

Culture and the Games

People Play

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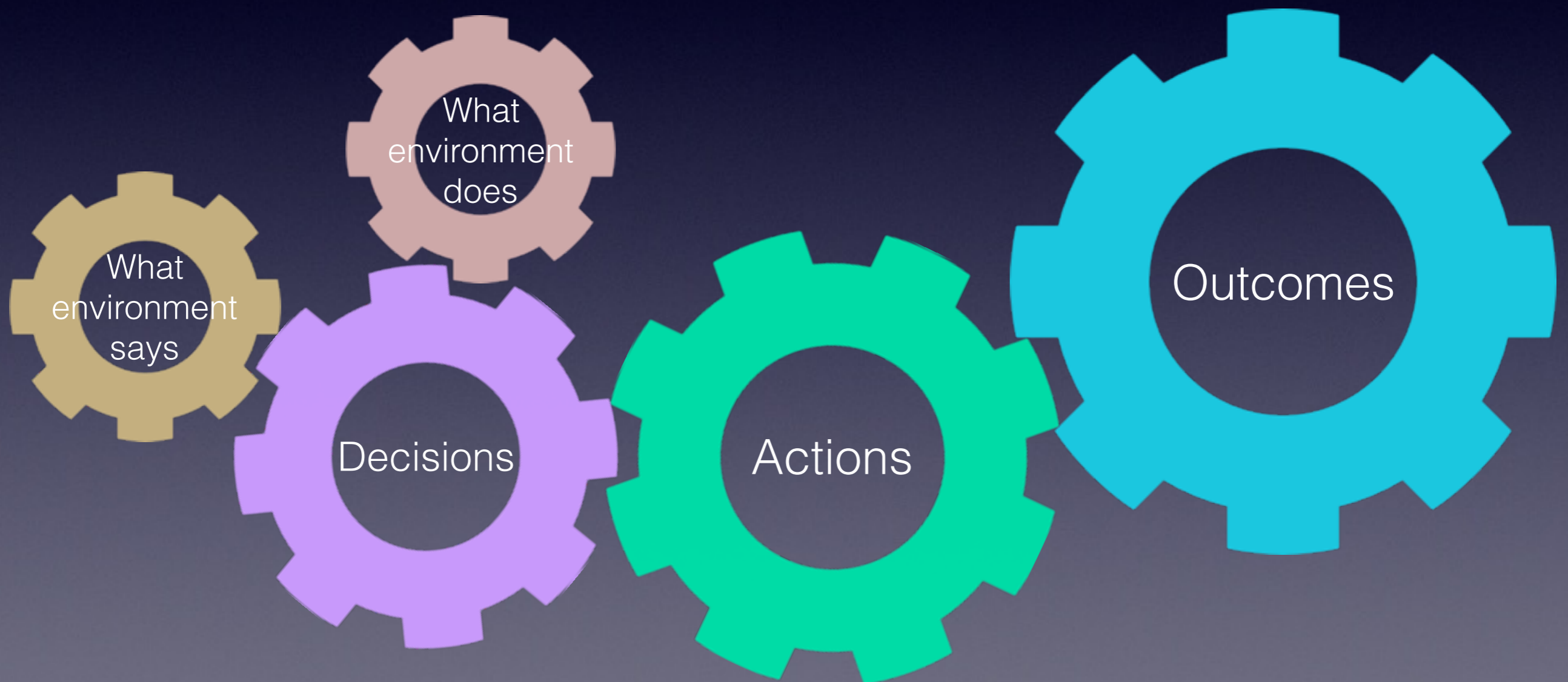
NETFLIX



SHALL WE PLAY A GAME?

