

Cloud Management and Operations

Governing and operating complex hybrid
cloud environments to enable business agility

CGI



Today's organizations require agility and innovation to deliver seamless digital experiences—anytime, anywhere. Cloud solutions are essential enablers of agile operating models that adapt continuously to constant change.

The complexity of a hybrid IT world brings challenging requirements for modern governance and operations. Strong yet agile governance is needed to provide clear guardrails, along with AI-powered, dynamic CloudOps to continuously improve and optimize cloud use.

How will you provide
strong governance
while enabling agility in
your hybrid cloud and IT
environment?

Managing and optimizing today's complex hybrid cloud environments

Cloud is the “new normal” for how we work and an essential enabler of agile operating models that adapt continuously to constant change.

Some say cloud is the new operating model, especially in a digital world of anywhere operations.

Over nearly two decades, cloud services have become mass-adopted and pervasive. Cloud service providers—ranging from AI start-ups to independent software vendors to hyper-scalers—continue to innovate new services at a breakneck pace. The combination of cloud and other technologies, such as Internet of Things, advanced analytics, artificial intelligence, automation, 5G and edge computing, form the key ingredients of modern digital business solutions.

Today's enterprise cloud challenges often stem from inflexible cloud strategies, overly simplistic modernization efforts, immature cloud-native practices, poorly governed and integrated yet sprawling SaaS solutions, and governance, management and operational models that were not designed for the velocity, connectedness and dynamism of the cloud age.

Many organizations struggle in a hybrid IT world with modern governance and operations requirements for the cloud age. Cloud changes and operates at warp speed. Strong yet agile governance to provide clear guardrails is paramount for control. AI-powered, highly automated CloudOps is the only way to continuously improve and optimize cloud use.

55%+

of enterprises will replace outdated operating models with cloud-centric models that facilitate organizational collaboration and better business outcomes, by 2023. (Source: IDC)

30%

estimated waste in multi-cloud use. (Source: Flexera)

50%

of clients of public cloud services will experience escalating costs and failures resulting from poor management, by 2023. (Source: Gartner®)

We drive efficiency, intelligent automation and optimization with AIOps

Our approach for running and continuously improving modern hybrid cloud environments is designed for high-velocity, high-volume environments. Our *CGI Management Foundation* ensures operational excellence in CloudOps and AIOps. We accelerate results with our proven governance and operating models, smart multi-cloud management platform and transition approach. Our cloud-certified experts stay abreast of innovation to provide the advice and skills you need.

We work with you on three fronts:

1. **Making the complex look simple:** We help you strengthen your cloud governance. Our smart hybrid cloud management and AIOps tooling help manage, operate and optimize environments with maximum automation, autonomy and situational observability. We optimize cloud cost (FinOps) and usage patterns, operational efficiency and performance. After working in a joint squad model with you, we can transition to a blended onshore/offshore model with local accountability.
2. **Ensuring your cloud assets are secure and compliant:** Our cloud security and compliance

(SecCompOps) experts help you assess and address risks with cloud-specific approaches (e.g., zero trust). Our services range from advisory, to cloud SecCompOps blueprints, to retooling and integration, to managed cloud security services.

3. **Providing the cloud competencies you need:** We help you establish staff and operate a high-impact Cloud Competence Center (CCC). We provide organization, governance, finance and operations models; reference architectures; expertise in cloud technologies and hyperscaler platforms; and training, skill and talent augmentation.



