

Cloud Adoption & Management

Embrace cloud to optimise your
IT capability

An Advisory Services PoV





Cloud adoption

Cloud computing is a fundamental feature of digital technology initiatives, and now forms the bedrock of many digital transformation programmes.

In fact, an article by Forbes states that cloud computing infrastructure forms the backbone of the delivery pipeline for just about every digital service, from social media and streaming entertainment to connected cars and autonomous internet of things (IoT). The same report also cites Gartner, reporting that global spending on cloud services is expected to reach over \$482 billion in 2022, up from \$313 billion in 2020.*

This exponential growth is the result of more organisations recognising the benefits of adopting cloud computing. Specifically, cloud computing generates three distinct benefits that most projects can draw from to build support and momentum:

1

Elasticity and agility

2

Increased speed to market

3

Greater business continuity

Of course, these benefits also need to be associated with other contributory factors, such as incorporating the inherent native security of the relevant cloud provider, moving from CAPEX to an OPEX model, and ensuring that infrastructure is set up appropriately to handle new ways of working.



Nevertheless, many organisations remain cautious and want concrete evidence of the viability of undertaking a cloud project. They also need reassurance that security, compliance and cost controls will be enhanced, not weakened by a move to the public cloud.

This is where cloud strategy and cloud readiness come in.

* Reference: Forbes, [The 5 Biggest Cloud Computing Trends in 2022](#).

Cloud strategy

Adopting cloud allows your organisation to re-define its current IT strategy as influenced by elements such as current capacity or cost of infrastructure. Generally, these strategies can be described as:

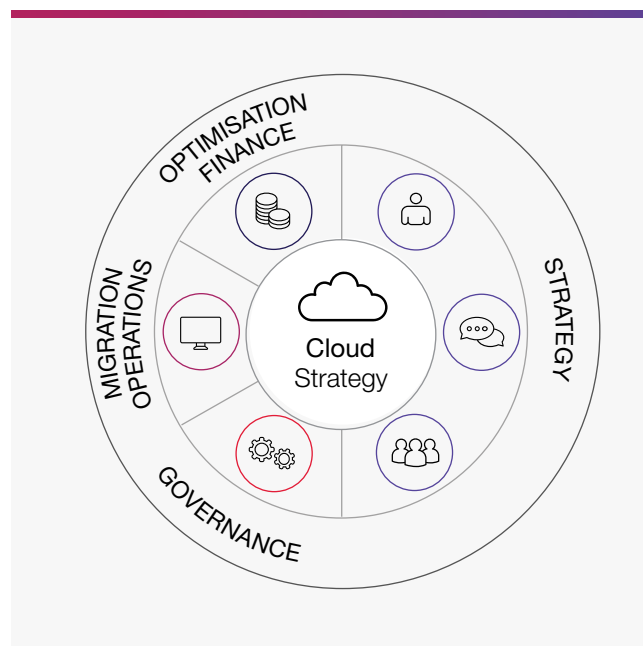
- **Cloud first** – Wherein all new workloads should be located in the cloud, with a preference of PaaS/SaaS over IaaS.
- **Cloud native** – Using native cloud technology such as containerisation and micro-services to run workloads. This generally requires a workload to be re-architected to take advantage of newer technologies.

As part of cloud adoption, most organisations begin with a cloud first approach, before migrating to cloud native as applications develop throughout their lifecycle. Furthermore, not every application is suitable for migration to the cloud, so steps must be taken to assess whether to retire, refactor, rehost, repurchase as a SaaS solution or retain on-premise.

It can be difficult to ensure that your cloud journey starts positively, and some clients also need assistance along the way to rectify existing cloud implementations, but our cloud experts are here to help. CGI's cloud strategy, planning and architecture advisory services are part of a full portfolio of cloud services designed to transform clients' organisations into agile, adaptive and resilient enterprises.

Our offerings include:

- Strategic IT and application cloud modernisation
- Cloud-native development innovation
- Enterprise SaaS solution installation and configuration
- Cloud turn-around intervention
- Ongoing cloud management, operations and optimisation services.