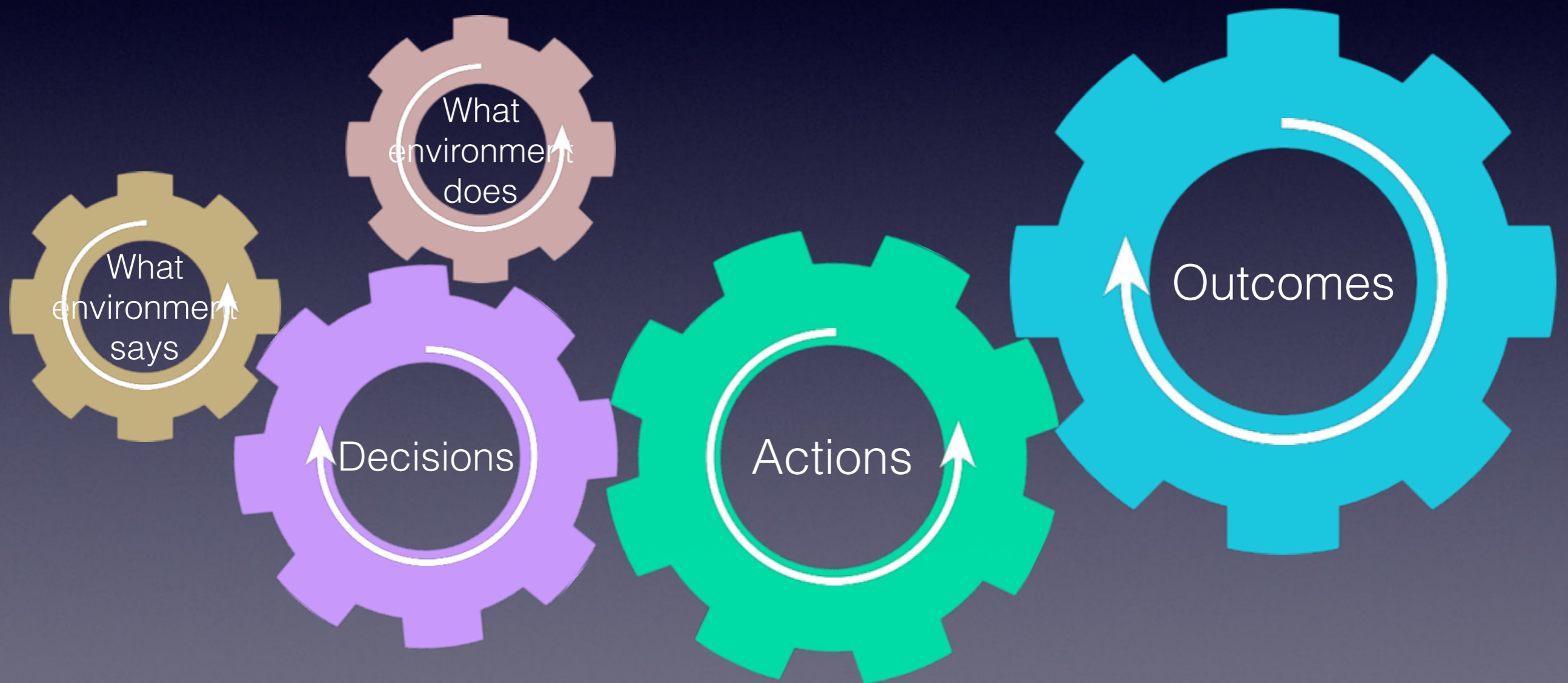
What We Want

(And How We Get It)



