

Migrate to the Cloud Securely: 10 Key Factors

Introduction

Over the past several years, Insight Cloud + Data Center Transformation (CDCT) has been called upon to help customers in a variety of industries with their digital transformation and cloud migration and implementation projects.

In many cases, these projects had stalled out or fallen well short of customers' expectations with regard to performance enhancement, cost reduction, reduced IT/business unit operational overhead, and other factors.

Recent research shows that this problem of failed transformation projects is quite common. [An online survey of 200 executives](#), conducted by IDG Research in September 2018 on behalf of Insight, shows that 51% of respondents said their transformation initiatives had stalled or been abandoned.¹

About two-thirds of the organizations surveyed (62%) had failed to lay a strong foundation for IT transformation by both documenting and communicating their plans.² For the purposes of the survey, researchers defined transformation as adapting IT skills, processes, technology, and tools to advance the business and improve customer experiences. Transformation leverages technology such as hybrid cloud, automation, containerization, and orchestration.

The reasons why these endeavors did not deliver benefits as expected are varied, although there are some common themes that emerge regardless of market vertical or size of the business.

This whitepaper describes 10 operational considerations for organizations migrating to the cloud as part of a digital transformation or data center modernization program. It provides suggestions of best practices to help enterprises avoid the problems that can derail these projects and keep them from delivering the optimum benefits.

Key operational considerations



1. Enterprise strategy

Imagine if a retailer began building and operating stores throughout the world without any thought to how this approach fits with the company's overall business strategy. Or imagine if a healthcare organization did the same with hospitals or a manufacturer with factories. For that matter, what if a company began hiring people with no definitive plans for what those people would do?

Operating without a central plan can result in severe cost overruns, resource allocation issues, and corporate chaos. And yet, most businesses have no idea how many cloud-based services they are consuming before they start migrating their IT environment to the cloud. There is no long-term strategy against which to execute.

One of the most important steps in migrating data, applications, and workloads to the cloud is developing a master strategy, along with other key steps, as listed in the infographic "[5 Steps to a Successful Cloud Journey](#)," that guides the organization to achieving its goals with the cloud. The strategy should include measuring Key Performance Indicators (KPIs) to confirm that consumed service usage levels are appropriate, and to identify when improvements are needed.

[Insight Enterprises' 2019 Insight Intelligent Technology Index](#), which is based on an online survey of 400 IT professionals in the U.S. and Canada conducted in February 2019, found that half of the respondents said the top challenge related to managing cloud spend is determining best-fit workloads for public, private, and hybrid clouds.³

Some of this can be attributed to the lack of assessment and analysis of workloads, including inventory, system interdependencies, prioritizing sensitive versus non-sensitive, and compliance requirements, according to the study. These types of assessments should be part of the enterprise cloud strategy.



2. Business organizational structure

Adopting cloud offerings such as Infrastructure as a Service (IaaS), Platform as a Service (PaaS), or Software as a Service (SaaS) will almost certainly have some impact on role definitions and scope of work. For some departments and individuals, a move to the cloud can change these definitions and work scopes completely.

To prepare IT staff and business users for the inevitable changes the cloud brings and to gain maximum benefit from cloud services, organizations will need to make necessary adjustments in their organizational structure and provide proper training to those who will be affected.

Besides providing training in IT areas such as cybersecurity and storage, companies will need to train business users who rely on cloud services in order to do their jobs. Preparing staffers might help them more readily accept changes the cloud brings.



3. General business governance

Sensitive data in the cloud should be handled according to the same security rules that are applied to sensitive data not placed in the cloud. A clear definition of these rules as part of an overall governance strategy helps enable fast and compliant cloud adoption. It also helps reduce or eliminate late and expensive changes to cloud solutions.

A clearly defined and functional communication structure is important to ensuring fast reaction to business challenges and new market opportunities. Coherent communication of the potential risks involved with the cloud supports a functional mitigation plan.

In addition, a defined framework provides guidance to the enterprise, especially when introducing new technologies such as cloud service or solutions based on these technologies. The framework will provide a fast and consistent review of new solutions or options.

Moving to the Cloud Means New Governance, New Skills

Learn more about general business governance by reading this blog post.



