Migration Strategy v1
Sample CIO Deck

Feb 2020

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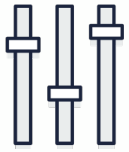
Customer Objectives

Customer – Outcomes

Enabling Technologies

- Migrate workloads to cloud where practical, consider Outpost where latency constrains
- Migrate Database to RDS where possible, or migration to EC2 standard machine images.
- Adopt DevOps for key business applications. Implement Continuous Integration / Continuous Deployment
- Investigate machine learning / AI for associating advertising with content
- Establish Cloud foundation team



Metrics

- # KPIs not met
- # New services to clients
- % Employee Attrition
- # Processes Automated
- # Human time to deploy/fix

Stakeholders

- Business Application Teams
- CTO
- CIO
- 3rd Party Providers

Business Outcomes / Goals

- Accelerate speed of change. Implement business requested change within 6 weeks
- Reduce Total Cost of Ownership by XX%
- Address obsolescence whilst optimizing CAPEX spend.
- Broadcast are looking to vacate existing data centre
- Address technical risk for mission critical applications
- Address short term technical debt
- Development and adoption of a Cloud First strategy, allowing growth of services available

- Improve Innovation
- Reduce Cost
- Enable Regionalisation, reduce location independence

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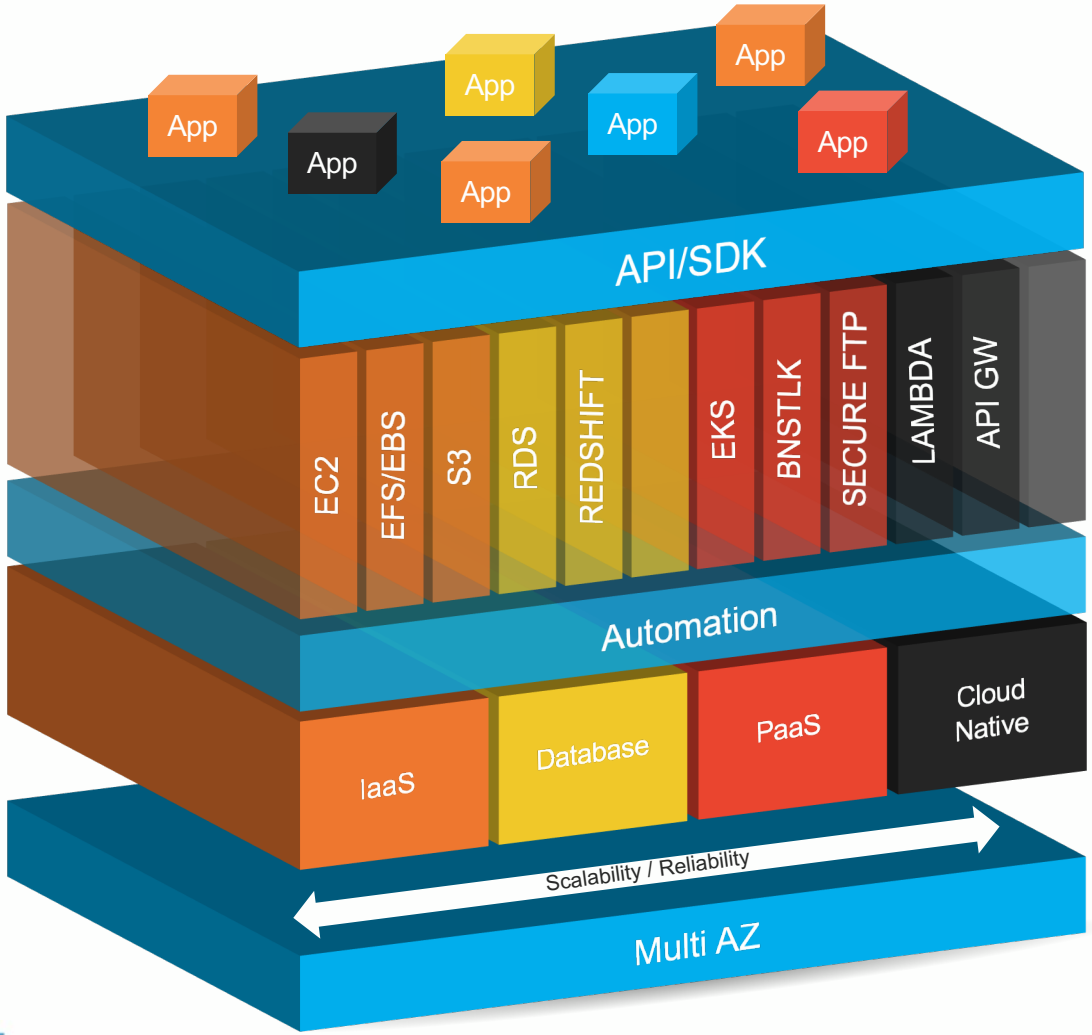
Key Metrics

Metric Name	Importance	Description
Remove technical debt	High	• Re-host and Re-platform applications from existing hardware and underlying data centre fabric
Database to DBaaS	Medium	• Consolidation of databases onto a more cost effective underlying infrastructure platform. • Opportunity to consolidate onto low cost database as a service solution.
Application to PaaS	Medium	• Explore specific use-cases where the application or COTS product can run on a standard PaaS platform/build.
Application to Serverless	Medium	• Explore specific use-cases

Target State

Target Cloud Services Architecture



- **Business Applications**

- **API/SDK**
  - Access for applications to consume platform services

- **AWS Service Catalogue**
  - Portfolio
  - Products
  - Versions
  - Access Management
  - Constraints

- **Automation**
  - CloudFormation
  - Build Templates

- **Cloud Infrastructure**
  - Scalability
  - Reliability via software defined network and data centre fabric

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Management Services

Catalogue | Configuration | Provisioning | Monitoring | Management | Cost Management

Scenarios

- WINDOWS 2012 WINDOWS 2016
- WINDOWS 2003 WINDOWS 2008
- REDHAT LINUX
- SOLARIS
- ORACLE LINUX
- OTHER LINUX DISTRIBUTIONS

Migration Method

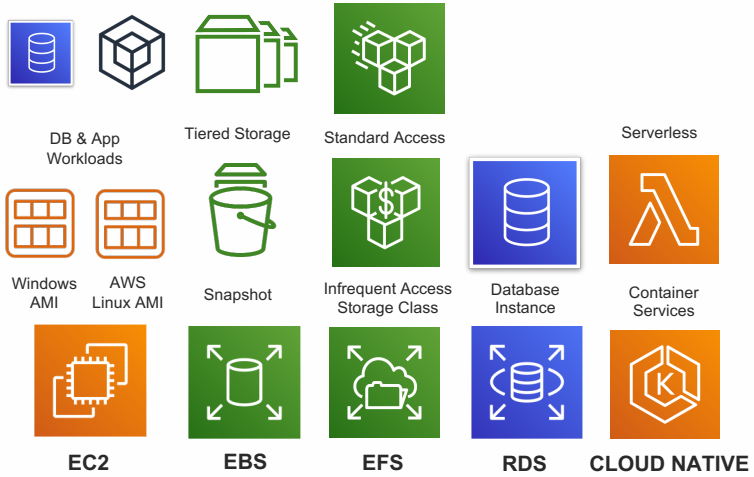
- REHOST 260
- REPLATFORM 47
- REPLATFORM 37
- RE-ARCHITECT 40
- RE-ARCHITECT 9
- INVESTIGATE 31

Target Landing Zone

IaaS Management Technology

Cloud Watch / Cloud Formation

aws



Local Data Centre

Traditional Servers

Availability Zone | Availability Zone

Target State Features

Service Catalogue
Products
Versions

API Management

Application API, providing provisioning, monitoring and management service

Infrastructure-as-a-Service

Hardware Abstraction
Software Defined Reusable Building Blocks
Policy Compliance embedded in the infrastructure service
Rapid provisioning, faster time to market for application services

Management Services

Catalogue | Configuration | Provisioning | Monitoring | Management | Cost Management