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Cloud readiness

We also offer numerous cloud readiness assessment services to help clients establish clear cloud roadmaps and strategies. Each incorporates technology-enabled discovery, strategy workshops, the gathering of security requirements and client meetings with key stakeholders.

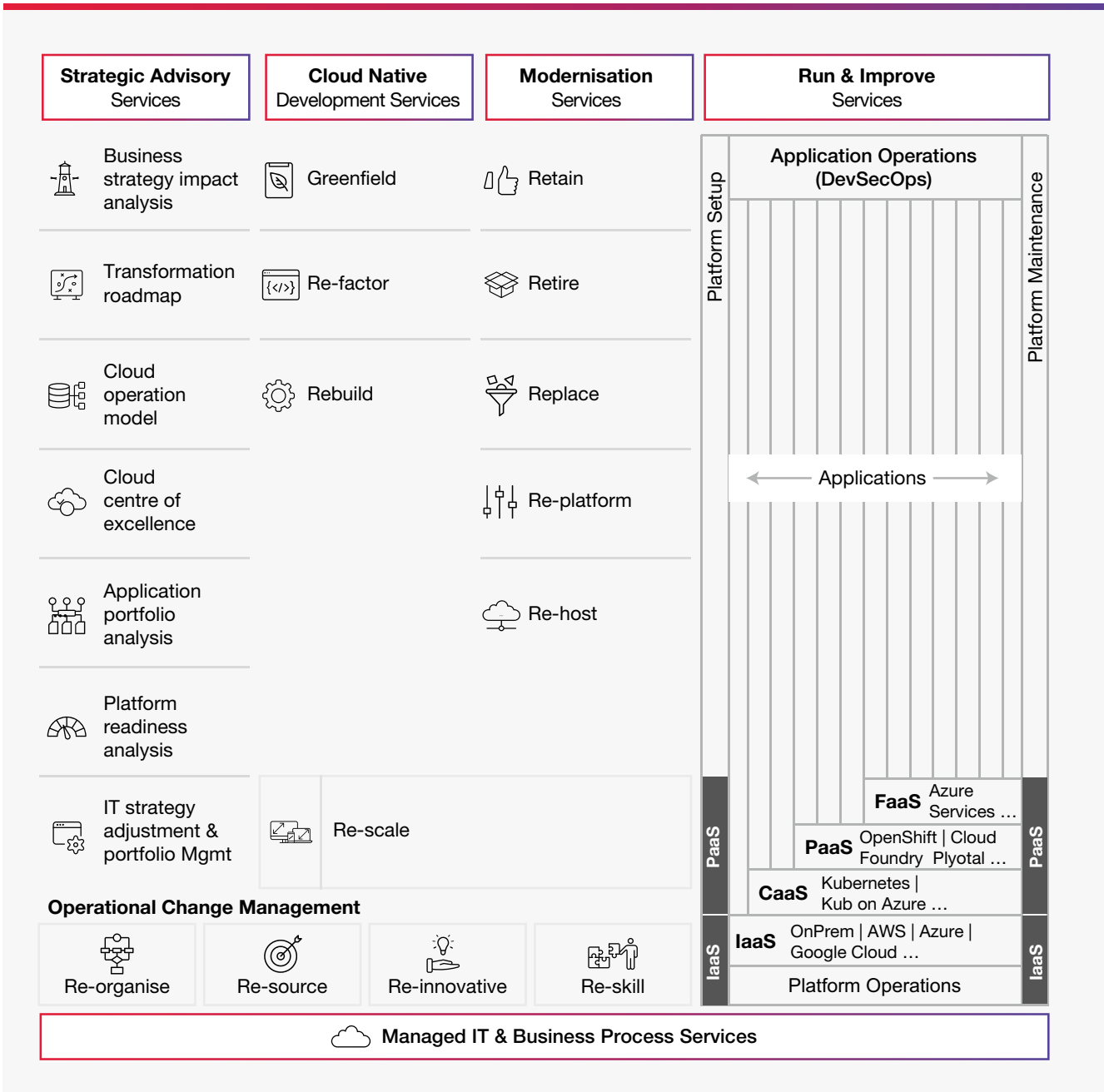
- **Cloud maturity assessments** – This consists of assessing the effectiveness of your cloud operating model and agreeing the steps (roadmap) required to transition to your target state.
- **Cloud service provider (CSP) fit assessments** – Helps determine areas aligned with different CSPs, using cloud business driver categories and subcategories.
- **Application cloud readiness assessments** – Assesses the readiness of individual applications within the portfolio for cloud migration.



