GoDgtl
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Importance & Key Benefits of
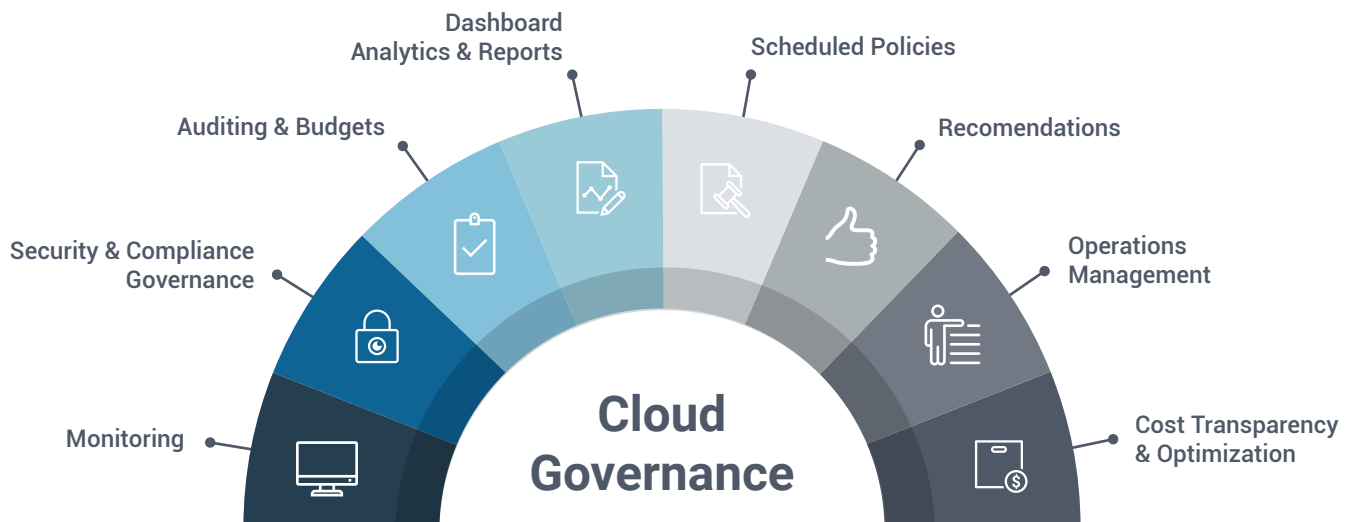**CLOUD GOVERNANCE**

GoDgtl Whitepaper

go-dgtl.com

# The Value & Importance of Governance within AWS Public Cloud

Businesses are driving changes through Digital Transformation as never before. In this environment, most strategic visions eventually develop a primary focus on cloud solutions that can deliver a meaningful impact to both enterprise direction and cost. Cloud initiatives, cloud adoption and cloud computing practices are all interlinked in an integrated governance solution that includes people, processes, and technology.

Cloud governance best practices help maximize exposure, ensure compliance, as well as keep control. Governance best practices are not limited to the optimization of efficiency and costs. They may also develop safeguards for any cloud-related occasions that can affect financial resources, operations, and security.

Dashboard Analytics & Reports

Scheduled Policies

Auditing & Budgets

Recomendations

Security & Compliance Governance

Operations Management

Monitoring

Cost Transparency & Optimization

Cloud Governance

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What is Cloud Governance?

In brief, cloud governance is a carefully designed set of rules and protocols that function in cloud environments to boost data safety, manage risks, and keep processes running without issues. The convenience of the cloud provides great convenience for businesses and customers alike. But this convenience may suggest that employees will develop their own systems and set up resources into the cloud with the click of a mouse. This would be frowned upon as it gives rise to the notion of "Shadow IT" and can create problems with competing systems, while increasing costs and reducing efficiency.

30%
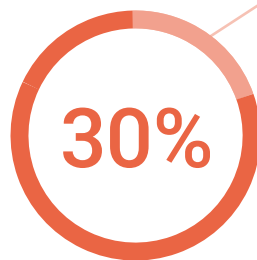
Amazon Web Services (AWS) is the leading cloud vendor with more than **30%** of the cloud service market share along with extensive and widely adopted cloud governance policies.

The convenience of cloud also brings with it a new array of security issues. Even in the most secure cloud environments, assets can be deployed with poor accessibility controls or with increased configuration vulnerabilities. This can expose the entire system to an increased risk of hacking. Additionally, it is important to note that there no firewalls in the cloud, as there are with on-premise IT solutions.

