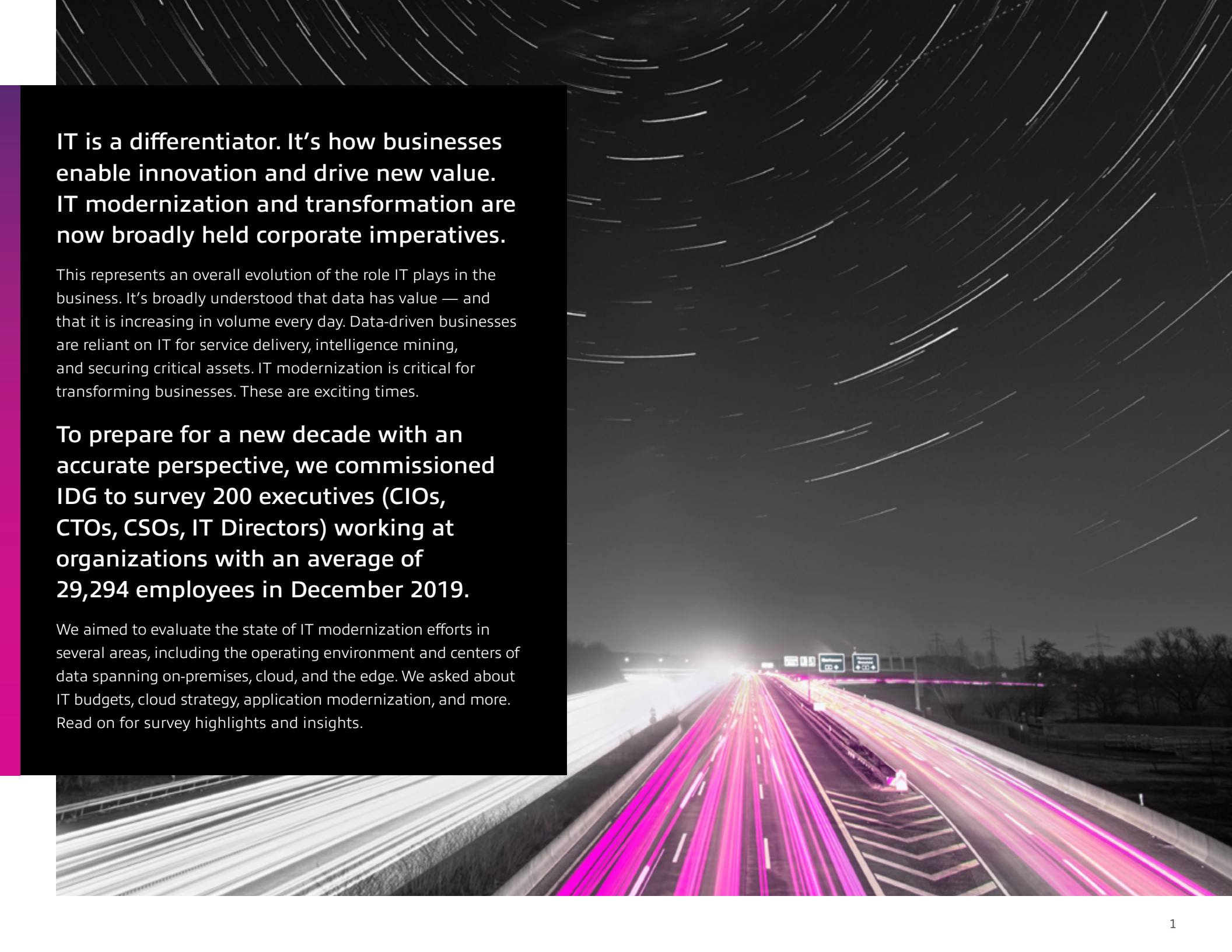


The State of IT Modernization 2020



IT is a differentiator. It's how businesses enable innovation and drive new value. IT modernization and transformation are now broadly held corporate imperatives.

This represents an overall evolution of the role IT plays in the business. It's broadly understood that data has value — and that it is increasing in volume every day. Data-driven businesses are reliant on IT for service delivery, intelligence mining, and securing critical assets. IT modernization is critical for transforming businesses. These are exciting times.

To prepare for a new decade with an accurate perspective, we commissioned IDG to survey 200 executives (CIOs, CTOs, CSOs, IT Directors) working at organizations with an average of 29,294 employees in December 2019.