Our solution blueprint

We provide clients with a full end-to-end solution to ensure they achieve the optimum benefits of cloud investment; this ranges from advisory to implementation, and ongoing operation of the appropriate cloud services.

The below diagram provides an overview of our cloud adoption and management approach:





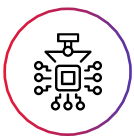
Strategic advisory

Our strategic advisory team works with clients to help formulate an effective cloud strategy that encompasses hybrid cloud and/or multi-cloud environments. This includes recommending the appropriate cloud operating model to enable transformation.



Cloud native development

Our cloud native development methodology can be applied to newly designed applications, or to those that require refactoring/rebuilding to take advantage of cloud native functionality, i.e. microservices, containers and CI/CD mechanisms.



Modernisation

This service helps you modernise legacy applications without having to redesign them. Using a re-platforming strategy, you can take advantage of the benefits of public cloud, including improved scalability, elasticity, cost and performance, without having to invest the required resources and effort to re-architect the application.



Run and improve

We help clients to continually improve their services and applications running on public cloud by keeping abreast of the latest developments in functionality provided by major cloud providers. We research and test this functionality in our own environments before recommending how it can benefit our clients.



Cloud acceleration tools

Becoming cloud-native enhances an organisation's competitive edge and business value, and because things evolve so quickly, it helps you to keep up with the competition as they advance their cloud adoption efforts.

Cloud acceleration tools can simplify and accelerate the transition of your largescale and virtualised workloads from your data centre(s) to the cloud. There are many tools available, including options bespoke to the cloud provider or that operate across all major providers.

But before investing in cloud acceleration, your leadership must first examine where the organisation is on its cloud journey, what its cloud priorities are, and therefore how best to execute them. For instance, is your organisation just starting to migrate to the cloud and therefore needs a migration acceleration program? Or are you already comfortably in the cloud but looking to improve user experience by accelerating service delivery?

Another consideration is whether your team is sufficiently skilled to strategise and execute cloud accelerations on their own, or if you require external assistance to bridge the skill gaps and complete the project. In which case, CGI possesses extensive experience in accelerating our clients' journeys to the cloud, with solutions that offer a vast range of tooling and features to enable your success. Our solutions also provide a cost-effective alternative to those currently used to manage hybrid/multi-cloud environments.



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CGI portfolio assessment café

Helps to automate the process of collecting and analysing application data, providing key insights into application quality, complexity, technology composition, business criticality, security, architecture and cloud readiness. This helps greatly reduce the time and effort required for cloud migration assessments, simplifying the task of assessing large application portfolios.

Infrastructure as code

CGI's method of pattern delivery leverages the power of infrastructure as code (IaC), allowing you to create a fully tracked template and deployment solution that can be combined with enterprise tooling such as Terraform or DevOps. Using IaC gives you the advantage of creating a set of standard deployments that can be provisioned in minutes.

Cost advisory and management

As part of cloud adoption you can re-use your existing licenses to reduce the cost of new infrastructure. When combined with capacity management, this allows you to reduce your OpEx costs. Regular utilisation assessments are also carried out on your workloads to ensure that efficiency is maximised whilst remaining cost effective.

Cloud adoption framework

Offers a modular, best practice approach providing guidance and tooling that integrates cloud services and extends your IT environment into the cloud. This incorporates the best elements from each of the major cloud service providers.

Migration factory

A cloud migration factory is a collective term referring to the people, processes and tools that help an organisation plan, execute and support workload migrations.

