



Mainframe Modernisation

G-Cloud 15 Service Definition Document

January 2026

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1 Deloitte Overview

As a leader in professional services, Deloitte LLP is committed to making an impact to our clients, our people and for society. We have over 27,000 staff based across the UK providing audit, risk advisory, tax, consulting, financial advisory and legal services to public and private clients across multiple industries. We work together to build trust, support inclusive growth, and build capability, enabled by our **breadth and depth of expertise across advisory, delivery, engineering and managed services.**

Our **public sector practice** serves Central Government, Government Agencies, Local & Regional Government, Defence, Security and Justice, Health and Social Care, Transport, Education and Housing. We also provide services to the Northern Ireland Office, Scottish Government, Welsh Government and Crown Dependencies.

Our Cloud Capability

At Deloitte, we help our clients **Imagine, Deliver and Run** the businesses of the future through the power of **Cloud**. We have deep Cloud architecture, engineering, operational, commercial, and business transformation expertise delivered by a team of more than 26,000 Cloud Practitioners globally. We have delivered over 2,000 cloud implementations over the past 5 years and have 60+ cloud centres of excellence supporting the delivery of cloud services to our clients.

In the UK, we have a team of over 100 Cloud managed service specialists plus the following certifications across AWS, Microsoft Azure, Google Cloud and Oracle Cloud Infrastructure (OCI):



We help our clients with all aspects of their journey-to-cloud and optimisation of their cloud and cloud-services investments. Our Cloud practice can support you to optimise your client investments, and to navigate your organisations cloud journey, providing specialist cloud architecture, engineering, and operational skills at all stages, with a large proportion of our team holding the clearances required to meet your specific security requirements.

Our AI Capability

Deloitte stands at the forefront of AI transformation and was recognised as a Leader in the 2025 IDC MarketScape for Artificial Intelligence (AI) services for the fourth consecutive time. Supported by a £3 billion investment in AI, Data, Automation, Cloud, and Cyber, we seamlessly integrate our deep AI expertise with our extensive cloud capabilities. Our UK team is part of 339K AI-fluent practitioners globally, and includes over 1,300 AI specialists and engineers, many of whom hold the necessary security clearances for public sector delivery.

Through the Deloitte AI Institute, our hub for cutting-edge research and innovation, and strategic alliances with leading hyperscalers, we empower public sector clients to optimise costs, streamline processes, and navigate their AI journey. We achieve this by leveraging our ReadyAI™ models, which provide end-to-end support for AI solution implementation, and our Trustworthy AI™ framework, ensuring responsible and ethical deployment.

Our alliances & ecosystems

To bring full value to our clients, Deloitte is a premier consulting partner with all the leading hyper-scale cloud vendors in the market including AWS, Google, Microsoft¹, Google and SAP. A selection of our partners and alliances are presented below:



What the analysts say

Don't just take our word for it. Deloitte is recognised by the analyst community as being **leaders in cloud transformation services**. This reflects the wealth of experience we have in delivering cloud services across the public sector and wider private sector combined with our out-of-the-box templates, tools and assets.

Gartner

Originating in 2021, Deloitte has been recognised as a Leader in this category for four years in a row. Deloitte was also positioned as a Leader in the **Gartner Magic Quadrant for Public Cloud Infrastructure Professional and Managed Services, Worldwide** in 2021, 2020 and 2019, the previous form of this category.

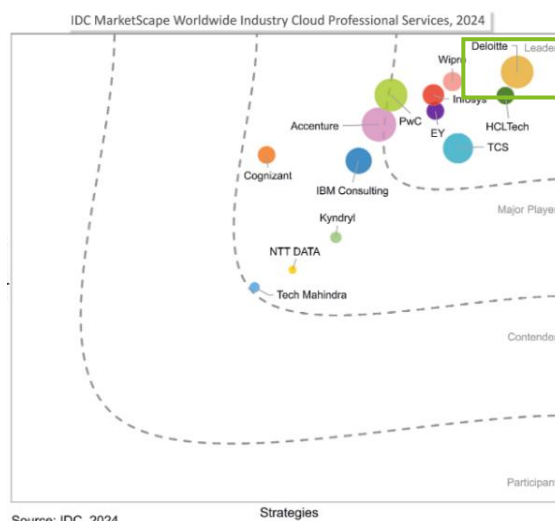


Gartner

Gartner: Magic Quadrant for Public Cloud IT Transformation Services. © Gartner inc. 2025