Scenarios

- REHOST
- REFACTOR
- RETIRE
- PIRATE - REFACTOR
- PIRATE - REHOST
- STELLA - REFACTOR
- BI - REFACTOR
- BI - REHOST

Migration Method

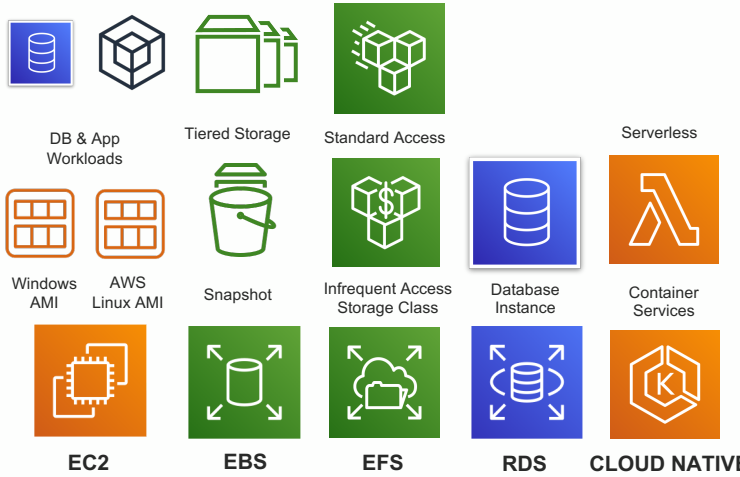
- SERVERS 347
- SERVERS 110
- SERVERS 16
- SERVERS 5
- SERVERS 24
- SERVERS 14
- SERVERS 5
- SERVERS 9

Target Landing Zone

IaaS Management Technology

Cloud Watch / Cloud Formation

aws



Availability Zone | Availability Zone

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Versions

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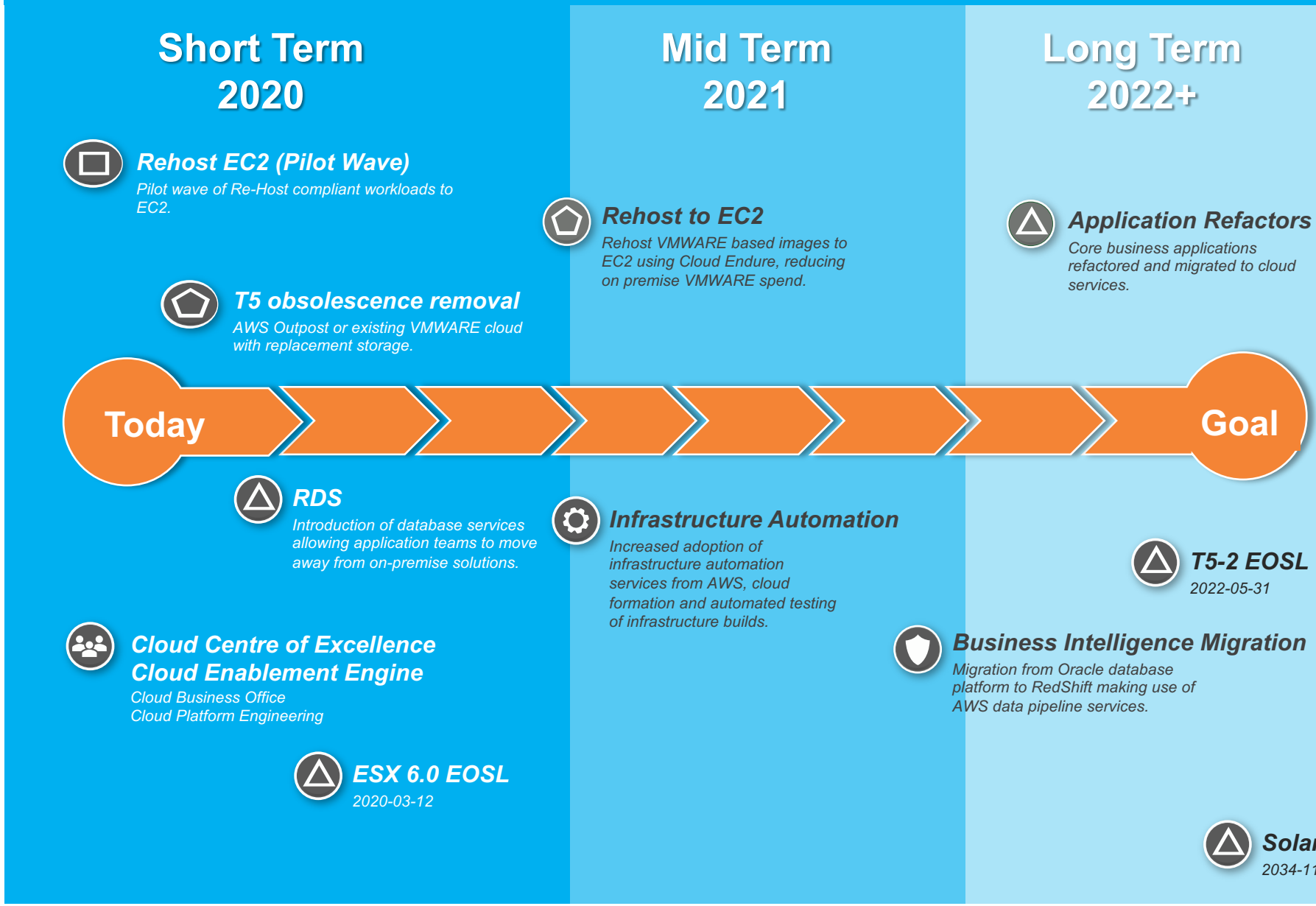
Standard Migration



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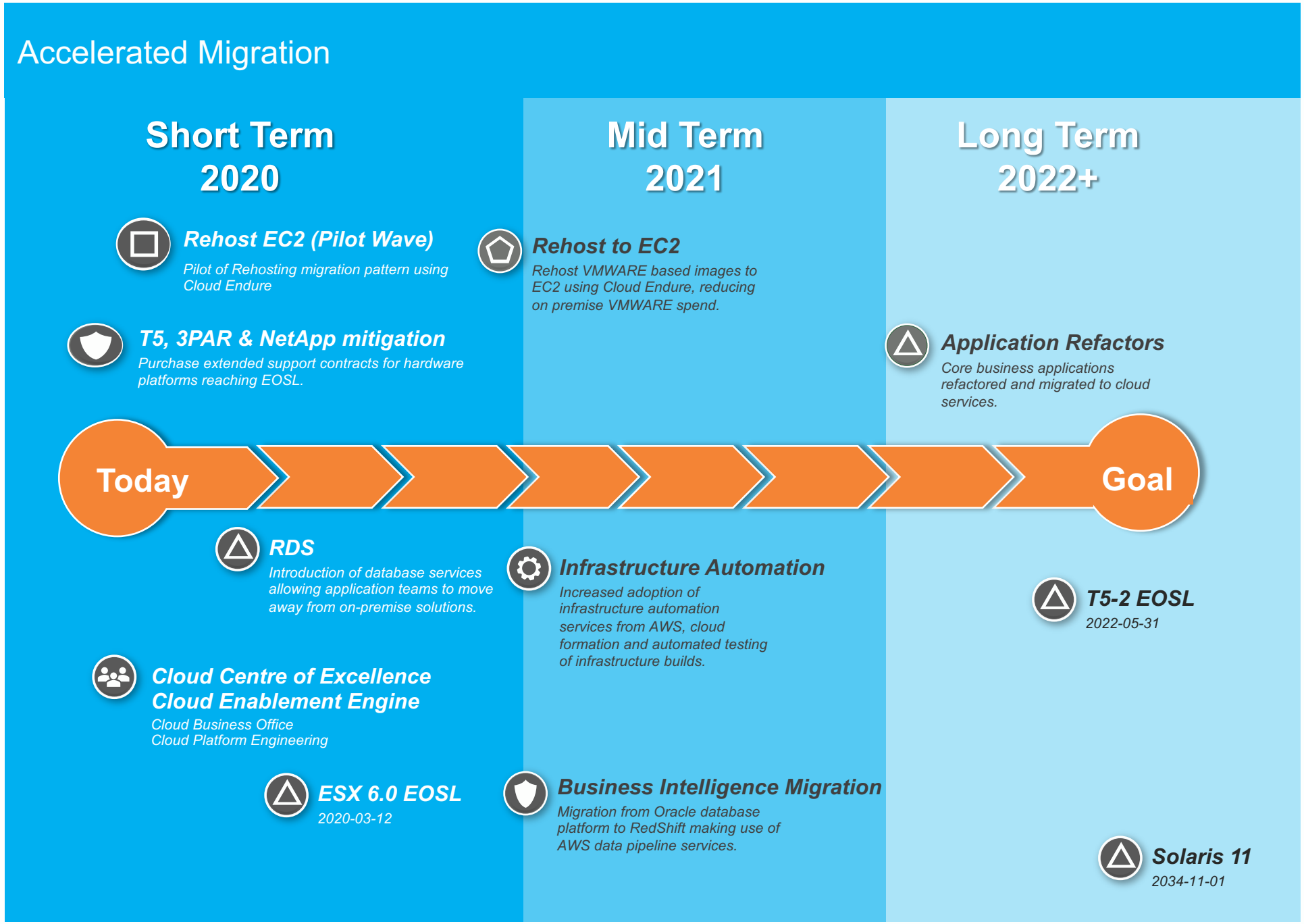
Accelerated Migration



