DISCOVER

The Leftovers

How to approach common functions when shifting to product-aligned teams

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The opinions expressed in this presentation are those of the presenter, in their individual capacity, and not necessarily those of Discover.

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Our Foundation

VISION

To be the leading digital bank and payments partner.

MISSION

To help people spend smarter, manage debt better and save more so they achieve a brighter financial future.

VALUES

Doing the right thing
Innovation
Simplicity
Collaboration
Openness
Volunteerism
Enthusiasm
Respect

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Our Organization

- 20,000 employees
- 100% U.S.-based call centers
- 1,400 engineers
- 1,000 deployments/month

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Discover® is more than just a digital bank.

We're a tech playground featuring some of the best engineers around.

Small autonomous teams tasked with meaningful work

Projects that directly impact consumers and make a difference in people's lives

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DISCOVER

Discover® is more than just a digital bank.

We're a tech playground featuring some of the best engineers around.

A focus on learning and innovation

Direct access to senior leadership at all levels

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The Story

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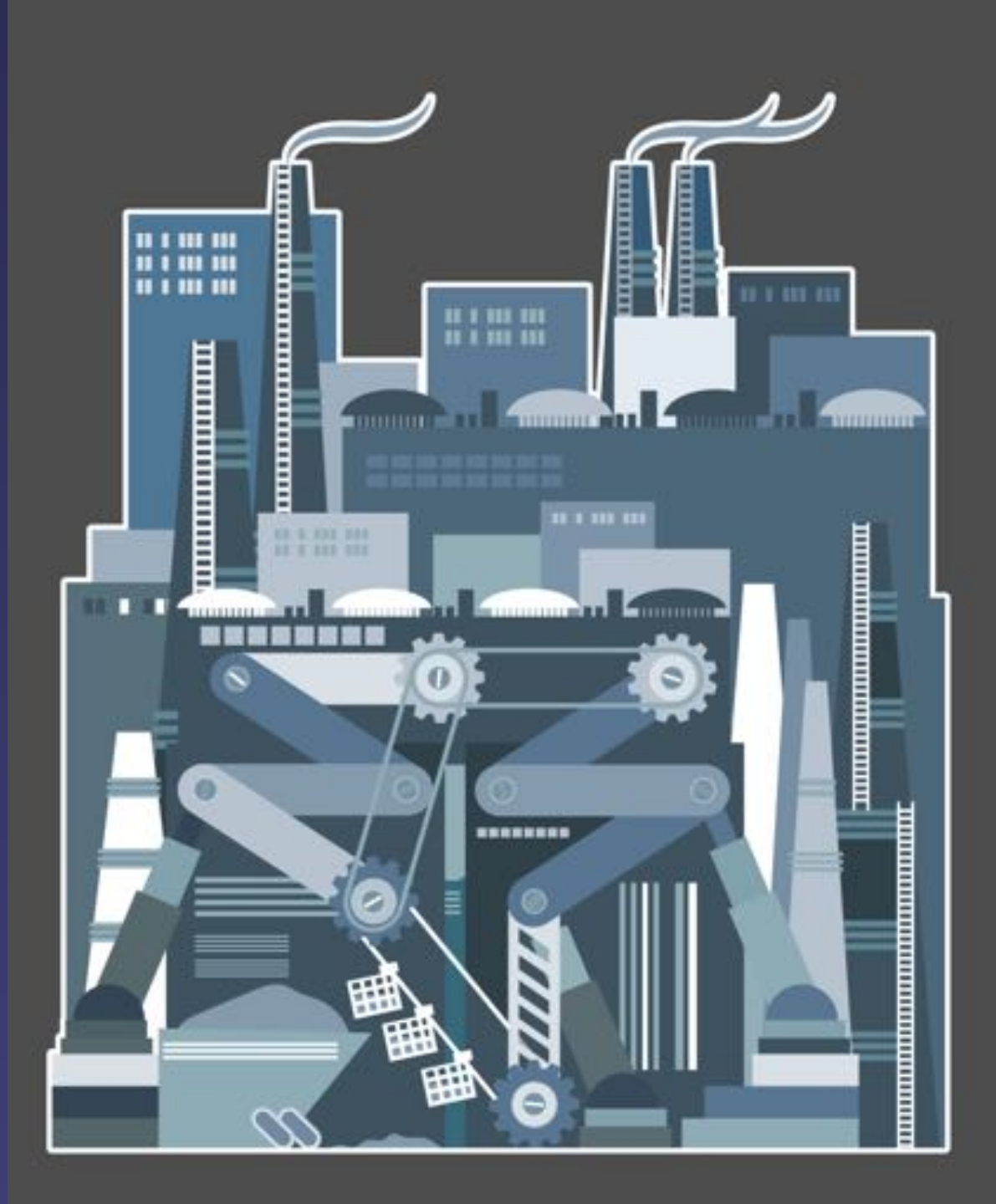
The Past