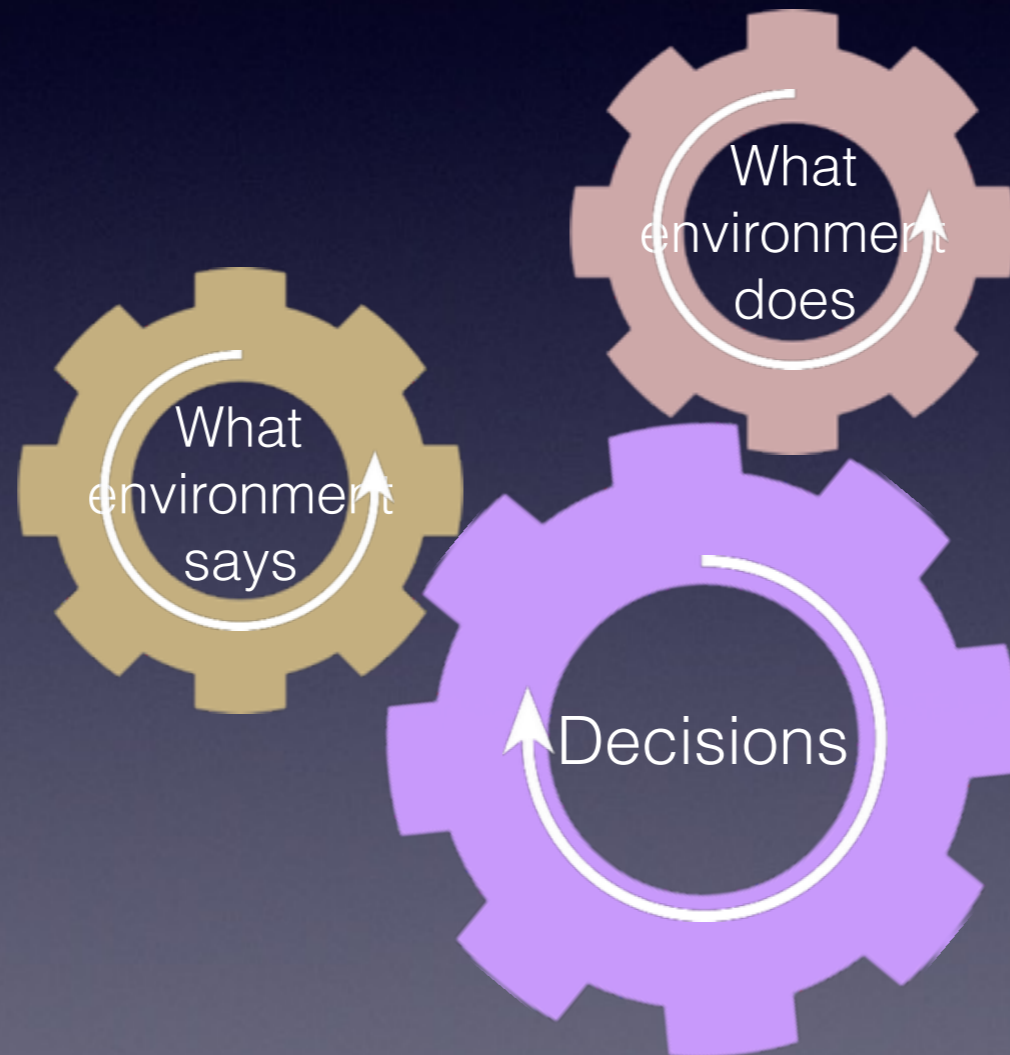
What We Want

(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

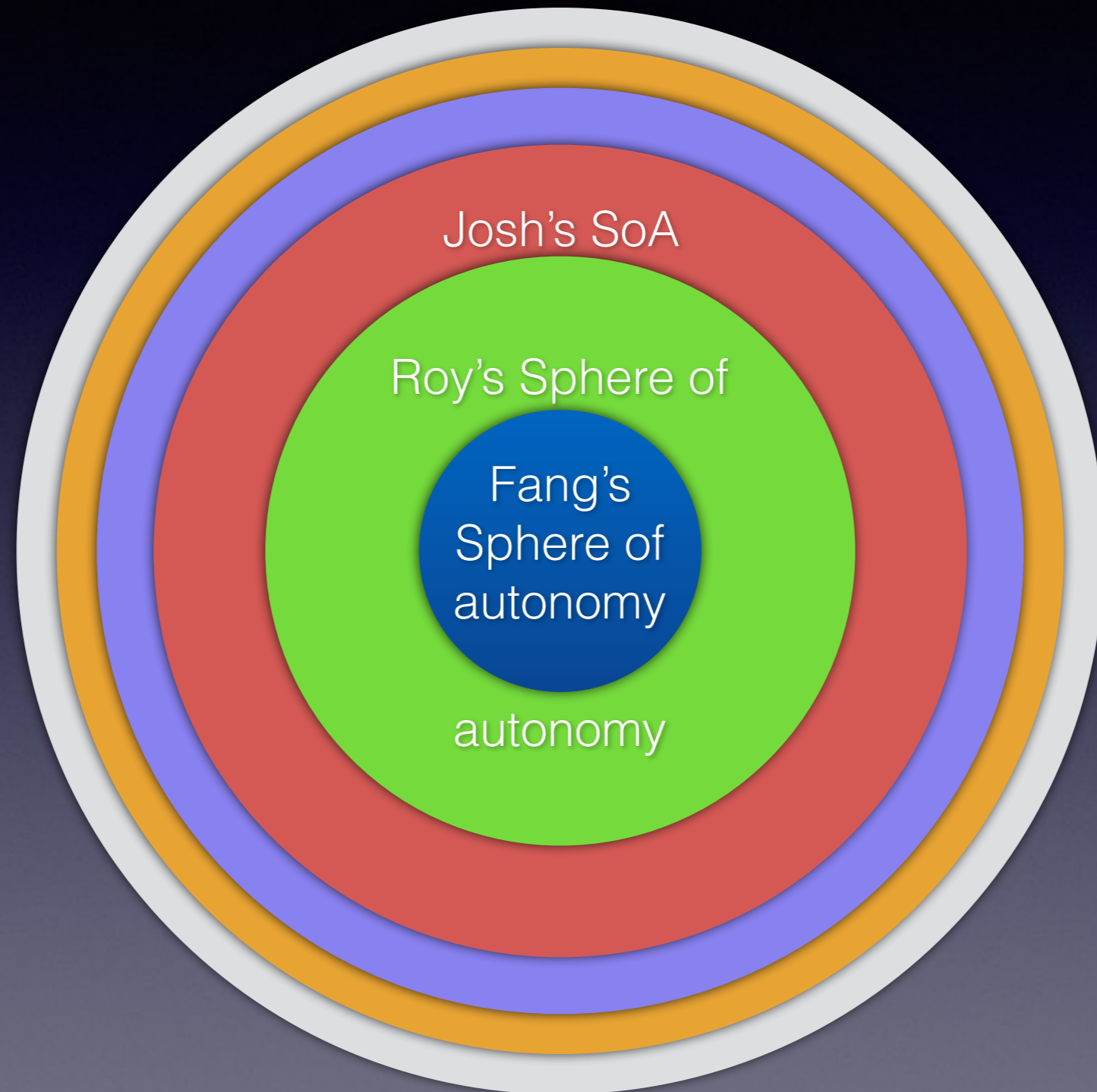
I want:

Decentralized Innovation Autonomy and Independence



Spheres of Autonomy:
Staying DRI

Concentric Spheres of Autonomy



Spheres of Autonomy: A New Model

Fang's
sphere of
autonomy

Roy's
Sphere of
autonomy

Josh's
Sphere of
Autonomy

Yury's
Sphere of
Autonomy

Neil's
Sphere of
Autonomy

Reed's
Sphere of
Autonomy

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



Pick a word or two from the front of this card and draw or write about them.
Then add the card to our 'feedback wall'.

Name Evie Netherwood Unicorn Apocalypse
Gender Unicorn Age immortal
(I've lost track.)

