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# Modernizing XYZ

— Principal Interview Strategy —

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# Agenda

- Understand the mission + pain points
- Solution & Engagement
- What success looks like
- How do we scale up

# The Mission - Project One

Digital publication ecommerce platform. The product suite is a monolithic application that serves as the backend, frontend, entitlement and distribution for 40 major brands.

**Top Concern:** Continuity of the platform for customers during modernization.

## Pain Points

- Downtime
- Lack of consistency in code, deployments & environments
- Long lead & process times
- Launching new environments is too slow for innovation

## Impacts

- Revenue
- Innovation
- Efficiency / Cost

# Technical Stack

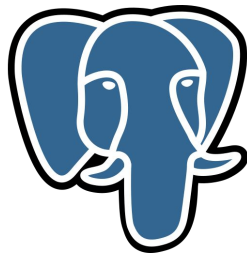


## Mixed Languages

Applications are monolithic  
running on bare metal  
on-premise infrastructure.



Infrastructure causes pain.



## PostgreSQL

Database is run alongside the  
applications on the same  
infrastructure.



Brittle & often causes pain.



## Service Bus

Self-managed Kafka cluster  
runs on an independent  
server cluster from the apps.



Very expensive to maintain.

# The How



## Lighthouse Project

We select one project of medium complexity to modernize, migrate & automate together with your development teams.



Fast Feedback



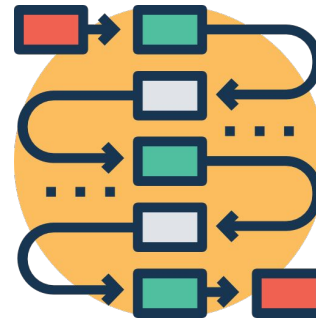
Rapid Results



Small Blast Radius



6-8 Weeks Effort



## Value Stream Mapping

We work with your leadership team, change review board, quality team and management to understand your software delivery process.



Manage Risk



Value Focused



Process Improvements



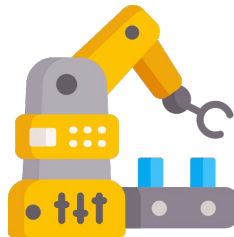
Before & After

# Lighthouse: Proposed Solution



## Modernize Applications

Break down monoliths into small modular components and run them in containers on shared infrastructure to speed up innovation and improve resilience.



## Automate

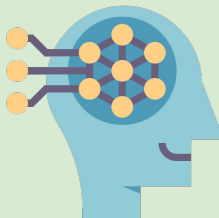
Establish continuous delivery pipelines and infrastructure-as-code to make deployments fast & repeatable.



## Migrate

Move workloads into the cloud and leverage cloud-native tools & services to reduce overhead and improve reliability.

## Team Modernization & Culture



## Upskill

We embed with your teams and support them in these efforts so that they can continue to leverage these advantages long after we're gone.

# The Who



## Principal

Understand Business Needs & Constraints

Value Stream Mapping process

Manage Risk & Value Alignment

Champion Modern Practices

*Engagement Leadership*



## Senior Engineers

Drives Adoption

Training & Upskilling Teams

Solve Complex Technical Requirements

Analyze & Capture Metrics

*Team Leadership*



## Engineers

Demonstrates Modern Development Cultures & Practices

Delivery of Technical Solutions

Hands-on Mentoring

Infrastructure Automation

*Cultural Ambassador*



# Lighthouse: Team & Roadmap

	Principal	Senior Engineers	Engineers
Headcount	1	1	2
Skills	<b>Experienced:</b> Containers - Kafka - Java - CI/CD <b>Nice to have:</b> Java/.NET/Go - VSMs - CABs		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
VSM	VSM							VSM
Discovery	Onboarding/Discovery							
Design		Design & Architecture						
Development			Development, Upskilling, Continuous Deployment, Process Improvements					
Document							Document, Retrospect & Hand Off	

# Measuring success

MEASURING SUCCESS ON THE LIGHTHOUSE		
Objective	Key Result	Initiatives
Optimize Process Overhead	Lead times and process times are remarkably reduced.	Conduct a VSM at the begin and end of the project. Identify process concerns and work towards improving them.
Achieve Continuous Delivery	Development teams are able to deploy to production at any time and as often as needed.	Teams will be deploying to production from day 1. A software delivery pipeline will be built to automate integration, testing and deployment.
Improve Consistency	Environments are identical. Code quality is managed.	Code quality will be measured with industry standard tools in the pipeline. Defects or medium-severity issues will halt the pipeline and require remediation. Infrastructure will be deployed from code and tested.