- Teams moved to the work
- 300+ developers
- 200+ applications
- Three platforms including mainframe
- SAFe with quarterly PI planning



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Over 50% of applications were managed by technology without a defined business owner

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The Runway

- Better position us for the future by shifting from a project-based mindset to a product-driven structure
- Turning to smaller, autonomous, product-focused engineering teams
- Deliver new products and enhancements to our customers faster and more reliably while simplifying how we work

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The Shift

“

“The journey we’re on isn’t a technology journey. It’s a company-wide one.”

Amir Arooni ”

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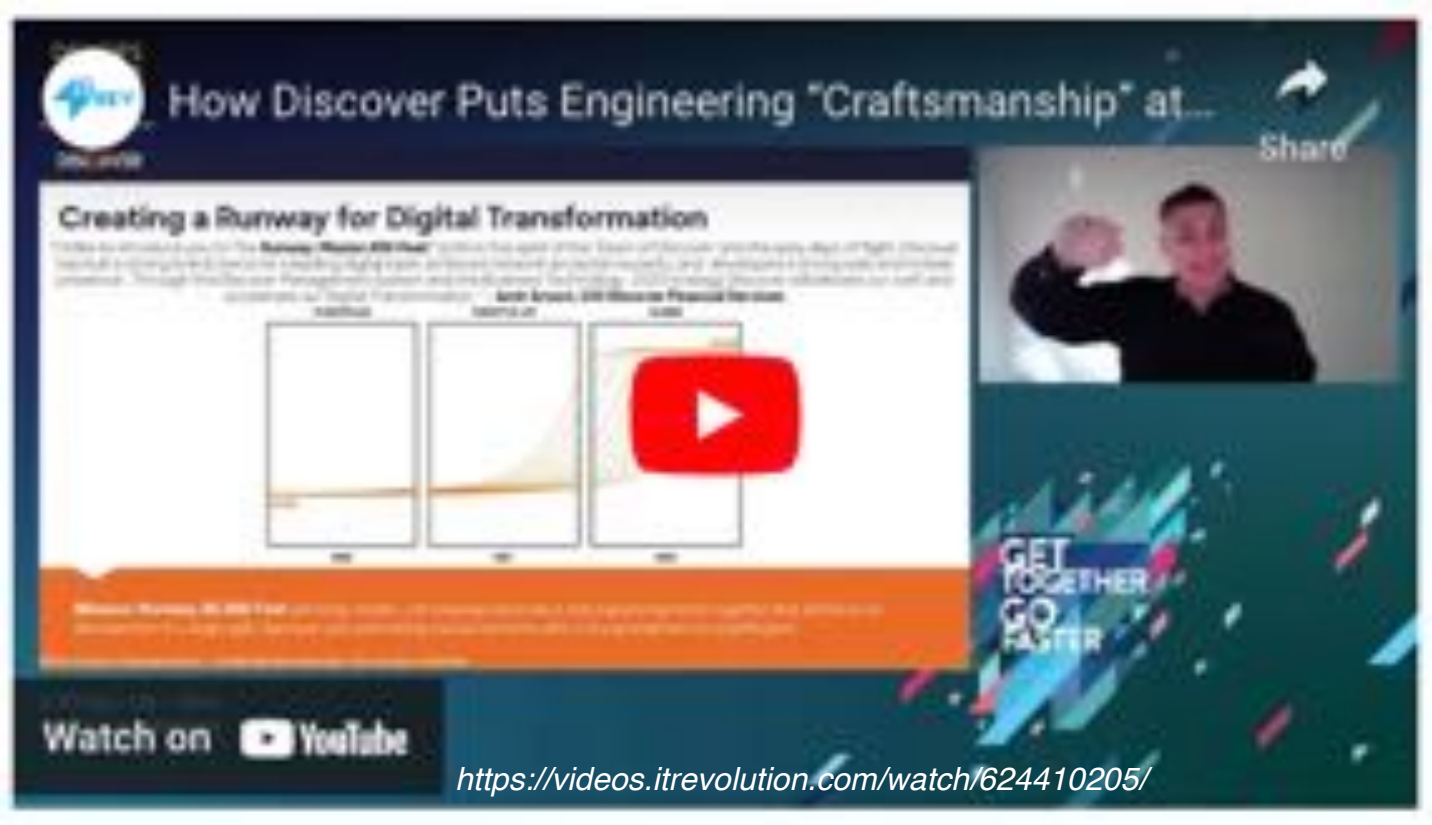
Dev Ops Enterprise Summit 2021