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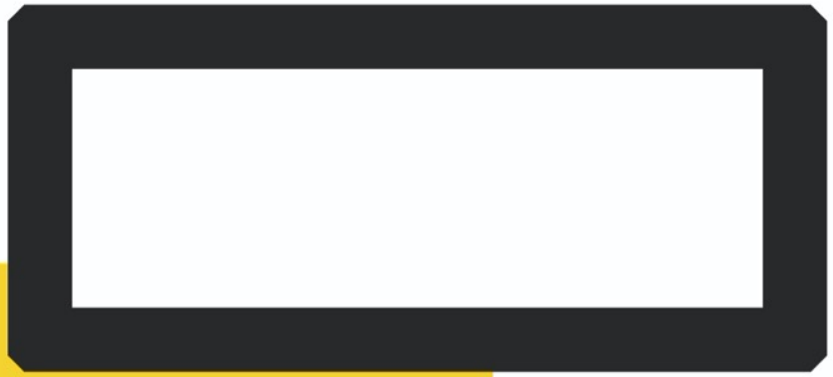
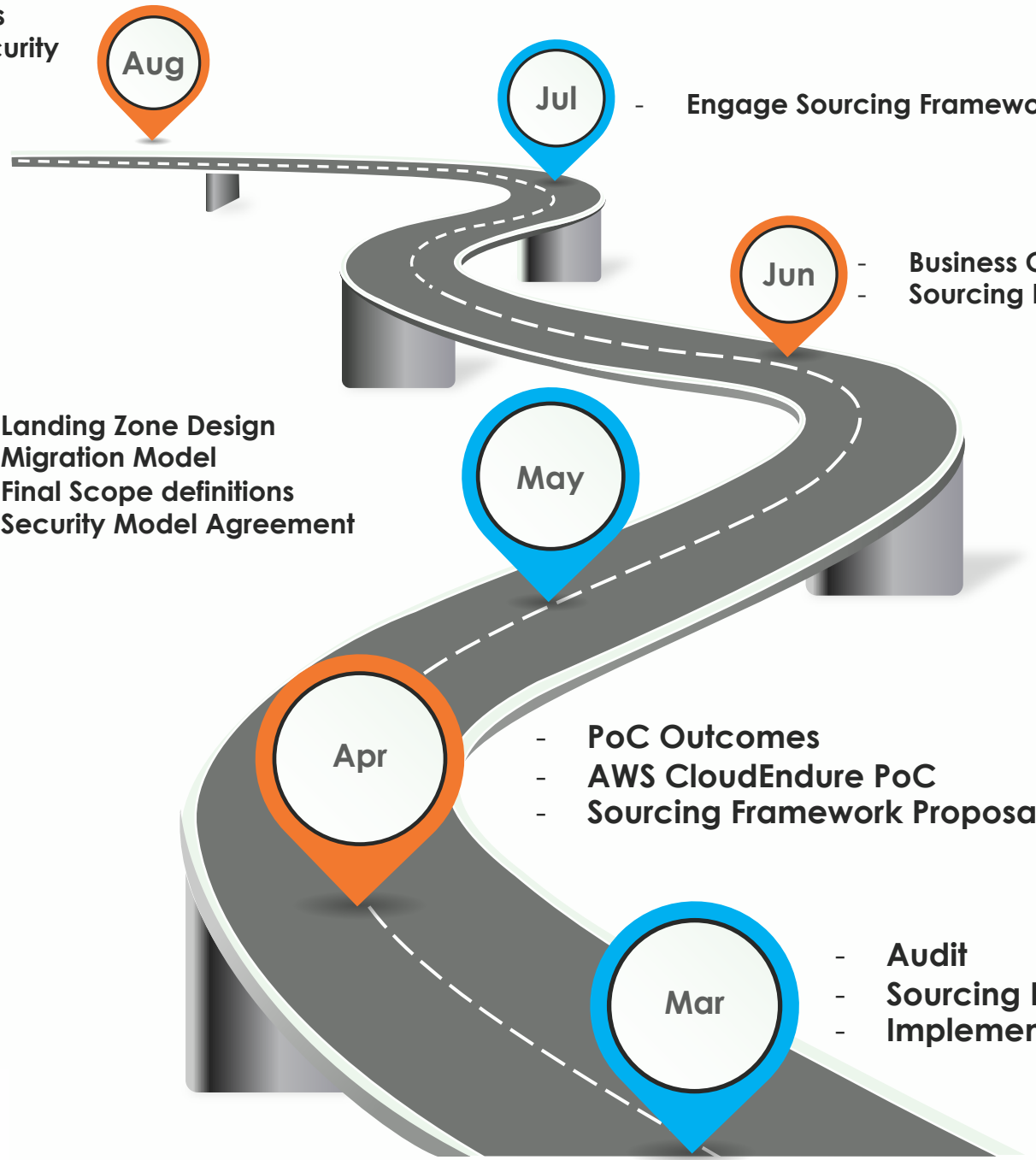


Approach/Planning

Initial Project Start-up Timeline Roadmap



- Start Migrations
- Implement Security Policy

- Engage Sourcing Framework

- Business Case Approval
- Sourcing Framework Approvals

- Landing Zone Design
- Migration Model
- Final Scope definitions
- Security Model Agreement

- PoC Outcomes
- AWS CloudEndure PoC
- Sourcing Framework Proposals

- Audit
- Sourcing Framework Scoping
- Implement Application Governance – Cloud Foundations Team