In the planning phase, a cloud migration factory can help choose the best migration approach (such as single workload migrations or migrations in phases or groups) as well as guide application assessments. During this early stage, a cloud migration factory also organises and prepares the chosen cloud provider's resources and illustrates the business value of migration to stakeholders.

The cloud migration factory validates the completed migration to ensure the workload is properly secured and performs adequately. It should also implement any maintenance, backup or disaster recovery tasks needed to support the application in the public cloud.

Our global delivery centres offer a standardised, repeatable and scalable factory approach, involving the mapping of applications, infrastructure and data dependencies alongside business impacts to develop optimised migration approaches using automated software tools.

The factory operates under an agile sprint model that builds target environments and facilitates iterative staging, integration, tuning and testing using automated processes. The client approved go-live is planned and executed with minimal business disruption before a seamless hand-off to cloud operations.

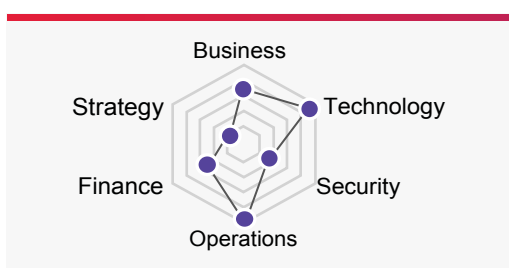
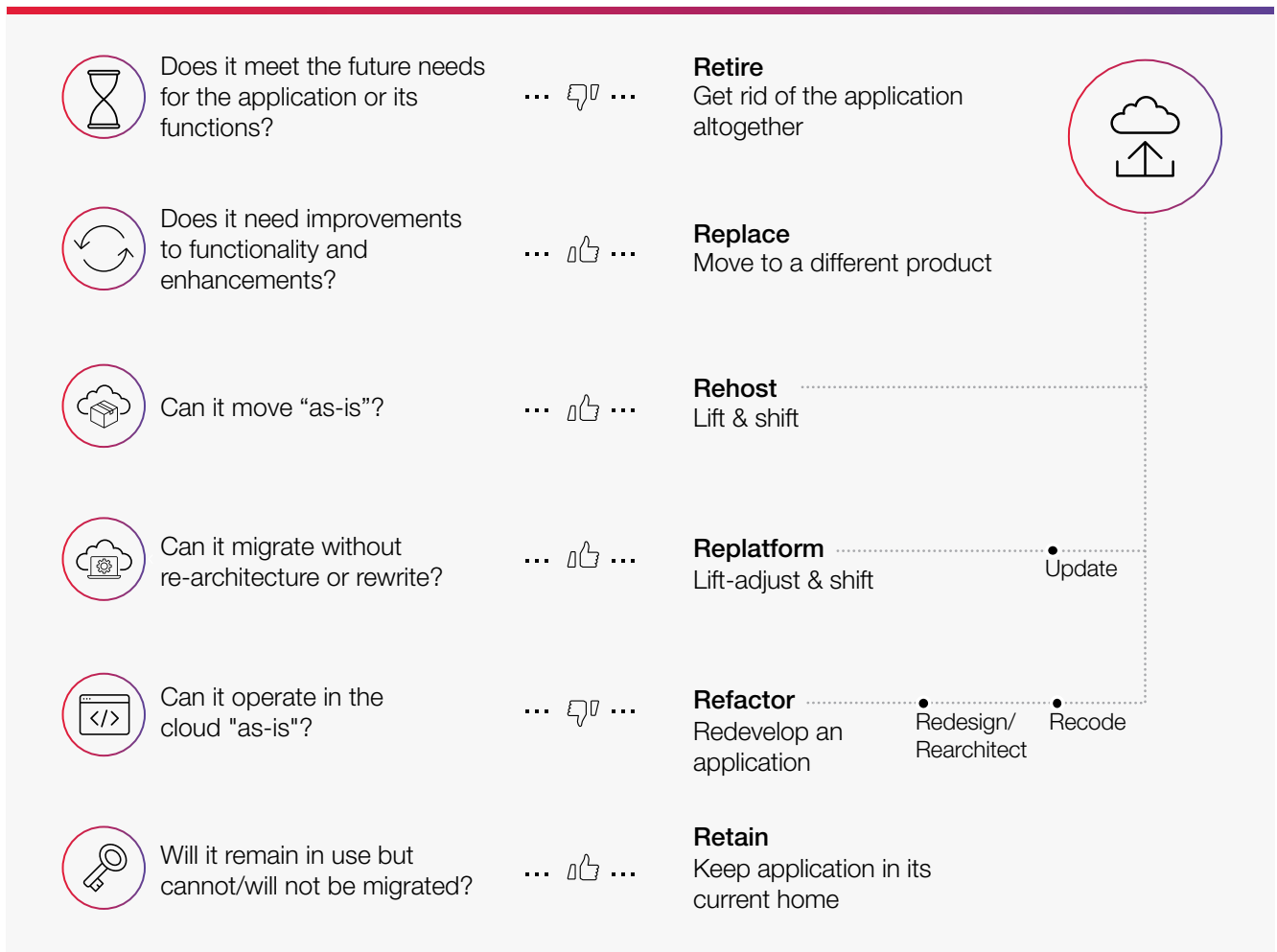


