

G-Cloud 14

PwC and G-Cloud: Knowledge,
experience, value

Managing Cloud Transformation
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Transforming Business using the Cloud

We have worked with many Central and Local Government clients to support the implementation of their strategic business objectives using cloud technology. Enabling business and enterprise transformation using cloud is a complex, strategic consideration facing many private and public sector organisations.

Cloud technology and services have the potential to reduce cost, remove technology bottlenecks, and facilitate rapid business innovation. As a result, for most organisations globally, adopting cloud technology has become a question of “when and how” rather than “if”.

Opportunities for enterprises generally include a combination of one or more of the following:

- Implementing private and/or hybrid clouds for infrastructure and applications;
- Smarter use of public cloud infrastructure for refining existing business functions;
- Using cloud for implementing new business services or digital operations;
- Better use of enterprise wide data to support the business and data strategy;
- Laying the foundations for increased automation and use of Artificial Intelligence to achieve business objectives; and,
- Reducing cost by moving to consumption based pricing models that only charge for the actual IT capacity and services used.

Migration or adoption of cloud must be properly choreographed for success. We understand the realities and the business and technical risks that should be fully considered, understood and mitigated before such a move. Critical considerations include:

- Alignment of business and technology objectives. This is essential to fully realise the targeted benefits of any cloud transformation or any refinement of existing cloud services. There can be a tendency to adopt cloud systems to fit current ways of working, rather than adopt and standardise processes where possible. The trade-offs between business, customer and technology requirements must be considered to make informed design decisions;
- Availability and reliability of services. The avoidance of operational downtime to mitigate in lost revenue, unnecessary operational cost or reputational damage that can disrupt a business' operations;
- Decentralised support structures. The need to tailor and revise the approach to operational security to cover the support structures employed by cloud service providers that will have a different risk profile for sensitive information.
- Data handling practices. Data classification and data-handling practices that reflect the data flow within a cloud environment must be understood and tailored accordingly to protect customer data.
- Data privacy. Compliance with GDPR to understand where and how information can be stored or processed. The cloud model enables data to bounce swiftly around the world by using available server capacity in various geographic locations, but this must be within the bounds of what is permissible. This is ever more of a concern as organisations review their front office, back office and out of office experiences.
- Future Technology Trends. Cloud applications are the stated direction of travel for the major application vendors, but any upgrade path must also cater for the future technology needs of the organisation and seek to minimise technical debt where possible.

A careful assessment of an organisation's needs and different cloud service provider's controls is required, enabling concerns to be addressed and the correct path to the cloud is selected.

As a trusted advisor PwC provides the framework, and the wealth of private and public sector experience, to consider the combination of Business, customer experience and Technology activities outlined above. There is no single answer that covers each and every client organisation; we tailor our frameworks to client circumstances to support clients:

- As a partner through the complete lifecycle of strategy through to execution; and,
- With point business issues encountered during implementation or running the business.

Managing Cloud Transformation Services

This section describes in more detail the service features and benefits included within this service offering document.

Managing Cloud Transformation Services

PwC provides the capability to manage the transformation activities that define and deliver the strategic case for change. This includes setting the vision for the organisational outcomes, defining the future organisational shape and iteratively developing the Service Design within the guardrails of an aligned Target Architecture and Target Operating Model.

Managing Cloud Transformation Service Features

- Functional and Technical Design Authority strategy, mobilisation and operation
- Delivery Partner support for End-to-End Service Design and Development
- Transition & Delivery Management from strategy through to sustainable operation
- Cloud transformation PPM, Governance and Service Conformance Management
- Management of cloud enabled business transformation, migration, modernisation and innovation
- Pragmatic delivery using agile, waterfall and hybrid methods
- Requirements specification, sourcing and selection aligned to the business case
- Tailored Enterprise Architecture Design and Delivery for a resilient solution
- Architecture Driven Agile Transformation Framework for consistent and safe delivery
- Benefits realisation, tracking and reporting approvals aligned to business case

Managing Cloud Transformation Service Benefits

- Predictable and managed delivery of suppliers against strategic designs
- Clear accountability for delivering of services across multiple suppliers
- Release plans with scope, schedule, budget and benefits clearly defined
- Cloud Transformation aligned to the Target Operating Model (TOM) development
- Sustainable end-to-end service model to address legacy technical debt
- Maintaining service continuity through the transition effort and post migration
- Release approach that allows for gated governance, decisions and flexibility
- Tracking and Reporting of Business Benefits against the business case
- Identification, management and mitigation of security risks
- Laying sustainable foundations for automation and embedding Artificial Intelligence.

1. Managing Cloud Transformation

Our approach to managing and delivering change, using the cloud, is founded on distinct areas of control that together form the “controlling mind” of any cloud enabled transformation. These apply for any size or complexity of cloud enabled change from individual projects through to enterprise wide change.