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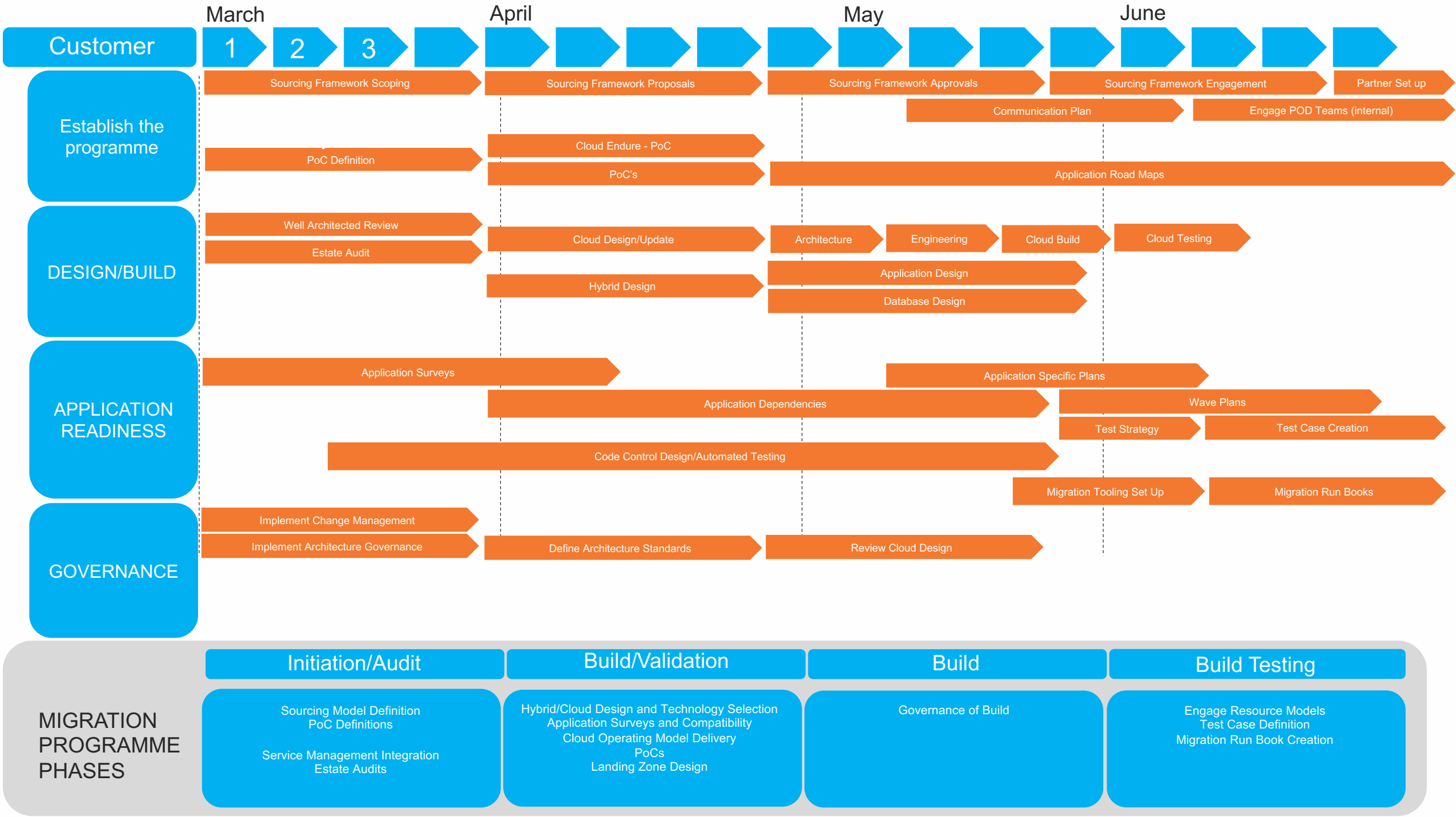
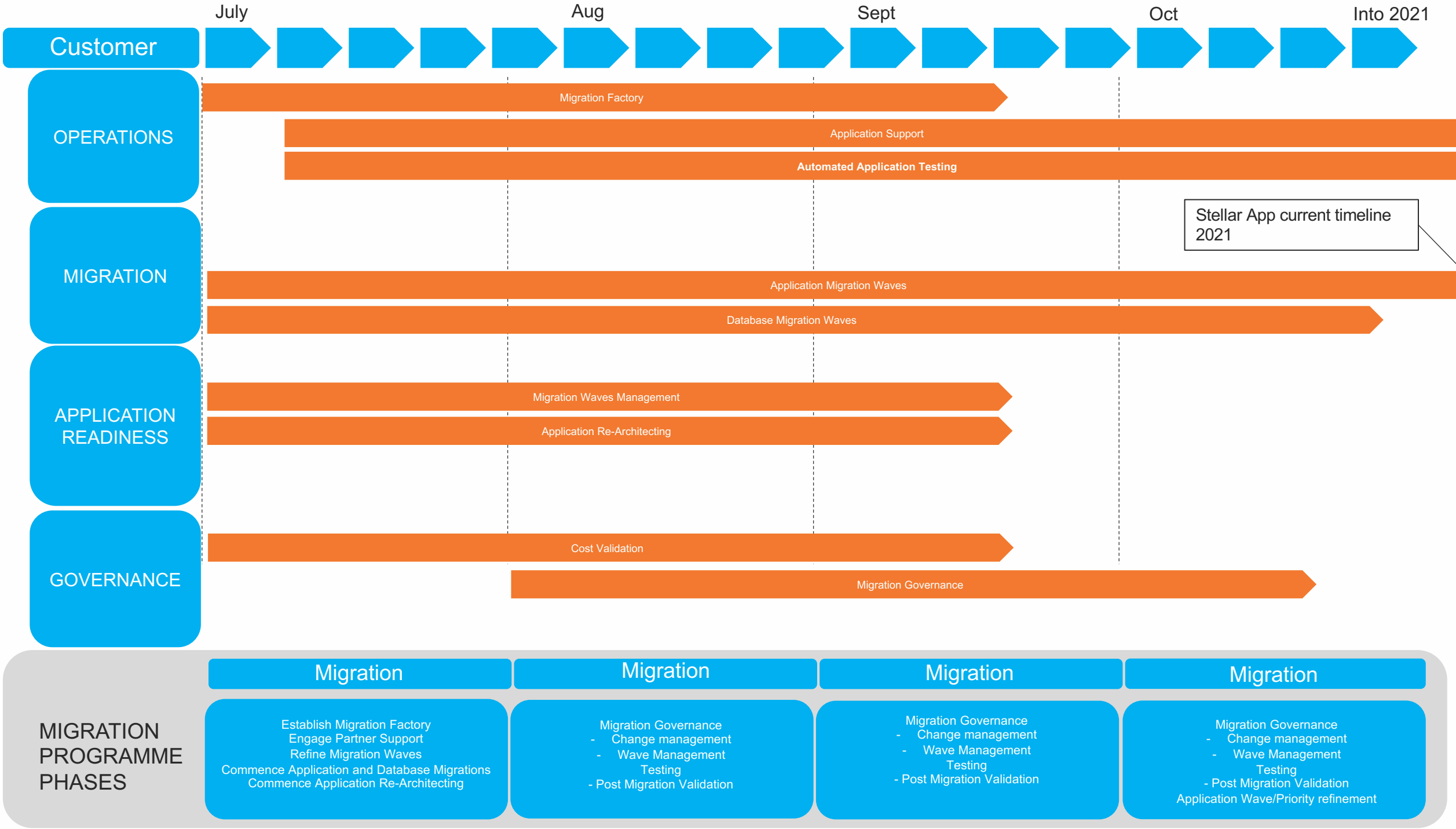

March
April
May
June
Customer
1
2
3
Establish the programme
DESIGN/BUILD
APPLICATION READINESS
GOVERNANCE
Sourcing Framework Scoping
Sourcing Framework Proposals
Sourcing Framework Approvals
Sourcing Framework Engagement
Partner Set up
Communication Plan
Engage POD Teams (internal)
Cloud Endure - PoC
PoC Definition
PoC's
Application Road Maps
Well Architected Review
Estate Audit
Cloud Design/Update
Architecture
Engineering
Cloud Build
Cloud Testing
Application Design
Hybrid Design
Database Design
Application Surveys
Application Specific Plans
Application Dependencies
Wave Plans
Test Strategy
Test Case Creation
Code Control Design/Automated Testing
Migration Tooling Set Up
Migration Run Books
Implement Change Management
Implement Architecture Governance
Define Architecture Standards
Review Cloud Design
MIGRATION PROGRAMME PHASES
Initiation/Audit
Build/Validation
Build
Build Testing
Sourcing Model Definition
PoC Definitions
Service Management Integration
Estate Audits
Hybrid/Cloud Design and Technology Selection
Application Surveys and Compatibility
Cloud Operating Model Delivery
PoCs
Landing Zone Design
Governance of Build
Engage Resource Models
Test Case Definition
Migration Run Book Creation

