harsh Reality
- Emergent Systems Thinking
- HP Global Virtual Community
- HP Corporate Split



Strategy

- Tangible Business Results & Efficiencies
- Enablement Focus
- Drive Alignment only on the Critical Few
- Architect for Empowerment & Data Democracy



Cloud Platform & Data Lake



Data Analysis Framework



Data Format & Warehouse



Data Analysis Tooling

IT Managed

Cloud Hosted

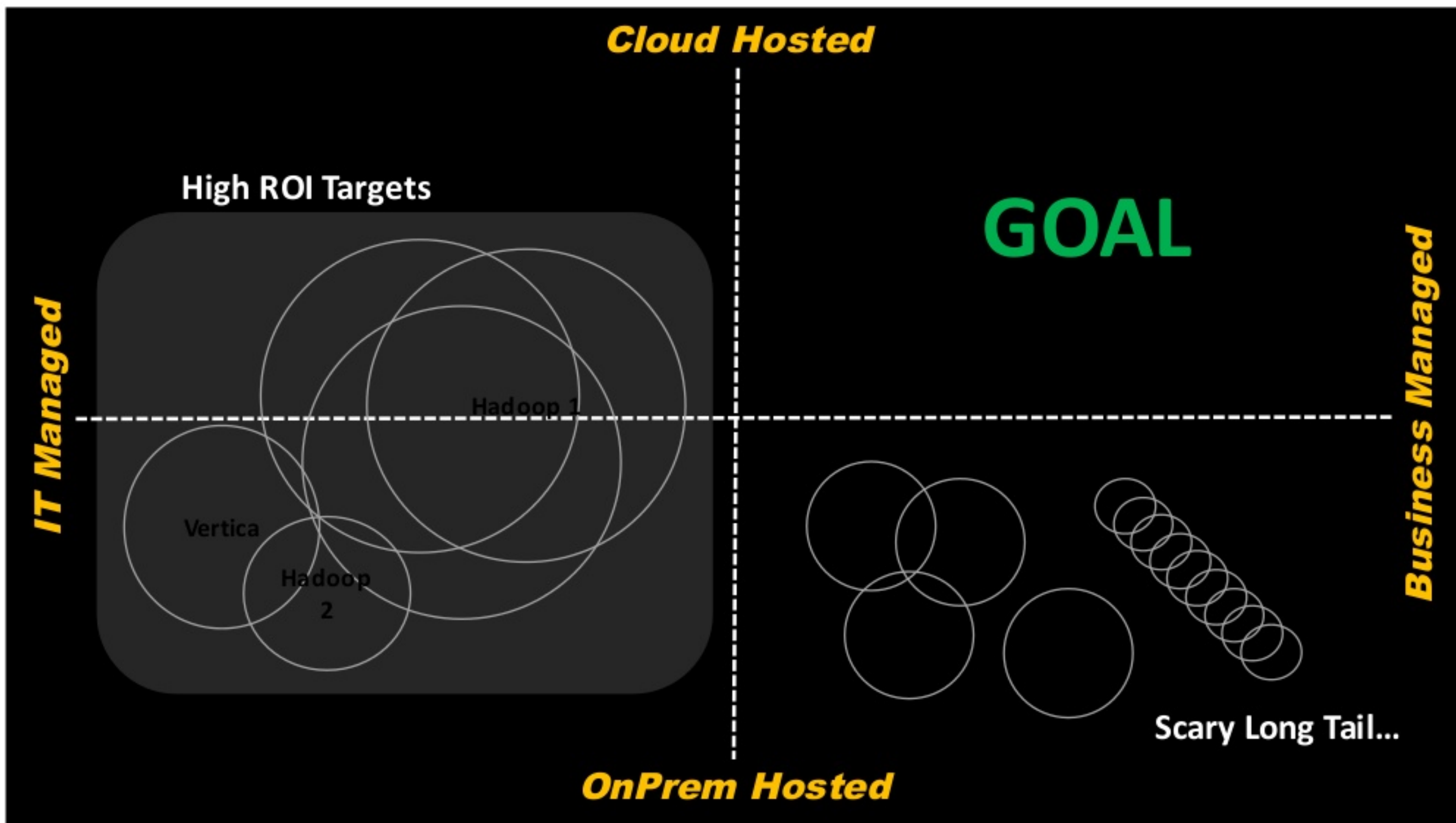
GOAL

Business Managed

OnPrem Hosted

Building Together



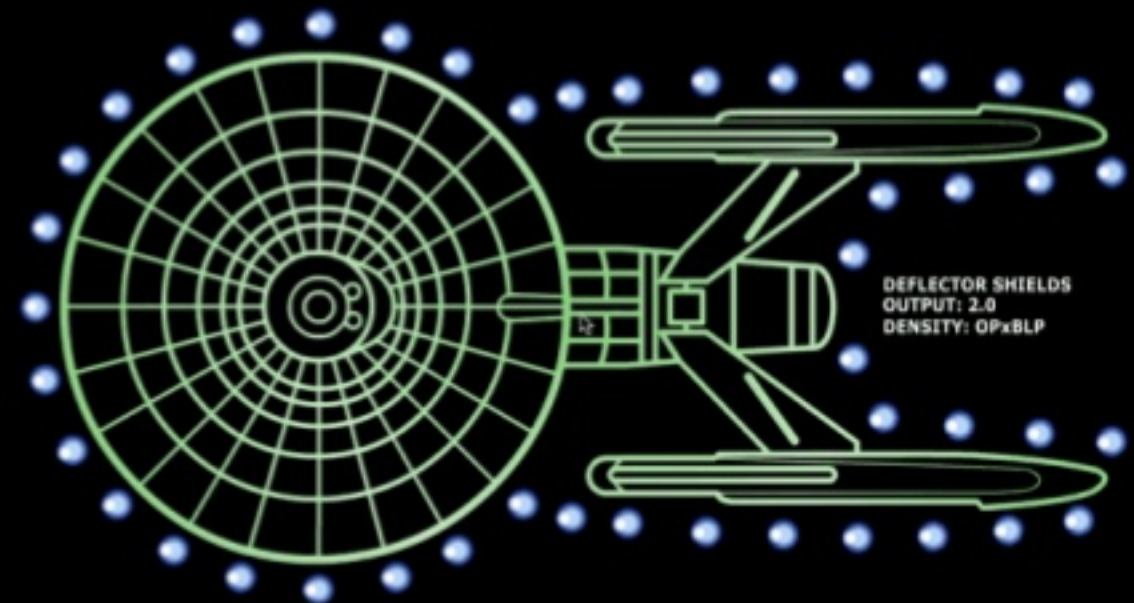


Talking to Business Teams & Engineers