* For very non-literal definitions of the word "literally"

Agility vs Predictability

Agility

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

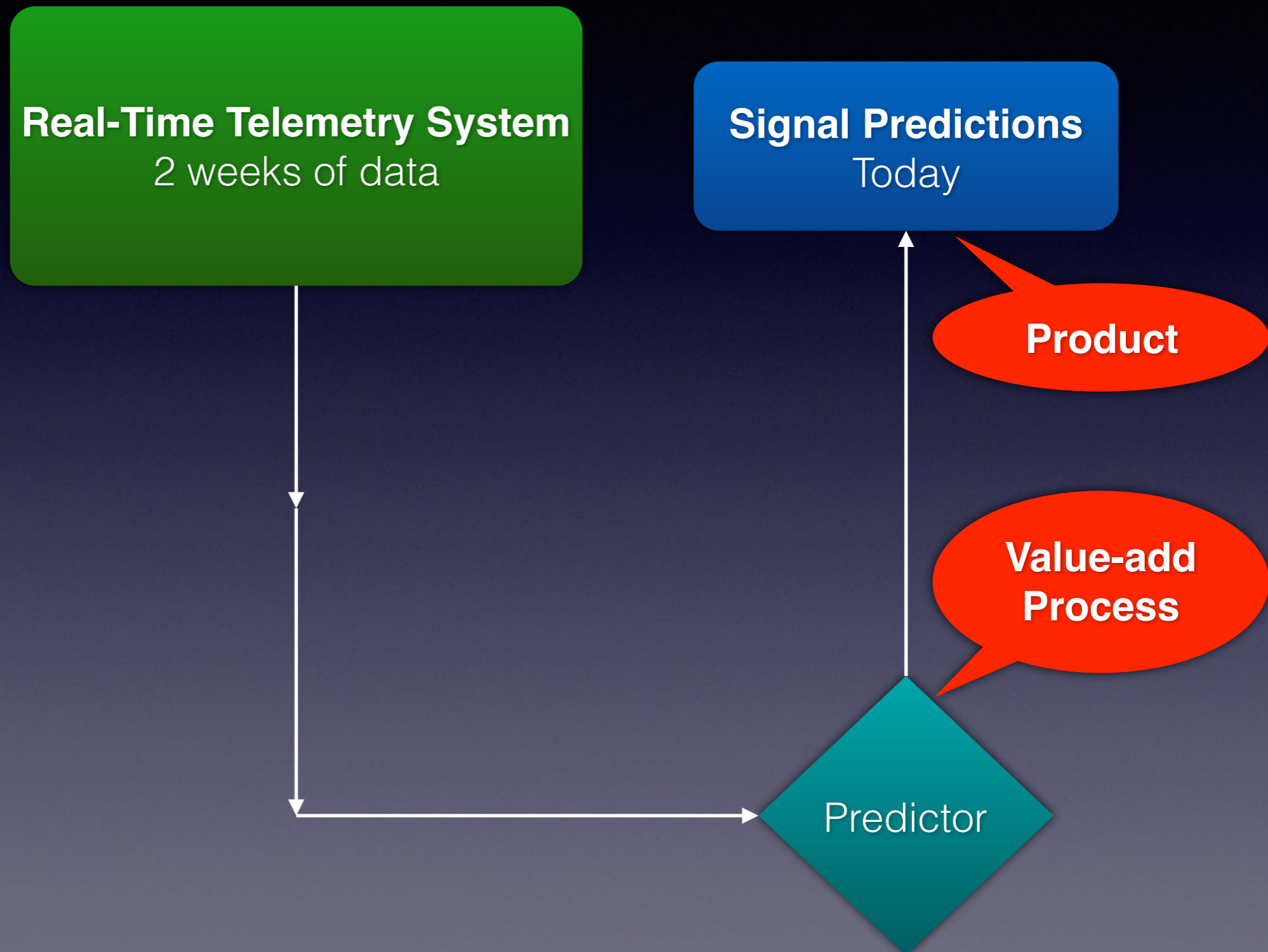
Or lack thereof

Story Time: Scryer

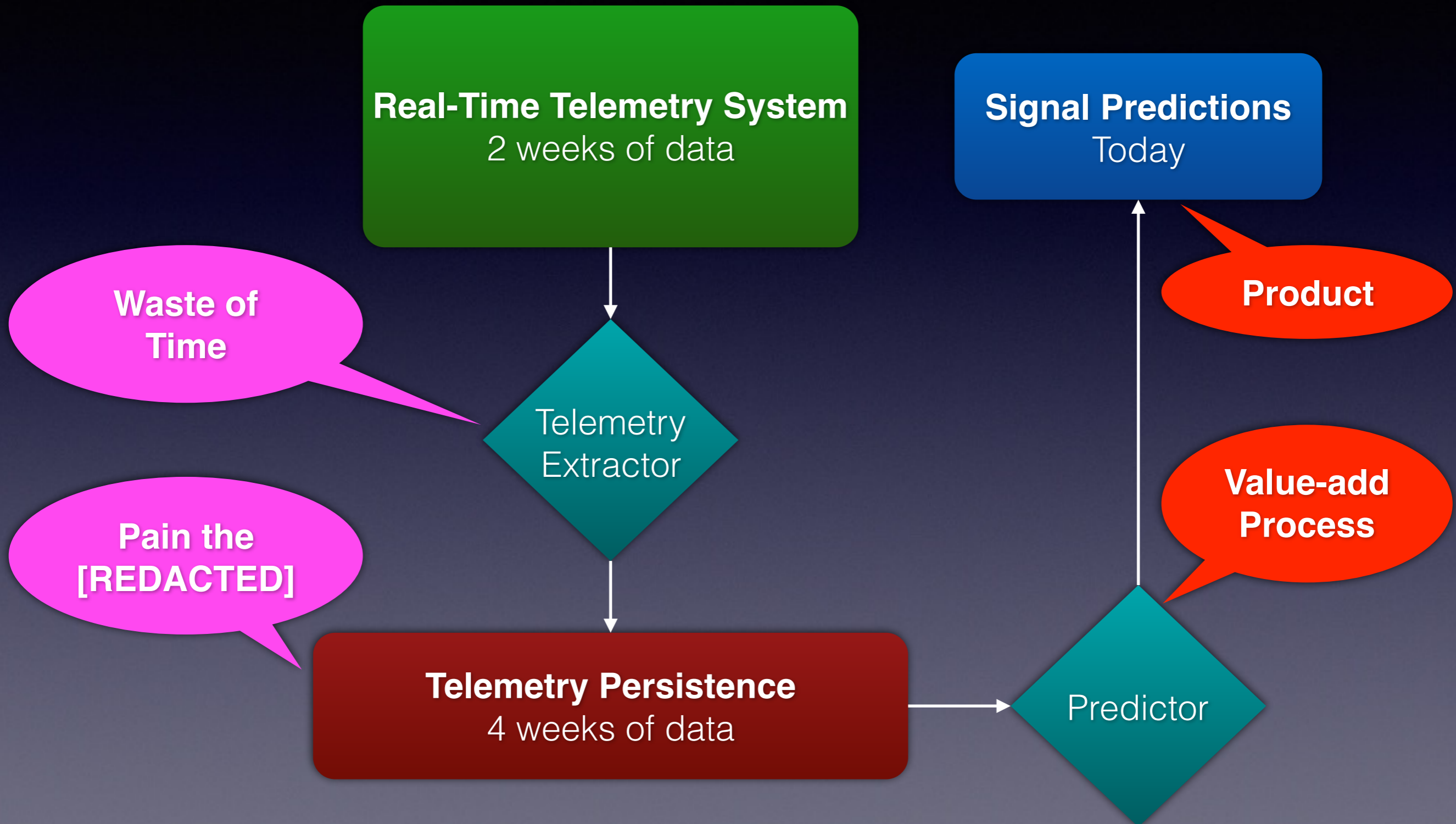