In 2020, around **76%** of IT professionals from industries worldwide report that their companies were presently running apps via AWS, while another **12%** are experimenting with their apps also on AWS.

(Flexera, 2020)

76%

12%

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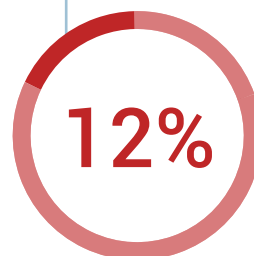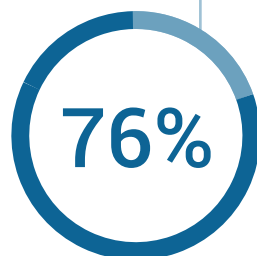
Recent statistics point to reasons for adopting strong cloud governance policies:

63%

The second top cloud service for 2020, where **63%** of IT experts run their apps was Microsoft's Azure.

(Flexera, 2020)

A robust cloud governance strategy ensures that policies are in place to address both known challenges, as well as unknown challenges. Everything from asset deployment to systems interactions to data protection must be carefully considered, analyzed, and managed. The gradual transition from on-premise IT infrastructures to a cloud environment adds some complexity to the platform architecture. It also means that more people across an organization have the capability to impact that architecture.

In the meantime, the top initiative among enterprises is how to optimize their cloud usage as expressed by **73%** of responding organizations. Cost savings had been the top initiative for the past four years.

(Flexera, 2020)

73%
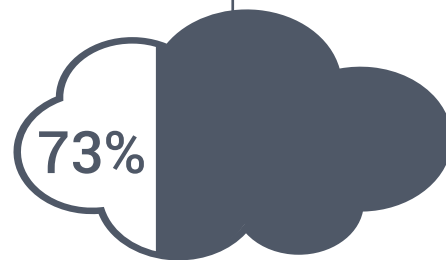
For these reasons, it is critical that companies develop and maintain a thorough cloud governance model. Implementing a governance plan is essential whether a firm has just begun their cloud journey or if they have been operating in the cloud for some time. GoDgtl has a defined methodology for conducting day-to-day operations according to both published industry and AWS best practices. We can share that knowledge related to controlling costs, addressing security concerns, implementing automation and utilizing cloud native applications.

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This is how business leaders see cloud usage in the coming years and why it is even more important to have a governance strategy in place right now:

50% employers expect higher than - normal cloud usage

75% CFOs to carry out a more agile business system

37% cloud spending will increase across all industries

Using People & Process for a CCOE–Cloud Center of Excellence

Cloud governance depends on a framework and model of cloud experts. This is preferably a group within the organization that provides leadership, best practices as well as policies to drive cloud adoption. AWS helps define the strategy and scope of a functioning Cloud Center of Excellence (CCoE).

In terms of best practices, the CCoE "creates and maintains design principles and architectural best practices for designing and running applications in the cloud." To help enable the discovery in this framework AWS has produced their AWS Well-Architected Framework. This framework is based on foundational questions that help shed light on detailed and specific architecture alignments for AWS best practices.

It is also important to note is that the CCoE framework is based on five pillars:

| Operational excellence | Reliability | Performance efficiency | Security | Cost optimization |

These will be elaborated on further when we discuss maintaining a Well-Architected Framework by AWS.

Identify the workload to review
Then answer a series of questions about your architecture

AWS Well - Architected Tool
Review your answers against the five pillars established by the Well - Architected Framework

Pillars

Operational excellence	Reliability	Performance efficiency	Security	Cost optimization

Get videos & documentation related to AWS best practices

Generate a report that summarizes your workload review

View the results of workload reviews across your organization in a single dashboard

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Importance & Key Benefits of Cloud Governance

It is self-evident that Cloud Governance policies make it easier to manage cloud resources. Major cloud service providers such as AWS actively advise customers to move or shift multi-tenant workloads from single cloud accounts into multiple different accounts. This helps with precise cloud workload management which is becoming a new best practice area in newer Cloud Governance modeling. Not only does this best practice policy help with volume and workload in accounts, but also in showcasing visibility around key cloud activities and trends supported by metrics.