By taking an application-centric view to cloud adoption, CGI combines best practices, expert knowledge and tooling to assess current application dependencies and how they can be transitioned at pace to a cloud-ready state.

As part of cloud adoption, our migration factory does not just offer a “lift and shift approach”, it enables the use of the latest cloud capabilities.

Determining the optimal migration approach

A holistic approach to cloud migration needs to consider multiple migration options, including retire, replace, rehost, re-platform, refactor, re-architect and retain.



The assessment begins by creating a balanced view of each application's business, technology, security, operations, finance and strategy characteristics.

The assessment applies a weighted matrix approach to score each of the transformation options based on the application characteristics. The automated assessment engine recommends the best fit based on overall program goals and objectives.

Cloud application & environment management

Cloud management is the process of maintaining oversight and administrative control over cloud computing products and services, whether deployed in public, private or hybrid cloud environments.

Without robust management and governance, an organisation is unable to see what is happening in its IT environment, and therefore cannot react effectively to any issues that might arise.

Arguably, the biggest challenge for cloud management is cloud sprawl, where IT loses track of cloud resources which continue to multiply and go unchecked, resulting in unnecessary increasing costs, and security and management problems throughout an organisation.

However, we are here to help clients implement the appropriate governance and visibility of their cloud resources, ensuring that cloud environments are managed effectively to maximise the benefits and reduce the associated risk.





Cost effective

Cloud services operate on an OpEx model, rather than CapEx, allowing you to pay only for the services you use. When combined with capacity planning and re-using existing licenses, it allows organisations to reduce costs even further.



Cloud patterns

A pattern is the term used for the creation and reuse of cloud templates. The ability to create almost anything from standardised cloud patterns that can be integrated with DevOps is a key differentiator; it allows new services to be created to a defined standard in minutes, as opposed to a traditional deployment model.



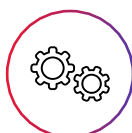
Reduction in shadow IT

When implementing an enterprise management platform you can reduce shadow IT by enabling corporate IT to capture unsanctioned applications and use the latest tools in a controlled manner.



Monitoring

All activities have configurable monitoring, including the ability to monitor hybrid/multi-cloud IT from a central location.



Automation

The ability to automate identified resolutions, or guide resolution paths to determine the most appropriate course of action. Automating response and remediation processes ensures that solutions are precise and timely.



User experience

Adopting cloud technologies can offer an enhanced user experience, with seamless integrations that can be monitored in real time.

SIAM integration



More companies are adopting a best of breed sourcing model which often places the responsibility for service integration and management of multiple vendors onto the organisation's IT team (SIAM).

Whilst SIAM has been required for some time, ecosystems of cloud providers have now extended its complexity and responsibility, hence we have developed the term "eSIAM" (extended SIAM). By integrating resources in eSIAM, we can provide a holistic overview of all resources (regardless of location and vendor) from a centralised control bridge, e.g. CMDB.

