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Strategy

Pillar Strategy – Cloud Plan
G-Cloud 15 Service Definition

Cloud and Infrastructure Planning

29th January 2026
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1. Introduction

Who are Pillar Strategy?

- We are an independent consulting firm founded in 2011 providing technology related advisory services in the UK and to international clients
- We have a focus on planning and delivering infrastructure consulting services to our clients
- Our consultants typically have 20-30 years + experience in planning and delivering IT infrastructure services working at senior levels.

What is Pillar Cloud Plan?

- It is a set of planning and implementation services to:
  - Develop your strategy for use of the cloud, platforms, hosting and infrastructure
  - Plan and design how you use the cloud and other platforms for your business or application
  - Select between platform options and build in security
  - Contract with cloud service providers and optimise risk, cost and performance
  - Manage key design or selection decisions
  - Plan the programme
  - Manage the implementation and test phases
  - Oversee setup, migration, transition, operational readiness and go-live
  - Review the intended strategy or virtualisation proposition.
- We also carry out independent reviews and technical due diligence for potential vendors and acquirers of businesses on IT infrastructure and use of cloud platforms.

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2. Our Core Capability

- **Strategy**
  - Application and market
  - Cloud capability to deliver the application
  - Platform capabilities and services
  - Meeting privacy and security
  - Scalability and performance
  - Organisation and delivery
  - Costing and business case
- **Options analysis**
  - Baseline
  - Options
  - Comparison
- **Sourcing strategy**
  - Procurement
  - Contracting
- **Independent Review**
  - Review and challenge
  - Technical Due Diligence
- **Traditional Business Requirements driven design approaches**
  - Requirements capture
  - Concept of Operations
  - Options development and analysis
  - Solution and service specification
- **Design**
  - Business and System architecture
  - Data analysis and design
  - Transaction and event design
  - Business process design
  - Infrastructure design
  - Support and life cycle design and specification
- **Implementation**
  - Planning
  - Project Management
  - Problem resolution
  - Readiness for Go-live
  - Driving take-up and sales

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3. Typical Business Case for Pillar Strategy's Cloud Plan Services

- Identification of benefits and opportunities for competitive advantage
- Risk identification, management and reduction
- Cost estimation to avoid surprises
- Scaling performance needs and capacity realistically
- Realistic programme delivery planning taking into account migration, test and transition elements
- Reducing integration risk
- Getting an independent opinion
- Managing interface risks
- Meeting challenging security and privacy requirements
- Reducing risk of data loss and loss of data ownership
- Enabling Business Continuity and providing resilience
- Moving a high level cloud strategy into a deliverable actionable plan
- Getting clarity on the costs, benefits and dis-benefits
- Effective procurement and contracting