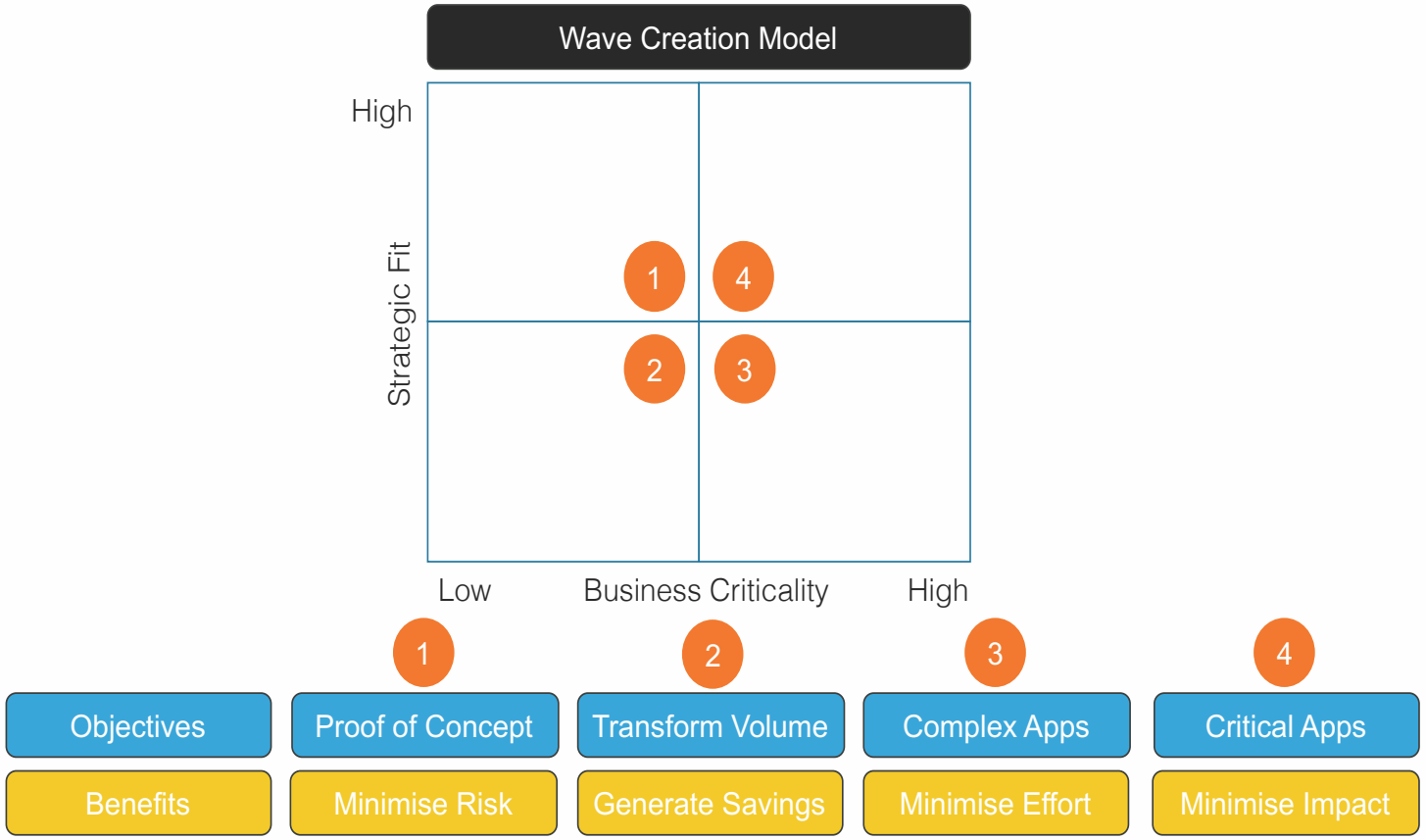

July
Aug
Sept
Oct
Into 2021
Customer
OPERATIONS
Migration Factory
Application Support
Automated Application Testing
MIGRATION
Stellar App current timeline 2021
Application Migration Waves
Database Migration Waves
APPLICATION READINESS
Migration Waves Management
Application Re-Architecting
GOVERNANCE
Cost Validation
Migration Governance
MIGRATION PROGRAMME PHASES
Migration
Establish Migration Factory
Engage Partner Support
Refine Migration Waves
Commence Application and Database Migrations
Commence Application Re-Architecting
Migration
Migration Governance
- Change management
- Wave Management
Testing
- Post Migration Validation
Migration
Migration Governance
- Change management
- Wave Management
Testing
- Post Migration Validation
Migration
Migration Governance
- Change management
- Wave Management
Testing
- Post Migration Validation
Application Wave/Priority refinement

Project Start-up tasks

Programme Area	Milestone	What does this achieve	Low Level Tasks	Assumption
Governance	Define Governance Model	This will ensure that the standards are maintained throughout to programme	- Define Change Control Process - Establish Application Governance (RoadMap)	Governance standards are understood
Application Requirements	Application to Infrastructure Mapping	Understanding of the applications estate and the dependencies	- Application Dependencies Mapping	Application Owners have an understanding of the application functionality
Security	Security Policy and Framework Implemented	Standardised Deployment and security governance	- Define Security Policy - Publish Security Standards	Security Framework is defined
PoC Definitions	Scope documented for all PoC	Understanding of PoC inflight	- List all PoCs in flight and planned - Define target completion dates for PoC's	PoC scope is understood
Obsolesce Risk Assessment	Document Obsolesce RoadMap	Understanding of the impact of obsolesce on the business	- Define all model numbers for hardware items - Define the roadmap for Operating systems	An upgrade path for operating systems is available
Audit/Review	Well Architected Review of current AWS Landing Zone	Security assured and Compliant Landing Zone	- Complete a Well Architected Framework Assessment - Remediate the actions from the assessment	AWS Landing Zone has been implemented in line with Well Architected Framework

