IT in Transition: How IT Leaders Are Faring

Executive overview: Change-challenged — the IT transformation journey

In an effort to help businesses improve the experience of their customers and accelerate growth, many organizations have embarked on an IT transformation journey. Modernizing IT infrastructure, skills, and processes are essential for achieving business goals.

But, how are IT leaders faring in these efforts? According to the findings of a 2018 survey, transformation efforts appear to be more journey than quick fix.

The IDG Research Services Survey — commissioned by Insight — found areas of obvious and painful struggle in many respondents' efforts toward IT transformation. Yet, survey findings also unveiled several areas of promise and healthy progress along the way.

This paper takes a closer look at some of the key struggles — and areas of progress — reported from the survey. It also offers Insight commentary and advice gleaned from work with large organizations.

Defining IT transformation
In the IDG Survey,[1] IT transformation was defined as "adapting IT skills, processes, technology, and tools to advance the business and improve customer experiences." It was also said to "leverage DevOps and technology such as hybrid cloud, automation, containerization, and orchestration."

About the survey

The survey — "The Challenge of Change: IT in Transition" — examined the state of the IT transformation journey, including steps taken to date, barriers to progress, cloud computing status and challenges, drivers in cloud versus on-premises decisions, and skills gaps encountered in meeting IT transformation goals. Respondents included 200 IT executives across a wide range of industries from midrange to large organizations with a median of 6,250 employees.

[1] The "Challenge of Change: IT in Transition," Marketpulse Research by IDG Research Services, September 2018, commissioned by Insight.

Executive highlights — The struggles

The journey toward IT transformation can be very rewarding. However, it can also be surprisingly complex. It often presents many uncharted waters, with various hiccups or roadblocks along the way. The survey reports several such areas of struggle.[2] These include:

Abandoned/stalled projects
51% of enterprises have had to stall or abandon portions of their IT transformation efforts due to unexpected challenges.

What to do about legacy?
Outdated/legacy IT infrastructure, processes and tools, as well as legacy technology silos (network, storage, compute) are among the top barriers hampering IT transformation initiatives. Further compounding the challenge are the majority of non-cloud-optimized applications in today's IT environments.

Cloud confusion
Many organizations struggle to make sense of the new world of cloud. Questions abound about which cloud provider to use, which workload to deploy where, and how best to securely manage, monitor, track, and contain cloud costs. Cloud strategy, planning, and execution remain major stumbling blocks for many. One of the top hurdles to cloud implementation? 72% said it was determining which workloads should move to the cloud. Beyond determining which workloads should move to the cloud, organizations also need to carefully plan the order of movement due to workload interdependencies.

Executive highlights — Areas of progress

Despite the troubles experienced by many organizations on the road to IT transformation, real progress is being made. Many of the organizations moving forward in IT transformation share similar traits:

Progress with people, process, skills
Some organizations have already begun to optimize their people, IT processes, and skill sets to better support IT transformation. In fact, among those who have begun the transformation process, 64% claim to have already begun reorganization to better support their IT strategy. Less progress, however, has occurred in such areas as technology change or assessment of application requirements for IT transformation. (For example, only 35% of respondents indicated they had performed application requirement assessments to determine which applications would move to the cloud.)

Cloud strategy progress
48% of respondents indicated they already had a documented cloud strategy. Unfortunately, a smaller number (28%) indicated they had both documented and communicated their cloud strategy. Given that IT transformation impacts the entire business, strategies must be developed and shared with business unit leaders. This could be one reason the study reports that "many cloud deployments have proceeded without a clear understanding of the impact on cost, management, and other factors."

Pro hybrid cloud
Many survey respondents reported a "cloud first" mindset, yet the meaning of cloud first differed among them. 63% of those who saw cloud first as a mix of public cloud that also leverages hybrid cloud (on-premises) were more likely to report enterprise-wide progress toward IT transformation (in terms of process, skill, or technology changes).