Scary Things for Them to Hear

Hi, I'm from IT,
and I'm here to help.

Hi, we have a new platform
that you need to adopt/pilot.



IT Managed

Cloud Hosted

High ROI Targets

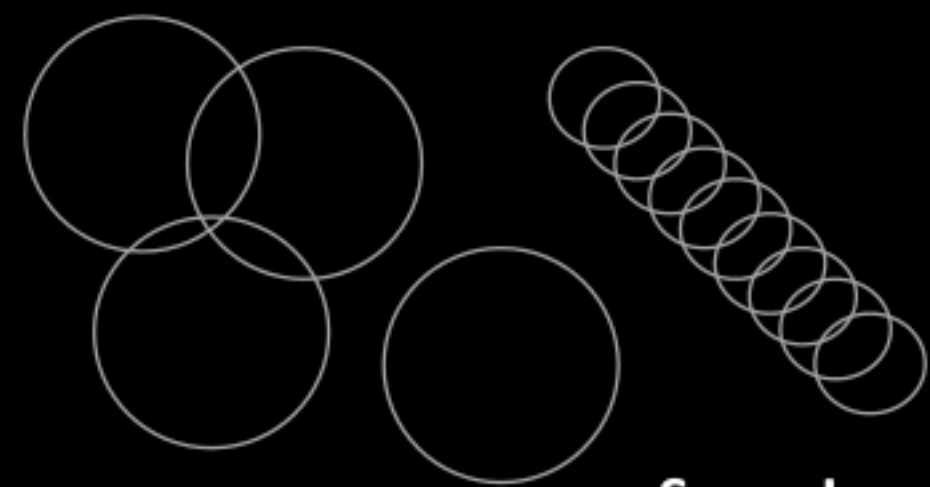
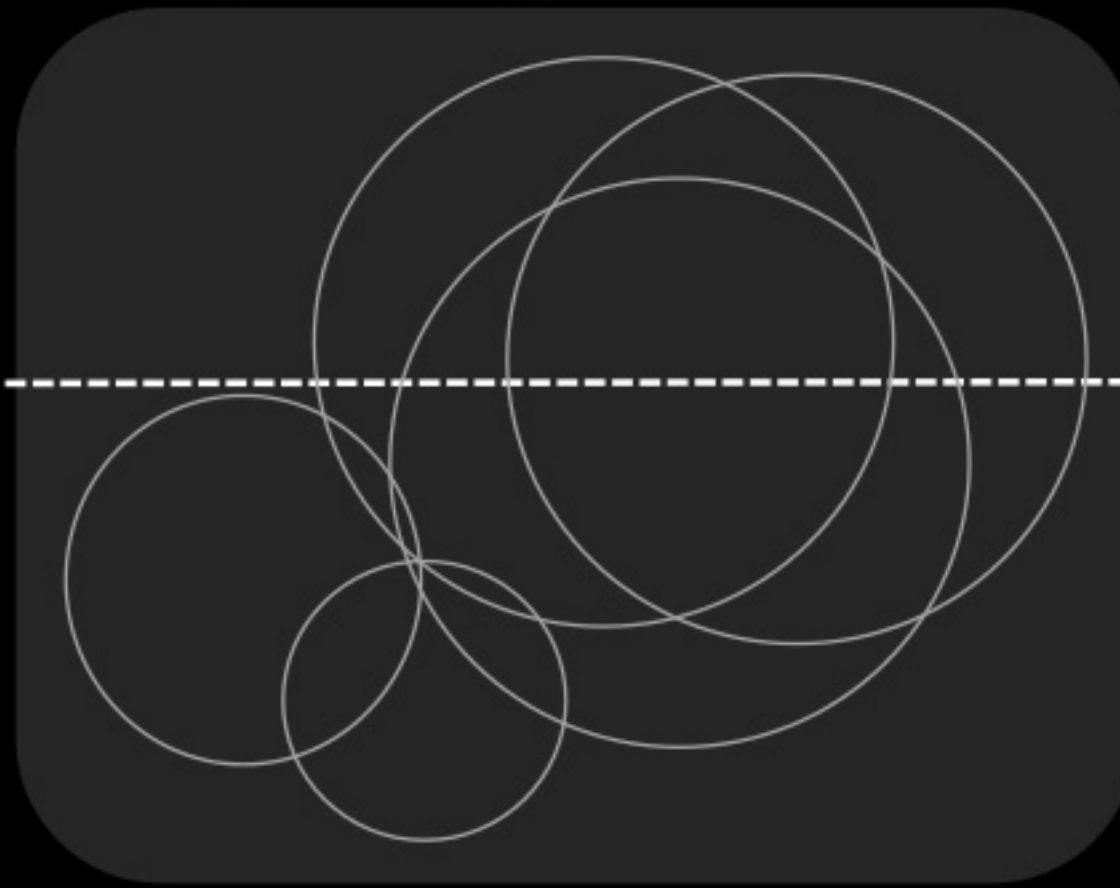
GOAL