IDC

Deloitte has been awarded Leader status in the **IDC MarketScape: Worldwide Industry Cloud Professional Services 2024** Vendor Assessment. We have also been recognised as Leaders in **Hybrid IT Consulting & Integration Services** and **Software Engineering Services**.



Source: IDC, 2024

IDC MarketScape: Worldwide Industry Cloud Professional Services Vendor Assessment © IDC inc. 2024

Cloud Transformation

Transform Faster, Transform Smarter

Deloitte's Cloud Transformation can fast-forward your journey to the Cloud, unlocking innovation, efficiency, and growth.

[Find out more here](#)



¹ As Microsoft's Independent Auditor, Deloitte cannot have a direct or material indirect business relationship with Microsoft, such as having an alliance or being a registered partner. Nonetheless, Deloitte can provide Microsoft-related technology services and invests heavily across its global business building technical skills and capabilities to develop world-class consulting and solution delivery capabilities.

2 Service Overview

Deloitte's Mainframe Modernisation offering enables Buyers to replace their legacy mainframe with modern cloud services. Our approach addresses the underlying challenges of removing technical debt through refactoring, rehosting and other modernisation approaches. These services can support either a standalone mainframe modernisation initiative or as part of a wider Cloud/Digital/IT transformation programme.

Services include: Strategy Definition, Mainframe Modernisation Maturity Assessment, Application Assessment, Modernisation and Migration Readiness and Planning, Landing Zone Creation, Modernisation and Migration Execution, Testing, Cutover, Operations Transition and Optimise and Run.

Features

- **Strategy Definition;** defining the vision and roadmap to achieve business objectives, addressing transition from CapEx to OpEx, reduced costs and defects, faster time to value and reduced risks and dependencies associated with hard to find resources, technologies and application knowledge.
- **Maturity Assessment;** assessing the organisation's capacity to drive modernisation initiatives.
- **Discovery;** using code-level analysis (e.g. Cobol, PL/1, Natural, CA:Gen) to enable insight-driven architecture; alternative discovery options include tooling-supported (e.g. ATADATA and InnoWake) or manual template-driven discovery approaches. Leveraging GenAI to speed up analysis.
- **Modernisation Assessment and Planning;** Develop the business case and create a modernisation roadmap. Determine the appropriate strategy across the "6R" archetypes including refactor, replace, retire, rehost, re-built and retain. Carry out Proof of Concepts (PoC) to address risk.
- **Landing Zone Creation;** designing and building foundational cloud landing zone architecture and setup including operational services, network services, security and other infrastructure services.
- **Modernisation and Migration;** using automated code-conversion (e.g. Cobol -> Java) to provide a low-risk high-throughput migration approach for applicable applications. Or using a modernisation approach with in-built tools and accelerators where strategic applications have a clear roadmap of on-going change.
- **Testing;** carrying out quality assurance activities based on the migration archetype across infrastructure, smoke, end-to-end, performance, DB & data migration and disaster recover testing activities.
- **Cutover and Operations Transition;** completing the end-to-end application testing and final cutover is executed leading to legacy applications being retired. Documentation is provided to ensure on-going maintenance and evolution activities.
- **Optimise and Run;** analysing production systems and applications to identify optimisation opportunities. Legacy hosting platforms are decommissioned and post-migration activities completed. FinOps processes ensure that value for money and modernisation benefits can be met and proven.

Benefits

- Aligns modernisation strategy with organisational objectives to achieve business outcomes.
- Reduces effort/risk with complex modernisation requirements through proven methodologies/tools.
- Reduces cost divergence risk through detailed code-level discovery and analysis.
- Reduces delivery effort/risk through GenAI-enhanced tool-supported application analysis.
- Increases innovation through award-winning partnerships with iPaaS and cloud partners.