Survey results show that success often depends on building a solid foundation, developing a comprehensive strategy, and deploying an appropriate blend of hybrid and more mature cloud-first services.

Learning how to avoid common pitfalls and challenges can also help organizations make good progress toward IT transformation. The following pages take a closer look at these common challenge areas.

[2] For the full survey findings, see "The Challenge of Change: IT in Transition," commissioned by Insight.

A closer look: Project stalls

Based on survey results, a few separate issues appear involved in IT transformation project stalls and failures:

1. Challenges are derailing some initiatives already underway.
2. Many companies are failing to move forward or take critical actions.

1. Common challenges that derail projects

Looking at Figure 1, we see more than half of respondents (51%) reported challenges that made them stall or abandon IT transformation initiatives. An even larger number — 65% of respondents in big organizations of 10,000+ employees — also found this to be true.

Figure 1. Stalled or abandoned projects.

Have any of these difficulties prompted you to stall or abandon any IT transformation initiatives?

- **51%** Yes
- **49%** No

% Answering "Yes" by company size:

- **65%** 10,000 employees or more
- **41%** 1,500 – 9,999 employees
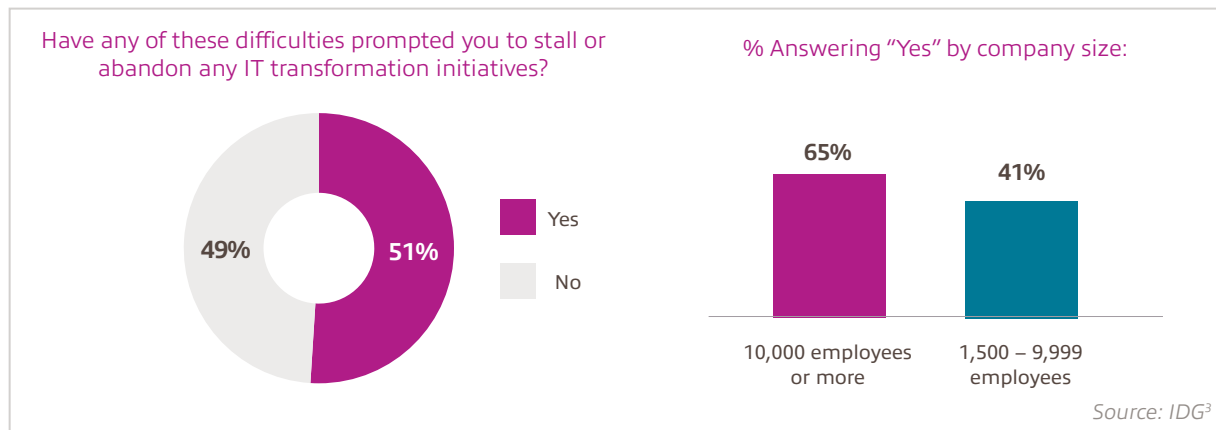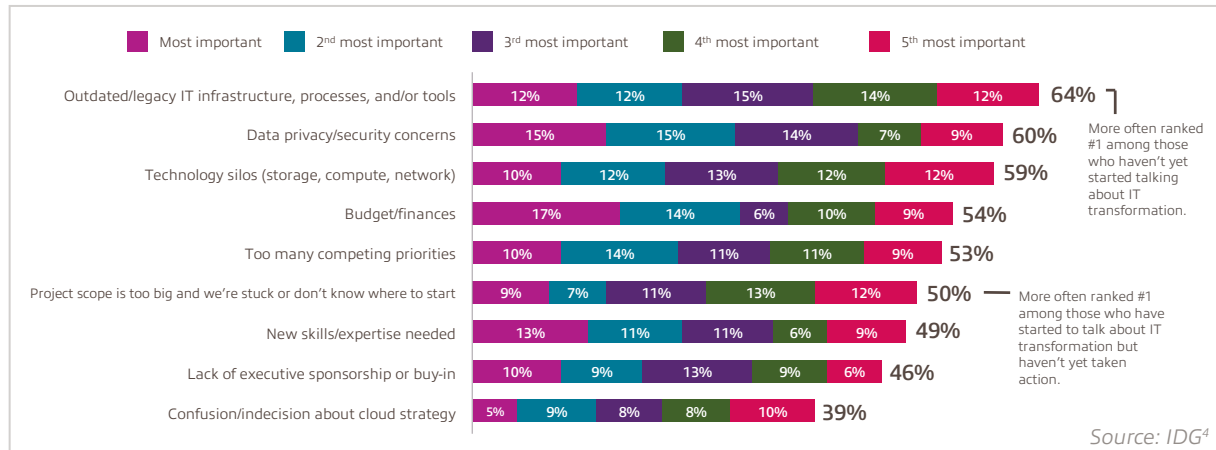
Source: IDG[3]