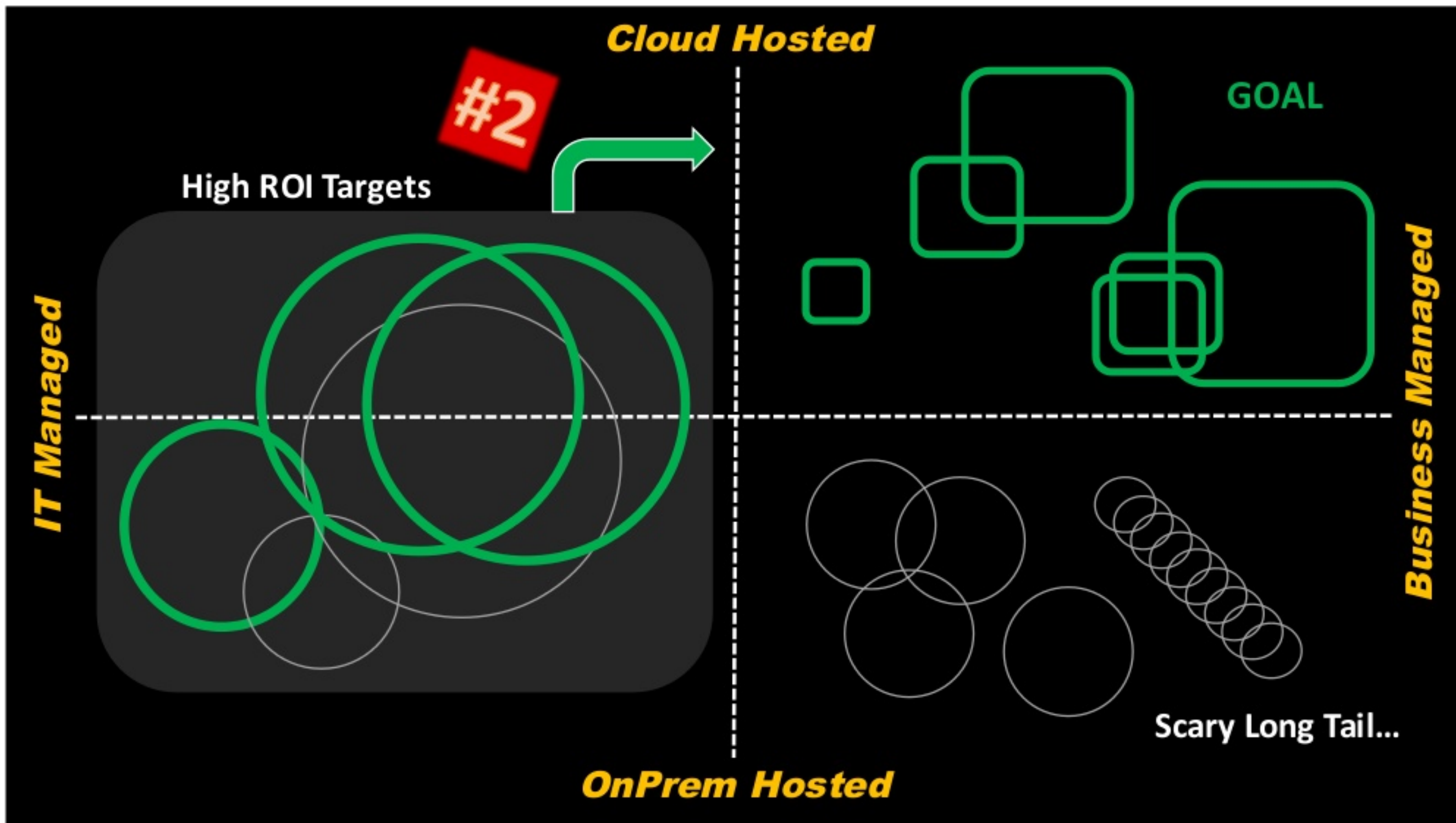
#1

Business Managed

OnPrem Hosted

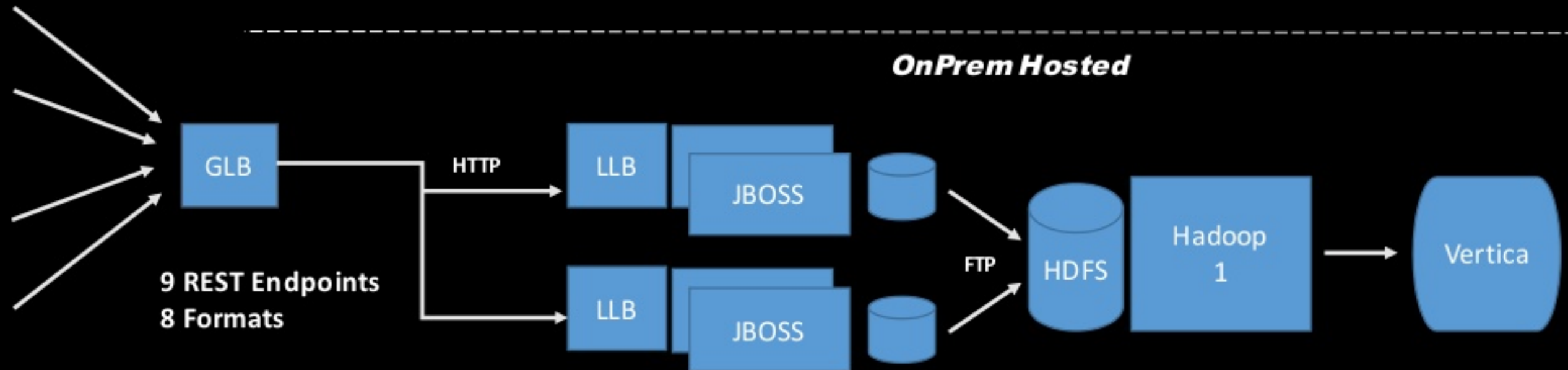
Scary Long Tail...