- Increases agility through DevOps best practice (e.g. build/deploy/IaC pipelines).
- Increases quality through automated validation of requirements conformance (e.g. linting/testing).
- Builds capability/maturity through effective training/KT and organisation enablement.
- Increases understanding and transparency through comprehensive discovery reporting.
- Reduces architectural decision-making time/effort through principle and pattern-based approach.

3 Detailed Service Description

Business Context

Many public sector organisations rely on legacy mainframe systems designed and built in previous decades. In most cases these systems support core business functionality, handle critical data, and have over time been surrounded and integrated with an IT estate based on a variety of other technologies and solutions.

As the technology underpinning legacy systems becomes increasingly outdated, the ability for the business to operate and transform in an efficient manner reduces. This manifests in increased maintenance and operational costs, increased timelines and costs for keeping up with mandatory and strategic change, restricted interoperability options, and increased risk of change. This is known as “Technical Debt”. The mainframe modernisation service is designed for public sector organisations dependent on legacy systems that are in scope for transformation, and/or have become increasingly expensive to maintain and operate, and increasingly difficult, risky and expensive to support and change.

Legacy systems can become a constraint to organisational agility due to:

- Diminishing workforce mainframe expertise;
- Outdated technical architecture and software development lifecycle (SDLC), from infrastructure and operating system to application, database and integration architectures;
- Increasingly expensive extended support;
- Increased security/compliance risks; and,
- Inflexible timeline and increased costs associated with change.

Deloitte supports all aspects of modernisation across technical, organisational, training and operational aspects.

