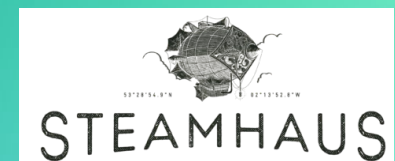**SESSION ID #FPA02**

Application Modernization
Accelerating your Modernization Journey

Richard Lees

EMEA Application Modernization Specialist | AWS

Agenda

i.   **Defining** modernization

ii. **Why** do customers modernize?

iii. **What** do customer modernize?

iv. **How** do customers modernize?

v.   **Customer** story

Defining modernization

What is modernisation?

Modernization is the process of **progressively transforming** **existing** **applications and infrastructure** **to extend into higher-value, built-for-the-cloud services that** **unlock new business capabilities, accelerate innovation, and reduce technical debt.**
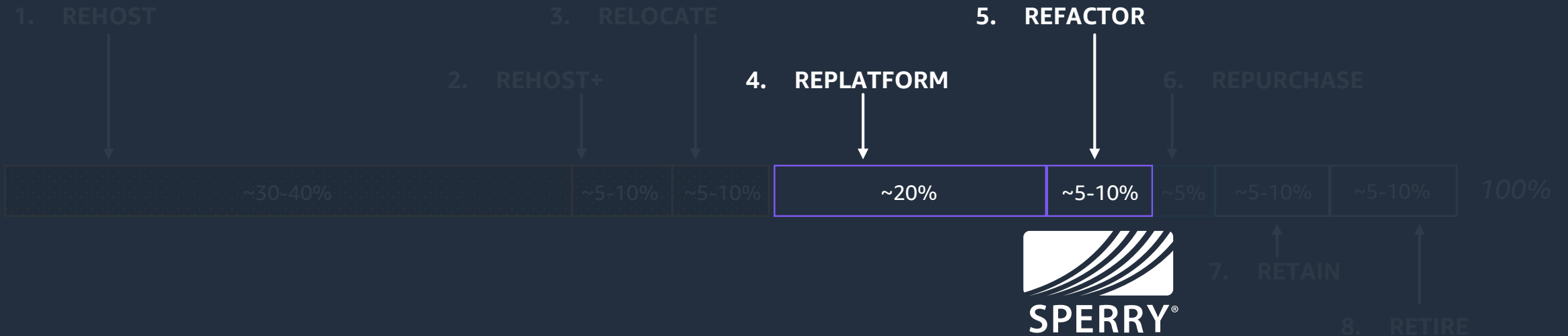
Infrastructure