How Discover Financial Services Puts Engineering "Craftsmanship" at the Center of Our Digital Transformation



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The New Landscape

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The New Landscape

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The New Landscape

- Dedicated and persistent teams
- End-to-end ownership
- Continuous planning

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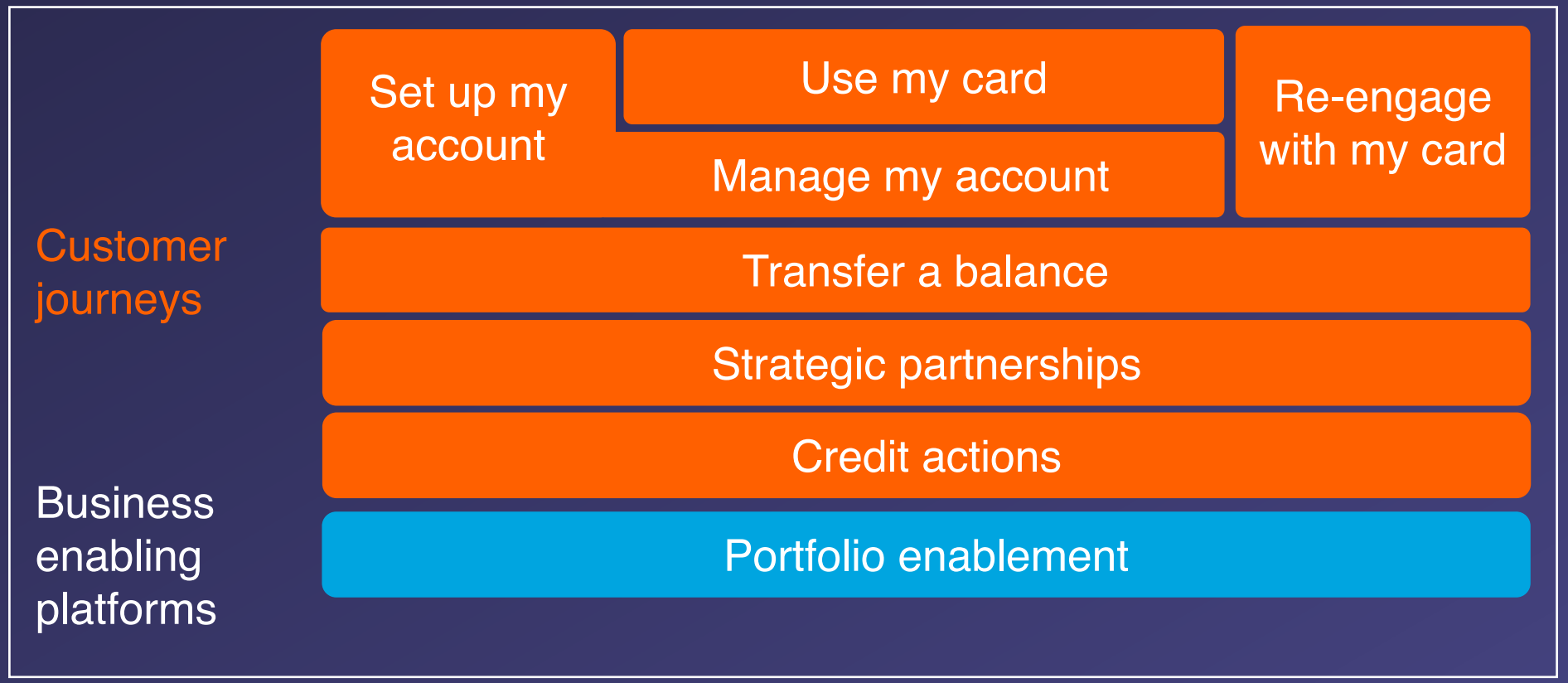
The New Landscape