We aimed to evaluate the state of IT modernization efforts in several areas, including the operating environment and centers of data spanning on-premises, cloud, and the edge. We asked about IT budgets, cloud strategy, application modernization, and more. Read on for survey highlights and insights.



Embracing IT modernization

People are prone to shiny object syndrome. Just a few years ago, the shiny new thing was the app. It was hailed as the answer to our technology prayers, the way to capture and process data in groundbreaking ways. It was assumed this would all happen in the cloud, the platform for the next generation.

Fast forward to today, and business leaders are exhibiting a more seasoned attitude. The app is integral to digital transformation, but we have to be smart about where and how apps run and assess best-fit platforms. After all, we should be focused on what's in/on/through the app — data. Of survey respondents, those who have made the most progress overall with IT modernization in our survey group are significantly more likely to cite an ability to extract business value from data.

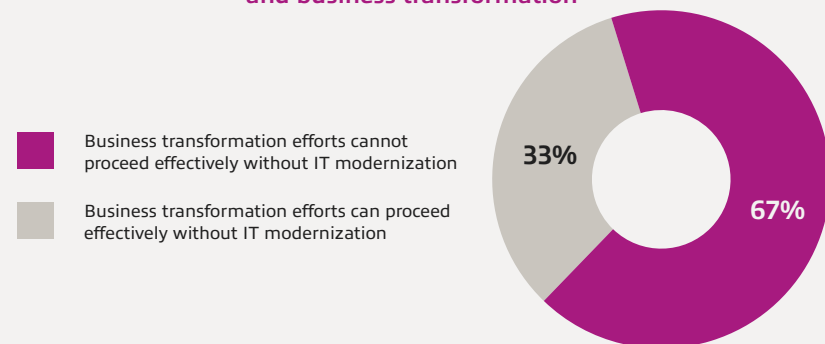


More than two-thirds of survey respondents (67%) believe that IT modernization is essential to enable business transformation initiatives.¹

For the purposes of this survey, we defined IT modernization as “the transformation of IT platforms (public and/or private cloud, on-premises data centers, and/or edge), applications, governance, and processes to achieve desired business outcomes.”

Q: What is the relationship between IT modernization and business transformation initiatives?

Perceived relationship between IT modernization and business transformation

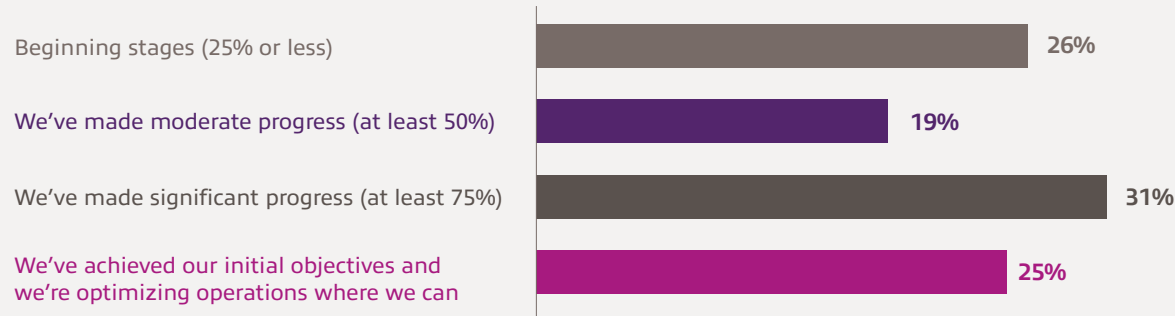


Source: IDG¹

¹ The State of IT Modernization 2020. Slide 10. (February 2020). Marketpulse Research by IDG Research Services, commissioned by Insight.

Efforts track fairly closely. The majority (56%) have either achieved initial IT modernization objectives or have made significant progress toward doing so, while 19% have made moderate progress and 26% are in the beginning stages.²