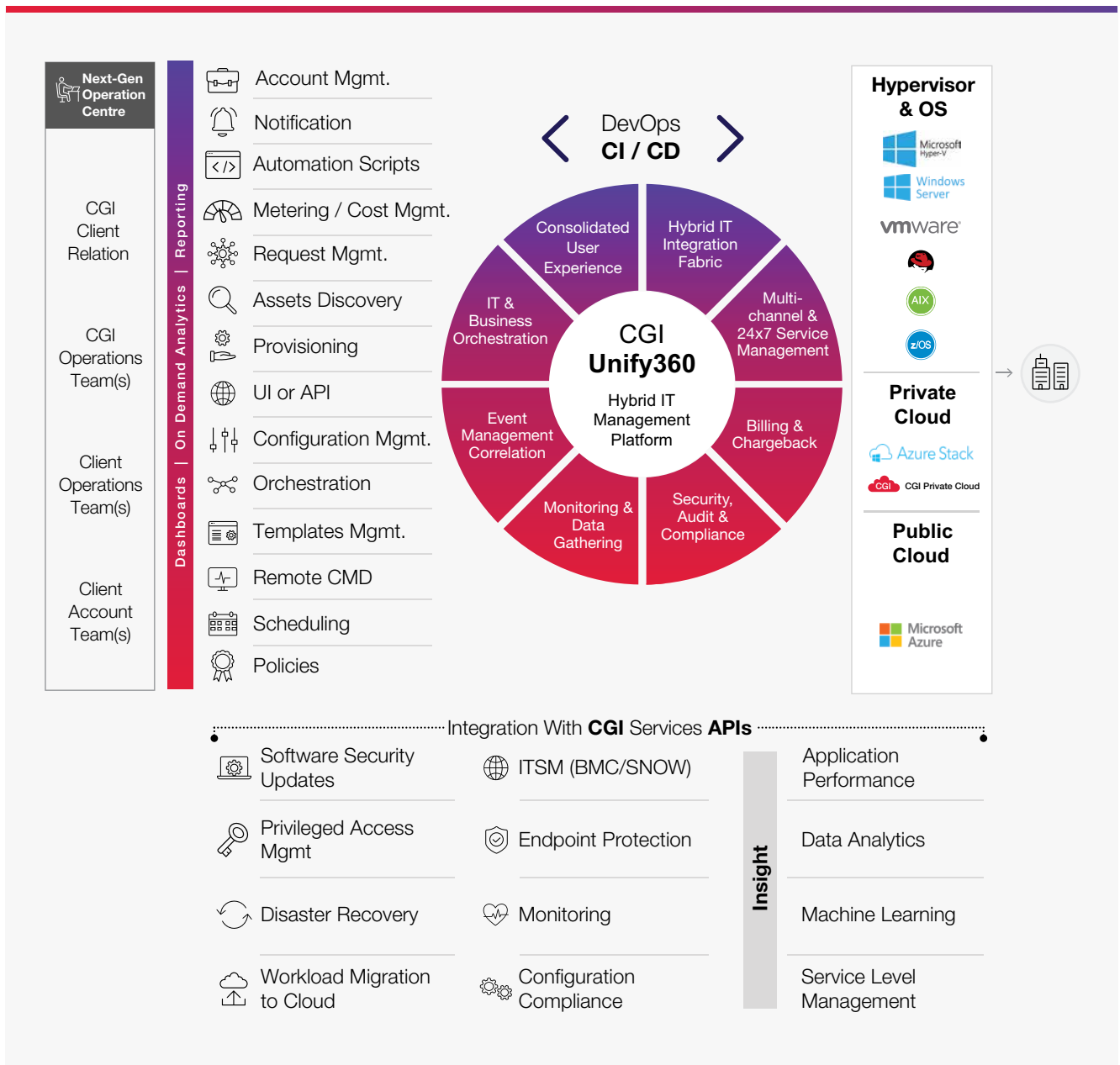
Our eSIAM solution blueprints can be applied to clients' tooling, or we can propose a best of breed approach and integrate vendors' information to provide a true end-to-end view that enables:

- **Service operability** - An end-to-end control bridge view of overall service performance, enabling the management of sourcing partners and in-house service delivery.
- **Service introduction** - Managing change, new service introduction and release.
- **Sourcing partner assurance** – Ensuring that those responsible for delivering services are doing so within agreed specifications and service level agreements (SLAs).
- **Analytics** - The data collected provides the analytics engine to support IT and business decisions.