Created **Product Families**, a logical grouping of products



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The Leftovers

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EAT
ME
FIRST

11
2
8
10
4

11
2
8
10
4
Allows you to log into web or mobile app
Send servicing push/text notifications
Allows you to change your card

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	Allows you to log into web or mobile app	Send servicing push/text notifications	Allows you to change your card
Scope	Data aggregation	Batch-triggered notifications	Card device management
Goal	Reduce mainframe spend & increase resiliency	Connect mainframe batch & distributed systems	Centralize all card management functions
Facts	60+ MM / day 10 backend services	60 batch jobs	8 distinct customer journeys
Stack	Middleware Database Mainframe	Mainframe Middleware	MVC Java-based template engine Middleware

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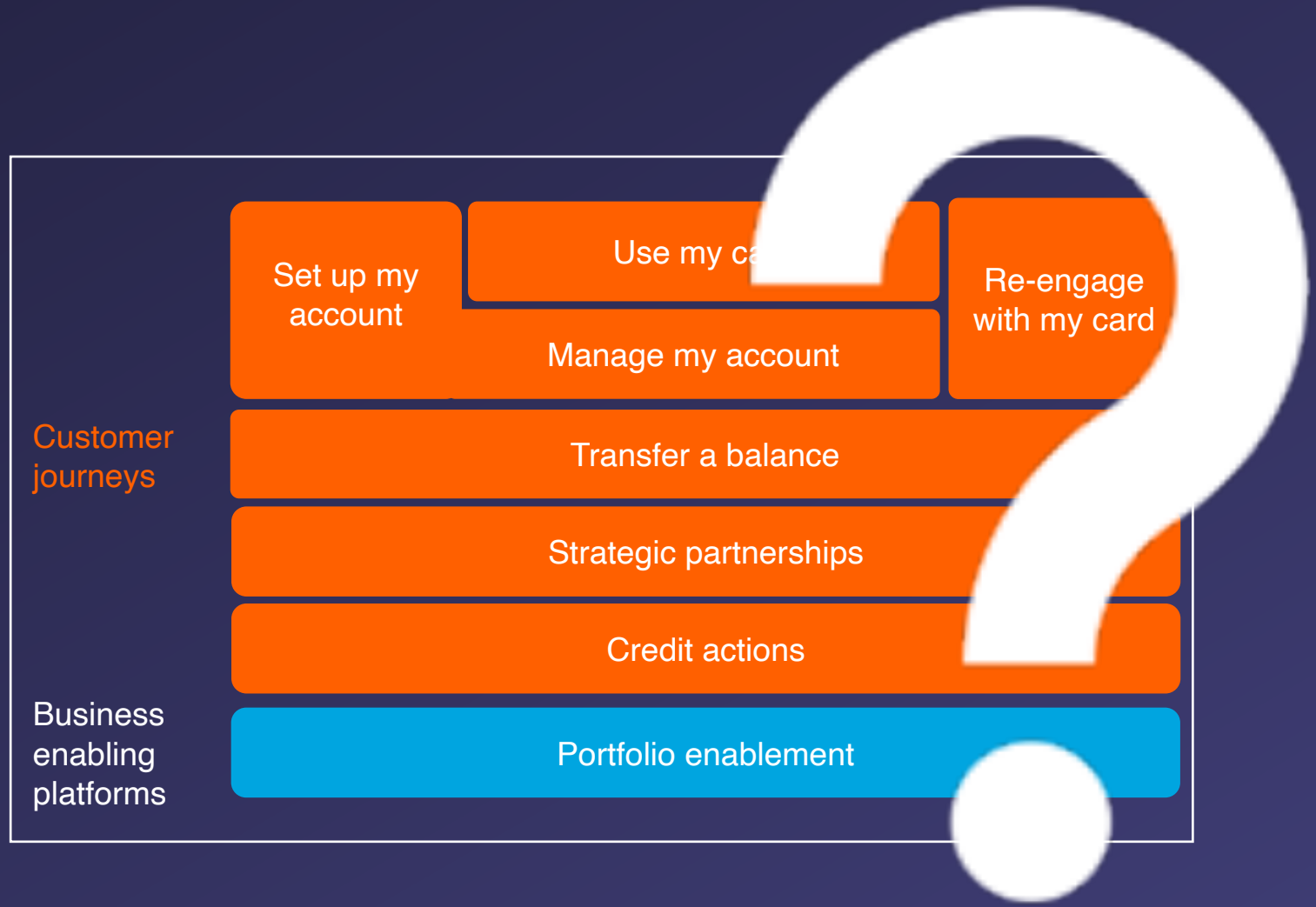

