

# *Culture and the Games People Play*

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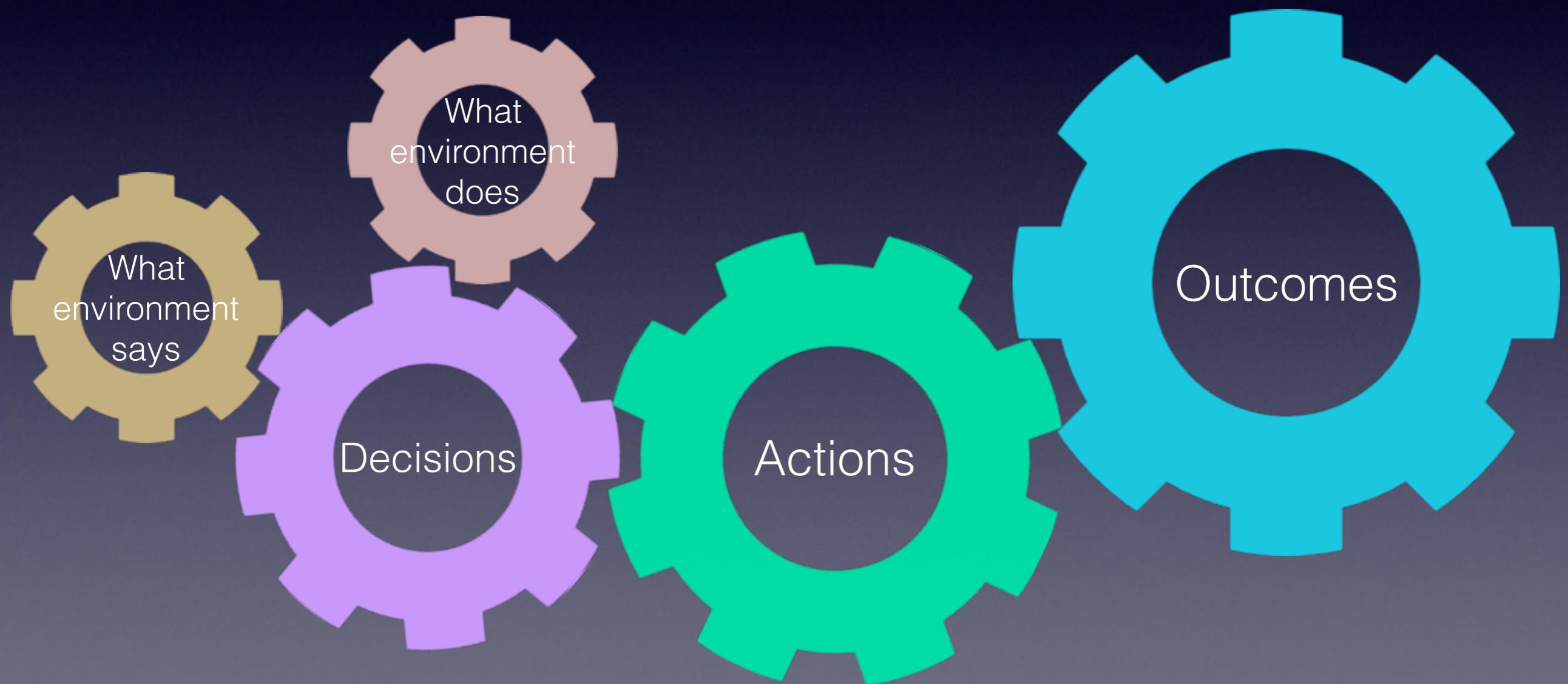
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**SHALL WE PLAY A GAME?**