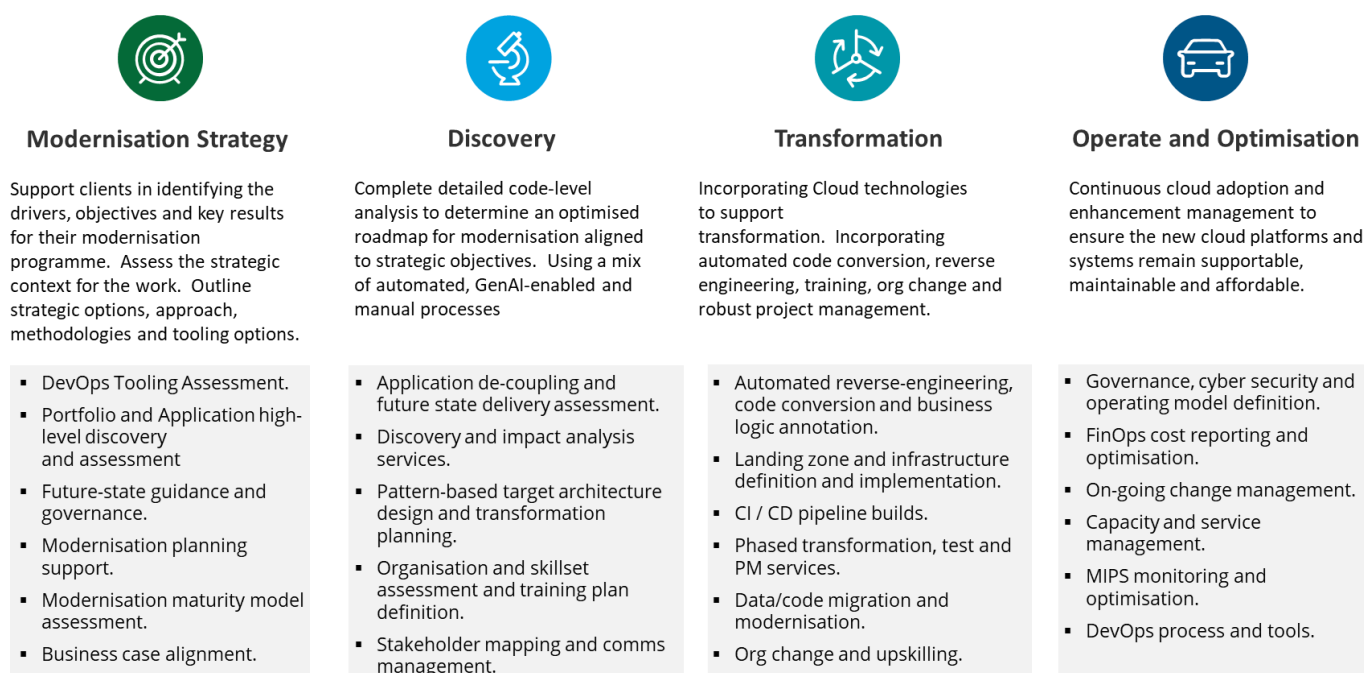


Figure 1 - Deloitte Mainframe Modernisation Offerings

Our mainframe modernisation approach combines deep mainframe technical knowledge (e.g. Cobol, PL/1, JCL, Fortran), cloud and application modernisation best practice and specialist software solutions and accelerators (e.g. InnoWake / ATADATA) to reduce programme risk and increase programme success. We recognise that modernisation programmes are complex and carry operational, political, financial and organisational challenges as much as technical change challenges. We have successfully delivered dozens of mainframe modernisation projects, and we will use that experience and lessons learned to reduce risks associated with your programme.

For example, we will use complexity and dependency analysis as part of discovery to identify isolated applications that can be migrated more easily to build confidence, experience, understanding and confidence. We use Proofs of Concept (PoCs) to reduce programme risk. We use business rule analysis, extraction, annotation and pseudo-code to build a clearer understanding of the purpose and functionality of code for a non-technical audience before we agree the right treatment. We take both a top-down and bottom-up approach so that we can better reconcile the desired business capabilities of the organisation against the legacy software assets and more clearly articulate their value.

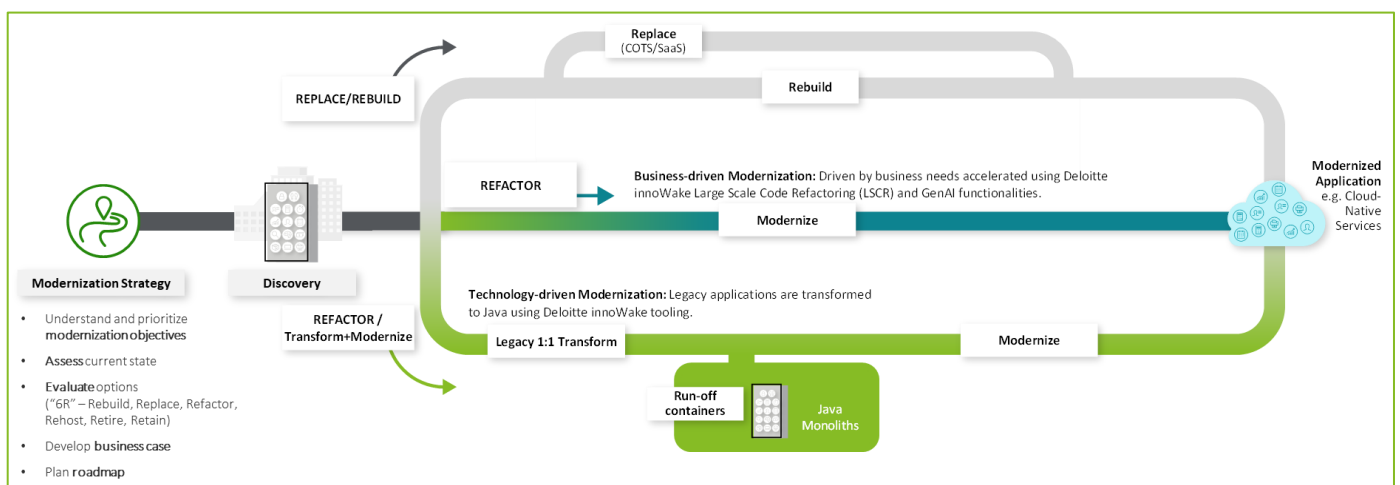


Figure 2 – Deloitte Mainframe Modernisation Summary

Inputs

We have assumed that you will be in a position to provide certain inputs to the service, which we have listed here. If you are not in a position to provide all of these inputs then we can discuss options, as it is likely we can reach agreement to alter our approach to accommodate your situation.