Enterprise modernisation

Organizational patterns

Architecture
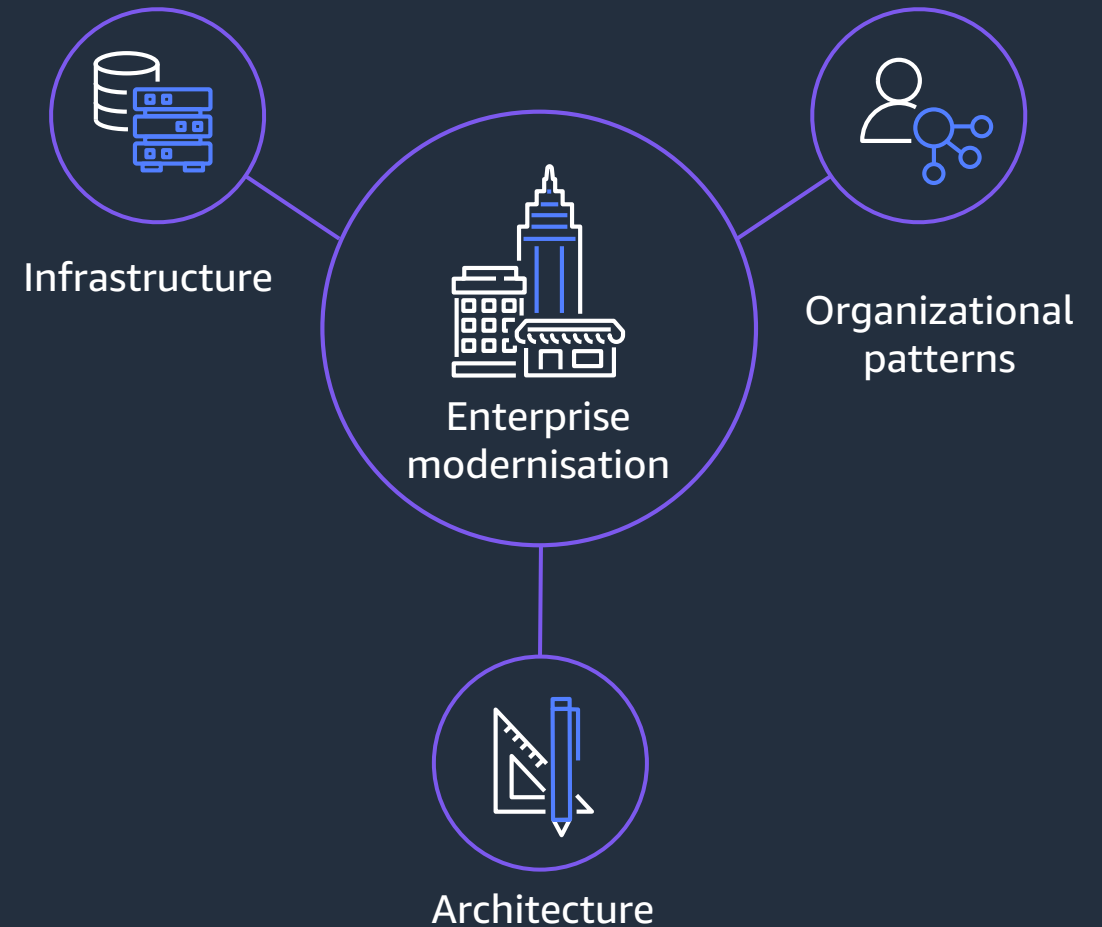
Migration & Modernization Patterns (7Rs)

AVERAGE CUSTOMER ENVIRONMENT, BY MIGRATION PATTERN *(BASED ON AWS EXPERIENCE)*
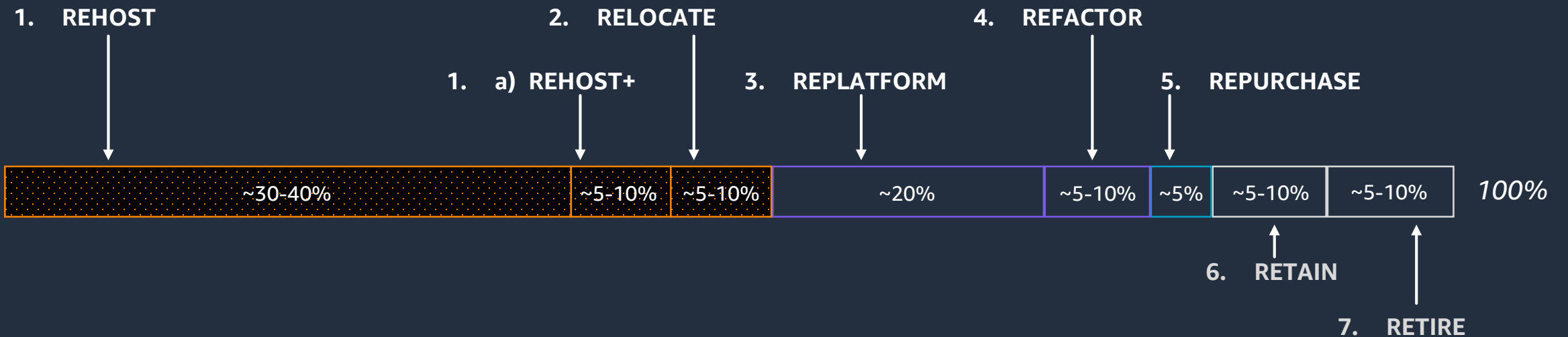
Migration & Modernization Patterns

AVERAGE CUSTOMER ENVIRONMENT, BY MIGRATION PATTERN (BASED ON AWS EXPERIENCE)

1. REHOST

3. RELOCATE

5. **REFACTOR**

2. REHOST+

4. **REPLATFORM**

6. REPURCHASE

| ~30-40% | ~5-10% | ~5-10% | ~20% | ~5-10% | ~5% | ~5-10% | ~5-10% | 100% |

7. RETAIN

SPERRY®

8. RETIRE

aws

Why do customers modernize?