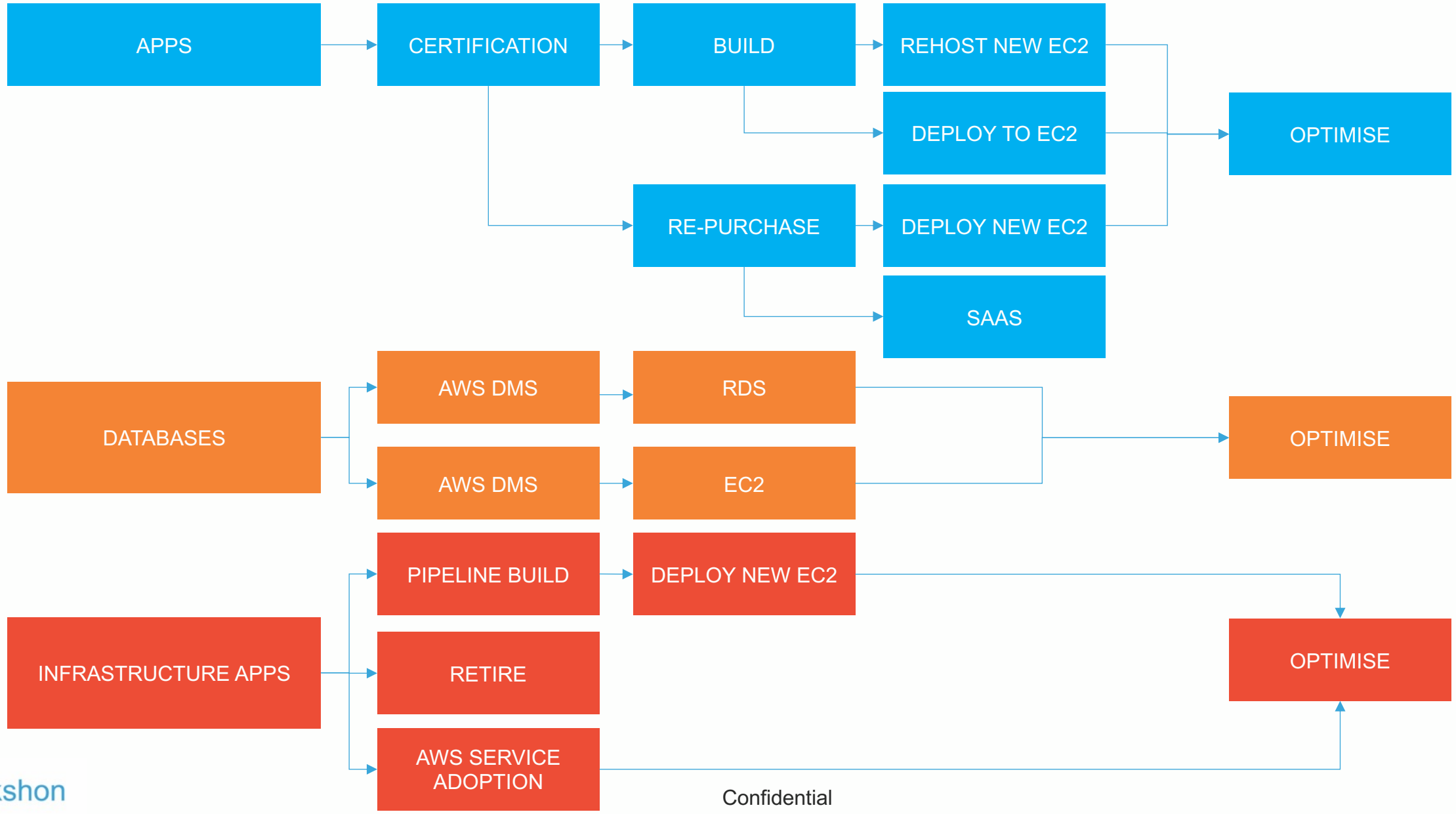
Migration Model

Application Wave Model

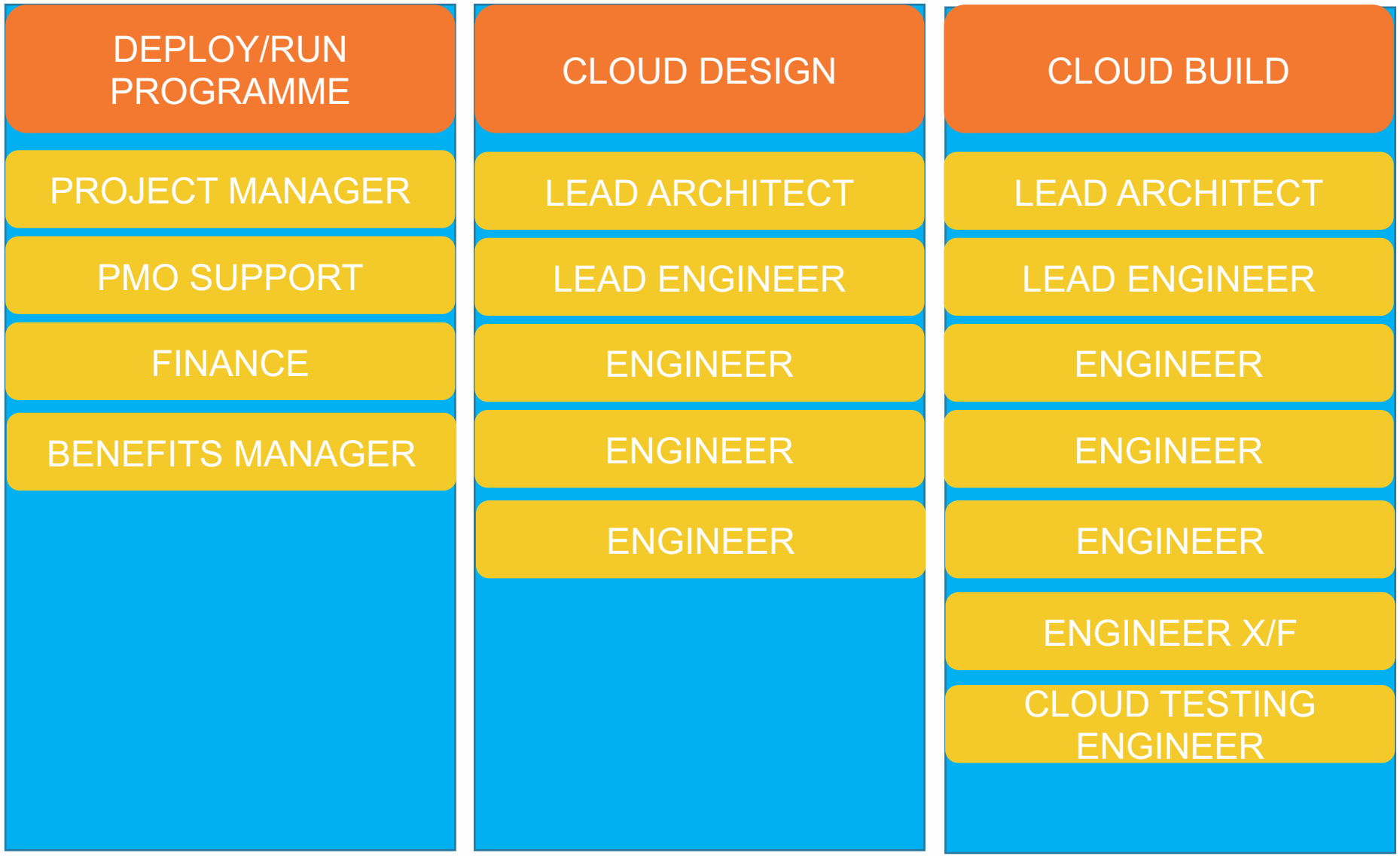


Recommendation is to use the wave creation model with the application teams to assess application for strategic fit vs. business criticality.