In our experience, putting these controls in place is essential to shaping, delivering, and tracking the intended value of a transformation whether it be delivered through an agile, waterfall or hybrid approach.

Many organisations are able to support these control areas individually but drawing the golden thread from strategy through to live operation of a new or revised service is critical to achieving the intended value. Our approach embeds the controls needed to successfully realise the benefits of a cloud enabled transformation. The key control areas are:

1. Strategic Direction – Defining the business strategy through a business case with measurable benefits that is then maintained throughout the transformation activity. This articulates the vision for the shape of the future organisation.
2. Defining the Future Organisation – Defining what the organisation should look like, from a people, process and technology point of view with defined interim states that provide measurable milestones of progress. This must be directly linked to the strategic direction with articulation of benefits drawn out for each states; and,
3. Enabling Capabilities – Establish the business capabilities, supported by technology, that will be delivered for the organisation. These must be run in a sustainable way that achieves target benefits and delivers against the strategic direction..

This approach to managing and delivering change through these control areas is enabled through key capabilities that we offer individually or as a more holistic partnership that is underpinned by shared commercial outcomes. The characteristics of our cloud support services are detailed below against:

- Enterprise Architecture;
- Portfolio, Programme and Project Management; and,
- Transition Management and Business Change.

2. Enterprise Architecture

The management of enterprise architecture through delivery forms part of our IT operating model framework service. We recognise that organisations can gain tremendous value by considering the enterprise architecture that includes a Service Integrator, a single supplier or combination in partnership with the retained organisation. These approaches must be considered when developing both the business strategy and IT strategy..

Our approach to Enterprise Architecture involves following the development lifecycle of design and planning, transition, transformation and steady state operations to develop an architecture that responds to the business need, is commercially viable and can be delivered within the target timeframes; Our experience of helping our clients understand their organisation and IT services is drawn upon for each new client situation. This provides the ability to introduce innovative technology to respond to relevant market trends in a controlled manner. This is ever more important to support a sustainable drive to embed Artificial Intelligence as part of day to day operations aligned to the business need.

The key outputs of this exercise include an evolved architecture capability providing services to support visioning and target architecture design, roadmap development and planning, and ongoing management of the architecture to confirm it remains fit for purpose as business demands change and grow.

Our approach allows the Service Integrator to perform the role of the empowered agent acting on the behalf of the customer, in a multi-sourced IT service model to integrate services & operationally manage the end to end services. Our Enterprise Architecture capability also includes the distinct services below that form the building blocks of successful design.

A. Service Design and Development

PwC provides services to support our clients with the strategy and planning to develop the end-to-end service design, development, delivery and refinement of complex and highly integrated business solutions across national boundaries for front and back office functions. We have a wealth of experience in

successfully helping clients make key strategic decisions by helping them understand the merits and pitfalls of technology choices in the design, development, delivery and operation of high performing, coherent and integrated business solutions.

We understand the impact of new and/or upgraded technology solutions or components within an established IT operation, utilising good practices for system design, development, integration, and operation. With the depth and breadth of experience in different design and development methodologies, including Hybrid, Waterfall, V-model and Agile, we understand the strategy and planning necessary to successfully implement or integrate these approaches to deliver the required outcome.

Through our approach we are able to balance functionality, agility and performance while managing costs and technology risks that come with the delivery of large and complex business transformations. Key characteristics of our approach include:

- **Architecture** – Rather than developer-driven design decisions, use strong architecture blueprint and architect collaboration to drive the development process. This is a proven approach for Agile and Waterfall methods to maintain a strategic direction linked back to the approved business case;
- **Rigorous, Progressive Planning** – Develop an integrated release plan that establishes multiple delivery targets for functionality, schedule and budget.
- **Team Structure** – Design an organisational structure to align with the broader enterprise and support the development to coordinate enterprise systems, QA and shared services.

We provide the strategy and planning of Agile development and management services through our “Architecture Driven Agile” framework, which offers a balance between structure and flexibility. Our framework is designed to be accessible for the business users as it helps to describe the end-to-end roadmap, how the aspects of policy, customer, operations and transition can be considered. Key attributes include:

- **Layered Architecture:**
 - An end-to-end business architecture, operational architecture, and technical architectures are created early to support the policy outcomes and the desired customer service design. These are aligned to interim transition states that together define the approach to transition;
 - The creative freedom within an iteration is supported by the architecture approach to deliver the required inputs: clarity of outcome, key design principles, customer analysis, technical and cost constraints.
- **Agile and Responsive Programme Management**
 - Establishment of release plan with scope, schedule, and budget target;
 - Establishment of iteration plans that define interim scope and schedule targets;
 - Clarity on how and when the iterations are taken into the live operation, enabling business readiness.