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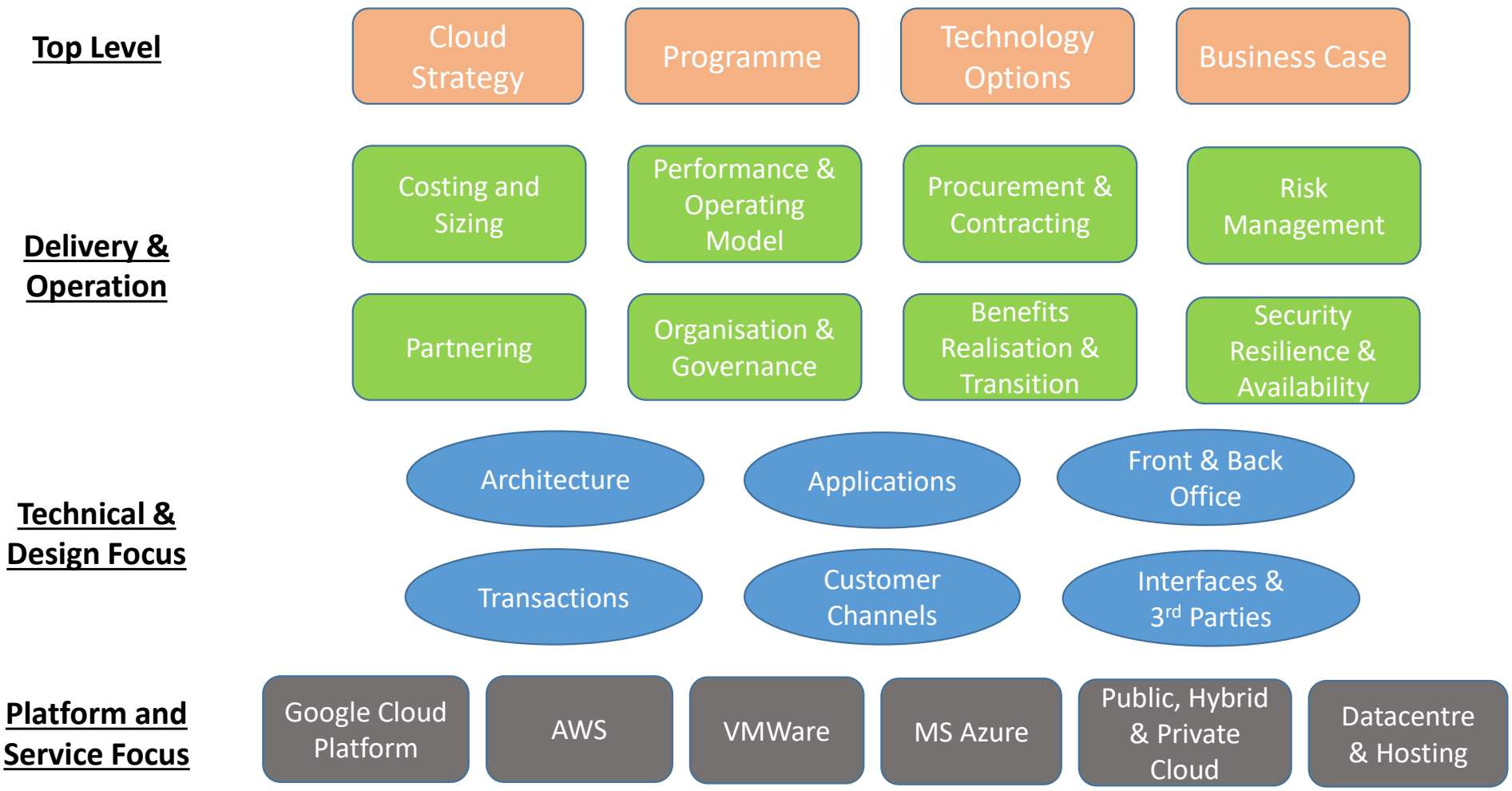
4. Where Do We Add Value?



5. Our Toolkit and Methodology

- Baseline IT Infrastructure Review
- Assessment of business goals
- Key Metrics assessment:
  - IT Infrastructure role in the business
  - IT Efficiency
  - Opportunity for competitive advantage
  - IT Investment cycle
  - Business risk
  - Security, Business Continuity and resilience
  - Cost effectiveness
- Future business requirement
- Future application model
- Planning the “To Be” Platform/ Cloud Environment:
  - Architecture
  - Process model
  - Transaction processing
  - Systems environments
  - Cloud services
  - Security and privacy design
  - Cloud platform configuration
  - Operations and support organisation