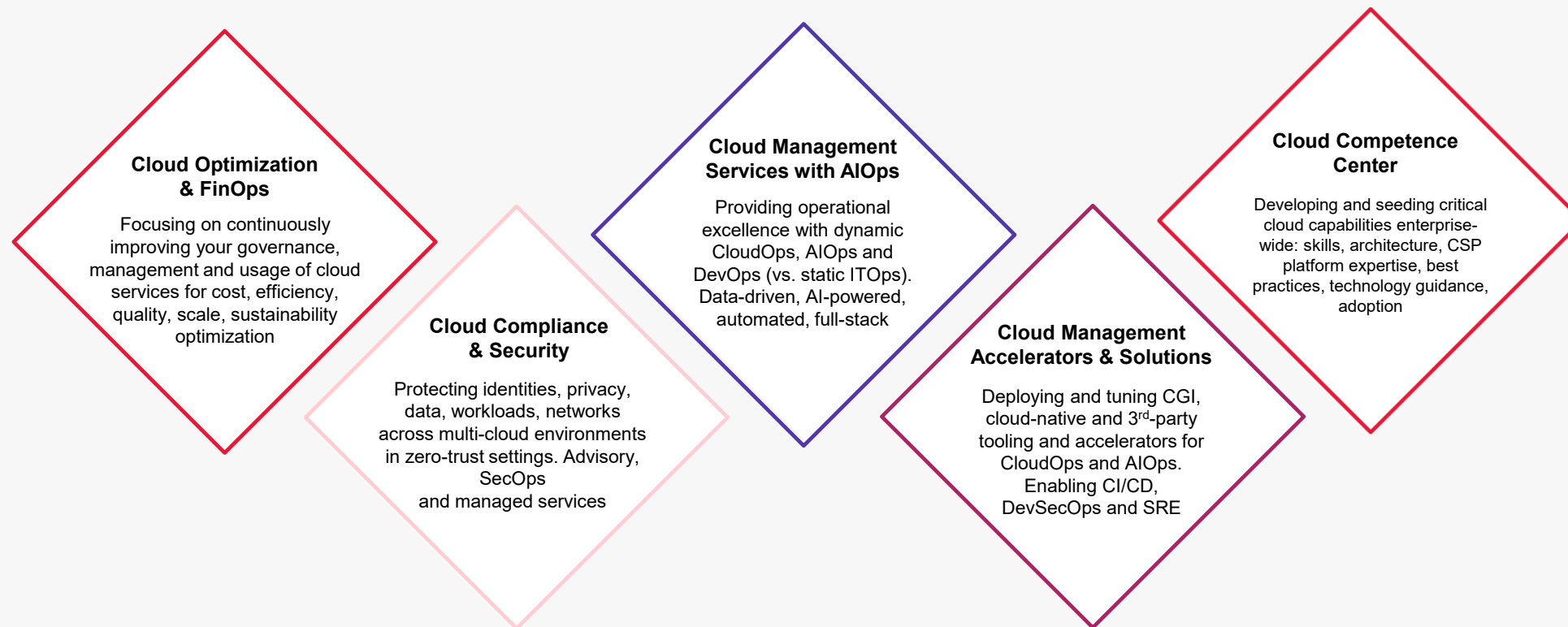
With CGI's Cloud Management and Operations services, leave the day-to-day job of governing, managing, operating and optimizing your hybrid cloud environments to us, so you can focus on high-value and strategic tasks.

What success looks like



- **Strong and flexible cloud governance:** Policies are the foundation for better management of finances and cost, smart cloud service consumption and provider choices, architectural coherence, security and compliance, and distributed enterprise data.
- **Managed and optimized cloud cost:** With smarter use of the right cloud services at the right scale, you realize cost savings between 20% to 30%.
- **AI-powered, automated CloudOps:** You have transitioned from traditional static ITOps to dynamic high-volume, high-velocity CloudOps with AIOps and enable methods such as DevOps and site reliability engineering (SRE).
- **Intelligent hybrid cloud management:** Solutions are tuned to efficiently and effectively monitor, manage and optimize the increased complexity of dynamic and connected cloud environments.
- **Cloud talent / skills and best practices:** Your Cloud Competence Center keeps up with the rapid cloud innovation and is augmented flexibly by your cloud service partner.
- **Confident cloud compliance and security:** All aspects of cloud security and compliance are addressed in your enterprise security strategy and operations—e.g., a switch to the zero-trust paradigm.

CGI Cloud Management and Operations Services



Cloud Optimization and FinOps

As cloud estates continue to sprawl, cloud governance and optimization is an ongoing challenge. Through years of experience, we developed our cloud optimization practice with a focus on FinOps and AIOps. We know what works and what doesn't, and how things can drift off course and be brought back in line. We bring best practices, recipes and an experienced team of cloud, performance, finance and organizational experts to help you:

- Strengthen and streamline governance
- Accelerate and automate operations using AIOps
- Optimize performance, costs and use of the right cloud for the right workload at the right scale

We can deliver these services as a time-boxed turn-around engagement, an ongoing advisory engagement, or as an integral part of a managed services engagement.

Cloud Compliance and Security

Hybrid cloud environments are here to stay, creating complex security challenges. Zero-trust is the new paradigm. Our experts can advise you on how to integrate cloud services securely into your IT and security landscape. We start with a maturity, compliance and risk assessment and then design a blueprint for building a SecCompOps model that secures your operations in a hybrid world. We accelerate this process with pre-defined controls for Amazon Web Services, Microsoft Azure and Google Cloud Platform, as well as a maturity model and reference architecture. In addition, we offer a full range of cloud security and compliance operations and managed services to help you operate your technology environments with confidence.