# Measuring success (cont'd)

MEASURING SUCCESS ON THE LIGHTHOUSE <i>CONTINUED</i>		
Objective	Key Result	Initiatives
Eliminate Downtime	Downtime is reduced to zero.	Best practices for zero-downtime deployments will be used. For example, rolling deployments or blue-green deployments.
Leverage Containerization	Applications are deployed in a microservice architecture on a modern cloud-native container platform.	Coach the teams on containers. Break down application systems into logical microservices. Deploy on a selected container orchestration tool.
Improve New Environment Provisioning	Teams can provision a new environment on their own, with minimal process time.	Parameterize deployment pipelines to enable self-service capabilities.
Development Team Ownership	The development teams are able to maintain and continue to work without our help.	Embedded engineering leadership by working with the teams on joint solutions. Pair programming, coaching and open development to ensure knowledge is shared and available.

# Prerequisites

We are partners – so let's hit the ground running.



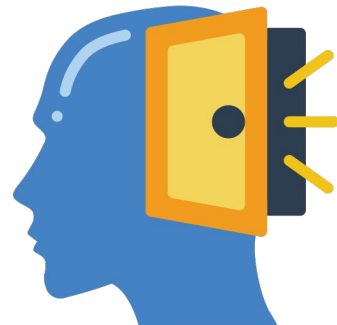
## Executive Support

- A Champion / Buy-In
- An escalation path
- Regular feedback



## Day 0 Access

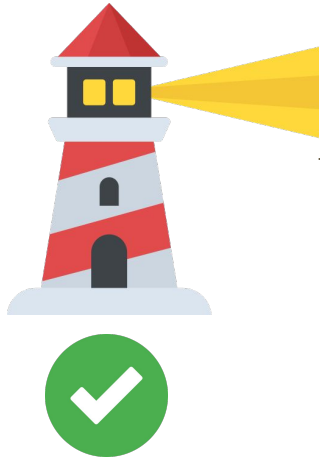
- Equipment
- Systems
- Ticketing
- Documentation
- Source Control



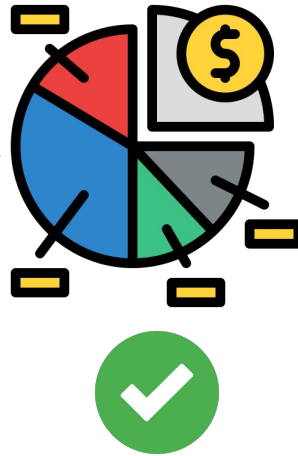
## Open Minds

- Day 1 Kick Off
- Engagement  
Transparency

# Scaling It Up



Lighthouse



Application Portfolio  
Rationalization (APR)



Business Value



Logical / Technical Group



Sunsetting / Rebuy

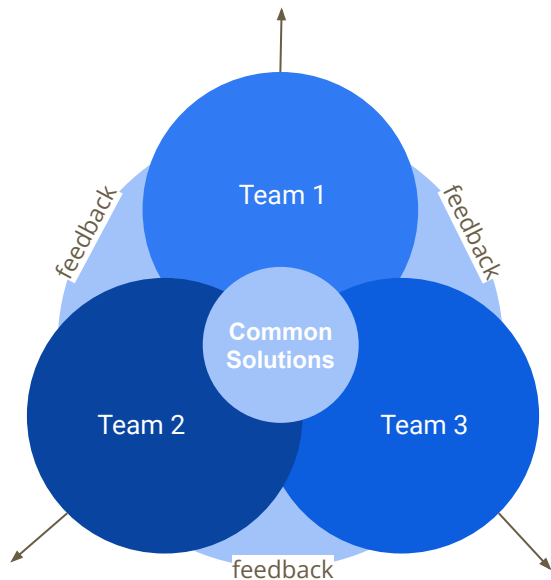
## Scaling It Up (cont'd)

	Value	Effort	Return	Disposition
<b>Project One</b>	High Value	Medium Effort	High ROI	A1
<b>Marketing Widget</b>	Medium Value	Low Effort	Medium ROI	B2
<b>Exchange / Email</b>	Low Value	High Effort	Low ROI	B3
<b>Aviation Portal</b>	Low Value	High Effort	No ROI	Rebuy SaaS

Legend	A = Must Do	B = Should Do	C = Could Do
	1 = Immediate	2 = Soon	3 = Eventually

# Scale It Up (cont'd)

## Grouped Application Teams



## Benefits

- ✓ Fast Progress
- ✓ Contagious Culture
- ✓ Consistent Results
- ✓ Snowball Effect