Example – Print Telemetry with ~3 Billion Data Points / Day

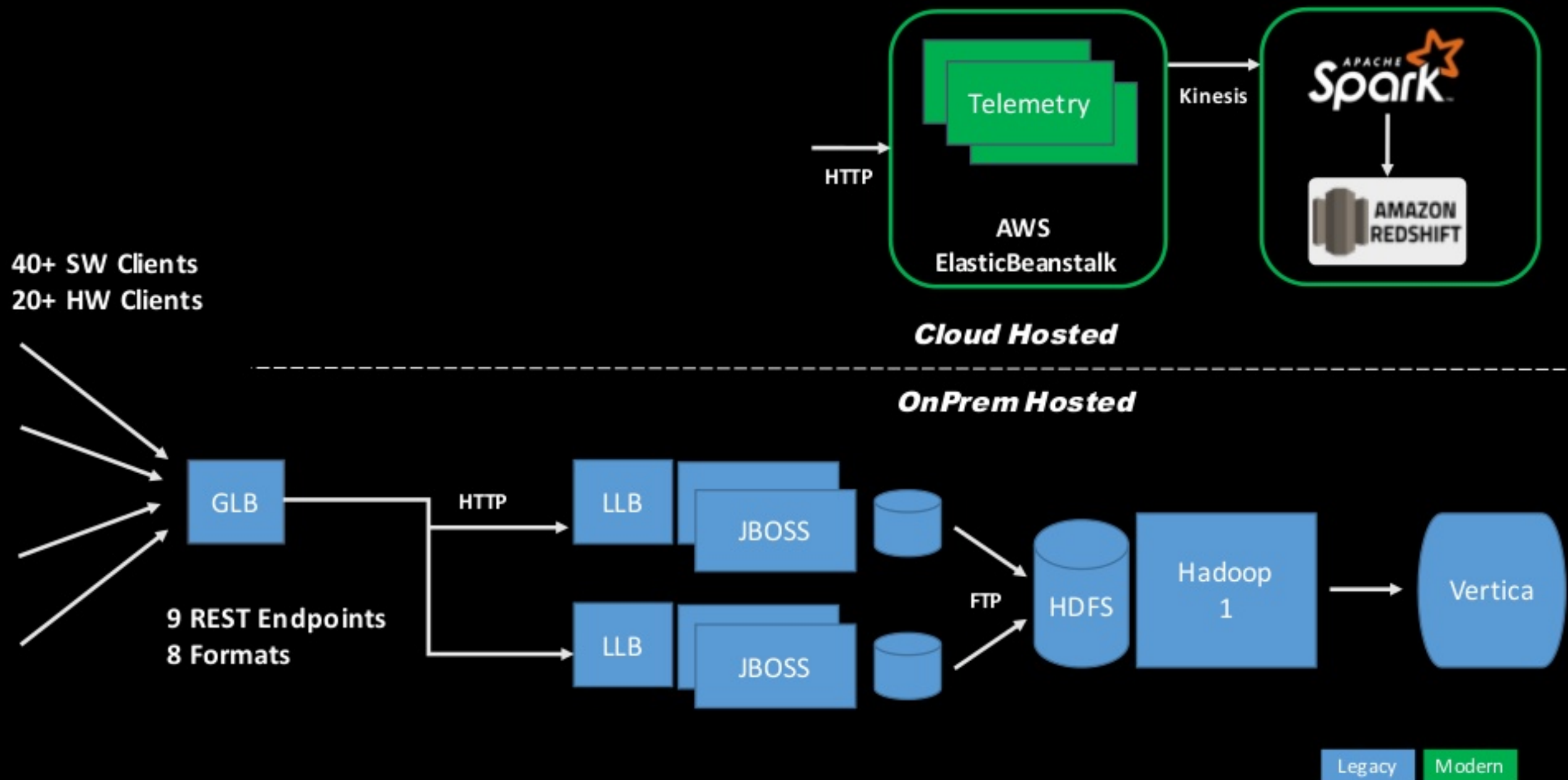
40+ SW Clients
20+ HW Clients