Scryer: Start State

Real-Time Telemetry System
2 weeks of data

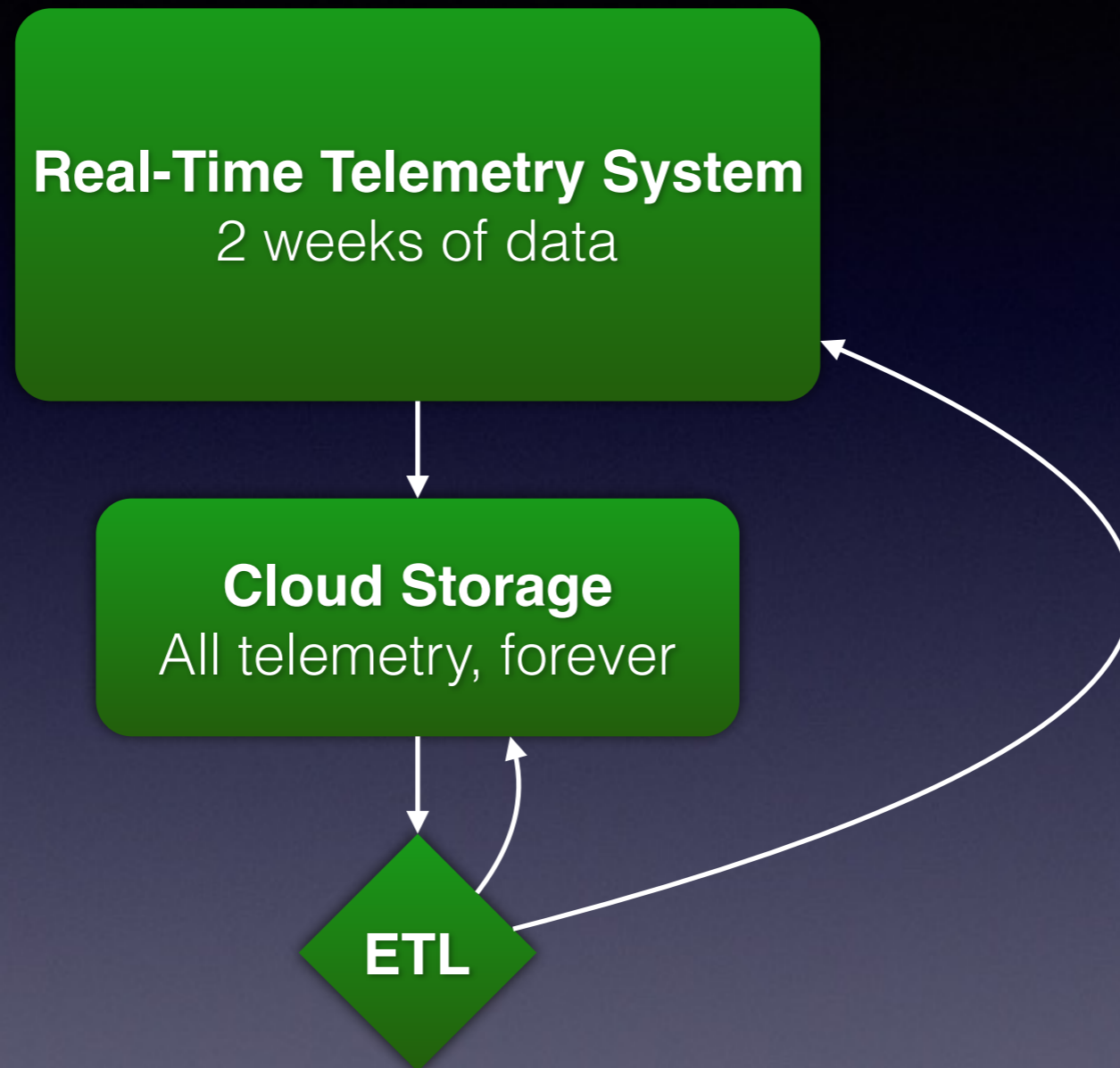
Scryer: Goal