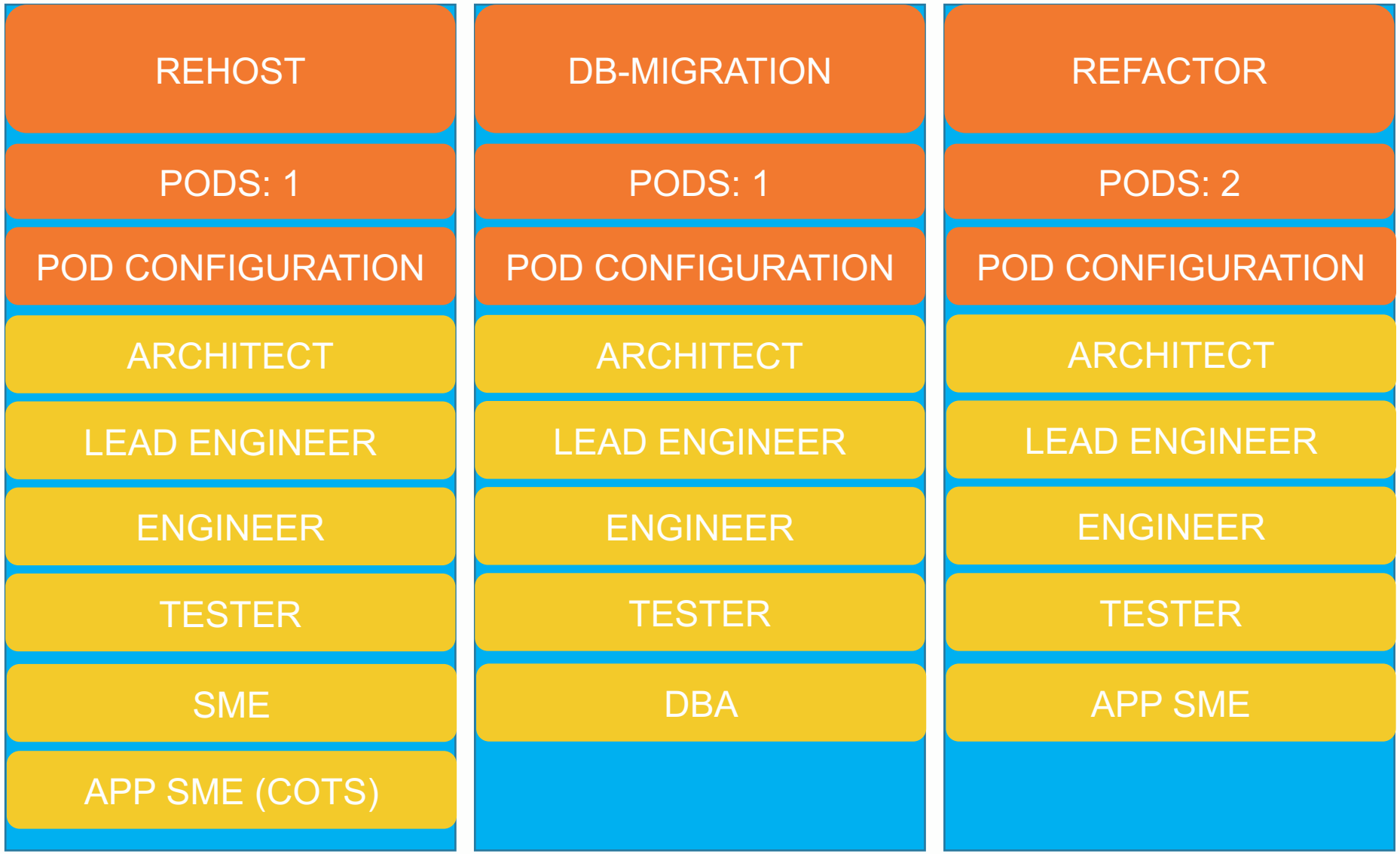
Migration Play Book

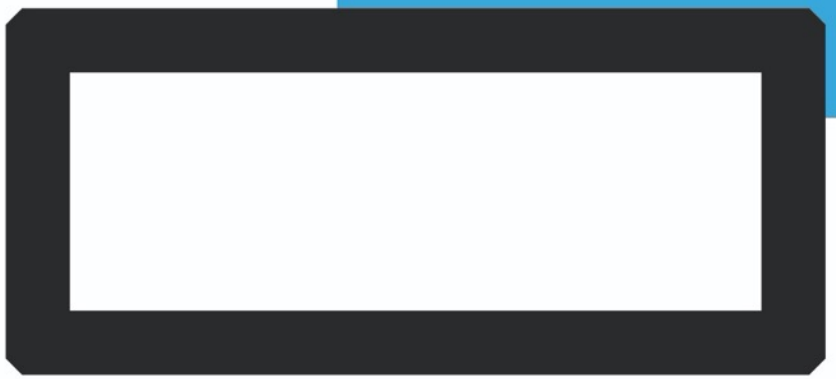


Transformation Resources – Design and Build



Transformation Resources – Migration

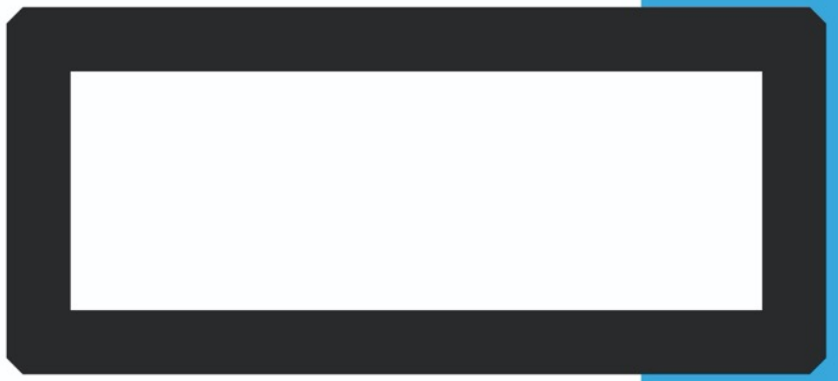




Risks

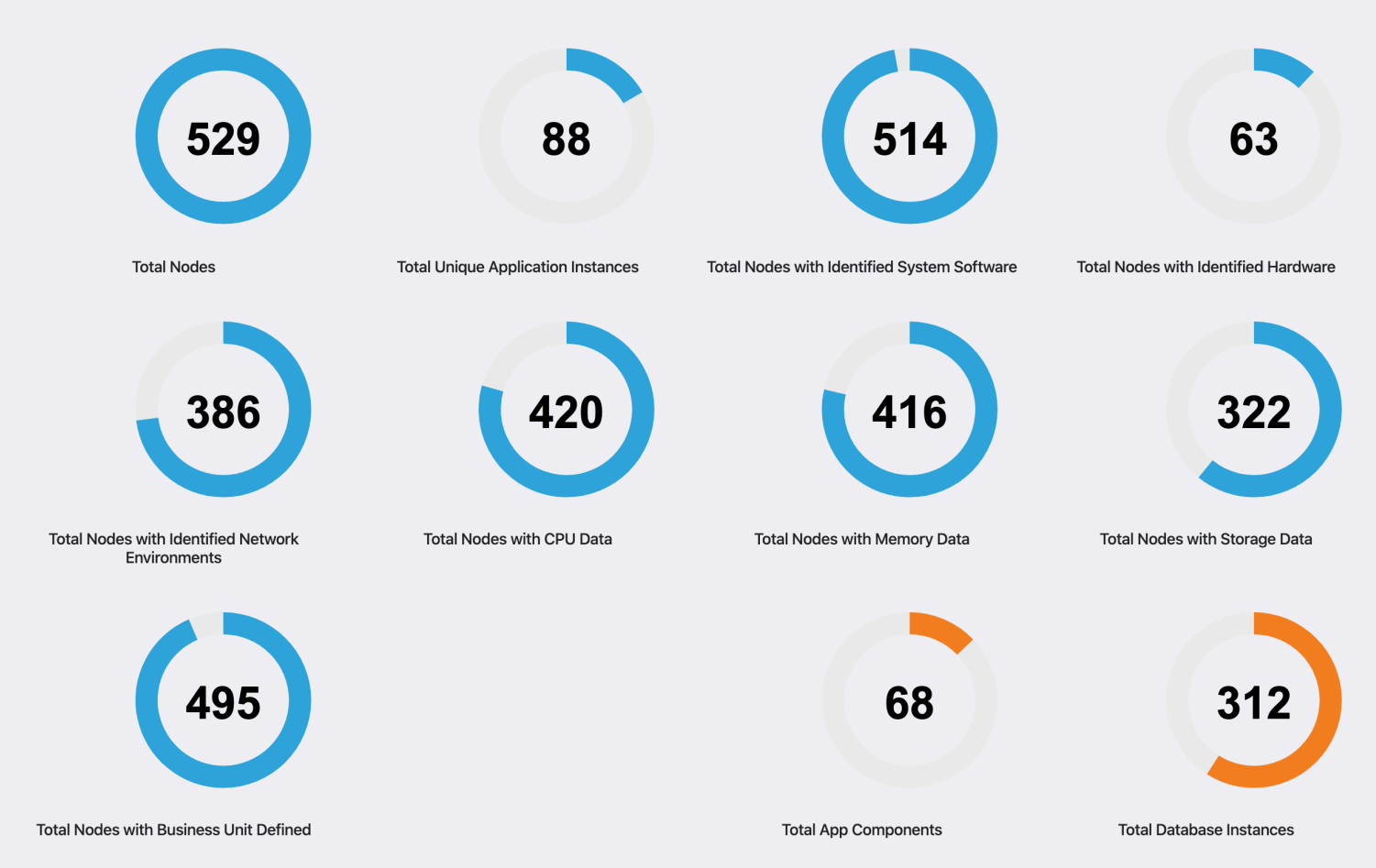
Top Risks

Programme Area	Risk	How does this risk appear	Mitigation	Impact
Application – Stellar and Pirate	Application Architecture is out of date and requires review	Full understanding of the application is not documented	Deep dive session with application owners/engineers	Application roadmap not fully understood
Technical Debt Considerations	Technical debt requirements impact the delivery of cloud first	Hardware items are approaching obsolescence dates and require a plan for resolution	Review the hardware models for the obsolescence data for support arrangements in lieu of migration	Detracts programme from overall objectives
Security	The intended landing zone has not had a Security Framework and Policy Impact assessment	Existing workload cannot be moved as the landing zone does not comply with security standard	Review the security policy and framework and complete an impact assessment	Migration can not start
Operating Model Development & Rollout	The operating model is dependant on partners	Operational support processes will deviate between partners	Review the requirements on partners following migration	Support during migration will be non standard
Service Catalogue	The service catalogue is currently not published for application owners	Application architecture with not be standardised	Define services architecture and publish to application owners	Bespoke services implemented for each application
Cloud Architecture	Landing Zone Blue Prints are not standard across Customer	Current BluePrints are specific to All4/Online	Review the current BluePrints for implementation into Customer - Corp	Landing Zone Blue Prints will need to be bespoke per workload