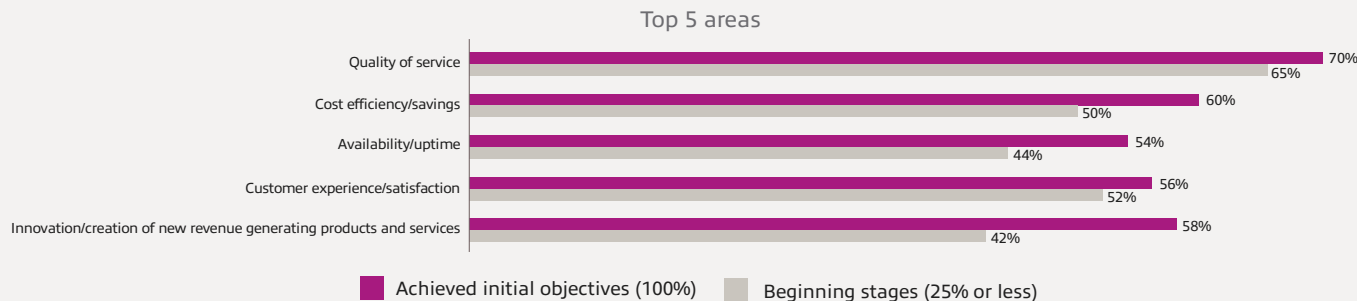
Q: Rate the maturity of your organization's IT modernization efforts as of today.



(NOTE: Percentages may not sum to 100% due to rounding.)

Source: IDG²

Q: In which of the following areas have you seen measurable improvement as a result of your IT modernization efforts?



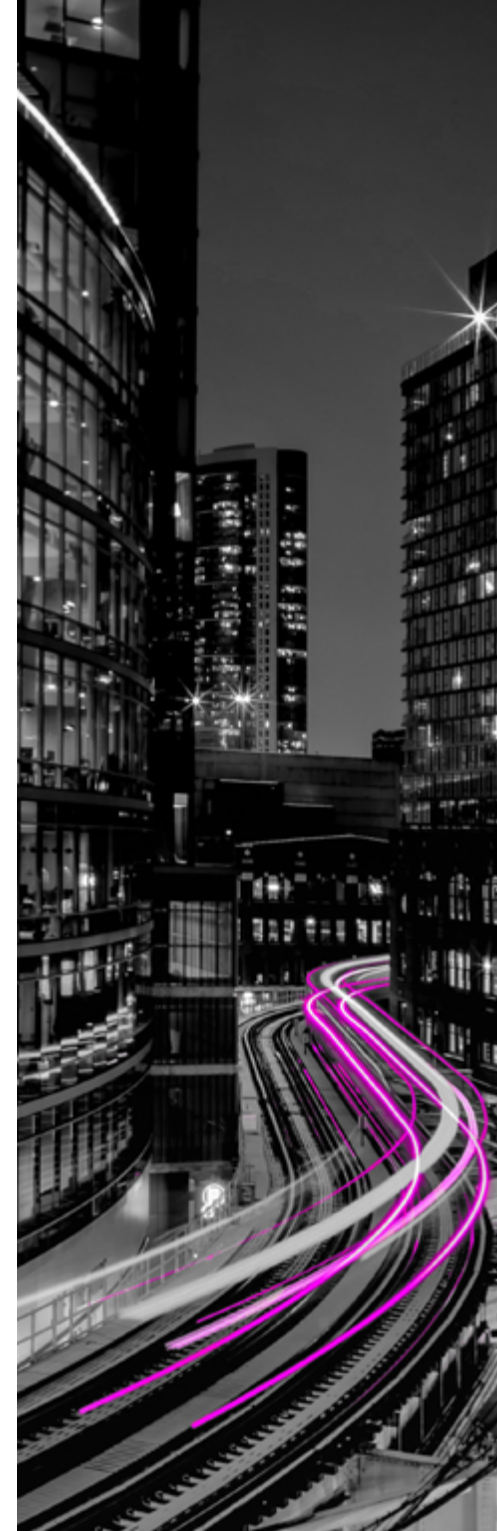
(NOTE: Not all survey responses shown here. To see the complete results, click here.)

Source: IDG³

IT leaders are recognizing that it is not all about the app, nor even all about the platform. So, what is the focus?

Creating IT environments that support the business and its goals.

This means considering platforms, governance and processes, application modernization, resources and skills, modern management models, and more. And, this means IT organizations must continue to act as effective, strategic enablers of business objectives by aligning IT services accordingly.



² The State of IT Modernization 2020. Slide 11. (February 2020). Marketpulse Research by IDG Research Services, commissioned by Insight.

³ The State of IT Modernization 2020. Slide 12. (February 2020). Marketpulse Research by IDG Research Services, commissioned by Insight.



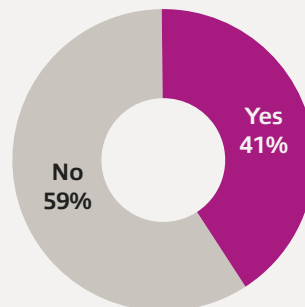
Obstacles to overcome

The road to modernized isn't a straight shot, however. There are switchbacks, blind curves, and steep uphill climbs.