Figure 2 sheds further light on the top five most-cited barriers to IT transformation that might contribute to such project stalls or failures.

Figure 2. Top barriers to IT transformation.

Legend: Most important | 2nd most important | 3rd most important | 4th most important | 5th most important

Barrier	Most important	2nd	3rd	4th	5th	Total
Outdated/legacy IT infrastructure, processes, and/or tools	12%	12%	15%	14%	12%	64%
Data privacy/security concerns	15%	15%	14%	7%	9%	60%
Technology silos (storage, compute, network)	10%	12%	13%	12%	12%	59%
Budget/finances	17%	14%	6%	10%	9%	54%
Too many competing priorities	10%	14%	11%	11%	9%	53%
Project scope is too big and we're stuck or don't know where to start	9%	7%	11%	13%	12%	50%
New skills/expertise needed	13%	11%	11%	6%	9%	49%
Lack of executive sponsorship or buy-in	10%	9%	13%	9%	6%	46%
Confusion/indecision about cloud strategy	5%	9%	8%	8%	10%	39%

More often ranked #1 among those who haven't yet started talking about IT transformation.

More often ranked #1 among those who have started to talk about IT transformation but haven't yet taken action.

Source: IDG[4]

While budget was most often cited as the top concern by 17% of respondents, budget appears lower on this aggregated view of top five most-cited concerns. 64% of respondents also listed outdated/legacy IT infrastructure in their top five, followed by data privacy/security (60%), technology silos (59%), budget (54%), and too many competing priorities (53%).

2. Failure to take action

Other statistics from the IDG survey seem to address many organizations' inability to move forward or take decisive, strategic steps to advance along the road to IT transformation. For example:

- 44% of organizations have not yet made process, operational, and/or technology changes to support IT transformation initiatives.
- 62% of organizations have failed to take key, strategic steps by documenting AND communicating their plans.
- The largest enterprises (10,000+ employees) are lagging the most. 23% haven't yet started discussions toward IT transformation, while another 25% are in discussions but have yet to take action.

Advice and commentary: Common project stalls and failures

At a high level, many of these findings show organizations have a strong desire to take on such efforts toward IT transformation, but that desire is often challenged by a general lack of programmatic approach. Unfortunately, IT transformation cannot be approached as a side project. Rather, it requires a concerted, institutional-level effort.

For example, a line of business or department may want to transform. If the organization is not ready to support them in this, however, the project will stall. We see this happen for various reasons:

Inertia
"We've always done it this way."

Political opposition
Key parties may have made their career out of doing things "the old way."

Underfunding
"It's going to cost how much?"

Such challenges can appear more often in larger organizations with much longer histories and more potential, vested interests. (Other challenges can occur with legacy issues or moves to the cloud. These are also addressed in later sections of this paper.)