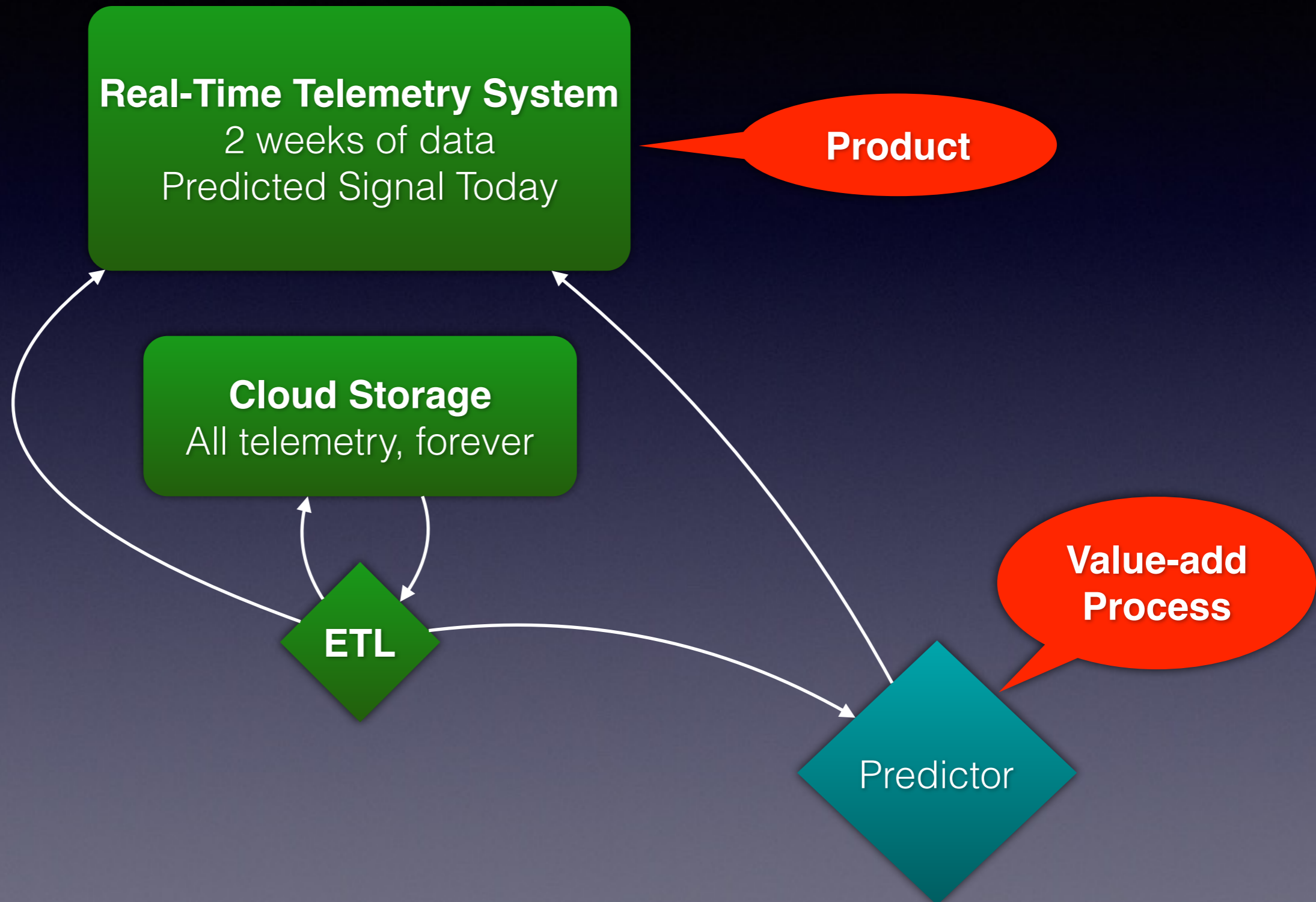
Scryer Architecture, v1



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