Our approach to developing the Target Operating Model for any cloud transformation focuses around a whole lifecycle approach from the 'to-be' business blueprint to implementation, using the stages of 1) Strategy & Assess, 2) Design, 3) Construct; this enables us to develop a robust business architecture to drive cloud delivery. Throughout this lifecycle, we would work with client teams to define the future vision for the business, and develop an operating model that is able to support achieving this vision by having in place the right people and capabilities, organisational structure, processes and ways of working, informational flows and KPI's, and technology / systems required to support the future business model.

Once designed, we are also able to provide a prioritised and demand led approach to implementation. In practice, this approach means assessing demand triggers in and outside of the client's business, identifying the most urgent areas required to transform, and implementing the Target Operating Model in an agile way.

In addition to development of key design artefacts we offer services to assess and, where required, correct course for cloud enabled transformation. Understanding the existing 'health' of an organisation's operating model allows business leaders to make the right interventions to support the rollout of new technology and ways of working. We tailor our 'Business Analysis Toolkit (BAT)' to rapidly assess the entirety of our clients' businesses across the breadth of the organisation. Once this initial analysis is complete, we then build

additional detail around the maturity of each function through our catalogue of Operating Model Assessment tools.

B. Business Analysis

Business Analysis is a key activity used to gather and structure information about an organisation, the results of which can be used to: assist strategic decision making; understand the organisation's existing and potential market position (external analysis), and get a clearer picture of the organisation's resources and capabilities (internal analysis).

As part of our approach to evaluating the client's current situation and working with them to develop the best solutions we have developed an analysis methodology that begins with understanding business issues and challenges, before harmonising the identified challenges within the current agenda of the CIO, and then looking at options to address the challenges and defining operating metrics that establish a benchmark for measuring results.

PwC provides services to support the strategy and planning of Business Analysis that is focussed on gathering and analysing work group data, defining current business processes, identifying and documenting business requirements, researching good practices and identifying and exploring business process improvements.

PwC has proven models to assess and develop cloud strategies for any public sector organisation. Once strategies are agreed we can put an architecture and implementation plan together to deliver those strategic objectives.

PwC offers a proof of concept to assess the organisation's cloud readiness and advise on any architectural changes required to achieve the strategic objectives. Through our expertise, and partnerships, we are able to put in place rapid prototyping to bring strategic ideas to life.

The output of this service would typically include the evaluation of existing cloud strategy, evaluation of the existing cloud architecture, recommendations on the future cloud strategy, recommendations on the target architecture including the most appropriate public/private/hybrid cloud environment and the end to end IT transformation and change process required to implement any recommendations. This assessment considers, amongst others, the following key areas:

- Business / IT Transformation
- IT Strategy
- Security
- Data Management
- Disaster Recovery and Business Continuity
- Application development framework
- IT portfolio management
- Infrastructure design

C. Design Authority

PwC provides service to support the strategy, design and planning of the Design Authority (DA) function that covers both business and technical designs; we are able to support activity from early state definition of the strategic direction through to more mature transformation activity that maintains the link of strategy to delivery.

The DA focuses on the solution design and whether it will adhere to a common set of principles and that the transformation remains focussed on the strategic goals of the change programme. The main objective of the DA is to develop and impose business control and governance over projects and programmes from an architecture and design perspective; the operation of the DA is tailored to the specifics of the change activity and encompasses agile, waterfall and hybrid delivery methods.

Design control is achieved through definition and enforcement of adherence to the architecture policies, standards, methodologies, processes, tools and frameworks. The ultimate aim is to enhance overall business performance and flexibility and to provide solutions that are 'fit for purpose', increasing the likelihood and predictability of success whilst reducing the probability and cost of non-conformance and duplication.

We have experience across the full range of solutions across front, middle and back office; we are positioned to provide organisations with assistance through our own in-house expertise of all the main solutions. This holistic view allows PwC to advise on the most suitable system for a client's specific requirements. This includes whether the requirement is for full ERP functionality, custom development of specific functions, functionality to support a new citizen facing portal or distinct components, such as Human Resources and Payroll / Finance, Customer Relationship Management (CRM), Sourcing and Procurement, Asset Management, Case Management, Purchasing and Purchase-to-Pay.

3. Portfolio, Programme and Project Management

PwC provides strategy and planning services for Portfolio, Programme and Project management across the lifecycle of a transformation; we are able to tailor these services specific to client requirements. Successful portfolio, programme and project management will put the controls in place to enable the successful delivery of a transformation from strategy through to execution and beyond.

We use our extensive experience of developing, implementing, operating or managing transformation activities as input to tailor approaches accordingly; this provides the enterprise view of activities, and outcomes, by lifecycle stage that drives consistency across the portfolio and each change activities. We help clients to direct, manage and control activities in a way that maintains a focus on, and delivers, the target benefits established within the business case. We also have complimentary services for developing a cloud business case.