Here's some high-level advice that can help prevent common project stalls or failures:

Get executive buy-in. Digital transformation needs to be driven by executives who have both the authority and the willingness to change the old status quo. Such executives should be prepared to do the following:

- Make painful decisions
- Take some financial "gambles," where necessary
- Try multiple avenues

Start small. Beyond buy-in, it's also important to tackle projects that are manageable and relatively easy to control. Don't try to change the entire organization overnight. Instead, focus on gaining ground with transformation via smaller efforts that can become the proving grounds for what works for each organization. Small efforts are often:

- Quicker to start
- Easier to fund
- Quicker to verify
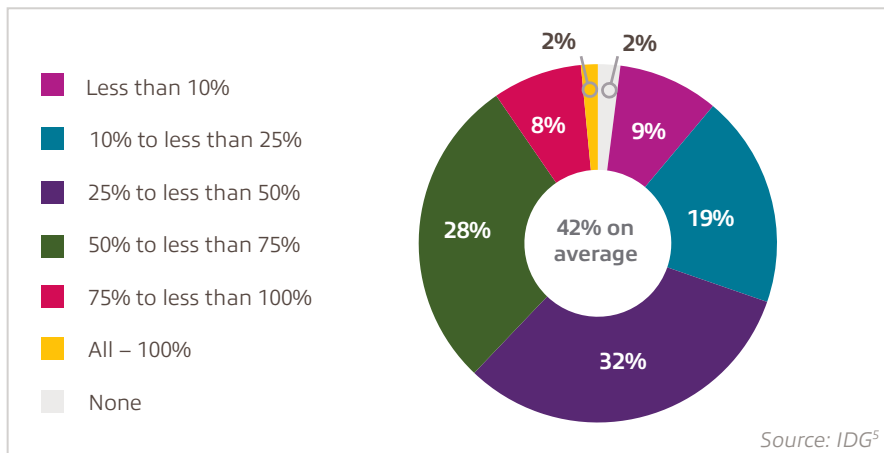- Less painful to abort (if necessary)

After an organization achieves success with a few, smaller projects, we often see a cultural change taking effect. This, in turn, leads to acceptance and the success of larger efforts toward IT transformation.

A closer look: Legacy challenges

Legacy challenges appeared multiple times in the IDG survey. Unfortunately, many of these challenges appear to be a leading reason for IT transformation stalls or failures. Some key statistics related to legacy issues include:

- 64% of those surveyed rank "outdated/legacy infrastructure, processes, or tools" among their top five barriers to IT transformation. (See earlier Figure 2.)
- 59% cite "technology silos" also among the top five barriers.
- On average, only 42% of applications in use — either in-house or commercially developed — are optimized to support cloud storage consumption. (See Figure 3.) That means as much as 58% of applications are NOT yet optimized for cloud.

Figure 3. Percentage of applications optimized to support cloud storage consumption.

Legend:
- Less than 10%
- 10% to less than 25%
- 25% to less than 50%
- 50% to less than 75%
- 75% to less than 100%
- All – 100%
- None

Chart values: 2%, 2%, 9%, 19%, 32%, 28%, 8%

42% on average

Source: IDG[5]

"Cloud optimized": What does it really mean?

The findings in Figure 3 show how much more work remains to optimize applications for cloud storage. But, cloud storage represents just one facet of a larger optimization challenge faced by organizations trying to migrate workloads to the cloud.

Many applications must be optimized to support not just cloud storage, but also cloud compute, networking, security, and even, cloud-based access.

Advice and commentary: Legacy challenges

It takes considerable effort to keep traditional IT systems operational and able to support the business. Just maintaining these takes quite a bit of work. It's not uncommon for IT to spend the bulk of its time keeping current systems running. With that kind of burden, it can be difficult to innovate.

Making IT transformation still more challenging within traditional or legacy IT environments are the separate IT roles and silos that often emerge — then become institutionalized with their own dogmas, philosophies, and practices. This might involve a siloed storage team, networking team, app team, security team, etc.