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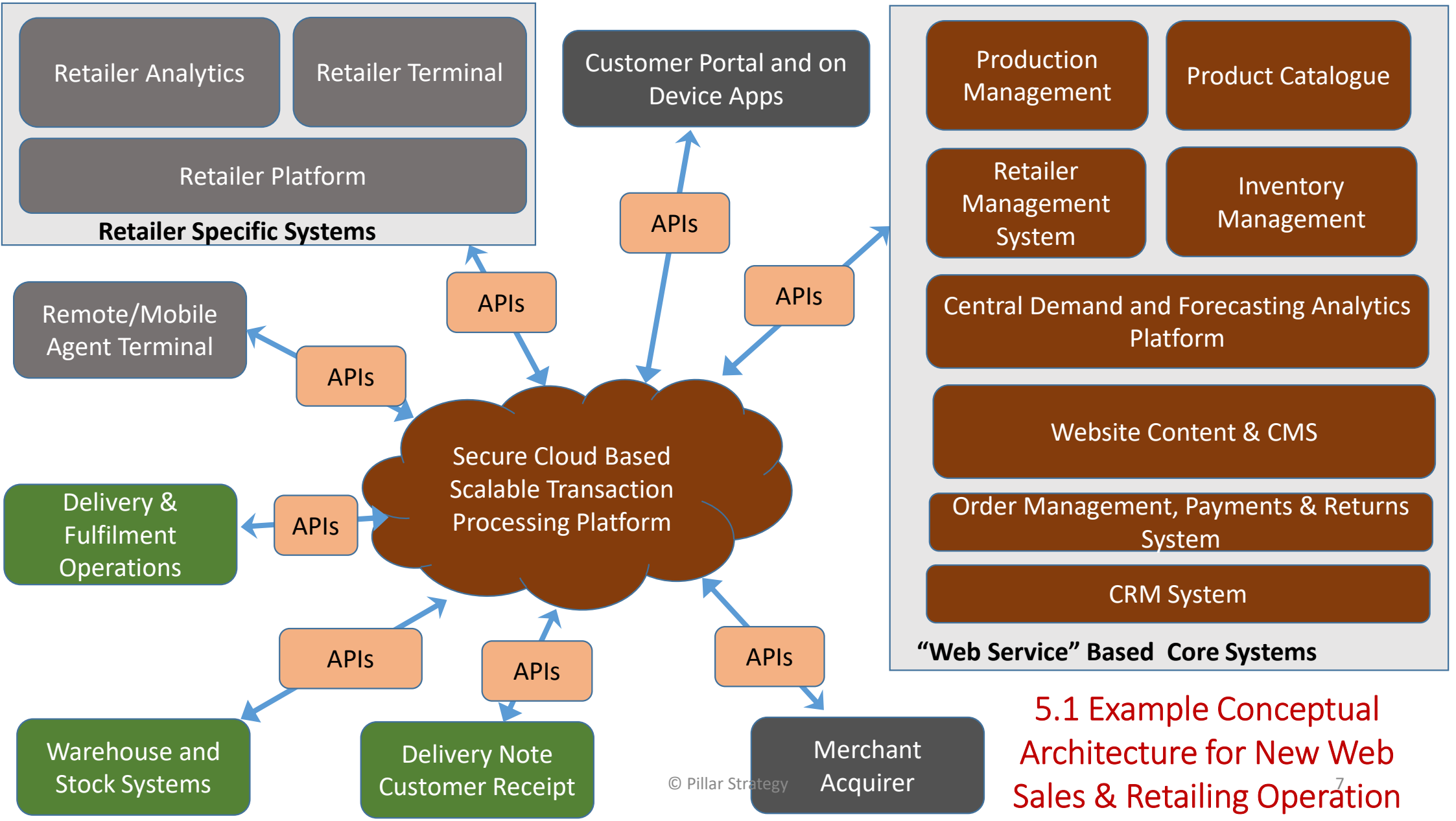

5.1 Example Conceptual Architecture for New Web Sales & Retailing Operation

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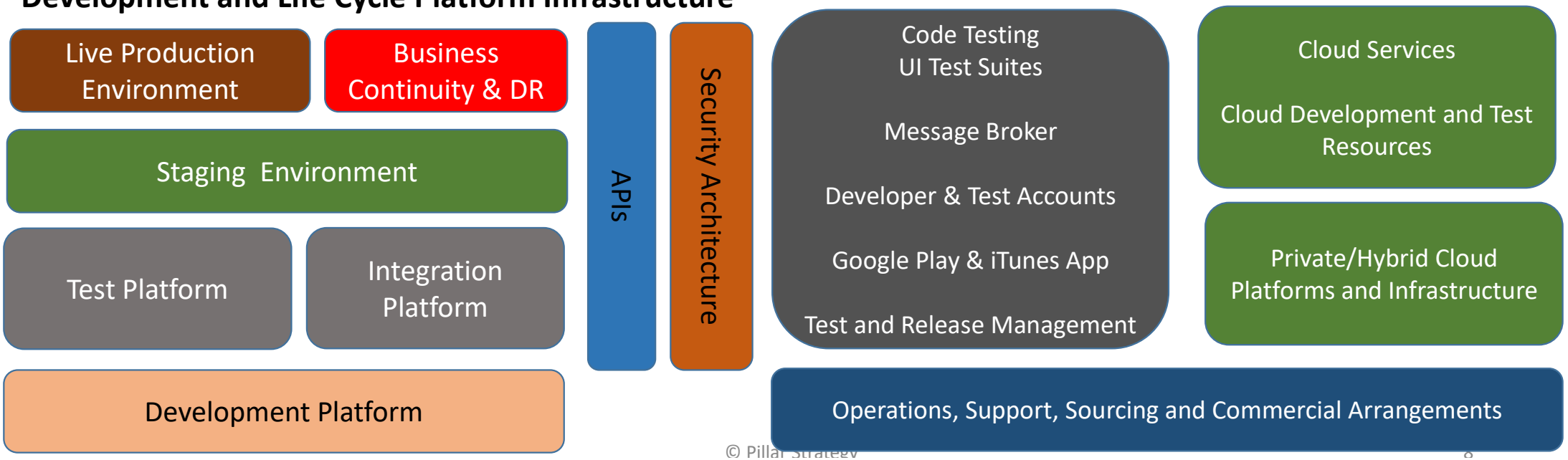
5.2 Example: Planning the System Environments

