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SECRET SAUCE FOR A SUCCESSFUL CLOUD STRATEGY: CLOUD OPERATIONS AND GOVERNANCE

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Secret Sauce for a Successful Cloud Strategy: Cloud Operations and Governance

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Q: How are cloud adoption trends evolving and what impact is this having on cloud governance and operations?

We live in a digital-first world where more than 60% of GDP comes from products and services of digitally transformed organizations.

To deliver business value in this world, organizations are undergoing a technology-led reimagination of their businesses — underpinned by cloud. According to IDC, European public cloud services spending grew at a 2016–2021 CAGR of 28.9% to reach $85 billion in 2021. In comparison, the overall ICT market grew 5% on average. Cloud is becoming strategic as organizations don't see it as a destination but a foundation on which to leverage innovation accelerators such as AI/ML, IoT, Big Data, analytics, edge capabilities, and cloud-native components at scale for business value.

When business value is so closely tied to cloud and native-cloud services, cloud governance and operations can no longer be an afterthought.

Cloud strategy success in the 2020s differs vastly from that in the 2010s, when the focus was on cloud adoption and migration (Day 0 and Day 1), datacenter exits, and capex spending cuts. Now, to be successful, organizations need fluent cloud operations — optimizing cloud resources, creating frameworks and blueprints for streamlined operations, adopting policy-driven governance and security guardrails for continuous compliance, and embedding processes to manage the ever-growing native-cloud functions.

A laser-sharp focus on cloud operations and governance (Day 2 and beyond) is the logical next step to deliver business value with cloud in the 2020s and beyond.

Organizations planning to modernize their core environments with cloud invariably include operations to move away from a traditional cloud strategy, which was merely an extension of datacenter processes and mindset. Previously, cloud adoption was transactional, catalog based, and focused on process-driven models to manage cloud services. With a modern operational framework, savvy organizations can shift to a services-driven, site reliability engineering (SRE)–based operating model that enables full-service ownership, autonomous operations, and governance/compliance assurance. This breaks down the silos between Day 0, Day 1, and Day 2, with holistic SRE, CI/CD, and DevOps teams working together for continuous cloud innovation, operations, and governance.

Prioritizing cloud operations at the beginning of the cloud strategy is critical to achieve three core cloud priorities:

- Remove management complexity and get consistent and seamless experiences across cross-cloud environments
- Ensure continuous innovation and optimization
- Implement near-zero-touch operations (or autonomous operations)

Another trend is the need to excel in hybrid cloud and multicloud strategies. Given the business priorities and the security, compliance, availability, and regulatory requirements for different workloads, very few companies have a single cloud strategy. IDC's *2021 European Multicloud Survey* showed that 80% of European organizations use hybrid and multiple public cloud resources.

Q: Hybrid and multiple public cloud resources can lead to complexity, thereby increasing security, cost, and business risks. What are the common challenges organizations face today?

Heterogeneous environments are difficult to manage, so the complexities and security risks are key challenges. Applications and the data landscape are becoming complex too.

Businesses of all sizes are undertaking mass application transformation, capitalizing on cloud's versatility. IDC predicts that by 2024, most legacy applications will receive some modernization, with 65% of applications adopting cloud to improve their functionality.

Net-new production-grade cloud-native services adoption is also set to increase, to 70% in 2024, thanks to microservices, containers, and DevOps. In 2020, it was just 10% of all apps. Those that consider cloud governance in hindsight admit there were complexities, reduced visibility, security and compliance risks, management overheads, and operational redundancies when it comes to operations.

At the same time, organizations are grappling with data sprawl, silos, and increased compliance risks.

It's no surprise that only 50% of organizations consider their cloud journeys "successful" or "very successful."

Other operational-related reasons that impact cloud value are:

- Configuration issues resulting in performance and reliability concerns
- The wide range of tools and the lack of integration
- The severe lack of cloud skills
- Poor network and security configurations
- Incompatible cloud operating models
- Difficulty controlling costs
- Vendor lock-in concerns
- Complexity around compliance and data sovereignty

Some organizations are trying to tackle these challenges the traditional way, by applying datacenter processes, but these can significantly undermine the power of cloud. Cloud represents a paradigm shift in scale, dynamism, and access to new native cloud services at breakneck speed. Once you're in the cloud, for example, anything can be a code and the imperative to "automate everything" is essential to operate successfully and mitigate the risks.

Q: What are savvy organizations doing to build cloud resilience? How critical is it to develop a cloud operations and governance mindset to succeed in this?

Now is the time for organizations to recalibrate their approach to cloud operations by leveraging automation and shifting governance left. This recalibration is vital to remove operational friction and because cloud-native applications and hybrid infrastructure resources can't be properly managed with traditional, siloed control strategies.