Other legacy challenges we see include issues with updating legacy processes, practices, and skill sets. This is particularly true when it comes to updates needed to better meet the new ways of doing IT. Some examples include emerging DevOps practices or cloud-focused updates that might be needed in regard to service management, service procurement, or cloud-based IT service delivery. A few good steps include:

Break down barriers. DevOps has emerged as a prime way to help breakdown institutional barriers that could otherwise slow progress toward IT transformation. For this reason, clients often ask how they can start to incorporate the philosophies and practices of DevOps (small, nimble, fail fast, iterate often, etc.) to support new infrastructures. This is possible, even if it means layering such cross-functional practices within traditional or legacy IT structures.

Start with workloads. When it comes to migrating legacy applications to the cloud, many organizations stumble in terms of how best to proceed. Field experience shows that workload-centric assessment and migration planning are integral components that improve the chance for success at both IT transformation and positive cloud outcomes.

Revisit IT roles and support systems for new needs. When it comes to cloud service delivery, organizations are also faced with new roles and new ways of doing things. Their existing skill sets may not always translate easily to this new world. Here are a few examples that may now warrant consideration:

- How do you ask someone traditionally accustomed to installing on-premises servers and operating systems to suddenly write code in the cloud?
- How do you update ITIL or ITSM change management processes to now account for cloud deployment of Infrastructure as Code (IaC)?
- How do you update IT help desk or service management systems (such as ServiceNow™) to add more choices than the ability to request a new server in the on-premises data center? What if a developer needs someone to provision a new server in Microsoft® Azure® or AWS® instead? What options exist to request that type of IT service?

The changes required from legacy and traditional IT can cover a lot of ground. For this reason, many organizations ask for expert advice regarding many topic areas. When it comes to transformation and the cloud, this advice tends to center around several competence areas:

Developing a cloud strategy and roadmap.

Learning which cloud provider to use (as well as learning which specific type of cloud service to use and when to use it).

Understanding how "Cloud" changes IT management.

Developing a clear framework for cloud governance, controls, policy, and cost management.

Identifying and implementing changes in support and administration.

Determining how to tackle identity and authorization.

Implementing secure cloud connectivity.

Investigating how DevOps and agile methodologies can be applied in the cloud.

A closer look: Cloud confusion

There's a whole lot of confusion going on when it comes to cloud-based IT transformation. Figure 4 shows some of the top challenges cited by the majority of respondents. 72% placed "determining what workloads to move to cloud" among their top four most challenging hurdles to cloud implementation. Three other top challenges included the need for new tools to support/monitor cloud applications; the need for change management and moving to a new way of thinking; and the challenge involved in choosing the right cloud deployment models.