Cloud Management Services with AIOps

Today's IT departments need to become agile innovation partners to their businesses. Too often, standing in the way of this change is the process of governing, managing and operating increasingly complex multi-cloud environments, which consumes scarce resources. We bring years of experience, embodied in the *CGI Management Foundation* and its proven CloudOps, AIOps and FinOps models, along with tooling and accelerators to drive operational excellence across your hybrid and multi-cloud environments. We can enable your agile DevOps delivery with our SRE approach and tooling. We also bring our hyperscaler partnerships and expertise with cloud-native tooling and operations. Together with you, we can integrate, monitor, manage and optimize your multi-cloud environment's usage, performance, quality and cost.

Cloud Management Accelerators and Solutions

Managing complex hybrid and multi-cloud environments in support of agile DevOps-driven innovation and ultra-reliable digital service performance requires standardizing and automating as many processes as possible. It also requires purpose-fit tooling, configurations and recipes. We typically use a combination of tooling that includes our open management platforms (CGI SiteReliability360 and CGI Unify360), third-party commercial-off-the-shelf (COTS) tools present in client environments, and hyperscaler-native tooling. The tuning and integration of operational data flows, machine learning models, and robotic automations are key. Also important is seamless integration with your continuous integration/continuous delivery (CI/CD) pipelines and DevOps toolchains across cloud providers and non-cloud IT. We've built a library of reusable AIOps and FinOps assets, tooling blueprints and automations from managing countless hybrid and multi-cloud environments for clients around the globe. We leverage these assets to standardize and accelerate our global cloud management and operations services to deliver cost, efficiency and performance benefits to you.

Cloud Competence Center

Innovation by cloud service providers continues at breakneck pace and is moving up the stack; container services, serverless, service meshes and data fabrics are recent examples. Complexity, connectedness, velocity and volume in the cloud ecosystem are increasing exponentially.

To get ahead of this dynamic, we recommend establishing a Cloud Competence Center (CCC). Its disciplines should include: technology scanning, architecture evolution, hybrid cloud integration, hyperscaler partnerships and skills, capability development and transfer, performance measurements and improvements, governance, FinOps, AIOps, DevOps, and interfacing with adjacent competence centers such as data and security. We can assist with organizational models, staffing profiles, staff and skill augmentation, and knowledge transfer, all the way to a joint operation of the CCC.

As cloud rapidly becomes the new operating model, a well-conceived and skilled CCC will allow you to keep up and leverage the cloud's innovation potential in service to your business strategy.





Case in point

Unifying an energy firm's hybrid IT environment across AWS, Azure, VMWare and Oracle Cloud

A large energy company in Canada needed to modernize their legacy IT environments across multiple data centers. They chose CGI as their partner to architect, build, transition to and manage a modern, optimized, consolidated and integrated hybrid IT and multi-cloud environment.

Our team of experts modernized the client's operations by implementing our CGI SiteReliability360 hybrid IT and multi-cloud management platform.

The platform was integrated with 15 existing enterprise ITOps tools for real-time event flow data feeds. The platform supports an AIOps model with AI-based event correlation, diagnostics and hybrid IT and cloud orchestration. It enabled us to deliver managed hybrid IT and multi-cloud services across AWS, Azure, VMWare and Oracle Cloud in a highly autonomous model.

The platform's event flow volume exceeds 200,000 events per month, with a correlation rate of 92%, enabling an autonomous first-call resolution rate of 23%. As AI models continue to be tuned, these percentages are expected to increase. At the current rate, the process saves over 1,600 operations staff hours per month, or 10 full-time equivalents (FTEs). The client now has a modernized environment that is highly scalable, resilient, flexible and future-fit.