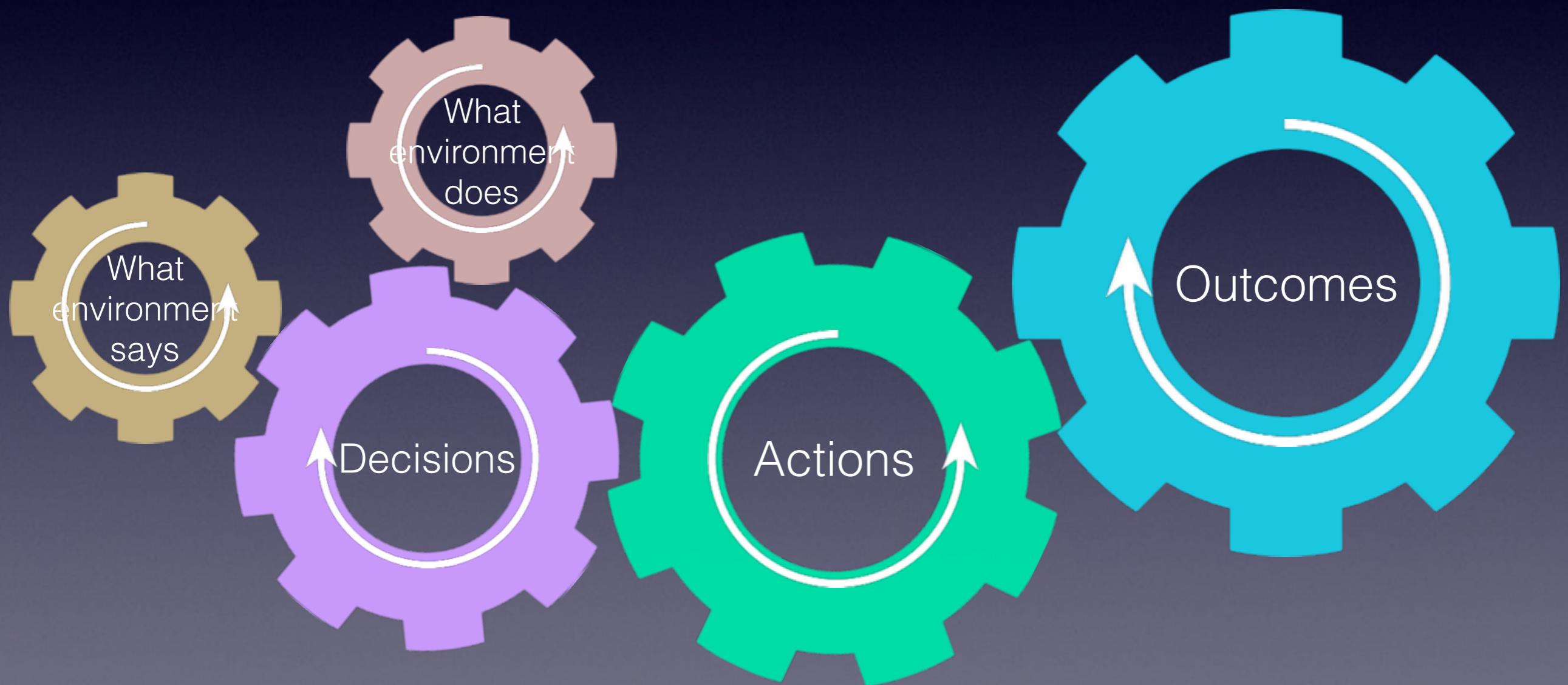
# What We Want

(And How We Get It)