**Figure 4. Common challenges in executing a cloud strategy.**
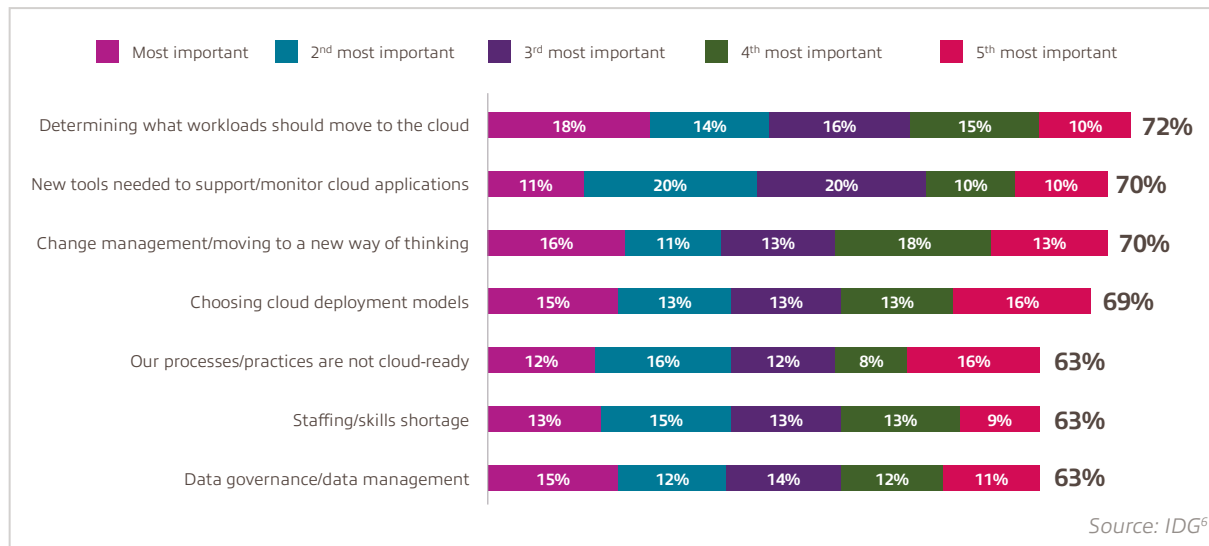
Challenge	Most important	2nd most important	3rd most important	4th most important	5th most important	Total
Determining what workloads should move to the cloud	18%	14%	16%	15%	10%	72%
New tools needed to support/monitor cloud applications	11%	20%	20%	10%	10%	70%
Change management/moving to a new way of thinking	16%	11%	13%	18%	13%	70%
Choosing cloud deployment models	15%	13%	13%	13%	16%	69%
Our processes/practices are not cloud-ready	12%	16%	12%	8%	16%	63%
Staffing/skills shortage	13%	15%	13%	13%	9%	63%
Data governance/data management	15%	12%	14%	12%	11%	63%

Source: IDG[6]

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Cloud first: Hybrid gains ground

Also of note in the survey were the differing views surrounding what constitutes "cloud first." While 75% of those surveyed claimed to have a "cloud-first" policy, 45% defined such a policy as "cloud only" (i.e., all workloads move to cloud). 30% defined "cloud first" as "cloud priority" (i.e., cloud is the first choice with on-premises/hybrid cloud deployment as needed).

Figure 5. "Cloud first" adoption and differing definitions.

Source: IDG[7]
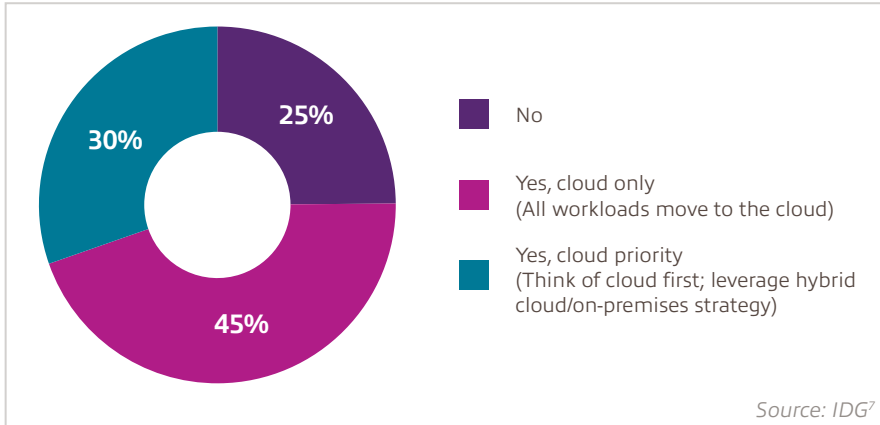
What is interesting to note among these different definitions is the correlation between those supporting hybrid cloud approach and the degree of progress they also cite regarding enterprise-wide IT change toward transformation. Figure 6 calls out this distinction.