Why do organizations build modern applications?
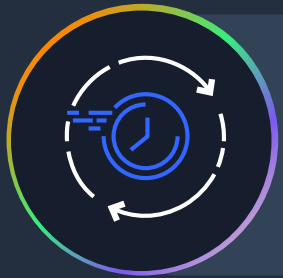
 Speed & Agility

 Security & Operational Resilience

 Costs

aws

What does success look like?

● Challenge   ● Solution

Developers wait days/weeks for infrastructure to be provisioned

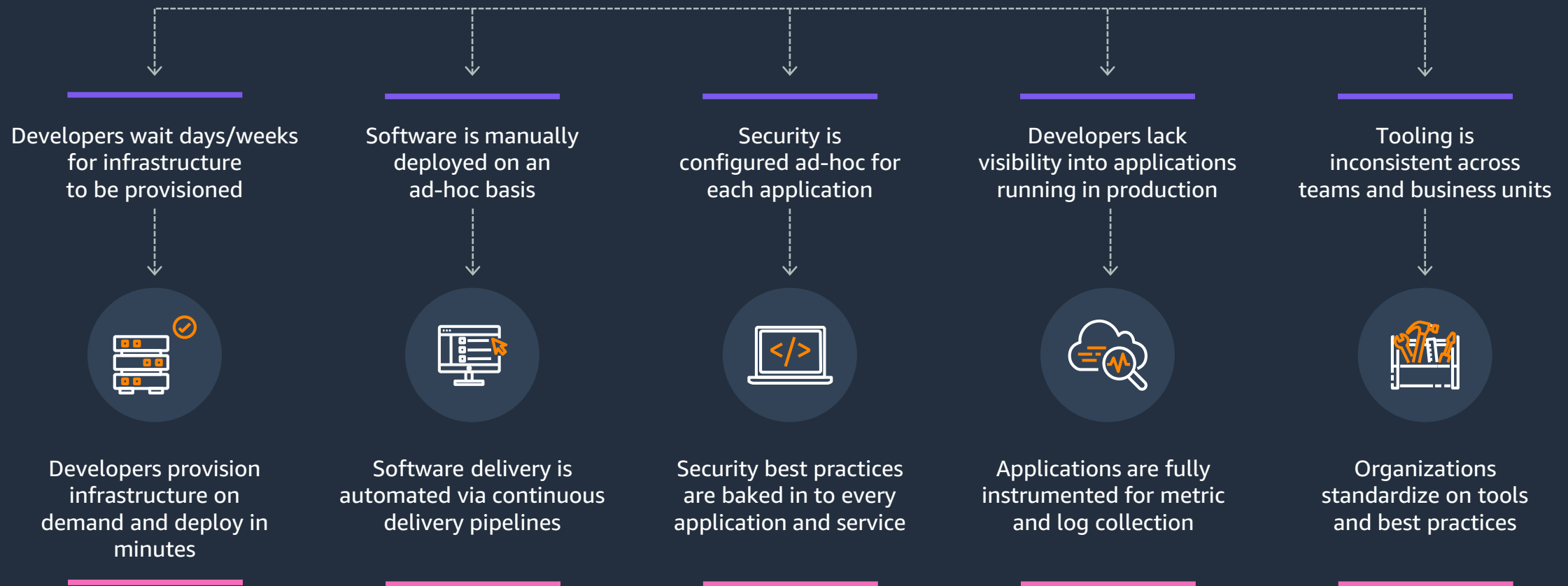**Software is manually deployed on an ad-hoc basis**

Security is configured ad-hoc for each application

Developers lack visibility into applications running in production

Tooling is inconsistent across teams and business units

Developers provision infrastructure on demand and deploy in minutes

Software delivery is automated via continuous delivery pipelines

Security best practices are baked in to every application and service

Applications are fully instrumented for metric and log collection

Organizations standardize on tools and best practices

What do customer modernize?