83%
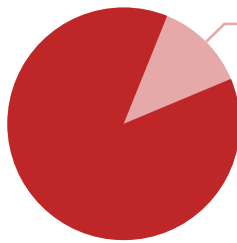
Cloud adoption statistics reveal that by 2020 a staggering **83%** of the company workload will be stored on the cloud.

Reduction in labor activities and minimizing resources is another component in a winning Cloud Governance strategy. This is achieved by adopting practices such as identifying and eliminating idle resources, optimizing and scaling computing services, leveraging tools to project resource demand, as well as planning out usage of applications that utilize resources only when required.

77%
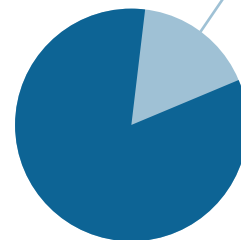
In terms of cloud metrics, **77%** of businesses utilize cost savings and efficiency as their top KPI for measuring cloud performance.

(Flexera, 2020)

Lower security risk is a key benefactor from an enterprise level Cloud Governance strategy. When an organization has made the commitment to hosting or moving data to the cloud, it is necessary to develop the proper security protocols to protect that data. Hosting data in the cloud brings the inherent risks of data breaches and hacking attempts as well as unauthorized access.

The governance plan allows you to identify the vulnerable spots and have an action plan to proactively eliminate risk, as well as have in place the metrics to analyze and gauge the impact of security policies in place.

Basic Cloud Governance Policy and Best Practices

Establishing a cloud governance program follows three basic phases:

Awareness: This is the beginning of the process. Organizations in this early stage have zero cloud structure and still depend on manual deployments of technology and assets. They might know that they want to completely transition to the cloud, but they have minimal integrations and are just beginning to scope out cloud governance plans.

Early Adoption: At this phase, organizations have developed policies matched to their needs and processes. They most likely have a cloud team in place and have scoped out costs and other architecture details. They are experiencing rapid cloud deployment.

Mature Adoption: In this final phase, organizations reap the rewards of the effort they applied in the previous phases. Their cloud management is now fully automated. It is responsive and agile, and the cloud governance framework enhances security and compliance.

This is why governance matters:

According to **74%** of global IT
decision-makers, **95%** of all workloads will
be in the cloud within the next five years.

(LogicMonitor, 2020)

74%   **95%**

Cloud governance is the key to progressing along these three phases. In the Awareness stage, companies need to carefully audit their existing systems and develop a clear vision of their ideal cloud environment. This is the time to research, collaborate across teams, and make plans. Part of this exploration will include drafting a cloud governance plan.

Once that initial plan is developed, it is time to move into the Early Adoption phase. Cloud governance is dynamic. Teams should be prepared to come back to their framework recursively to assess compliance, scan for potential vulnerabilities, and make improvements. Things move fast during Early Adoption, so it is critical that teams refer to, and build on, their cloud governance plan to ensure controlled deployments and constant attention to data security.

Finally, organizations that have transitioned into the Mature Adoption phase depend on their cloud governance to keep things running smoothly. This unifying framework keeps everyone on the same page and transforms the rush of Early Adoption into a reliable cloud experience for all stakeholders.

Maintaining a Well-Architected Framework

An organization's processes and procedures certainly help determine the efficiency of their cloud installation. Additionally, they equally impact the underlying architecture and platform structure. AWS Well-Architected enables cloud architects build secure, high-performing, resilient, and efficient infrastructure for their applications and workloads.

Based on five pillars — operational excellence, reliability, performance efficiency, security and cost optimization — AWS Well-Architected provides a consistent approach for customers and partners to evaluate architectures and implement designs that can scale over time.

As an important and essential best practice, organizations must adopt and follow well-architected principles that ensure cloud-based applications are nimble and resilient. The fundamental practices of AWS well-architected frame's basic practices are categorized as:

Operational excellence. To make workloads run effectively with operational excellence, perform all operations as code, develop apps incrementally with small changes, and refine processes frequently. The operational excellence pillar focuses on running and monitoring systems to deliver business value, and continually improve processes and procedures. Key topics would include automating changes, responding to events, and defining standards and benchmarks to manage daily operations.

Reliability. Reliable applications should recover automatically, have distributed workloads, and utilize only the resources required for production workloads. The reliability pillar focuses on ensuring a workload performs its intended function correctly and consistently when it's expected to. A resilient workload quickly recovers from failures to meet business and customer demand. Key topics include distributed system design, recovery planning, and how to handle change.