**Figure 6. Hybrid cloud strategy shows wider progress.**

Source: IDG[8]
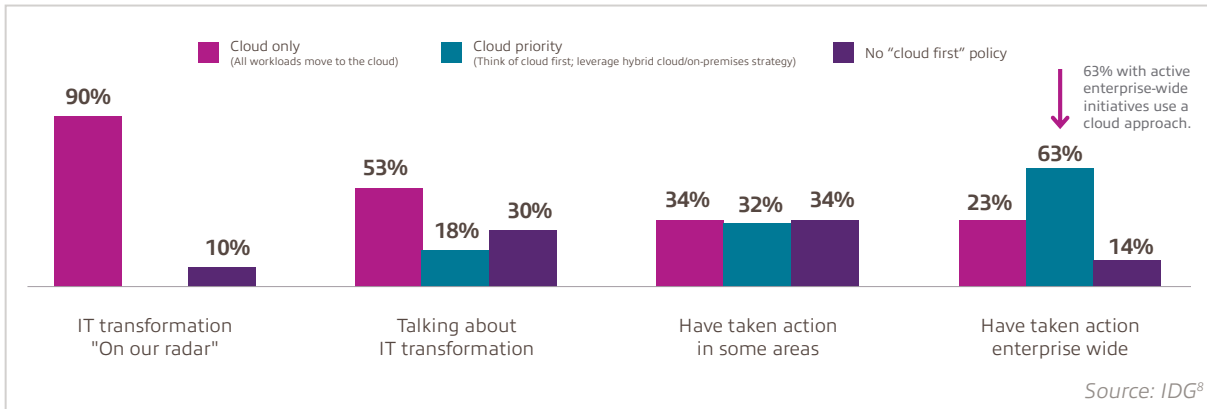
[7] "The Challenge of Change: IT in Transition," Slide 16, Marketpulse Research by IDG Research Services, September 2018, commissioned by Insight.
[8] "The Challenge of Change: IT in Transition," Slide 17, Marketpulse Research by IDG Research Services, September 2018, commissioned by Insight.

Advice and commentary: Cloud confusion

Some cloud-related advice covered in the earlier legacy section applies equally here as well. Customers' common challenges with cloud tend to surround one of four areas.
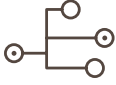
1. Insufficient planning and design performed prior to adoption. Key weak spots typically surround governance, controls, and policy. Such challenges can lead to overconsumption of cloud resources and unexpected cost overruns. To avoid this type of challenge, organizations often ask for assistance with defining and building a governance "scaffold" or framework of sorts. This effectively allows the customer to scale consumption of cloud resources in a more controlled, measured, and secure manner.

2. Lack of enablement for IT staff and/or developers before a cloud service or project is released as "generally available" to the organization. Challenges here can lead to confusion, frustration, and mistakes.

What do we mean by a lack of "cloud enablement?" For one thing, many traditional IT concepts must now be translated to a fully software-defined cloud environment. Likewise, new skills must be developed to support this new environment. This includes translating cloud implementations, specifically in regard to areas like connectivity; identity; protocols and hardware; virtualization and more. Beyond learning new concepts and skills, the enablement journey may start with ad-hoc adoption of easy workloads that can run in the cloud with little modification. It then may progress through stages that leverage more Platform as a Service (PaaS) cloud offerings, followed by periods of further cloud workload optimization and automation. Later maturity may involve more cloud-native applications.

At the early stages of cloud enablement, it is important to make this mental transition from traditional IT ways to cloud practices. This includes gaining awareness and skills around such things as cloud governance, controls, and policy. It's equally important to obtain overviews of Infrastructure as a Service (IaaS) as well as advanced IaaS and PaaS. In some cases, outsourcing may also be an option for consideration.

3. Lack of basic understanding about what a cloud service will or won't do — especially in regard to security. Challenges here can also cause adoption to slow as organizations take time to learn more and investigate. Sometimes, an organization's security team may hold up a cloud service rollout as they seek reassurance that traffic, data, and physical assets not under the organization's own control will be sufficiently secure to avoid risk.

When it comes to security and compliance in the cloud, an organization's security teams need to undergo the same skills transformation as the rest of the organization. This often requires them to take a step back and re-assess their technology posture to make sure that on-premises, hybrid, and public cloud are fully understood. This is the only way that they will understand if these platforms are well suited for them or not.