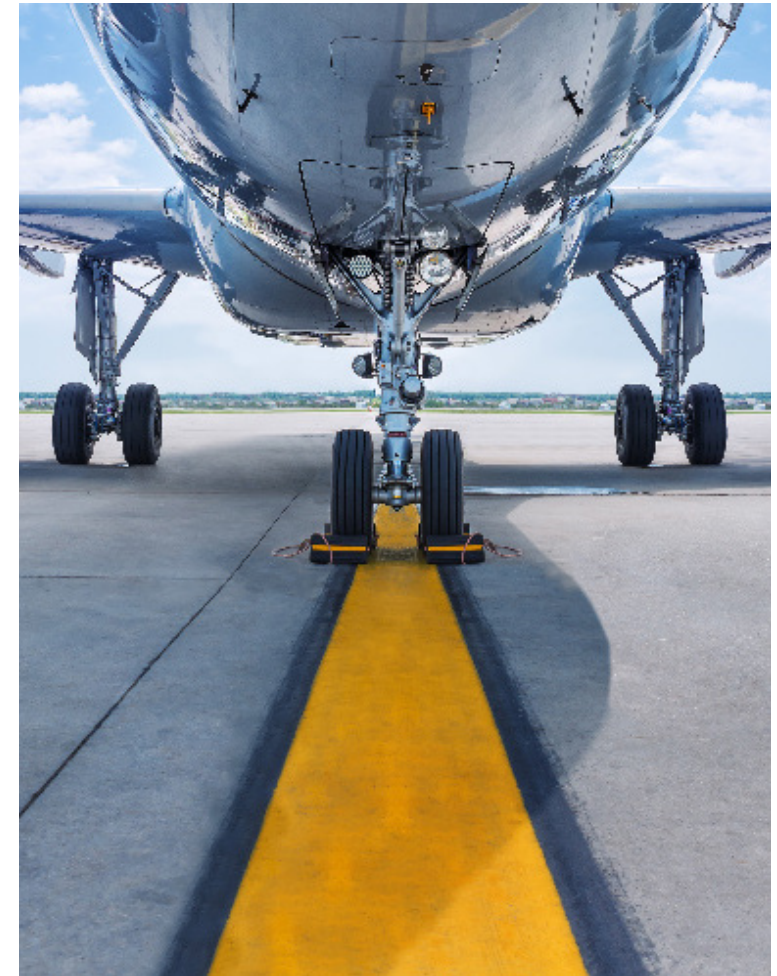
Case in point

Accelerating business transformation for a global airline through optimized hybrid IT and cloud operations

One of the world's largest airlines wanted to reduce costs, increase agility and business value delivered, and accelerate their business transformation. CGI helped the client advance their transformation goals by improving application and infrastructure management and cloud operations for the entire airline group across several countries and multiple subsidiaries.

Our experts designed, ramped up and operate the client's Microsoft Azure environment. We deliver 24/7 hybrid IT operations through a

blended global delivery model with onsite accountability. In addition to realizing the desired cost optimizations, the client's scalable and flexible cloud environments are complemented by CGI's scalable talent and resource availability for transformation initiatives.



We deliver operational excellence through our CloudOps-adapted CGI Management Foundation

We bring the experience, expertise, discipline, talent and tools to help you excel in the day-to-day management and optimization of your complex hybrid cloud and IT environments. We stay abreast of cloud innovation to help you avoid new technical debts and dead ends.

As a managed service provider our business model relies on optimizing and managing any IT environment efficiently, securely and consistently across the globe. We continuously improve our *CGI Management Foundation* to drive operational excellence, including for the new realities of CloudOps and cloud security. We further adapted our processes and developed our smart multi-cloud management platform with AIOps accelerators to efficiently manage and operate these complex environments. Key capabilities include:

- *CGI Management Foundation* to drive **operational excellence** for hybrid cloud and hybrid IT in close partnership with our clients
- 60+ successful **data center migrations** to the cloud
- 250,000 **users migrated** efficiently to the cloud
- Thousands of **applications modernized** and migrated to the cloud
- Successful integration and operation of cloud-based DevOps pipelines in our **application modernization factories**
- Our **full-stack hybrid IT and cloud management platforms with AIOps** (CGI SiteReliability360 and CGI Unify360)
- **Partnerships** with all top cloud service providers plus thousands of trained and experienced cloud architects, engineers and developers

When it comes to multi-cloud management and operations services, CGI is the partner of choice for our clients around the world. Let us help you run and optimize your complex hybrid cloud environments with our full breadth and depth of services and expertise.

We stand ready to help you govern, manage and operate your hybrid cloud environments today, so you can focus on the strategic task of charting the future.

Contact us at info@cgi.com or learn more at cgi.com/cloud.

CGI's Cloud Management and Operations services are part of our full suite of cloud services designed to help with the transformation to an agile, adaptive and resilient enterprise. In addition to ongoing cloud management, operations and optimization, we offer cloud strategy, architecture and planning advisory, IT and application cloud modernization, cloud-native development innovation, enterprise SaaS solution integration and configuration, and cloud turnaround services.

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 80,000 professionals provide comprehensive, scalable and sustainable IT and business consulting services that are informed globally and delivered locally.

For more information,

Visit [cgi.com](https://www.cgi.com)

Email us at info@cgi.com



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¹Gartner® “Over 100 Data and Analytics Predictions Through 2025,” Alan D. Duncan, 18 Mar 2021

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The CGI logo, consisting of the letters 'C', 'G', and 'I' in a bold, red, sans-serif font. The 'C' and 'G' are connected at the top, and the 'I' is separate to the right.