All the pieces need to fall into place for an IT modernization initiative to be achieved: stakeholder buy-in, budget allocation, alignment to business priorities, technology selection, implementation, deployment, skilled resources, optimization and integration, and so on. There is also the larger cultural shift that needs to occur within the organization, to fully adopt a new mode of operation. Meanwhile, the lights need to stay on. It's akin to trying to change the tires while the car is barreling down the highway.

Considering this, it's impressive that more than half (59%) of survey respondents kept IT modernization efforts on track, while 41% delayed or abandoned one or more IT modernization initiatives in 2019. Unsurprisingly, the top two reasons for failed initiatives were competing priorities (46%) and a lack of clear roadmap or strategy (45%). It can be difficult to give IT modernization the time, resources, and skills needed to engender business success.⁴

Q: Did your organization delay or abandon any IT modernization initiatives in 2019?



Q: If so, why?



Source: IDG⁴

⁴ The State of IT Modernization 2020. Slide 13. (February 2020). Marketpulse Research by IDG Research Services, commissioned by Insight.

One way that organizations appear to be looking to improve IT modernization is through governance strategies and processes. This means building a framework for IT decision-making that standardizes who is involved and what and how choices are made. Meaningful updates must be made to support new IT environments that extend from the data center to the edge.



Q: What are your top IT modernization challenges for 2020?

We need to **establish new governance strategies and processes** to support IT modernization/cloud (Continuous Integration and Continuous Delivery (CICD), automation and orchestration, infrastructure as code, change management, etc.)

35%

We need to **define and optimize a new IT operating model** consisting of centers of data spanning cloud (public, private, hybrid), on-premises data center, edge, etc. to support our data and business transformation requirements.

34%

We need to **define and execute a strategy for integrating (determining capabilities across/between) the centers of data** (e.g., cloud (public, private, hybrid), on-premises data center, edge).

34%

We need to **optimize our current cloud environment** to manage cloud costs, better utilize cloud service provider capabilities, utilize cloud services in a more native way, etc.

31%

We need a better understanding of **how to modernize our existing applications and develop cloud native applications** to connect new and old data sources to each other via APIs, gateways, etc.

31%

We are in **post IT modernization mode** in one or more areas, and we are assessing how to optimize our new environment (cost control, archiving, automation, data scaling, etc.)

31%

We need to **assess data/workloads in order to determine the optimal platform** (e.g., cloud (public, private, hybrid), on-premises data center, edge, etc.) **for each one**.

28%

We need to **recalibrate our cloud strategy** to achieve a better cost and/or operational balance between public and private cloud.

28%

We need to determine **best practices for data risk management** (including modern approaches to data protection, security, governance, etc.)

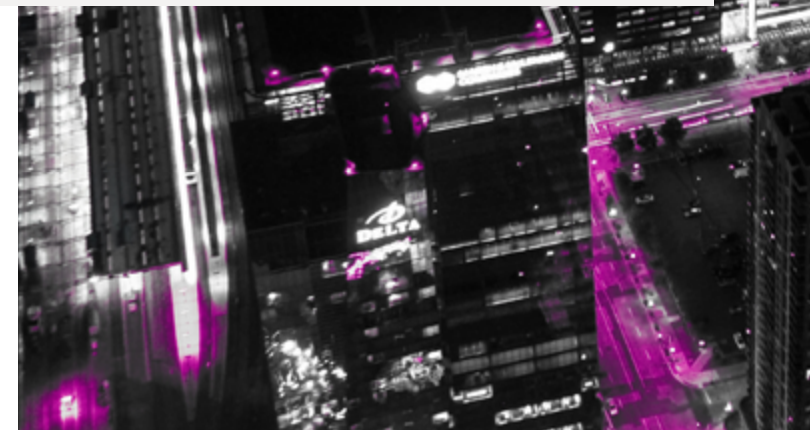
25%

Source: IDG⁵



Once initiatives have been completed, IT organizations find themselves in unfamiliar territory. The rules have changed, the interdependencies and functionality are entirely different.

As IT leaders look ahead, optimizing IT operations and integrating centers of data are seen as key obstacles to further modernization (i.e., problems that need solving). Clearly, many have moved beyond dreams and into reality — figuring out how to make modern IT environments actually work, day to day, for the business.