They must learn how to view the cloud as neither wholly secure nor wholly insecure by its nature — it's only as secure as an organization's own security practices make it. Then there's the potential cloud challenge of data sovereignty, which is the requirement that certain data must live in certain regions (for the purposes of law or policy). When faced with data sovereignty requirements, they may need to learn how to design around this, how to move only certain portions of these systems or data, or when it makes sense to keep certain workloads and data on-premises.

From a governance perspective, they also need to learn that a cloud environment may be more similar to an on-premises environment than they realize in that many of the same controls and compliance mechanisms they enjoy on-premises are also available in the cloud.

4. Not anticipating the degree of change cloud requires for IT service delivery. This issue was also raised earlier. Here, areas like change management, patch management, and help desk support with cloud are not always addressed in advance. Beyond leveraging a service provider, organizations should consider appointing an experienced cloud architect or developing an enterprise architecture board that can help oversee various cloud efforts. Such a board or resource could also help the organization evaluate various cloud-related proposals and options.

Making sense of the journey

There's no doubt there have been significant struggles as organizations seek to embrace their own visions of a future IT state that is better than the one they have now. But, such struggles shouldn't derail progress. Lack of information or knowledge shouldn't prevent companies from moving forward.

Many organizations are changing this by involving experts to help accelerate their success along the way. Many others are looking to the experience of industry peers as well as knowledgeable third parties to help them handle some of their IT transformation efforts. In fact, most survey respondents said they expected a third party to handle 38% of their company's IT transformation initiatives.

In the case of IT transformation, going it alone may not always be the best move. Instead, consider assembling the right team of experts who can assist you in achieving the best outcomes in the most efficient period of time.

How Insight can help

We have developed a number of transformation services to help organizations accelerate their own journey toward IT transformation. These include help with:

- Modernizing on-premises infrastructures in order to relieve the operational, day-to-day pressures.
- Developing cloud strategies.
- Assessing cloud service providers.
- Accelerating cloud adoption for the right workloads.
- Workload-migration planning and workload dependency mapping.
- Assessing and replatforming legacy applications.
- Implementing Disaster Recovery (DR) in the cloud.
- Managing public cloud to allow staff to focus on innovation.
- Other services, including cloud-centered enablement workshops to gain overview knowledge regarding cloud governance, controls, support, identity and authorization, and more.

Ultimately, we are there to meet each organization at its own, individual level of need. We know that IT transformation can be a difficult journey, at times, fraught with questions that don't always have one easy answer. We'd like to share our expertise and help give you clarity where needed to streamline your organization's transformation.

About us

Insight provides expert guidance on cloud integration and data center transformation to organizations of any stage or maturity. By holistically supporting the adoption of new technologies, we enable companies to meet business challenges, improve service levels and efficiency, support growth, and reduce risk.

Today, every business is a technology business. Insight Enterprises Inc. empowers organizations of all sizes with Insight Intelligent Technology Solutions™ and services to maximize the business value of IT. As a Fortune 500-ranked global provider of digital innovation, cloud and data center transformation, connected workforce, and supply chain optimization solutions and services, we help clients successfully manage their IT today while transforming for the future. From IT strategy and design to implementation and management, our 6,600+ employees help clients innovate and optimize their operations to run business smarter.

Additional resources:

- Full survey results: "The Challenge of Change: IT in Transition"
- Infographic: "The Challenge of Change: IT in Transition"
- Whitepaper: "10 Rules to Protect Workloads in a Hybrid or Public Cloud"
- Whitepaper: "Managing the Public Cloud: Who Owns What?"
- Whitepaper: "Public Cloud Workload Migration: 9 Common Mistakes to Avoid"
- Whitepaper: "Choosing Between Private and Public Clouds: How to Defend Which Workload Goes Where"
- Whitepaper: "Transforming Network Security: How to Win Against Cyberthreats"
- Whitepaper: "Moving Workload to the Public Cloud? Don't Forget About Security"

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