Key Questions our approach will address:

- What platforms and environments are needed to support the life cycle?
- What cloud services provide those environments and enable the applications and APIs to scale with workload?
- What can be virtualised? What needs to remain on dedicated server or legacy environments?
- Where will test, staging and production environments be located?
- What can be insourced and outsourced? What are the commercial arrangements?
- How will business continuity and resilience be provided?
- What is the security architecture? How will we achieve ISO27001 and PCI-DSS compliance?

Development and Life Cycle Platform Infrastructure



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5.3 Case Study: Hosting on AWS

Requirement

- Our client needed support to plan cloud based hosting and security for a transport application
- Chosen platform: Amazon Web Services.

How Did We Address the Requirement?

- We provided an experienced hosting design consultant to engage with the client and their intended suppliers (AWS resellers) and work closely with the local AWS team

Working closely with the client and supplier teams we:

- Reviewed supplier proposals and carried out a detailed critique and risk analysis
- Planned which elements of the application may need re-architecting to enable cloud scaling
- Identified the key areas of risk for the client
- Supported the client technical lead to calculate the effective availability for each part of the solution under different failure scenarios
- Worked with the client procurement and commercial leads to decide the trade off between cost and availability to optimise value for money and set a budget.

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Key Issues We Had to Address:

- Cloud native elements of the client's application vs use of containerisation – what parts of the application architecture would scale with loading and where will the bottlenecks arise?
- Achieving availability targets, resilience and use of multiple Availability Zones
- Capacity and peak compute load sizing and ability to scale to meet additional unforeseen demand
- Cost effective use of AWS compute resource as loading varies
- Security, firewalling and separation between customer facing web and "app" channels and back office applications
- Multiple suppliers and support organisations
- Integration with on-station and on-bus devices
- How fall back would operate in case of a zone failure.

Outcome

- We reached an acceptable technical design with identified cloud and security architecture components, suppliers, support scope and related AWS cloud-hosting service costing to meet the client requirement

6 Our G-Cloud 15 Services

We provide the following services under Lot 3 of G-Cloud 15:

Cloud Migration Planning	Support to Setup & Migration	Quality Assurance & Performance Testing	Security Services
Planning services to enable you to move your business applications to the cloud and/or hosting services.	Setup and migration services including consolidation and transferring workloads and re-engineering applications to adopt Cloud Native operation. Our main focus is on applications and data.	Tests the service and application Ensures services work as intended and meet user needs efficiently and reliably	Managing security in the cloud including: ○ strategy ○ risk management ○ design ○ incident management ○ privacy risks ○ resilience risks

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6.1 Cloud Migration Planning

Service Summary

We use a well defined multi-step migration planning process with decision points at each stage to confirm the feasibility of the planned migration and manage risks that may arise. In summary the key steps are as follows:

1. Assess the intended business operations or application which could benefit from operating in the cloud
2. Consider the impact on the application and the markets/user base for the application
3. Review the Cloud capability to deliver the application or a new business model
4. Assess the fit with available cloud platforms and risks related to re-engineering and operation
5. Examine the feasibility of meeting privacy and security challenges considering privacy restrictions of the jurisdictions and typical contract terms of the providers
6. Identify if specific datasets need to remain within certain jurisdictions and whether there are administrator constraints which mean remote support services outside those boundaries should not have access
7. Assess the clients organisation and delivery capability and identify the impact on the operating model and staffing
8. Consider the scalability and performance needs of the application or business model and assess whether cloud platforms have the flexibility and scalability needed
9. Support the preparation of costings and a business case where that is needed.

We have experience in 5 case model business cases in line with Treasury Green Book requirements as well as more technical cloud and platform related skills and experience.