130+ people

7 teams

No Product Family

Responsibilities

Monolith data aggregator APIs
Card device management
Legacy batch job processing
Lightweight front end development
Legacy system production support

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The New (Temporary) Product Family

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The Approach

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The Approach

Centralize

Shift

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The Approach

Centralize

Shift

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Centralize

- Bring together into one group
- Support with strong leadership
- Overview sessions
  - What do they do
  - Who do they support
  - How do they measure success
- Define preliminary objectives and key results

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The Approach

Centralize

Shift

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Giphy

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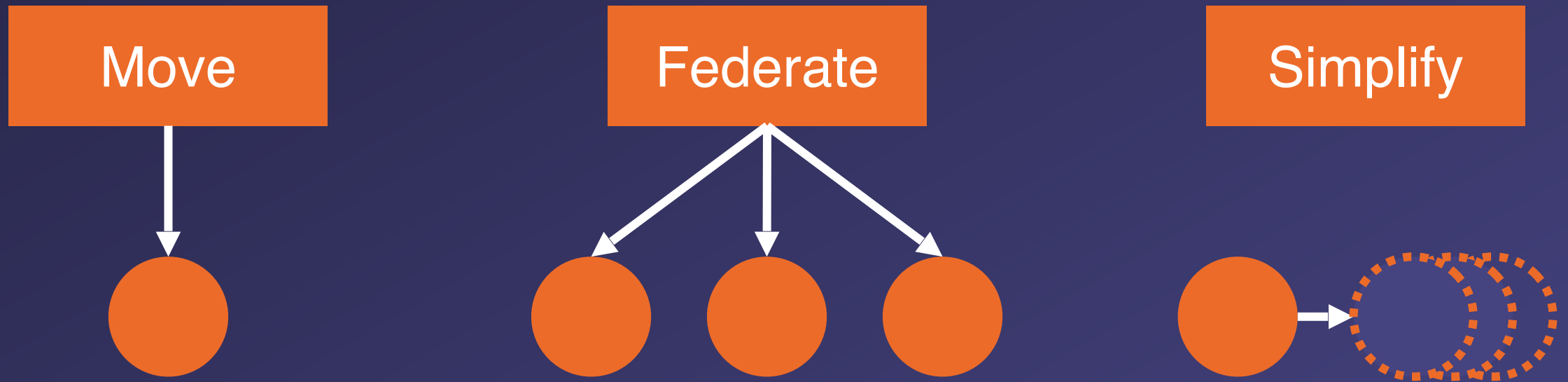
The Approach



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Shift

- Start with something small
- Try to link to broader business efforts
- Be transparent with business and technology stakeholders along the way