Application selection

Business Reasons	Technical Reasons
LOB, critical to business success	Old technology, no support
Customer facing	Performance & scalability issues
Significant impact to revenue	Lack of skillset, lost knowledge
Market differentiator	Too many bugs, spaghetti code
Value exceeds cost	Expensive, difficult to integrate

Modernization pathways

Application Refactor and Re-platform

Migration

**Operate on Cloud
Or Hybrid**

AWS Management Console
AWS Outposts

Application
Legacy On-Prem

Re-host on cloud

Database
Commercial On-Prem

Re-host on cloud

Windows
Commercial On-Prem

Replace licenses
(or BYOL)

Move to Cloud Native
Architecture

Move to Managed

Move to Managed Data

Move to Open Source

Modernization

Move to Cloud Native Architecture
Event Driven Architecture
with Lambda Serverless + Containers
(ECS, EKS or Fargate), Code* CI/CD

Move To Managed Cloud Services
AWS auto-managed infrastructure incl.
application containerization using ECS,
EKS or Fargate, Monitoring, Cloud
Messaging, Code Star, CI/CD

Move to Managed Databases
Purpose-built AWS databases and
streaming
(Aurora, DynamoDB, Redshift, Kinesis)

Move to Open Source
.NET ➔ .NET Core
Windows ➔ Linux
SQL Server ➔ Aurora PostgreSQL
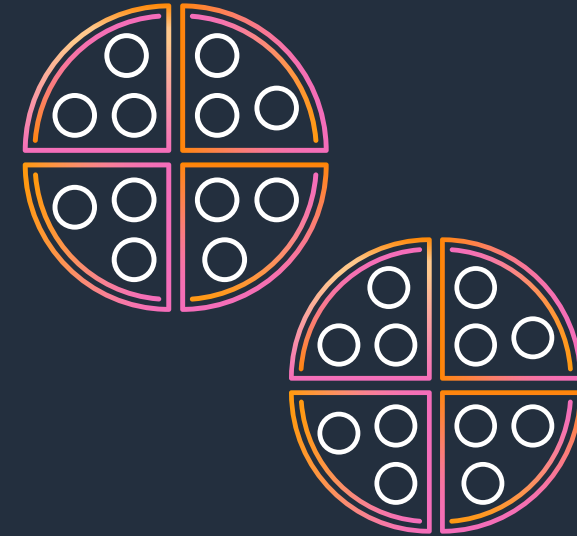
How do customers modernize?

Find your executive sponsor(s)

Organizational direction

Focused innovation

Vision setting

Organizational changes

Full ownership and autonomy

2-pizza teams – small and nimble

Centre of Excellence (COE)

People

Technology

Process

Centre of Excellence (COE)

People

Sponsorship

Education

Certification

Communication

Community Building

Technology

Standardization of tools

Guardrails

Best Practices

Re-usable patterns / templates

Shared Services Architecture

AWS Purpose Built Databases

Process

DevOps and CI/CD Automation

Testing automation processes

Well-Architected Reviews (WARs)

On-boarding curriculum and learning paths

Team Structure

Account strategy

...a CNA Partner
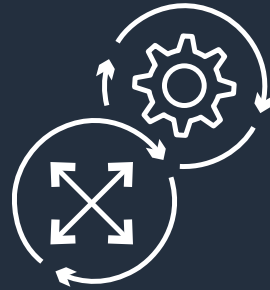
Cloud Native Accelerator

Modernization program that enables you with prescriptive guidance on best practices, guardrails, and re-usable patterns to accelerate the adoption of cloud native technologies

Change your
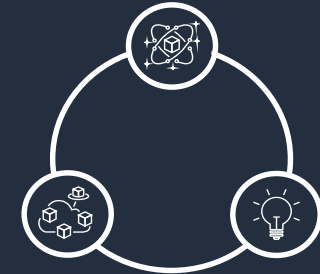**organization**

Learn
by **doing**

Enable your
workforce

Leverage
AWS-native
services

Go to...   **steamhaus.co.uk/cna**

Customer story

Introductions

BOBBY GILBERT

Snr. Director – Digital Transformation

Sperry Rail

AWS and Steamhaus Customer

PHIL HORN

Director

Steamhaus

AWS Partner

RICHARD LEES

EMEA Application Modernization Specialist

AWS

SPERRY'S STORY

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Thank you!

Richard Lees **Phil Horn** **Bobby Gilbert**

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