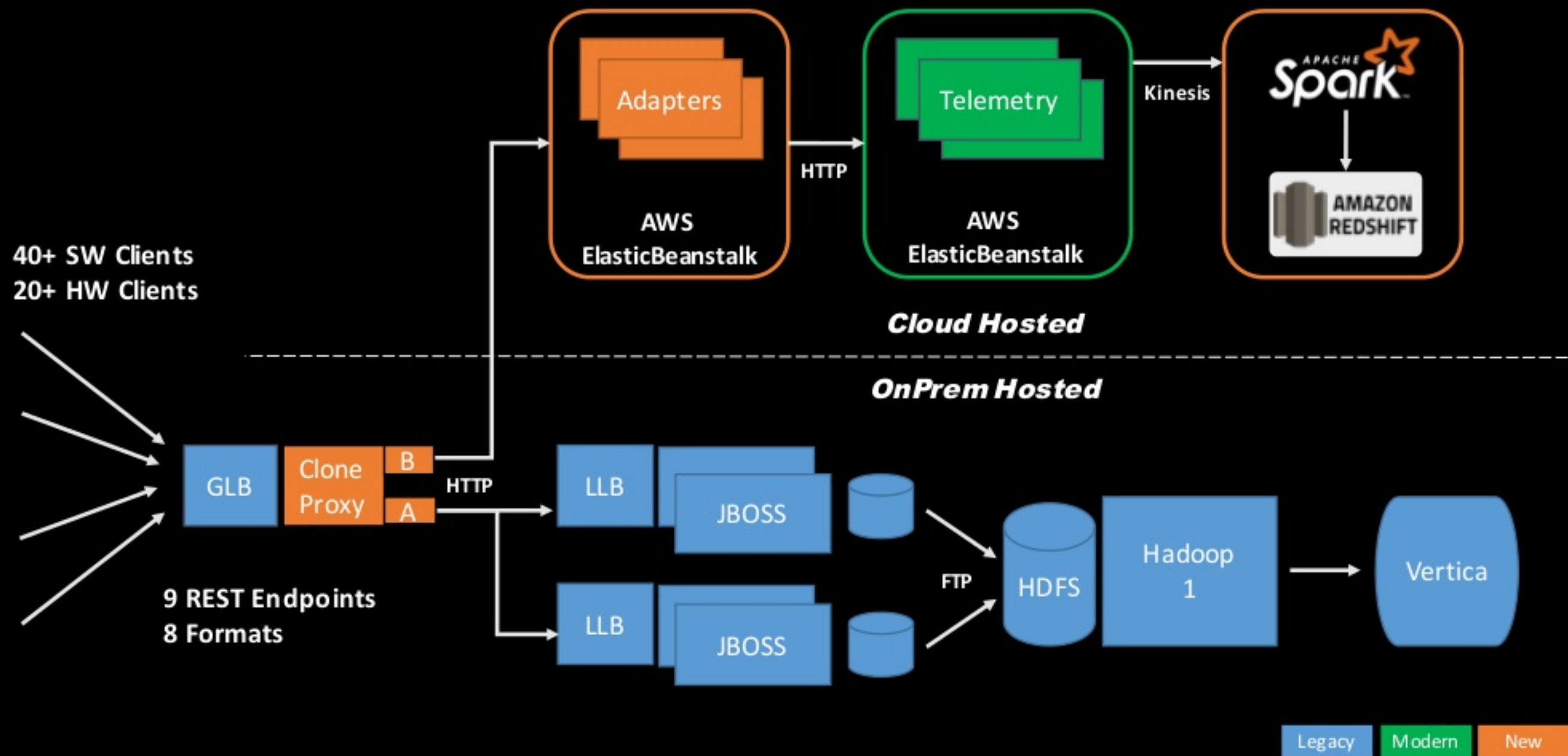
OnPrem Hosted

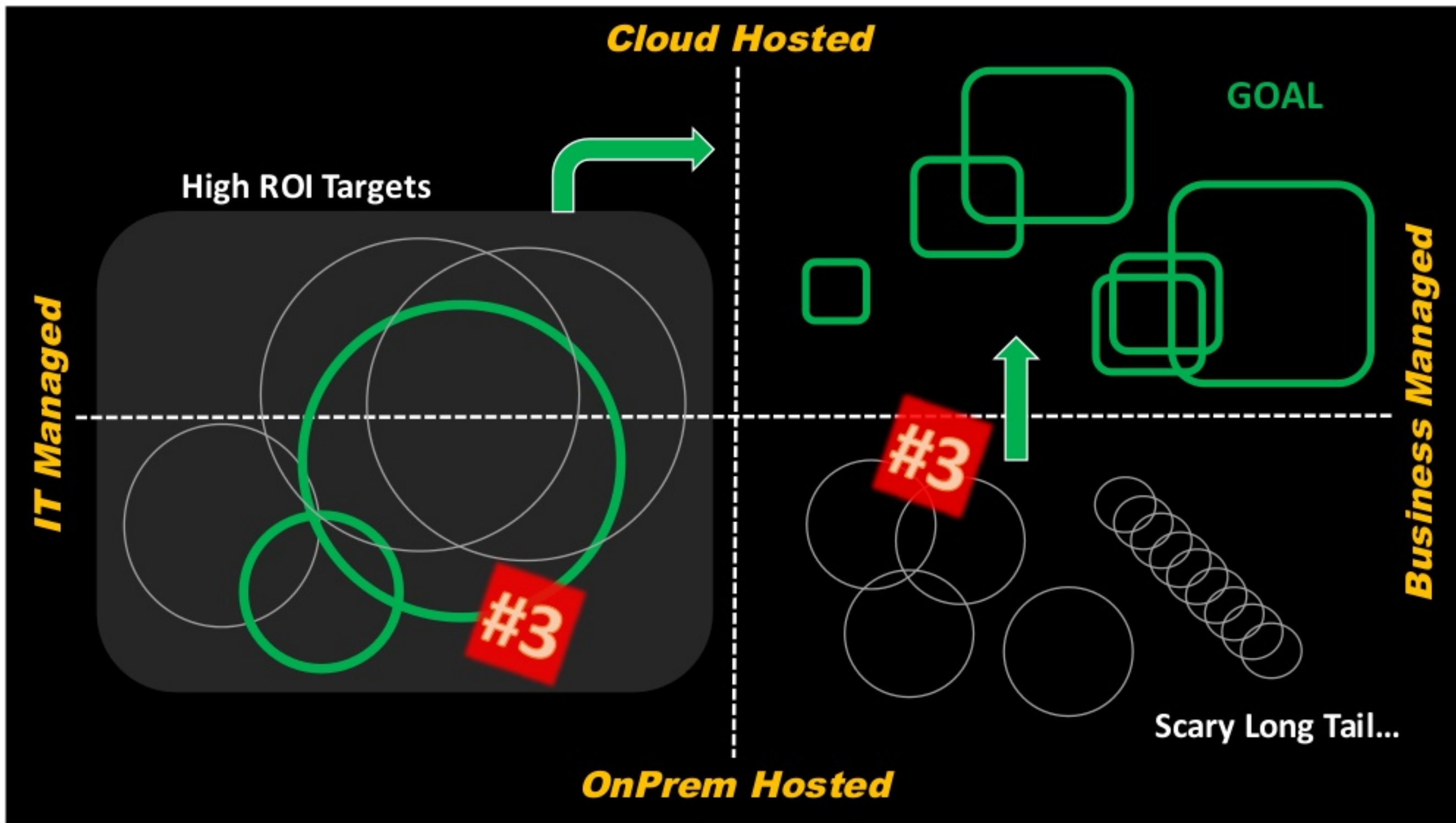
Legacy

Example – Print Telemetry with ~3 