Performance Efficiency. Use serverless platforms that bring operational efficiency. Deploy workloads across regions to reduce latency. The performance efficiency pillar focuses on using IT and computing resources efficiently. Key topics include selecting the right resource types and sizes based on workload requirements, monitoring performance, and making informed decisions to maintain efficiency as business needs evolve.

Security. Implement strong identity and access control to secure applications. The security pillar focuses on protecting information and systems. Key topics would include confidentiality and integrity of data, identifying and managing who can do what with privilege management, protecting systems, and establishing controls to detect security events.

Cost Optimization. Leverage cloud financial tools to help monitor resource usage and cloud expenditure. Additionally, your organization should focus on core development, delegating non-core services to third-party vendors. The cost optimization pillar focuses on avoiding unnecessary costs. Key topics include understanding and controlling where money is being spent, selecting the most appropriate and right number of resource types, analyzing spend over time, and scaling to meet business needs without overspending.

Cloud Governance in Your Organization

Cloud governance must be an ongoing process. Once the relevant policies are established, your organization will need to evaluate whether you are working further down the line. As your organization becomes more comfortable with your cloud environment, they will have a better understanding of how to run it. Because of this, policies may change to reflect new knowledge or incorporate new cloud solutions. Your governance framework needs to adapt to these factors as they arise.

According to the 2020 State of the Cloud Report, the top three challenges for enterprises are security **(83%)**, managing cloud spend **(82%)**, and governance **(79%)**.

(Flexera, 2020)

Security

83%

82%

79%

Cloud Spend

Governance
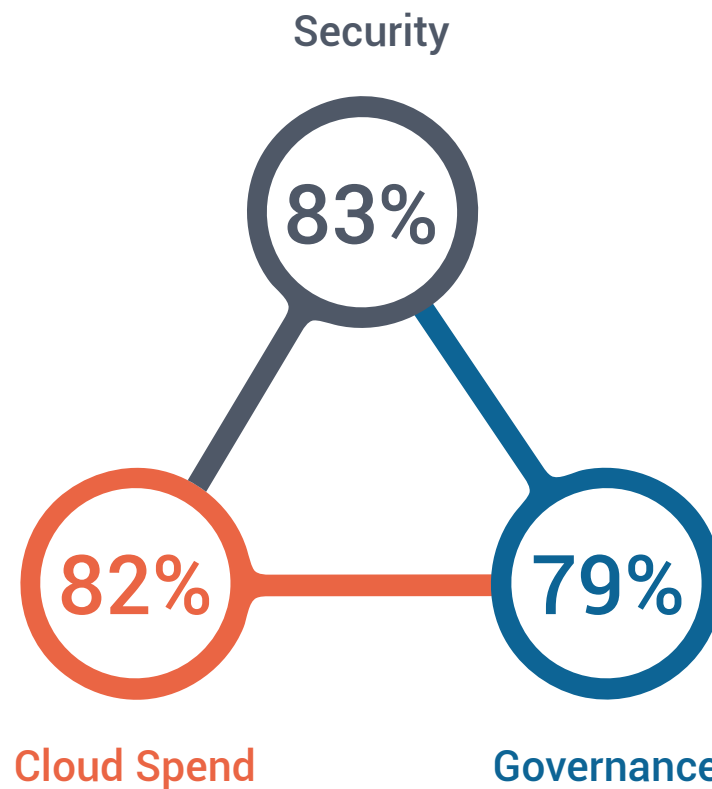
An organization will not achieve overnight cloud operations success. You will have to adjust your cloud strategy and policies as you move forward. Managing your cloud environment helps you understand how you need to adjust them. Cloud governance frameworks should be examined at various stages of the cloud adoption process, even years after the initial start. If you are not modifying your framework to account for new processes and better cloud expertise, your company is likely to lose efficiency and productivity. Thus, your company needs to be flexible in how it governs your cloud operations.

AWS summarizes it best. "Governance in the cloud is a mix of process, people, and technologies that drive cloud adoption and improve an organization's agility without compromising safety. Creating a decentralized governance permits great control over standards and costs (safety) while allowing better responsiveness (agility).

It's important to develop a critical mass of people with AWS experience, as well as establish an operational CCoE dedicated to mobilizing the appropriate resources and defining best practices." Using the cloud, especially public cloud services such as AWS, means having best-in-class tools and resources, while also ramping up your organization on Cloud-centric policies, best practices and adoption.