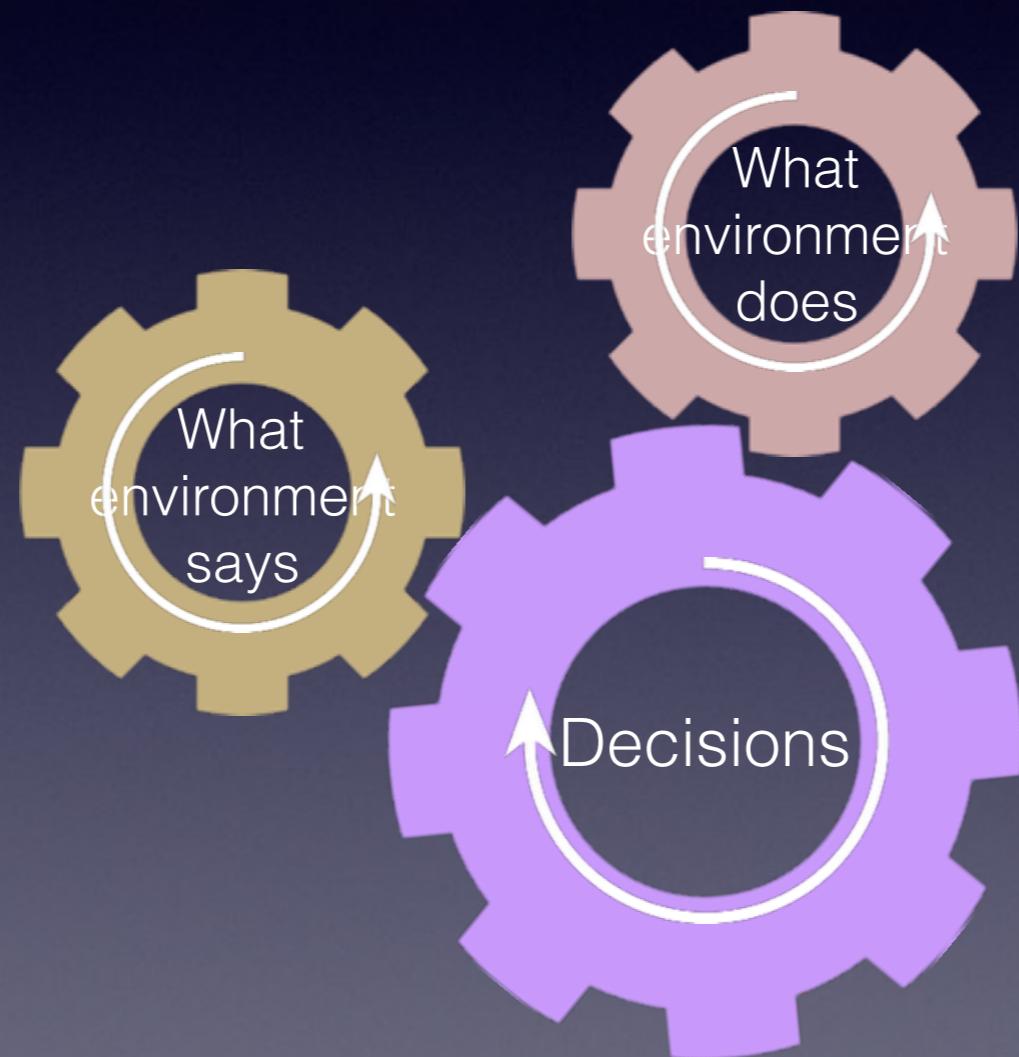
# What We Want

(And How We Get It)



# What We Want

(And How We Get It)



# What We Want

## (And How We Don't Get It)



# What We Want

## (And How We Don't Get It)



# Test #1 Attendance Award

# A Word About Netflix ...

## Culture

- Clear Priorities
  1. Innovation
  2. Availability
  3. Cost
- Hire smart, experienced, people
- Get out of the way
- Anti-process bias

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In Practice ...

# The Before Time

Dozens of SSL Certificates

Decentralized

Kept Expiring

Hilarity would ensue

Amazon Resources

“No Preset Limit”

You know when you hit it

Hilarity would ensue



# The Before Time

Well-developed Developer Ecosystem

Service Discovery

DB Client

Credentials Management

Memory Object Cache

Server Infrastructure

Telemetry

You wanted that for Java, right?



# The Before Time

Just moved from IT/Ops

Formally tasked with SSL cert  
issue as quarterly goal

Limits issue “tacked” on

“Effective” in Python

Didn’t know Java



Presenter Selfie



# No Problem!

Ported necessary libraries to Python

Boss was dubious. Really dubious.

Ran into security problem

Introducing Jay

# Democratized Innovation

What would you say you do around here?

Story Time: Shark Tank

# Surprise!

Conceived by Reliability Engineer  
Remote Telemetry Network

Teams involved:

Reliability Engineering  
Insight Engineering  
Performance Engineering  
Some others ...

“Proof-of-concept work  
on Ansible  
configuration  
management for Gulo  
and Hammerhead.”

I want:

# Collaboration and Selflessness

Avoid Zero-Sum Games

Stack ranking

Fixed bonus / raise pools

No ranking/quantifying

Reviews != raises

Decentralize collaboration

Align goal

**Act In Netflix's Best Interests**

# Test #2

# Early Birds, Late Worms

I want:

# Decentralized Innovation Autonomy and Independence

Bets and Risk Tolerance:  
a Story of Failures

# Losing Bets

18 month report card (estimated)

Security Monkey	Success
Howler Monkey	Success
Exploit Monkey	Failure
Python	Success
Service SLA Dashboard	Failure
Alert Outsourcing	Success
Alert Response Analytics	Failure
Alert Gateway	Success
Alerting GUI	Success
Latency Monkey Adoption	Fizzle
Stateful Alerting	Failure
Open Application Alerting	Failure

50% Failure Rate

I want:

Decentralized Innovation  
Autonomy and Independence

An Engineering Manager Walks Into  
an Override Bar ...

# The Override Bar

Asgard: Full-fledged cloud  
orchestration  
GUI-driven  
Region-and-account  
specific

# The Override Bar

Four regions

Eight accounts

Hundreds of clusters

# The Override Bar

A Bold Proposal

Totally duplicates functionality

Customized fit

Failed the override bar:

Am I sure this is the wrong thing?

If I'm right, will this be very expensive for us?