Billion Data Points / Day



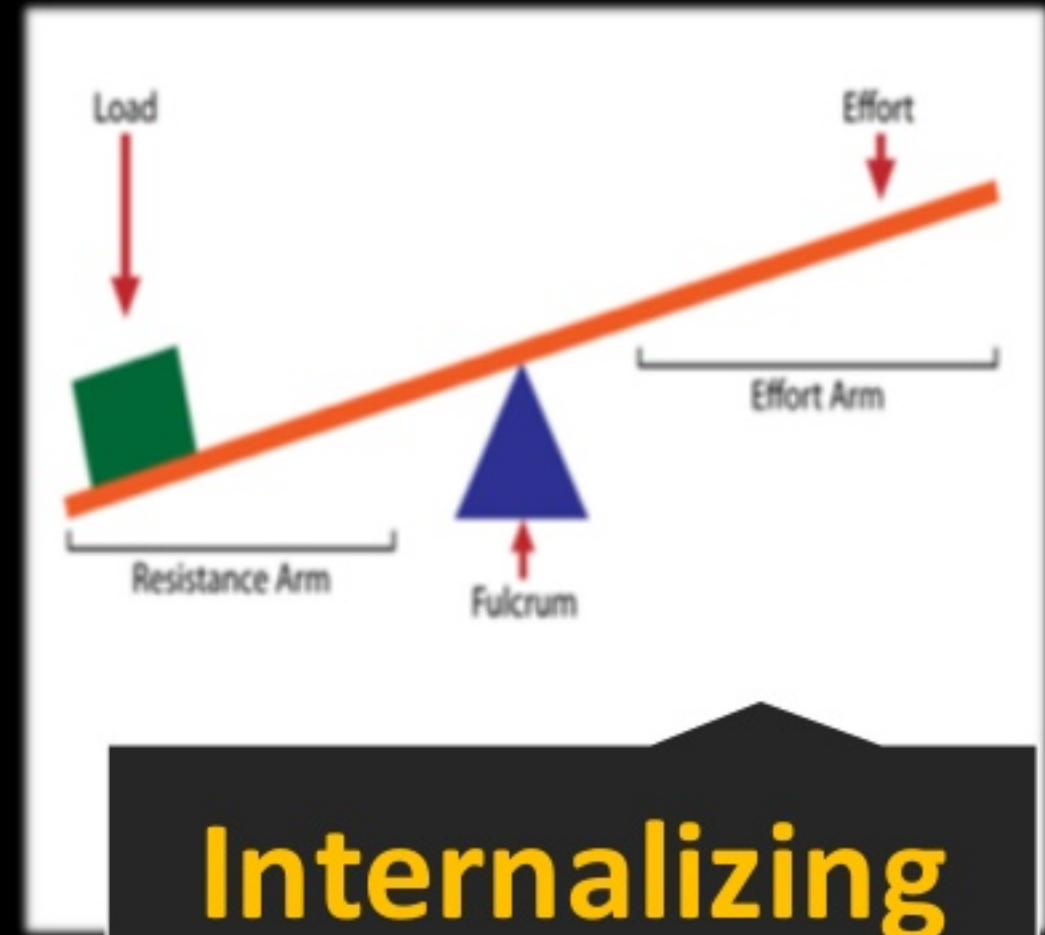
Example – Print Telemetry with ~3 Billion Data Points / Day