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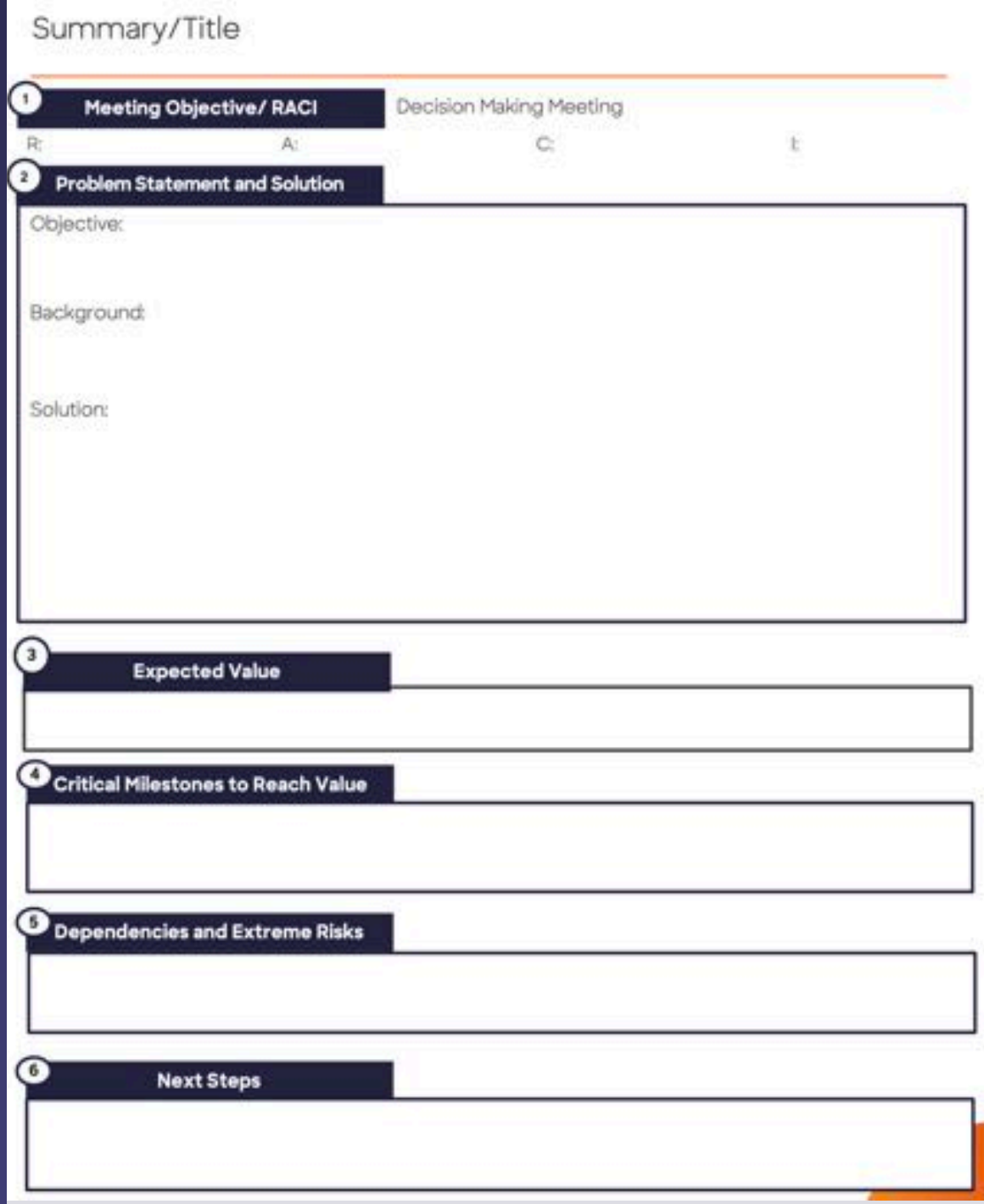
Shift: One Page Business Case

- So what?
- Why is it important?
- What if we didn't do anything?



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The Results (so far)

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The Results (so far)

- Reduced product family size by 59%, reallocating capacity
- Achieved 99% reduction in false positive alerting for a previously unowned app
- Uncovered several resiliency gaps due to deficient architecture

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The problems that remain

Simplification is easier said than done

- Why: Reverse engineering legacy code and gaining product team buy-in
- How: Find interested team, start small, then showcase

What is good enough?

- Why: Last 20% is typically the most difficult to shift
- How: Move leftovers to teams with most at stake

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The Takeaways

- When shifting to a product operating model, you'll have areas that don't "**fit**"
- Leftovers are those bits that everyone cares about but **no one wants to own**
- Define your **hypothesis** – what needs to be true to shift these functions?
- Centralize, then **start small** with the shift

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Thank you!

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