We can work with both Agile and traditional Waterfall design approaches

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6.2 Support to Set Up and Migration

Once we have a strategic migration plan we need to go into the detail of designing and implementing the migration

1. Assess the suitability of the applications for using the cloud, and their architectures, data structures, process models and security privacy needs

2. Plan in detail what processes, data and services can use the cloud and their design objectives and constraints

3. Identify the platforms which provide best fit and high level costings for each part of the application, processing workload and dataset

4. Prepare the detailed implementation and migration plan and the business change approach and plan

5. Review provider cloud configurations, proposals, contract terms, service levels and privacy/data ownership constraints and risks

6. Support our client in contracting and procurement with potential providers

7. Provide project management to drive the plan forward

8. Prepare volume and capacity proposals

9. Prepare security and resilience plans and a business continuity strategy

10. Analyse and resolve implementation issues that arise

11. As we approach key milestones assess readiness for go-live

12. Support go-live planning;

13. Manage transition at go-live in a phased or release based manner

14. Drive business change and transition to the new cloud based model and promote take up of the new model or services

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6.3 Security Services

Alongside the migration plan we need to protect the business against security threats many of which may arise from the cloud environment.
The key activities needed to maintain the confidentiality, integrity and availability of services and information include the following:

1. Develop a security strategy for use of the cloud to be applied to the migration
2. Security risk planning and management
3. Security architecture and design in the cloud environment
4. Planning for cyber security, penetration testing and ISO27001 certification
5. Security incident management planning
6. Privacy risk management
7. Resilience planning and design for the cloud environment
8. Access Management and Policy and how that transfers from the legacy platform into the cloud

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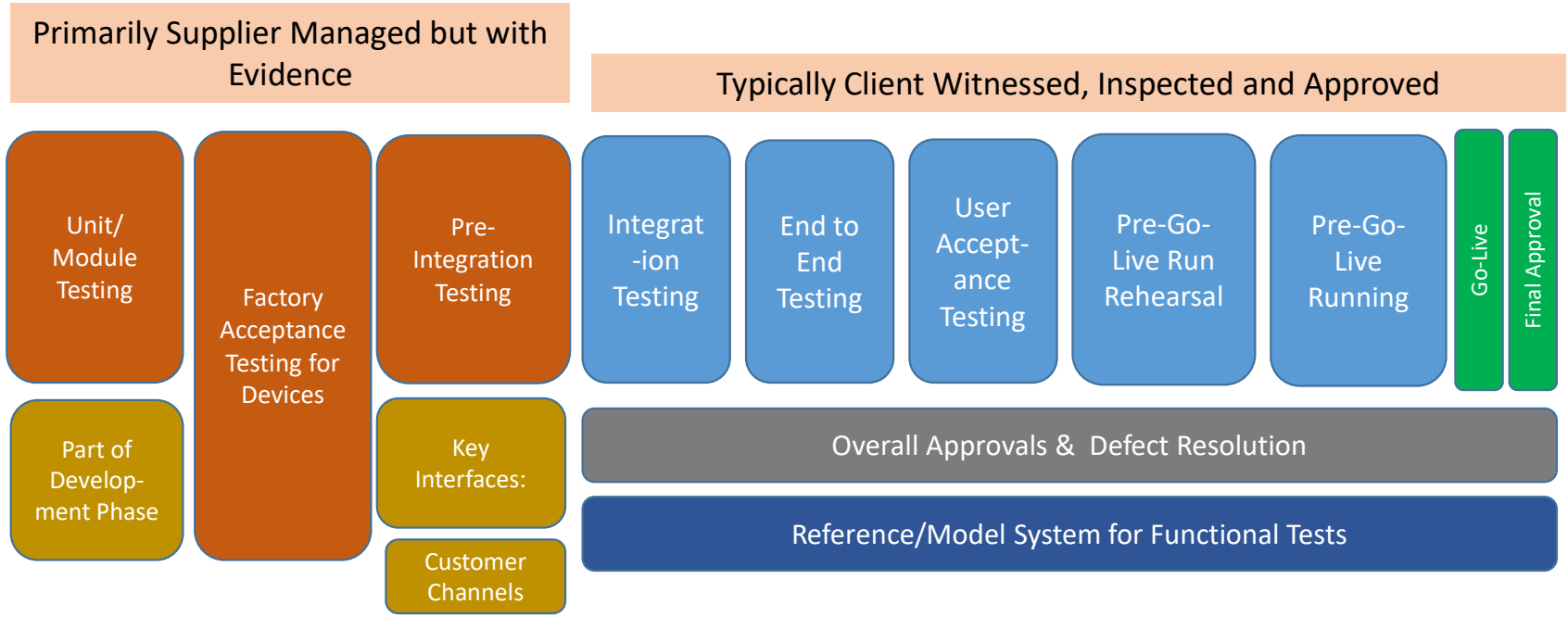
6.4 Quality Assurance and Performance Testing