⁵ The State of IT Modernization 2020. Slide 15. (February 2020). Marketpulse Research by IDG Research Services, commissioned by Insight.



The role of the cloud

It is impossible to talk about IT modernization without talking about the cloud. In the last couple of decades, since cloud computing appeared on the mainstage of the IT marketplace, the cloud and broader perceptions of it have shifted substantially.

Private cloud, public cloud, hybrid cloud, and multicloud (i.e., more than one public cloud) models exist. Organizations have dozens of vendor and provider options.

Do all clouds have a silver lining for all workloads? Not necessarily. Sweeping enthusiasm for the public cloud has led many businesses to build workloads in the cloud or move on-premises workloads to the cloud, only to find that cost, latency, security, or other aspects were making the cloud an impractical platform choice.

Cloud is no less popular today, but it has perhaps become normalized. IT leaders are increasingly seeing it for what it really is — a platform that may or may not suit some workloads.

This is reflected in the data:



Regardless of modernization maturity level, **84% of organizations moved select workloads from a public cloud** to an alternative cloud or non-cloud location.⁶

91%

of organizations have either completed or are in the midst of increasing workloads deployed in the private cloud.⁶



89% of organizations have either switched or are in the process of switching from an all-private or all-public cloud strategy to a hybrid cloud approach.⁶



At the same time, 92% of organizations have also increased (or are increasing) **the number of workloads deployed in the public cloud.**⁶

87%

adopted a multicloud (using more than one public cloud provider) approach.⁶

Cloud strategy shifts are indicative of growing maturity with regards to workload-platform alignment.

Here at Insight, we talk a lot about the importance of making the right platform choice upfront. This message appears to be resonating.

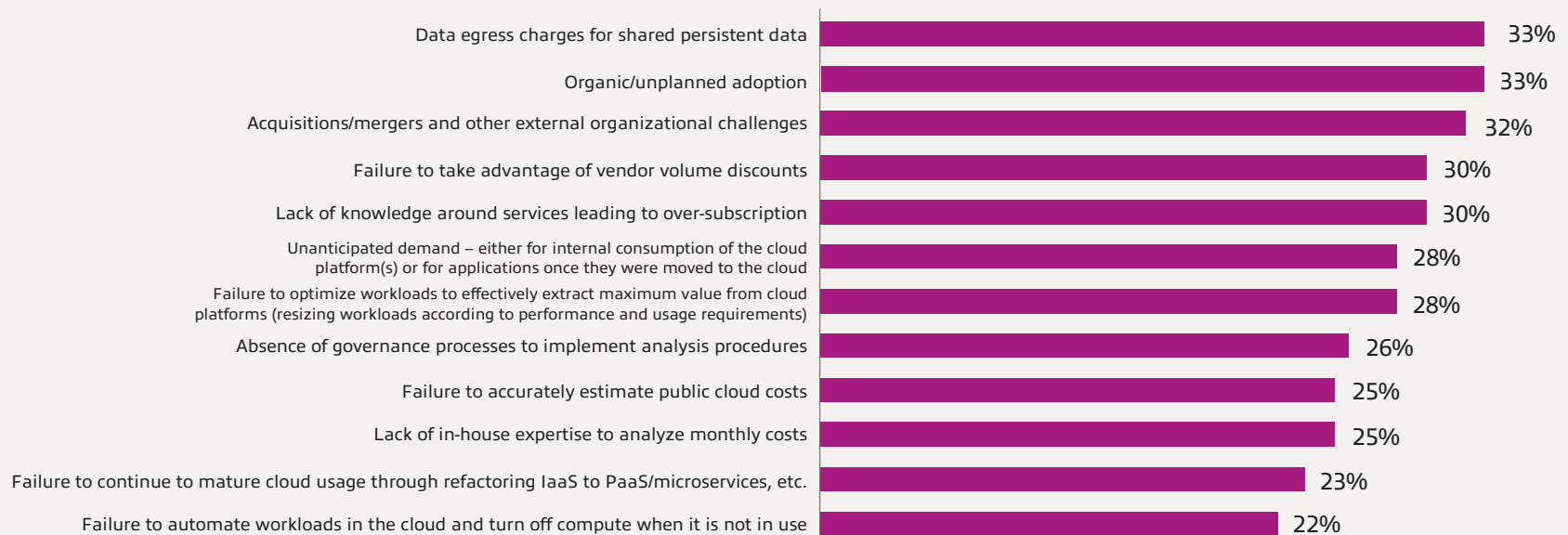
But this has not come without some growing pains. Workload-platform assessment and alignment isn't always easy. We are often brought in to help organizations assess and inventory their environment and related dependencies, align workloads and platforms, and execute a modernized data platform strategy, because it is rare for organizations to have the time or skills to expertly perform these tasks on their own.