IDC research shows that mature cloud users take an operations-first approach and adopt measures such as proactive AI/ML-powered analytics, policy-driven automation, and low-code workflows to enable a consistent, self-driving infrastructure. These capabilities, led by SRE processes, offer a control point and self-service capability that empowers DevOps teams to access resources within guardrails to minimize business risks.

Autonomous operations can help infrastructure operations teams to move away from reactive monitoring and ad hoc provisioning to intelligent operations with higher efficiency, while keeping an eye on costs and security compliance. They also minimize errors and help users leverage the scale and native-cloud services for business value.

Savvy organizations prioritize investments in cloud management and cloud operations tools and integrated platforms. As part of this, their top 3 focus areas are automation and orchestration, embedded risk management and governance, and intelligent security frameworks. IDC calls this strategy intelligent cloud operations (intelligent CloudOps) — leveraging new capabilities such as automation, AIOps, cloud economics, SRE processes, full-stack observability, DataOps (minimizing data silos), and cross-cloud governance to operate consistently and efficiently in the cloud.

According to IDC's research, the five key expectations from intelligent CloudOps are:

- Driving consistent management
- Improving cloud security, resilience, and performance
- Managing cloud costs better (by setting up FinOps frameworks for consumption and minimizing cloud waste)
- Reducing operating costs (by driving efficiency through maximum automation)
- Enhancing user experience (with faster TATs, self-service, and predictability)

Q: In addition to culture and mindset, cloud operations and governance requires excellence in three core pillars: operational governance, financial governance, and technology governance. What are the best practices to mature across these three pillars?

Forward-thinking organizations want to mature their cloud operations and governance by 2025 and are acting now across the three pillars to implement an "integrated" operating model:

- **Operational governance led by SRE processes.** Organizations can eliminate operational inconsistency by empowering IT management teams with intelligent autonomous operations enabled by SRE-led cross-cloud management control frameworks using AI-led automation. This will support greater levels of workload/data portability, consumption-based usage, and highly dynamic agile applications and digital transformation (DX) programs, while keeping an eye on costs and security compliance.

  As a next step, organizations can bring in integrated operations covering the entire stack, including business and user experience layers, with SRE playing a key role. This way, IT can manage, automate, orchestrate, and monitor business applications and services across multiple environments such as public cloud, private cloud, hybrid cloud, and multicloud including containers and serverless platforms.

  IDC believes that SRE processes for cross-cloud management can help organizations shift-left the quality and resilience, govern automated release management and deployments, and use observability to deliver robust SLAs.

- **Financial governance or cloud FinOps.** IDC estimates that European enterprises are wasting at least 15% of their public cloud spending — driving them to invest in public cloud cost management to cut cloud waste. This cost inefficiency is caused by "datacenter" mindsets and lack of visibility in cloud spending and usage.

  80% of savvy cloud users will establish a dedicated FinOps function and adopt cost-optimization platforms to monitor costs, review consumption commitments, automate policy-driven observability, and optimize cloud resources.

- **Technology governance.** Continuous adoption of new cloud platforms and multiple clouds alongside the use of classic and modern application architectures requires a world-class approach to technical governance focusing on managing change, tracking the adoption of cloud-native services, maintaining security, and reducing complexity. Modern IT operations led by SREs take on the CloudOps role to ensure architectural governance.

  Automated governance, SOC and NOC excellence, and continuous monitoring and remediation are key areas of investment to govern and secure cloud-centric technology architecture operations. CloudOps teams — as part of technology governance — help run, measure, and ensure proper use of all cloud and non-cloud resources across financial, compliance, and asset utilization requirements. They also help align all IT and cloud resources to business outcomes, while complying with security and regulatory policies.

By ensuring continuous operational excellence through these pillars, savvy companies are building a competitive digital edge.

Q: Would you agree that cloud strategy, governance, and operations need to go hand in hand, that organizations need to break down silos, and that they should consider CloudOps from the outset?

Absolutely. That is the only way to succeed and overcome the reasons for cloud failures. Organizations with a cross-cloud environment need to continuously review and improve their cloud operations and governance. Intelligent CloudOps — driven by SREs that balance innovation speed and scale with governance, security, and cost management — is the only route to long-term, sustainable success. Organizations should not see CloudOps as an afterthought following migration or modernization projects. They need to make it an integral part of their cloud adoption strategy.

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About the Analyst

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Archana Venkatraman's primary research coverage is cloud data management. She covers multiple topics, including data protection, edge to cloud data trends, application and data availability, compliance, data integration, intelligent data management, DataOps, data quality, and multicloud priorities and trends. She is also a co-lead of the cloud practice and an active contributor to IDC Europe's DevOps and AI research practices. Before joining IDC, she was the datacenter editor at *Computer Weekly*, where she focused on datacenters, server virtualization, storage, open source technologies, software-defined infrastructures, and cloud computing, liaising with enterprise CIOs and technology vendors to develop deeper insight into the enterprise IT industry. She has a master's degree in journalism from Mumbai University.

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