Our main focus is on testing. We act as test strategists, test planners and test managers carrying out activities as required by the buyer/client including:

1. Preparation of test strategy and link to test phases and test plan
2. Development of test plans including all test stages (eg unit testing, sub-system testing, pre-integration testing, integration testing, end to end tests, load/volume testing, user acceptance testing, go-live readiness testing
3. Design of test cases including scenarios, use cases, loading
4. Review and assurance of supplier proposed test plans and test cases
5. Planning of test environments so that the application life-cycle can be managed for new releases and updates and the required test events before a release is promoted into production (eg QA, staging, pre-production, production, support and training environments)
6. Management of test delivery
7. Review of supplier tests and test witnessing/observation
8. Preparation/review of test reports
9. Management and logging of test defects with severity and criticality (using tools such as Jira),
10. Development (with a supplier) of defect resolution/work-off plans
11. Triage of test failures involving multiple agencies (for example across an interface or two separate environments) working with all the parties involved
12. Support to buyers in determining whether defects have been resolved and sign-off of delivery milestones and acceptance events

6.5 Illustrative Framework for Test Phases



Key Test Principles

- Need a framework within which to plan the test phases
- Cloud migration may require redevelopment of key application, data and functional aspects
- In our experience not all defects will be initially resolved – need criteria on whether to continue towards go-live/next test phase with defect tracked and release strategy continuing beyond each milestone and go-live
- Maintenance/release management and reporting process needed

7. Selected Recent Assignments

Client	Assignment	When
Highway Operator	Review of back office, cloud hosting and security as part of technical due diligence	Feb-June 2024
Transport System Provider	Hosting platform planning and security design using AWS with containerisation and multiple Availability Zones	June-Oct 2023
US Toll Road operator	Review of hosting, security, DR provision and support arrangements for roadside and back office systems	May-Aug 2023
Transport Ticketing Provider	Hosting proposal review based on MS Azure, assessing capacity, Zoning, resilience, security and operational support	Sept-Nov 2022
UK City Authority	Technical assurance on design of outsourced cloud-hosted contact channels and VMware back office infrastructure	June 2021-Jan 2023
UK Airport	Outsourced payment collection system implementation covering technology, platform, service levels and contract	Feb 2021-Apr 2022
Highway Operator, France	Hosting Strategy & specification for high availability transaction processing application in virtualised environment	Jan 2019 – Aug 2021
US Highway Operator	Technical Due Diligence for a vendor on cloud-hosted applications, application support, resilience and future costs	Feb-June 2020
DfT	Development of Rail ticket retailing IT infrastructure/cloud architecture strategy	Jan-May 2019
TfL	Review of Telecoms Infrastructure Delivery Partner Procurement process and architecture	Oct-Dec 2018
Transport Operator	Review of plan to use MS Azure + Dynamix for CRM and event processing	Sept 2018
Transport for the North	Infrastructure and non-functional requirements review for contactless ticketing back office project	April-Oct 2018
North American Transport Operator	Technical due diligence on IT infrastructure and intended agile delivery of Sales Force and SAP systems upgrade for the vendor of this business	June-Sept 2018
UK Acquirer of a business	Technical due diligence for the buyer on IT Infrastructure, hosting and customer facing channels of the intended acquisition	April-June 2018
UK Highways Organisation	Tolling Platform IT Infrastructure Requirements Specification in accordance with GDS cloud platform and security requirements	Dec 2017-March 2018
Qatar Client	Secure network infrastructure design and bid in telecoms and broadcasting	Nov 2017- Jan 2018
Smart City start-up	Cloud/hosting strategy and implementation for a smart city App “start up”	May 2016-April 2017

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8. How We Work with Our Clients

We work flexibly to meet your needs, project development stage and location.

Team

- As part of a client project team
- As independent reviewers providing challenge

When

- At the inception of the developing proposition
- Further downstream
- At critical stages in the delivery
- Post implementation

Where

- On-site with the client
- Remotely
- A mixture to optimise use of our and the client's time.

Business Planning, Design and Development Methods

- We work alongside business, commercial and application focused teams using traditional "waterfall" and agile development approaches

How we engage

- We are strong communicators with a background in "big 4" consulting firms able to work with multi-disciplinary teams across a wide range of media
- Through workshops, face to face meetings, questionnaires and other data gathering approaches
- By reviewing documents and designs and proposing solutions to key design issues
- Acting as champions to put in place the right contracts and commercial arrangements.

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