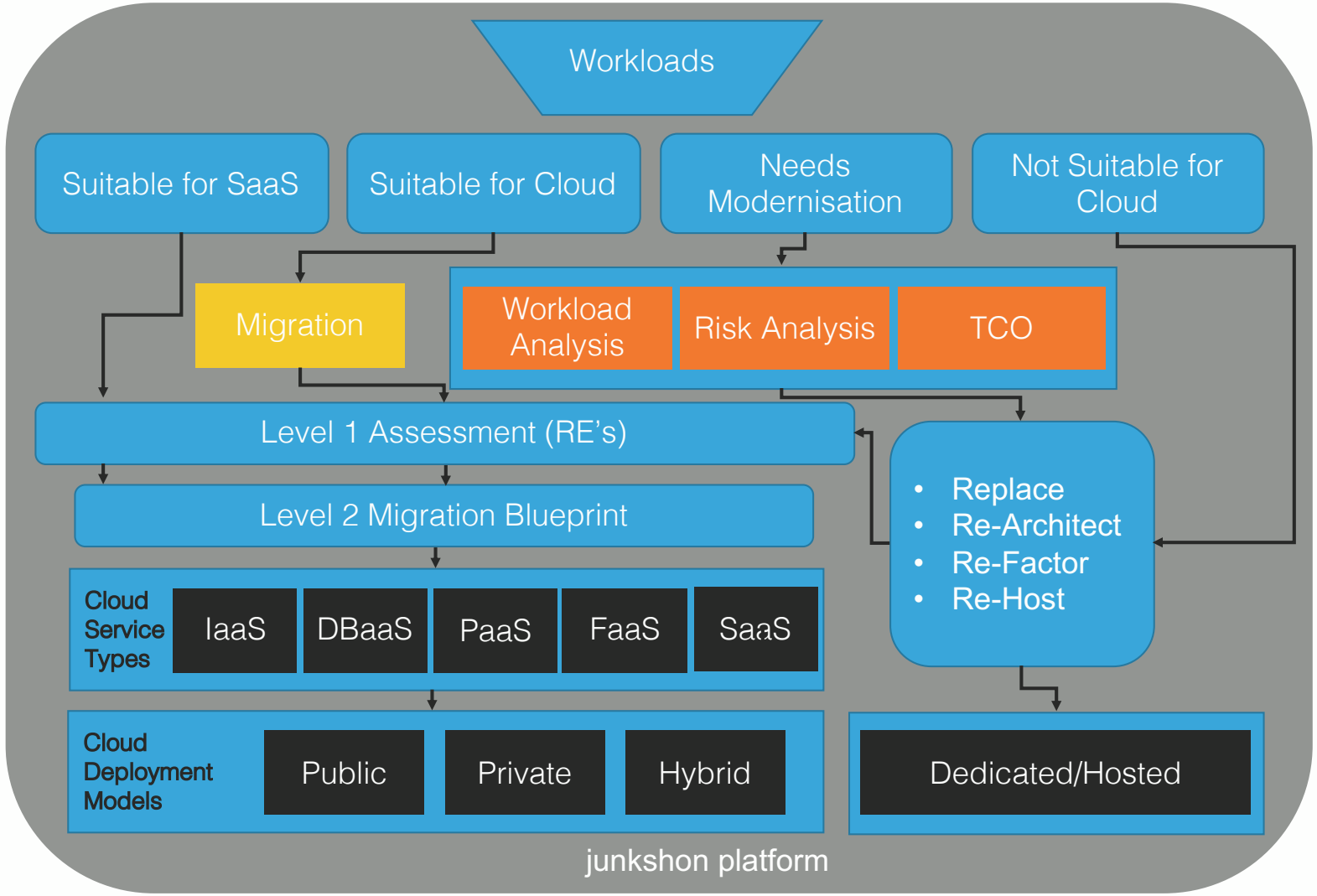
Estate Analysis

Landscape

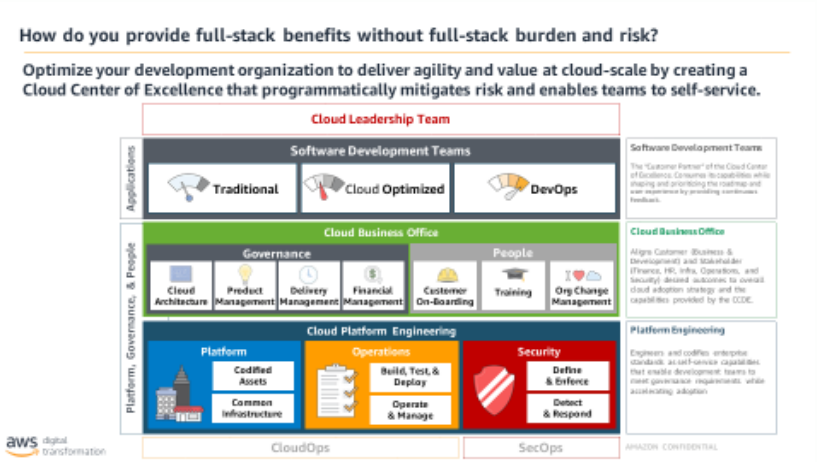

529
Total Nodes
88
Total Unique Application Instances
514
Total Nodes with Identified System Software
63
Total Nodes with Identified Hardware
386
Total Nodes with Identified Network Environments
420
Total Nodes with CPU Data
416
Total Nodes with Memory Data
322
Total Nodes with Storage Data
495
Total Nodes with Business Unit Defined
68
Total App Components
312
Total Database Instances

Backup Slides

Migration Factory



Sourcing Plan



Adopt product driven approach rather than project

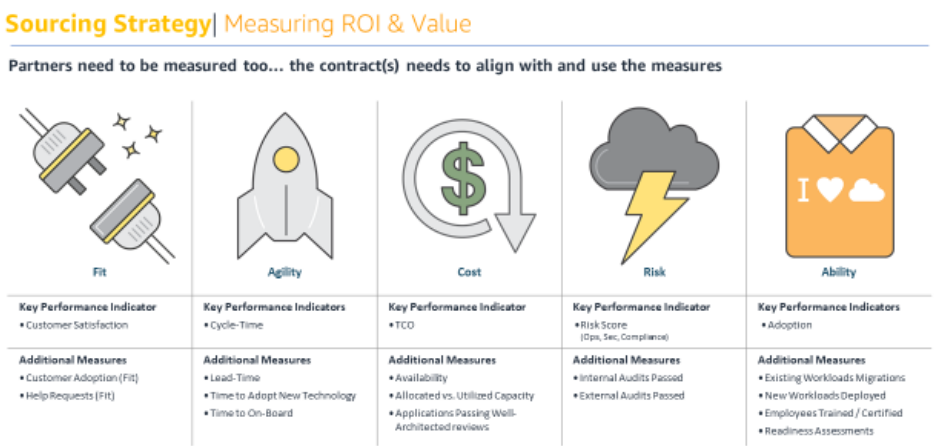
Prepare partner strategy to intercept key events / renewal points. Consider all phases, Transition, Transformation, Operate. One partner or several.

Shift from Capital Hardware acquisition to consumption based. development

Train and recruit in house core team who are cloud aware and drive the Cloud agenda with partners

Codify enterprise architecture and governance policies as automated, self-service products to enable development teams.

Establish a single IT Service Management platform (Conside SaaS)



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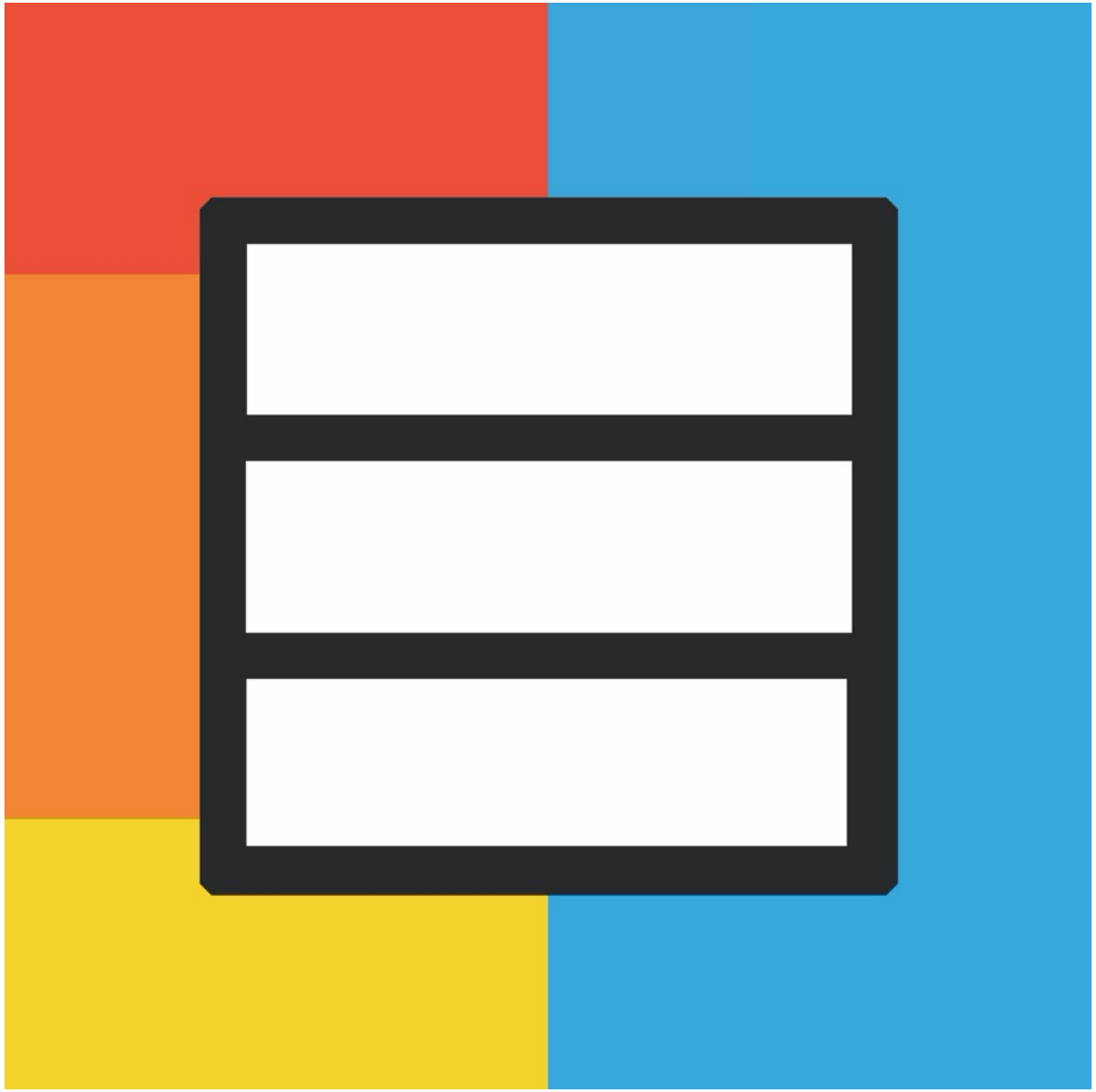

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