4. Procurement governance

Having a well-prepared procurement process and team in place can accelerate the implementation of cloud services for the enterprise. It's vital for the procurement department or function to understand the cloud, along with the associated fast request-and-deployment cycles. That way organizations can more quickly enjoy the benefits of the cloud model.

As part of this effort, companies should put in place a common order portal that serves as a single point of contact for all order processes. Managers should be able to order cloud services in the same way as other enterprise services. This ensures a fast, easy, and common way to order services that also discourages the "shadow IT" problem that has plagued so many enterprises.

Framed contracts are a common procurement approach, so it's normal to do the same with cloud services to ease service contracting. Every tool, methodology, and process that speeds up the ability to start using cloud services adds momentum to the enterprise. Easy-to-use reporting provides a base for future decision support. Reporting and consumption metrics show which services are most often used and identifies those that should be replaced or changed in some way.



5. Commercial governance

Well-defined common service templates make the complexities of cloud service levels, compliance, certifications, and risk management requirements easier to navigate.

Cloud services might not have direct service contracts, so it's important to have a coherent and thoroughly tested process and/or channel to approach for questions and concerns.

Pay-per-use cloud services enable constant cost optimization. These costs should then be charged to the consumers of the services. Otherwise, there is no motivation for a department or line of business to terminate a service when it's no longer needed. If these costs are allowed to accrue, the per-use value proposition of the cloud no longer makes sense for organizations.



6. Project and service management

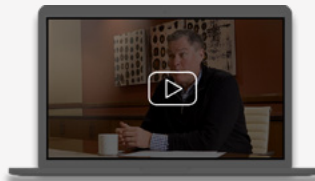
Enterprises typically have a defined approach to handling projects. The re-use of common cloud-enabled templates in project management is as important and useful for cloud projects as it is in non-cloud projects.

Project initiation is the first of several phases within the project management lifecycle. It's within this phase that managers identify a business problem or opportunity, define a solution, formulate the project, and appoint a project team to build and deliver the solution to the customer. Organizations also usually create a business case to define and address the problem or opportunity in detail, while identifying a preferred solution for implementation.

Having the right skills enables teams to make informed decisions about cloud migration strategies. Usually, an enterprise needs fewer skills and resources for using a cloud service than it would if developing the solution internally. Then if needed, it's easier to customize a standard cloud solution, leveraging existing features and options, rather than developing a new solution from scratch. However, it's important to know the source of the solution that's being customized to meet the enterprise's needs.

How to overcome skills gaps

Learn about one surefire approach to navigating skills gaps in this video.



7. Technology architecture

Technology solutions based on repeatable patterns can result in greater predictability, and fewer defects and service interruptions.

When companies use multiple cloud service providers, applications built on cloud service development patterns scale across cloud providers with less refactoring, requiring lower operational overhead and less engineering post-release work.

Delivery of standardized service offerings provides a consistent level of service across the enterprise. Among the key benefits of a standardized delivery model are improved service delivery, better data protection, faster time to value, and greater access to advanced technologies.



8. Technology operational processes

Having clear processes does not mean adding to the complexity of getting work done. Rather, it involves condensing and clarifying processes so that they can run more smoothly.

The main benefits of using clear processes can include cost reduction, less duplicated work, less negative impact on the business, better information quality, enhanced ability to repeat processes, reputation security, better allocation of resources, and the elimination of silos.

It's important to have properly skilled teams because they tend to perform more effectively and efficiently. Service operational costs are reduced while organizational agility is improved. This allows organizations to react faster to market opportunities or to address performance, availability, compliance, or security events more quickly and effectively.

Capacity management increases overall system performance and availability, which leads to reduced overall costs to operate and/or cost per transaction.



9. Cloud deployment types

Cloud services are available in three main deployment types, each of which offers its own opportunities and migration challenges.

One type is infrastructure as a service. A well-architected IaaS cloud architecture allows an enterprise to move to a more business-focused and agile infrastructure model. It also introduces benefits such as dynamic scaling, a reduction in Total Cost of Ownership (TCO), and the ability to move to a metered consumption billing model.

A data management framework leads to improved data quality and more efficient use of data. Companies can leverage both of these to increase the available decision-making factors and reduce the cost of managing organizational data.

An identity management capability lowers the cost per user to manage identities when leveraging a common framework, reduces help desk costs, and improves service levels and security while reducing risk.