Cloud management platform

We understand that cloud adoption can be difficult, especially when an organisation's specific requirements demand a multi-cloud solution which adds complexity and additional management overheads. That's why we developed our CGI cloud management platform,

offering clients a centralised control platform to effectively manage their IT enterprise using fully orchestrated tooling and centralised billing that reduces the administrative overhead whilst driving operational excellence.





Strong and flexible cloud governance

Providing a foundation for better management of finances and costs, smart cloud service consumption, provider choices, architectural coherence, security and compliance, and distributed enterprise data.



Intelligent hybrid cloud management

Solutions are tuned to efficiently and effectively monitor, manage and optimise the increased complexity of dynamic and connected cloud environments.



Managed and optimised cloud costs

With smarter use of the right cloud services at the right scale, you will realise cost savings of between 20% and 30%.



Cloud talent/skills and best practices

Your cloud competence centre keeps up with rapid cloud innovations and is augmented by your cloud service partner (CGI).



AI-powered, automated CloudOps

Transitioning from traditional, static ITOps to dynamic high-volume, high-velocity CloudOps with AIOps enables methods such as DevSecOps and site reliability engineering (SRE).



Confident cloud compliance and security

All aspects of cloud security and compliance are addressed in your enterprise security strategy and IT operations, e.g. a switch to the zero trust paradigm.