# The Override Bar

Accomplished predicted results

Massively simplified operational processes

Improved resiliency and velocity

Unpredictable results

Used by other teams

Inspiration

Will retire

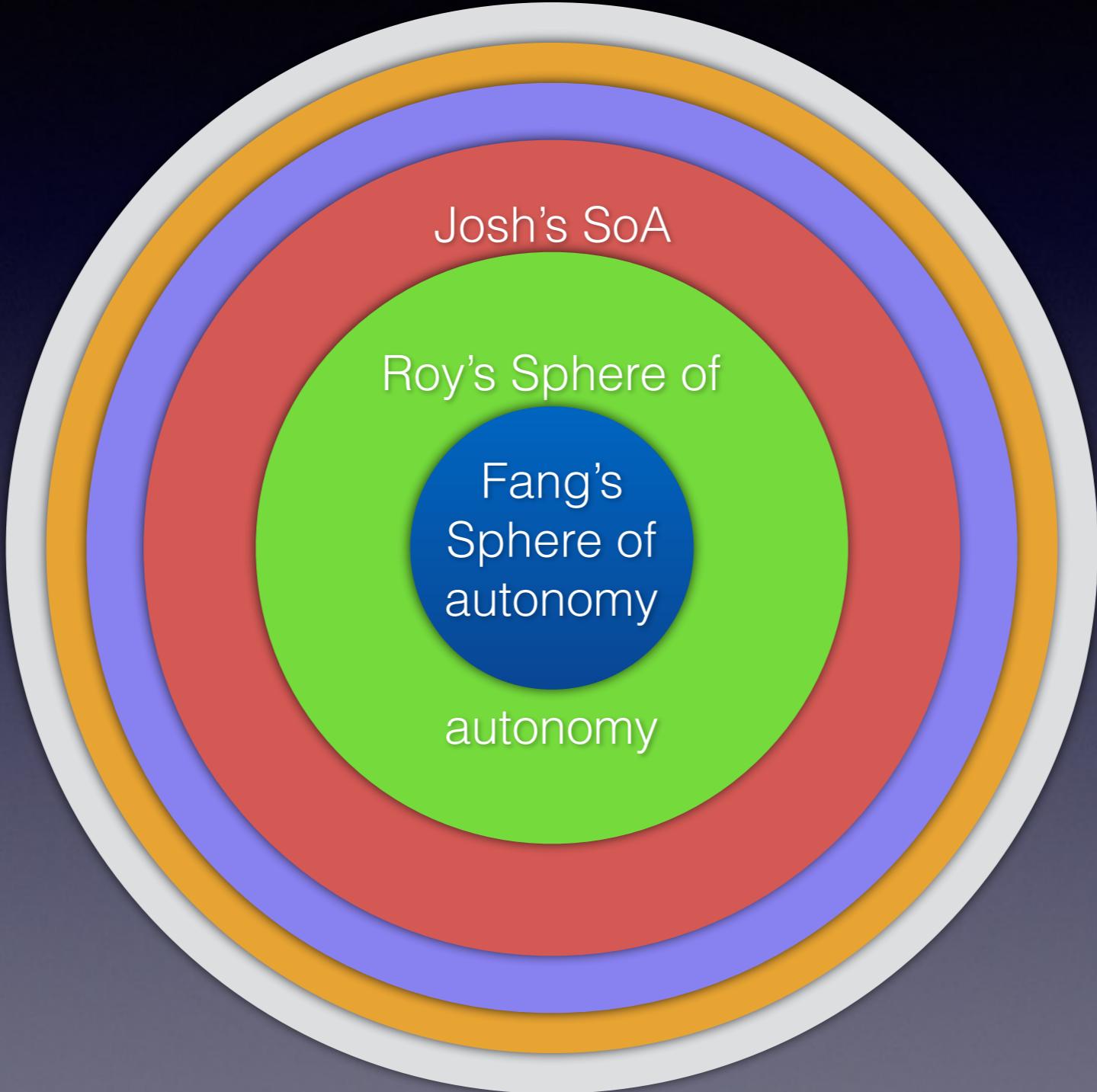
I want:

# Decentralized Innovation Autonomy and Independence

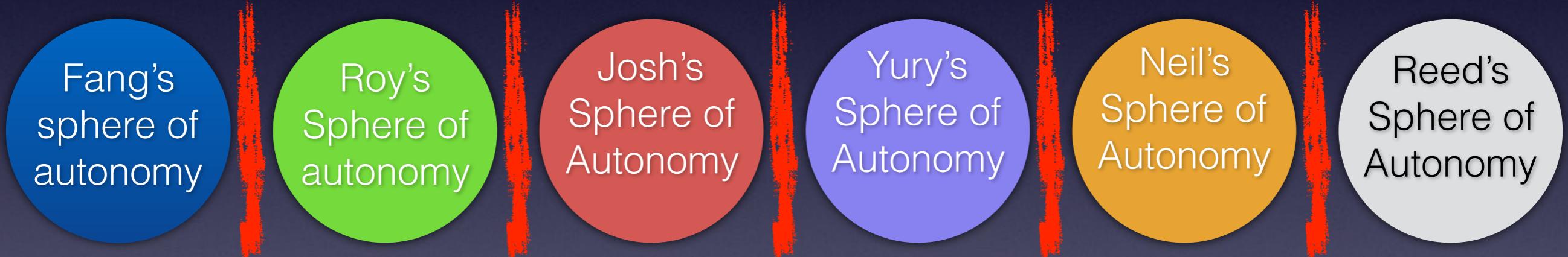


Spheres of Autonomy:  
Staying DRI

# Concentric Spheres of Autonomy



# Spheres of Autonomy: A New Model



# Spheres of Autonomy: A New Model



**Set context. Not control.**

# Spheres of Autonomy: A New Model



Keeping Peers DRI

# Test #3

# Lucy and the Ball

# Literally\* no downsides!

Predictability tradeoffs  
Locality optimization  
Duplication  
Duplication



\* For very non-literal definitions of the word “literally”

# Agility vs Predictability



Neither is bad

Probably need some of both

Do you know how much you want?

Do you have it?