**Overcoming
Fear**



**Internalizing
Benefits**



Journey not a Destination

Discovered Gaps

- Shared Services (Geo)
- Dataset Registry
- Schema / DataDictionary Registry
- Foreign Data Replication

Strategic Siblings

- Data Telemetry Initiative
- Machine Learning Emphasis
- DataScience Education & Careers
- University Partnerships

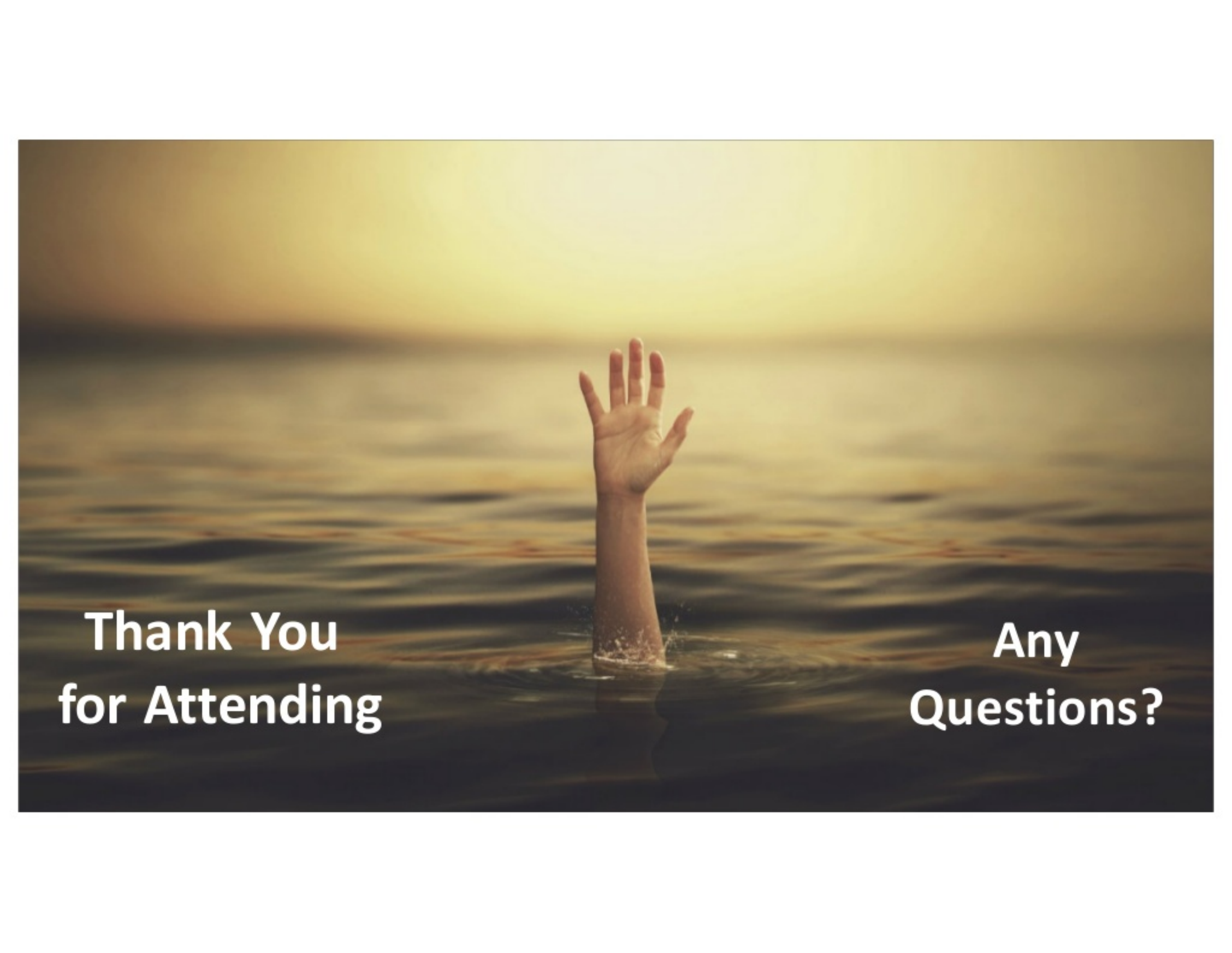


**Ultimately Data/Analytics are culture,
but start with a Tribe & Community**

**Focus on Enablement, Architect for
Empowerment & Data Democracy**

**Tools/Technology are important, but
people are what make things happen**

**Change is hard, but a Community will
have the change agents you need**

A photograph of a hand reaching up from the water at sunset. The hand is positioned in the center of the frame, with fingers spread. The water is dark and rippled, and the sky is a warm, golden yellow. The overall mood is serene and hopeful.

**Thank You
for Attending**

**Any
Questions?**

Acknowledgements & Media References

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