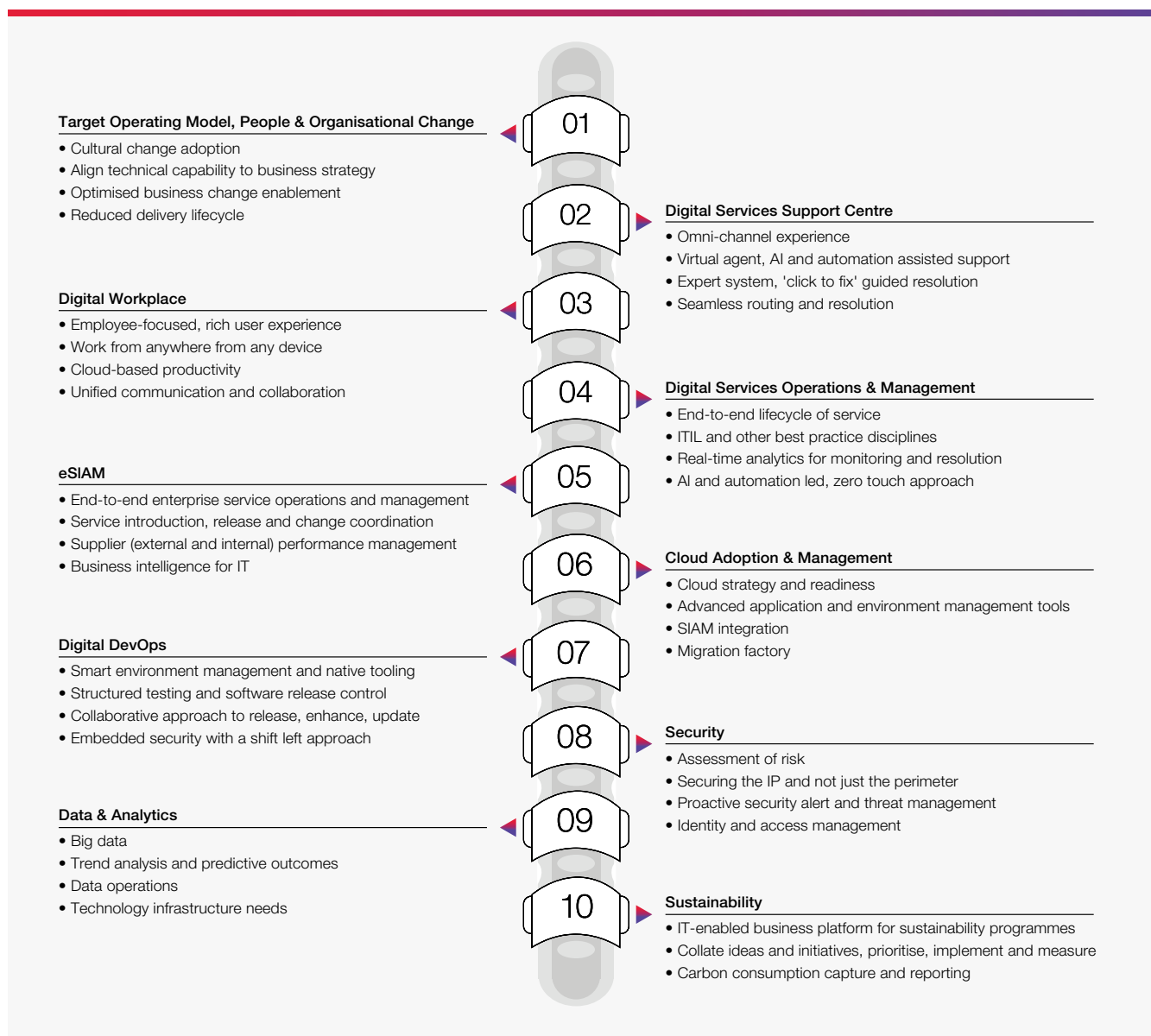


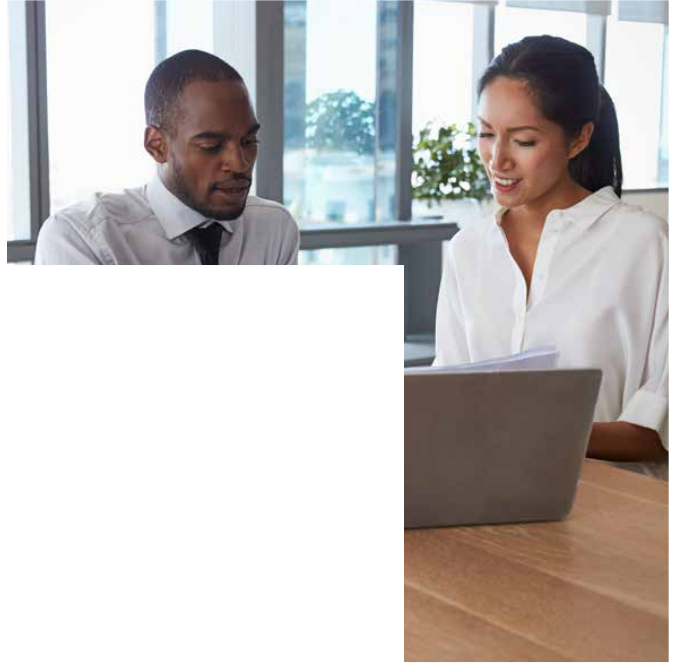
Advisory Services

Digital technologies can help organisations to unlock their full potential – but only when done right. We understand that cloud adoption and management isn't simple, and CGI Advisory Services is here to help you develop the right solutions which are aligned to your business capabilities, transforming the way your organisation works.

Cloud Adoption & Management is part of our broader Digital Backbone

The [Digital Backbone methodology](#) is our portfolio of Advisory Services solutions, designed to encourage digital transformation and enable IT as an extension of our clients' organisations.





About CGI

Insights you can act on

Founded in 1976, CGI is among the largest IT and business consulting services firms in the world.

We are insights-driven and outcomes-based to help accelerate returns on your investments. Across 21 industry sectors in 400 locations worldwide, our 88,500 professionals provide comprehensive, scalable and sustainable IT and business consulting services that are informed globally and delivered locally.

Visit: [Advisory Services](#)

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