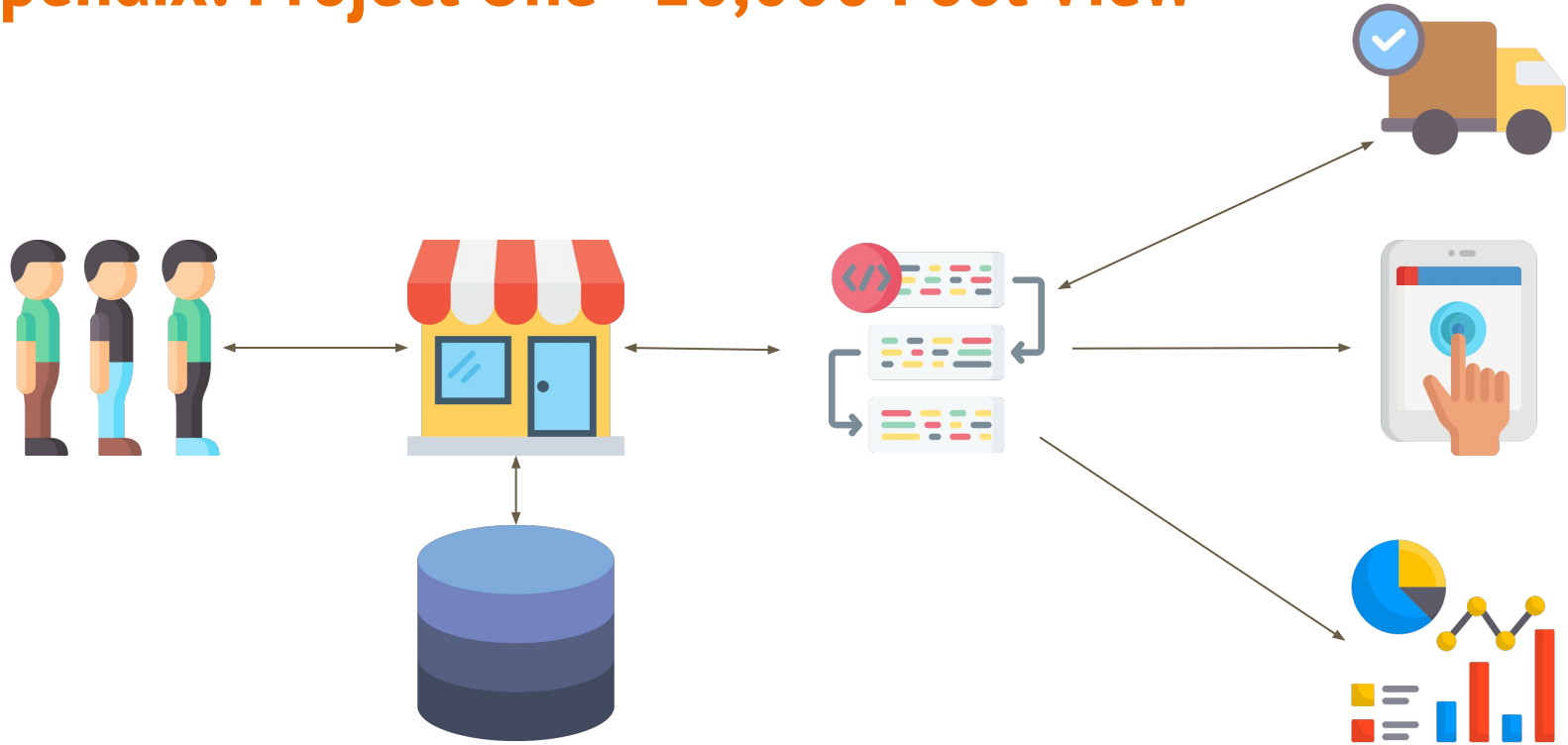
**Maximizes Reusability:** Pipelines, Tools, Workflows

# We're 100% Committed

Let's get to work.



# Appendix: Project One - 10,000 Foot View



# Bonus Points: Ideal Software Delivery Pipeline



## Commit

Static Analysis (Quality, Security)
Unit Tests
Failure: Halt Pipeline



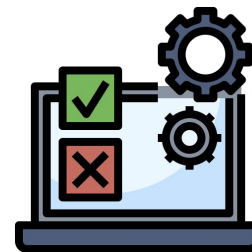
## Build

Compile / Build
Create / Push Artifacts (Docker Image)
Serverspec Tests
Failure: Halt Pipeline



## Deploy

Deployment
Infrastructure Tests
Integration Tests
Failure: Rollback



## Verify

End-to-End Testing
Penetration Testing
Monitoring
Success: Tag Release
Failure: Rollback