This service includes programme mobilisation; programme scoping and planning; establishing and implementing the governance arrangements for the programme that define how it is set up, managed and controlling how stakeholders will be involved in and make decisions; defining and implementing the Programme Management Office (PMO) and programme management arrangements, planning and completing programme assurance activities and completing programme closure activities.

Our approach to successful portfolio, programme and project controls can be summarised as:

- **Prioritise** – striking the right balance between running, protecting and growing the organisation;
- **Execute** – clear standards and approaches that drive consistent management, in both traditional and agile ways, across all change activities; and,
- **Realise** – placing the identification, quantification, management and realisation of benefits at the heart of business case development and delivery plans. Delivering real business benefits through change is a discipline that we have long recognised as requiring dedicated focus.

Our services for the strategy and planning of project specification and selection are provided to help you confirm that all elements of your objectives are carefully examined and considered as part of the development of specification and selection of your projects.

We will work towards the goal that embedded in your project selection process are techniques to highlight whether spending is in line with your strategy, and that you choose projects that will have the greatest impact on the business, the strongest return on investment, and deliver your business objectives.

We can provide services for all commercial aspects of solution delivery from planning the detailed business case costs, benefits and ROI through to managing the deployment to facilitating the business transformation.

As part of our day to day delivery management experience we are able to provide services across all facets of the delivery cycle including Product Owners, Scrum Masters, Agile Coaches and support for all levels of strategic leadership.

4. Transition Management and Business Change

PwC provides advice, strategy and planning services to support transition and migration management with the goal that the delivery of the transformation is ultimately successful. The size, scale and complexity of the change should be scoped and risks and activities required to support the change initiative need to be identified and understood.

The detailed design of the best-fit transition approach and integrated transition and migration strategy is completed which describes the required transition management activities. These support the achievement

of the required business outcomes and benefits of the transformation. Continual feedback and monitoring loops are used to highlight that the transition management activities are aligned with business needs and adjustments made where necessary. A broad range of transition management activities may be undertaken which address topics such as leadership mobilisation and alignment, culture and behaviours, stakeholder engagement and communications, transition network, transition management knowledge transfer, transition impact and readiness assessments, monitoring and fine tuning and sustainability.

PwC also offers other key services as part of our transition management and business change service offering:

- **Change Champion Groups.** We support the establishment of these groups that are used as a way of creating wide involvement across the organisation and letting staff become involved in shaping the solution. Time is set aside for teams of staff focussed on different change themes to research through various sources their specific areas and identify good practice that they can bring to the programme with a set of recommendations. The scope of the change themes should be deliberately broad allowing team members to explore areas of new thinking.
- **Communications Management.** We recommend a number of key mechanisms for communicating with staff that should be defined in a communications strategy that addresses the stakeholder groups and the type and frequency of communications that should be used to deliver messages and updates to them. Typical communications mechanisms include staff events, newsletters and webcasts.
- **Departmental change plans.** We develop change plans that explain to each department how changes will impact them, a view of the new ways of working can be visualised. These can be signed off by the department as recognition of what will change and how it will change during the implementation of the new operating model and provides a frame of reference for all transition activity.
- **Strategic Workforce Planning.** Our Strategic Workforce Planning approach is a proactive analysis of talent supply and demand that enables organisations to build required capabilities and capacities to achieve strategic business objectives. Using cloud-based analytics we are able to align and refine the workforce planning process, identifying 'hotspots' that require managerial attention, and provide modelling and planning of future workforce requirements.
- **Transformation Programme Review.** Our services around Transformation Programme Review are designed to provide rapid analysis of either a planned or in-flight Transformation, and provide insight into the Programme construct, mandate and effectiveness. As part of this work, we apply our market leading framework for Transformational delivery to assess the overall Programme, or where required, we are able to bring in subject matter expertise to provide assessment on specific areas of focus.
- **Transformation Management Office.** We know from experience that successful cloud-based transformation is not just about technical design or effective delivery, it also must include careful oversight and coordination. This service looks to effectively manage Transformation through three key themes of activity:
 - Portfolio Management – Coordinating change activity to drive value and standardise delivery;
 - Change & Engagement – Ensuring people are engaged, supported and informed through the transformation; and,
 - Design – Ensuring the operating model is designed to support the transformational changes and continues to meet the organisation's strategy.

We are able to develop a Transformation Management Office to oversee these themes of activity, providing the right level of oversight, balanced against the organisation's BAU commitments.

- **People, Culture and Capability Transformation.** This service focuses around helping to embed any cloud-based solution through supporting the workforce. In practice, we know from experience that technology enabled transformation is dependent on having the right people and culture in place to support adoption of new technology, and we are able to provide cultural support to adapt to new ways of working, as well as identification of capability gaps for implementing a cloud based solution.

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