Certainly, the costs need to be weighed. Conducting appropriate due diligence (e.g., cost modeling, etc.) before moving workloads to the cloud helps reduce the risk of having to relocate workloads again later.



reported they experienced higher-than-expected public cloud costs, which was likely one of the drivers for 84% of organizations migrating select workloads from a public cloud to an alternative cloud or non-cloud location.⁷

Q: What was the primary cause of unexpected cloud costs?



Source: IDG⁸

⁷ The State of IT Modernization 2020. Slide 28. (February 2020). Marketpulse Research by IDG Research Services, commissioned by Insight.

⁸ The State of IT Modernization 2020. Slide 29. (February 2020). Marketpulse Research by IDG Research Services, commissioned by Insight.

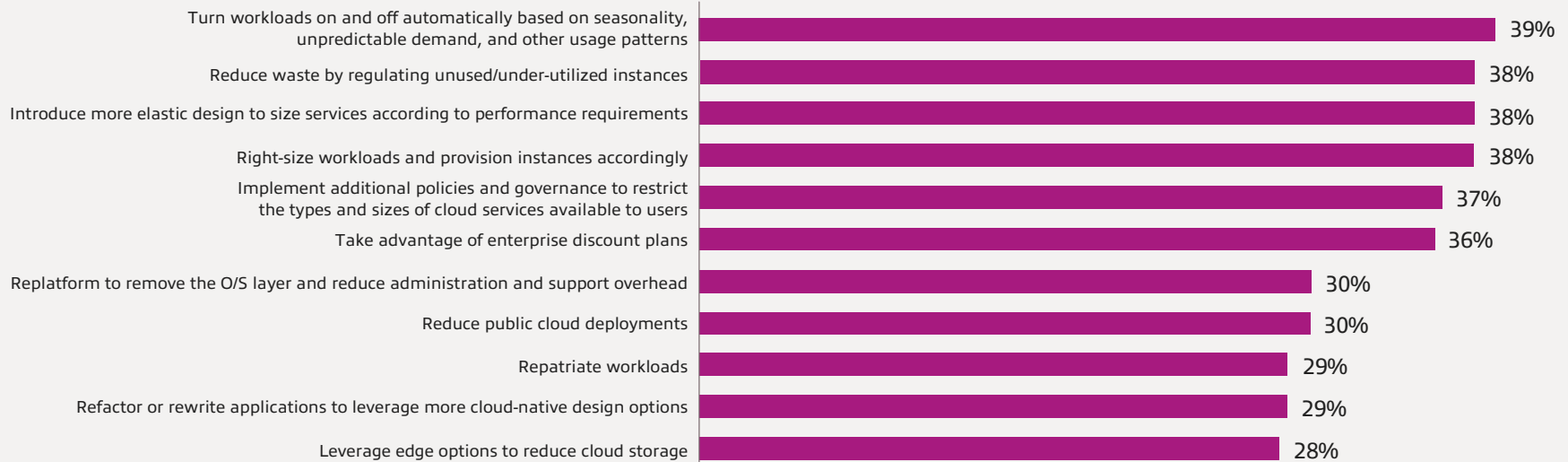
Continuous cloud optimization is central to success. In many cases, simply managing cloud environments better can make a big difference in terms of cost and performance. This is especially true for organizations employing multicloud strategies, where developing unified policies and controls across clouds requires unique skills and tool sets.



Most are turning to outside help: 84% of organizations have outsourced or are outsourcing cloud management to a managed services provider.⁹

The use of managed cloud services is high across all IT modernization maturity levels.

Q: What cloud cost optimization measures will your organization take in 2020?



Source: IDG¹⁰

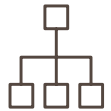
Whether the organization is managing the cloud themselves or partnering with a managed services provider, cloud optimization is the goal moving forward. Through modernized governance models and processes, waste reduction measures, and workload-platform alignment, organizations are hoping to see more of their cloud goals realized.

⁹ The State of IT Modernization 2020. Slide 24. (February 2020). Marketpulse Research by IDG Research Services, commissioned by Insight.

¹⁰ The State of IT Modernization 2020. Slide 30. (February 2020). Marketpulse Research by IDG Research Services, commissioned by Insight.