# Agility vs Predictability



Optimize for agility

Constrain predictability

Some things are important to predict

Public KPIs

Big product plans

Fewer are important than you may think

# Locality Optimization

Or lack thereof

If a Thing can be built anywhere  
Not always in the best place

Extra work

# Locality Optimization

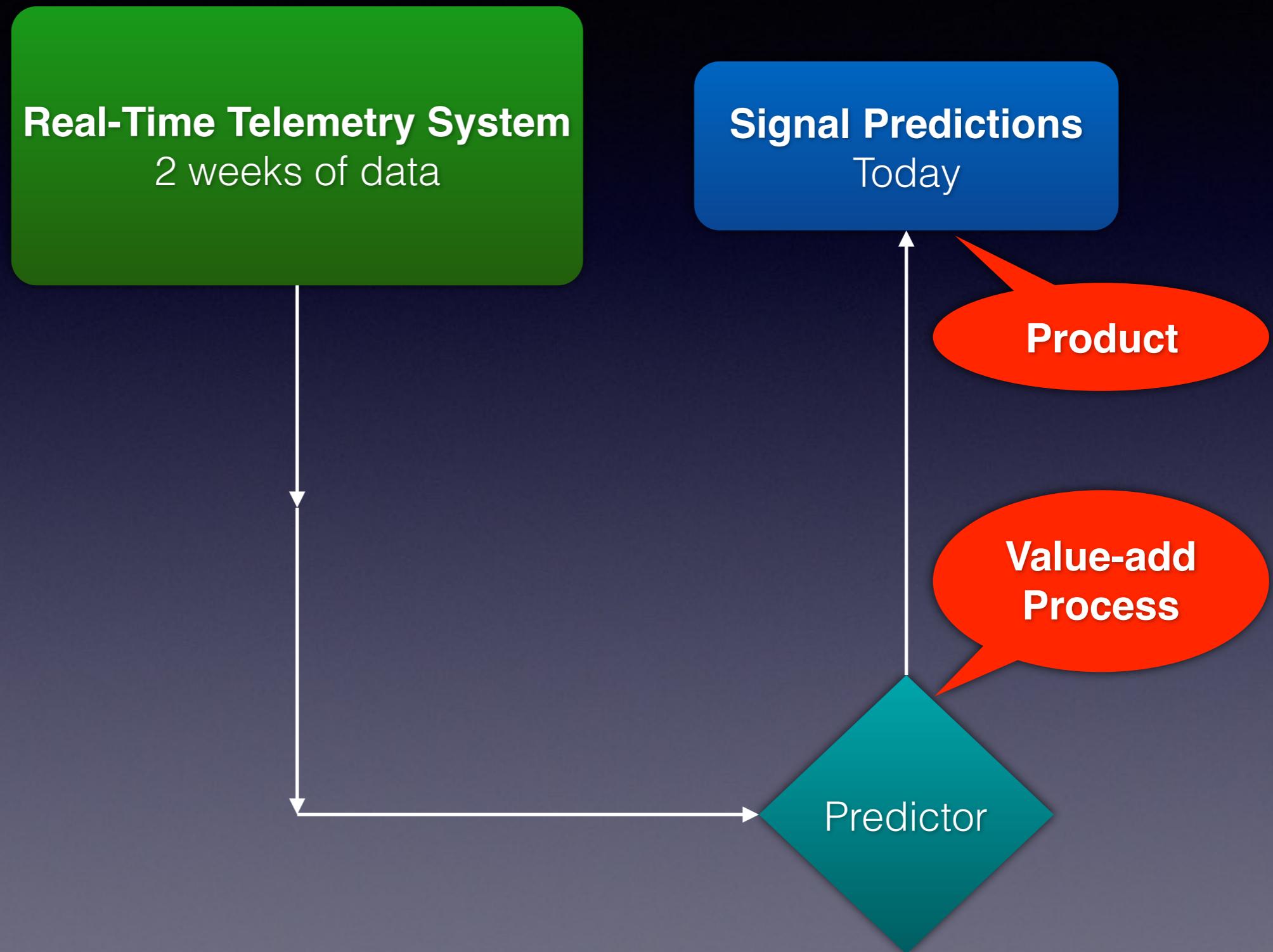