The second deployment type is platform as a service. The availability of a PaaS framework for a company's development operations can reduce the time needed to deliver applications to market, decrease prototyping and concept costs, reduce application integration costs, and improve security posture, reducing the number of events or incidents.

A scaling concept improves performance and auto-scaling, which results in decreased operational incidents related to scale and load, thereby improving the consumer experience. Common code and reusable service elements reduce the time needed to deliver applications, decrease prototyping and proof-of-concept costs, and decrease application integration costs. In addition, common code and reusable service elements can reduce the number and severity of software defects.

The third cloud deployment type is software as a service. An enterprise policy for the use of SaaS reduces the chances of an organization incurring a data security breach or failing to comply with data privacy regulations. It can also improve data event and incident handling, which results in a lower level of operational risk.

A SaaS integration concept supports increased flexibility and agility, improves overall risk posture, lowers the chance of security or compliance issues, increases efficiency, and lowers the overall TCO.

Global Leader in Consumer Goods

See how we helped our client achieve positive Total Cost of Ownership (TCO) in the cloud.



10. Information security

Last, and by no means least, is the need to have an information security strategy in place for the cloud. Cybersecurity should always be a key consideration with any technology endeavor, and a migration to the cloud is certainly no exception.

In the Insight Enterprises report, 43% of IT decision makers reported that ensuring the security of data in dispersed environments is the top challenge related to accelerated data growth they will face in the next three to five years. Modernizing data protection and recovery was cited as a challenge by 41%.⁴

The existence of a strong data security program for cloud services reduces risk and improves an enterprise's overall security posture. This improved security posture decreases the likelihood of a data breach and helps companies with their regulatory compliance requirements.

The benefits of having security policies and rules that are "cloud-aware" include the adoption of more secure, consistent, and efficient IT and business operational practices, reduced friction between technology teams, and increased agility.

After the information security team's skills have been updated to include cloud concepts, overall security and operational governance will be improved, resulting in better information security and decreased levels of risk for the enterprise.

Cloud infrastructure is actually more secure for areas where the cloud service provider has a clearly defined responsibility. The introduction of less stringent security practices into shared and fully subscriber-owned areas reduces the security levels of these deployments. For example, for SaaS deployments, it's critical that the customer has rock-solid access and entitlement management processes in place.

Summary and conclusion

Many organizations are moving full speed ahead into cloud deployments. The Insight Enterprises report noted that in the past year 52% of organizations have migrated services and workloads to cloud-based platforms. Looking ahead to the next 12 months, 45% of IT professionals said they plan to switch to cloud architectures for improved identity and access management.⁵

A lot of organizations don't fully understand what they're getting into with the cloud, nor have they created a comprehensive cloud migration strategy. That's a recipe for failure, and if an organization is looking to make the cloud a key component of the business it needs to start building a strategy now.

When migrating to the cloud, not paying attention to all of the areas of consideration that can have a direct impact on the business can potentially lead to negative results. These include decreased performance, lack of availability of services, and higher costs. This is the exact opposite of what a move to the cloud is supposed to deliver for organizations.

By considering and planning around areas such as enterprise strategy, business organizational structure, general business governance, procurement governance, commercial governance, project and service management, technology architecture, technology operational processes, cloud deployment types, and information security, organizations can increase the likelihood that they will have a successful migration to the cloud.

Learn how your organization ranks in 12 operational areas associated with the successful integration of cloud-based services. Take our online assessment.

[Begin my assessment](#)

To learn more about how to successfully move applications, workloads, and data to the cloud, visit insightCDCT.com/Solutions/Cloud-Transformation.

1 IDG Research Services. (September 2018). IT in Transition: How IT Leaders Are Faring, 3. Insight Cloud + Data Center Transformation. [InsightCDCT.com](https://insightCDCT.com)

2 IDG Research Services. (September 2018). IT in Transition: How IT Leaders Are Faring, 4. Insight Cloud + Data Center Transformation. [InsightCDCT.com](https://insightCDCT.com)

3 Insight. (2019, May 6). 2019 Insight Intelligent Technology Index, 4. [Insight.com](https://insight.com)

4 Insight. (2019, May 6). 2019 Insight Intelligent Technology Index, 5. [Insight.com](https://insight.com)

5 Insight. (2019, May 6). 2019 Insight Intelligent Technology Index, 13. [Insight.com](https://insight.com)

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