Governance: An evolution

When we look at IT process modernization, the top hurdles identified by survey respondents are:



cultural barriers (e.g., IT silos)
(45%)



and lack of governance and compliance procedures
to support process modernization (44%).¹¹

More than one-third (35%) say they need to establish new governance strategies and processes to support IT modernization/cloud (Continuous Integration and Continuous Delivery (CICD), automation and orchestration, infrastructure as code, change management, etc.).

Stepping back a little, we can see the challenge at hand. An organization must keep transforming, growing, and innovating. But governance is about defining a standardized way of doing things. **How do you hit a moving target?** The answer is, by moving with it. Ultimately, IT organizations need to find the right balance when making changes to governance and processes as they modernize.

With increased adoption of the cloud and new cloud strategies, the need for effective and relevant governance is acute. What worked on-premises cannot simply be lifted and shifted to an IT environment that now includes cloud, local, and edge platforms. Organizations will have to dedicate time and resources to update their governance models and processes, continuously and sustainably.

Thus, it will be key in the years to come for organizations to find ways to simplify and streamline. “Sprawling” IT environments (with more tools, technologies, and platforms than most teams can keep track of) have resulted in complex IT operations that are difficult to manage and protect.

The top 3 IT modernization challenges in 2020 are projected to be:



establishing governance
strategies and processes,



defining and optimizing
IT operating models,



and integrating centers
of data.¹²

¹¹ The State of IT Modernization 2020. Slide 39. (February 2020). Marketpulse Research by IDG Research Services, commissioned by Insight.

¹² The State of IT Modernization 2020. Slide 15. (February 2020). Marketpulse Research by IDG Research Services, commissioned by Insight.



Security beyond perimeter

Innovation cannot come at the expense of adequate protection.

A business cannot thrive without the former, but it cannot exist without the latter. Organizations must grow and change while securing their assets and maintaining compliance with regulatory groups.

This is easier said than done. IT environments are growing, as are data volumes. Businesses in all industries must comply with data management and privacy requirements imposed by government and other regulatory agencies. Examples include the General Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA).

When it comes to the cloud,



49% are struggling with managing public cloud security and



48% with implementing appropriate governance and processes (security, compliance, risk management, and cost management).¹³

Indeed, each cloud service provider and type of service offers different types of protections, and it is up to the organization to know that, fill in the gaps, and augment appropriately.



Malicious actors (internal or external) cannot be ignored, either.

Cybercriminal activity is as high as ever, with frightening repercussions for businesses who suffer a successful breach. The expense of downtime and data loss is motivation to strengthen security postures to address cloud-to-edge IT environments, as well as scale and adapt as new threats arise.

Indeed, data privacy/security concerns have been the cause of delaying or abandoning IT modernization initiatives for

39% of survey respondents who indicated they had paused such initiatives in 2019.¹⁴



In a similar vein, 57% see upgrading security infrastructure and processes to address newer technology requirements as the top obstacle to modernizing IT operations.¹⁵ Products and services that can provide control, visibility, and threat protection across heterogeneous environments (e.g., Insight's Services for Azure Sentinel, or Managed Security service) are at a premium.

¹⁴ The State of IT Modernization 2020. Slide 13. (February 2020). Marketpulse Research by IDG Research Services, commissioned by Insight.

¹⁵ The State of IT Modernization 2020. Slide 21. (February 2020). Marketpulse Research by IDG Research Services, commissioned by Insight.

Applications and data

Remember when we talked about how the app became the center of the IT universe at one point? Now, it's better understood that the app is only part of what is needed to create new revenue streams, deliver service enhancements, etc. Operating environments need to prepare for new apps. We are also at a point where organizations now have aging apps that require assessment to determine rewriting, replatforming, or retirement needs.

**IT modernization is the foundation that supports all such endeavors.
Data is the driver.**

This is happening in many, diverse ways. In 2019, half of organizations (50%) developed an API gateway strategy to facilitate converting from legacy apps to cloud native apps. Nearly as many (45%) deployed Application Performance Monitoring (APM) tools to fully understand how applications are performing and help determine how and whether to modernize them.¹⁶