Or lack thereof

Story Time: Scryer

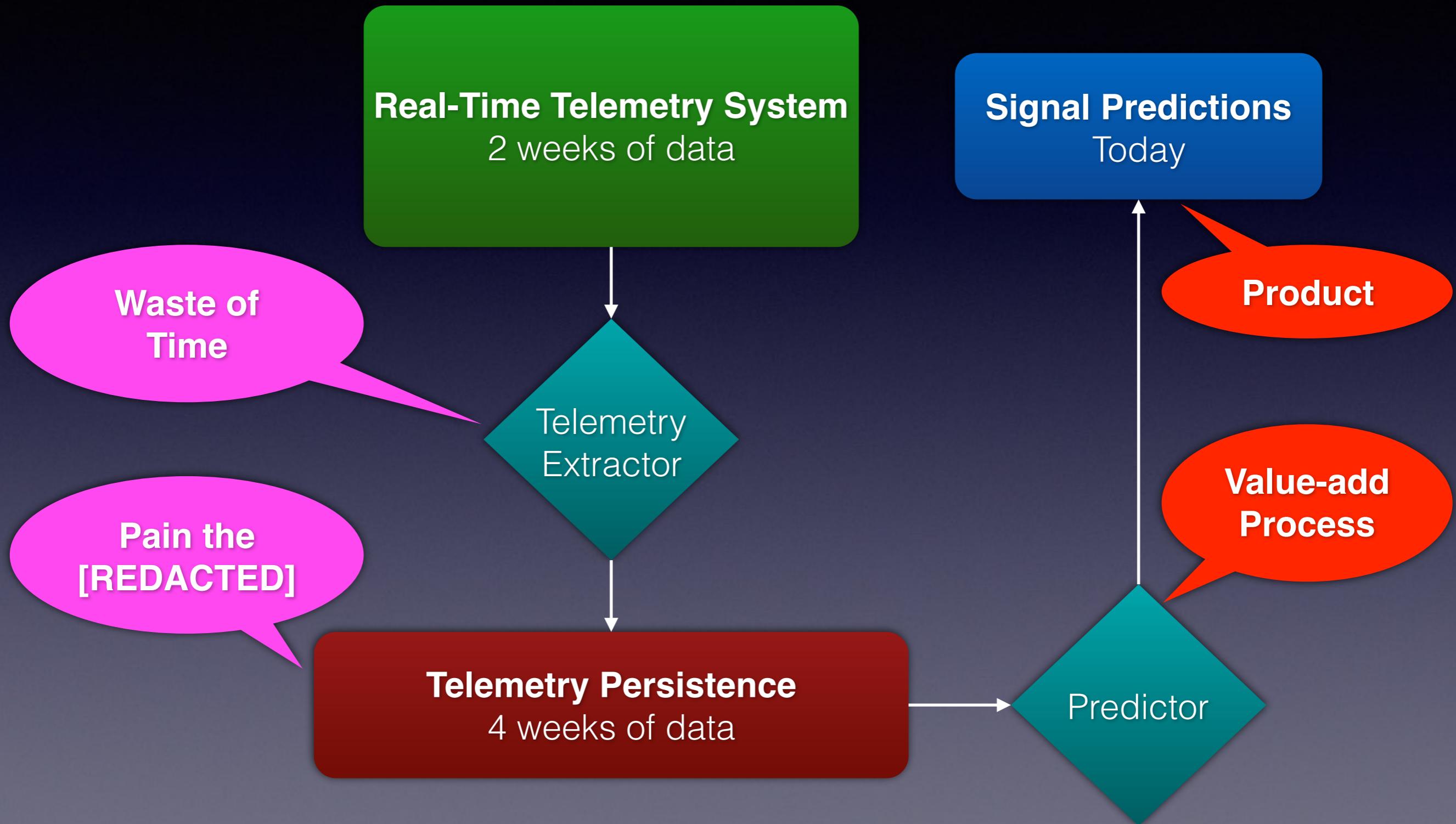
# Scryer: Start State

**Real-Time Telemetry System**  
2 weeks of data

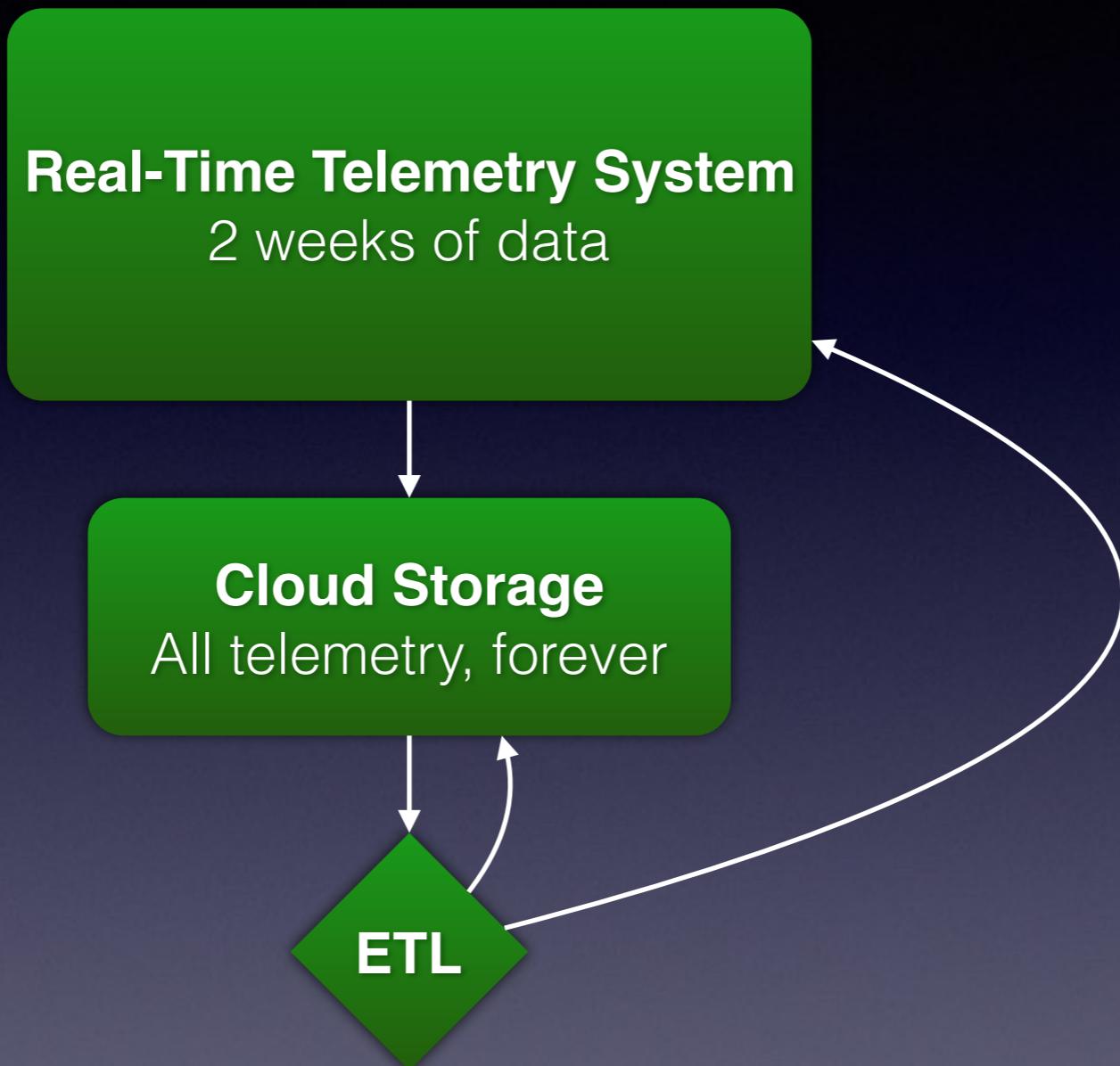
# Scryer: Goal



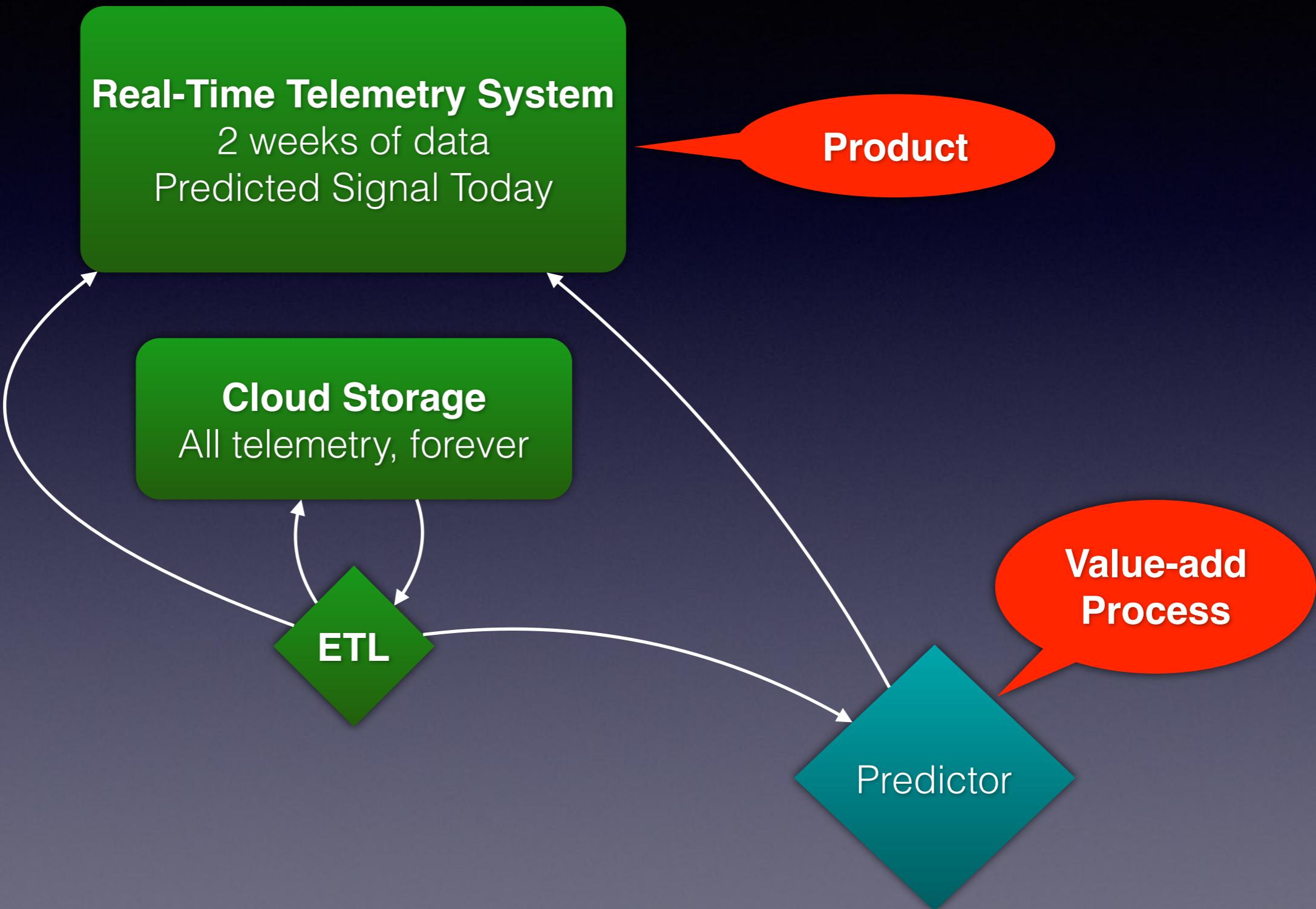
# Scryer Architecture, v1



# The Thing Is ...



# Scryer Architecture, v2



# Test #4

# Making Friends \$100 At a Time



***the***  
***STRADMAN***

"I only want to ride the wind  
and walk the waves, slay the  
big whales of the Eastern sea,  
clean up frontiers, and save  
the people from drowning.

Why should I imitate others,  
bow my head, stoop over and  
be a slave?" - Lady Triệu



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And the Rands Leadership Slack