Typical inputs and dependencies for mainframe modernisation are:

- Senior programme sponsorship.
- Information about the desired business need, key modernisation drivers and the vision for change.
- Business requirements, prioritisation and other contextual information.
- Access to business, system owners and technical subject matter experts (SMEs) who are aligned to the approach.
- Project / Programme Management and Programme Management Office support with dedicated capacity to support the engagement team in fitting with prevailing PM standards.
- Where governance and methodologies are not already established we will recommend and implement our methods and tools.
- Access to any standard SDLC technologies or repositories, suppliers, environments and systems including project / task / knowledge management.
- Documentation and access to any critical data, associated data models, schemas, data dictionaries and other metadata sources.

- Documentation on the existing technical and systems integration landscape including any application, service, data, integration and interface catalogues.
- Organisational information such as roles, responsibilities, skills / capabilities, and team structures.

Your Contribution

Our services are designed to be delivered with you rather than to you. We have assumed that you will be able to make the following contribution to the work. If you are not in a position to take on these responsibilities then please get in touch to discuss options, as it is likely we can reach agreement to alter our approach to accommodate your situation.

- Making available the time of stakeholders and decision-makers to attend workshops and meetings for this project.
- Providing visible senior leadership to the project in order to drive its delivery in the business.
- Providing access to the best available information about the existing situation, plans and strategies.
- Providing dedicated resource to the project in order that Deloitte and the customer can work collaboratively to achieve the results of the project.
- Providing effective working space for our joint team in a co-located space; and
- Contracting separately for the provision of software licenses and hardware for the technology solution (unless otherwise agreed in advance).

Outputs

The deliverables of this service will depend upon the roles that are agreed for Deloitte's scope in the Service Order. They will be documented in the Service Order. Indicatively, the kind of deliverables that we may produce are:

- Agreed programme objectives and targets.
- Detailed discovery analysis and report of existing mainframe landscape.
- Proposed plan for application modernisation activity across refactor, replace, retire, rehost, re-built and retain strategies.
- High-level plan or detailed execution plan showing the major activities, milestones and governance for the engagement.
- Target and transition stage architectures and associated documentation.
- Defined target state objectives, key challenges and overall considerations.
- Potential options for consideration, addressing the major concerns and challenges for the legacy modernisation.
- Development of high-level summary pack that captures the observations, challenges, and possible interventions relating to the mainframe estate.
- A recommendation for implementation, transition, transformation and change activities; and,
- Management and delivery of the technology modernisation.

Business Context

The service is designed for public bodies that have a defined business need for Common Technology Services and have or require a business case for change, which can only be delivered by an IT enabled project. It is designed to give public bodies specialist support with the professional activities related to mainframe modernisation IT design and delivery.

Service Constraints

To gain full value from this service the buyer will need executive level governance to make decisions, resolve issues, set strategic direction, and to provide inputs like:

- Strategic objectives;
- Committed delivery milestones;
- Budget constraints;
- Driving priorities and Policy.

Additionally, the service is most effective if linked with the buyer's internal technical capability and business expertise. The buyer should also consider the need to agree support from any other third parties involved in supporting the mainframe or any other affected systems. This may require the buyer to facilitate non-disclosure or other commercial agreements for these parties to be engaged in an effective and collaborative way. In some cases, specific professionals familiar with more niche legacy technologies may need to be supplied either by the client or will need to be sourced ourselves through our Global Delivery or local UK associate network. This could impact on delivery times, cost of the budget and open the programme of work up to risk. We strive to minimise these types of risks by identifying these needs as early as possible in our inception and elaboration phases to ensure a smooth transition.

4 Contact Details

Please send your requirement to publicsectorbidteam@deloitte.co.uk. Alternatively, if you wish to discuss your requirements in more detail, please send us the following information and we will be happy to contact you:

- Your organisation name
- The name of this service
- Your name and contact details
- A brief description of your business situation
- Your preferred timescales for starting the work.



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