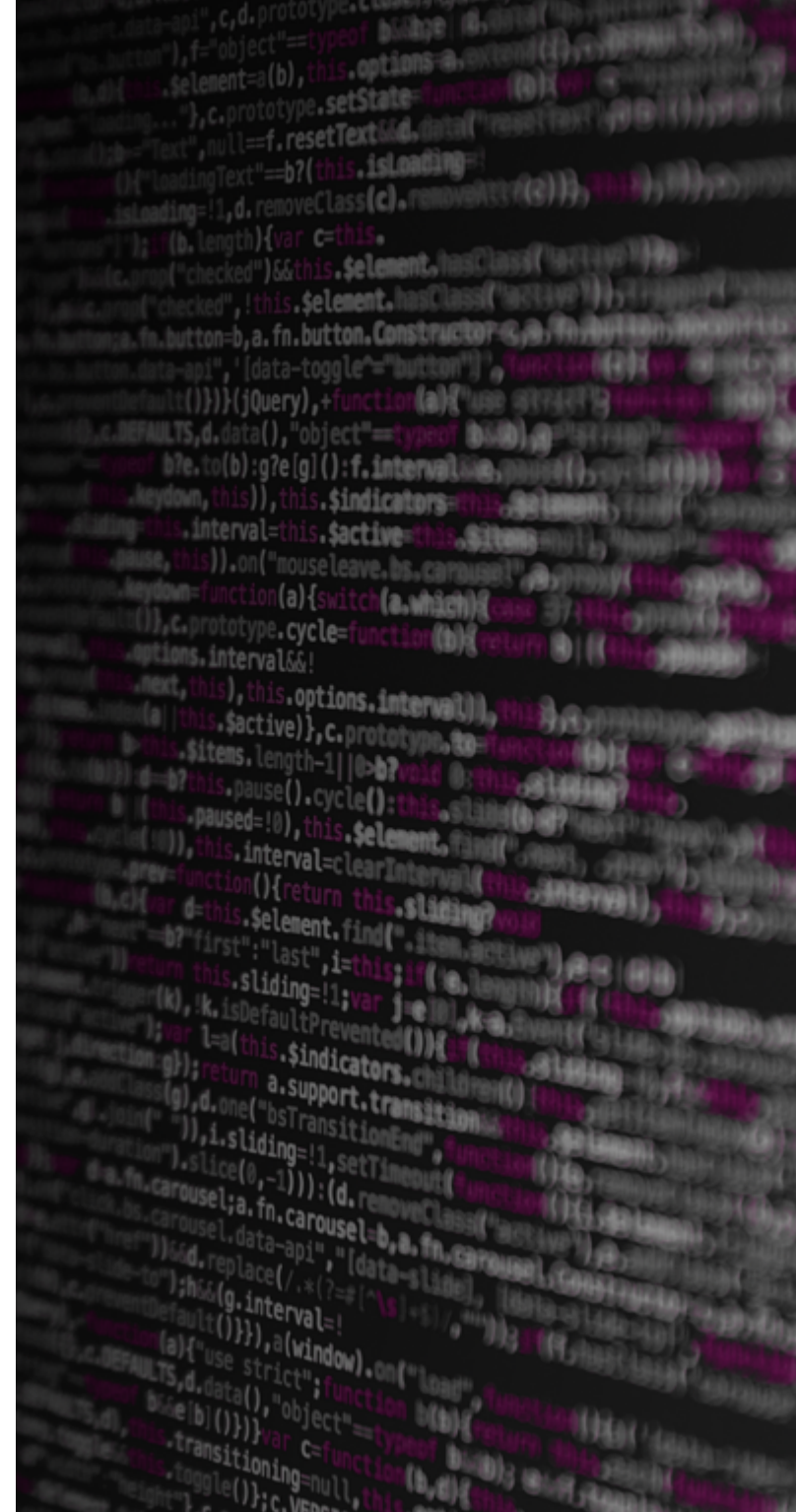
A growing number of organizations are also looking to containers to help them build, test, and deploy applications that can run anywhere — a true example of understanding the infrastructure-to-application relationship and the value of dynamic flexibility.



In 2019, 45% of survey respondents deployed container services and 48% began the process.¹⁶

Flowing in, out, and between applications and workloads is the lifeblood of any organization today: data. The world generates more data today than ever before. Organizations own and exchange massive pools of data, structured and unstructured. Most of it isn't given any analytical attention at all.

But this is changing. Of all survey respondents, 86% have either completed or started to develop and launch a strategy for Artificial Intelligence (AI), Machine Learning (ML), and/or deep learning.¹⁶ These organizations understand the value of data and are seeking ways to capitalize on it. Working with an organization like Insight can help them accelerate adoption by ensuring appropriate platforms and architectures, based on their business goals.

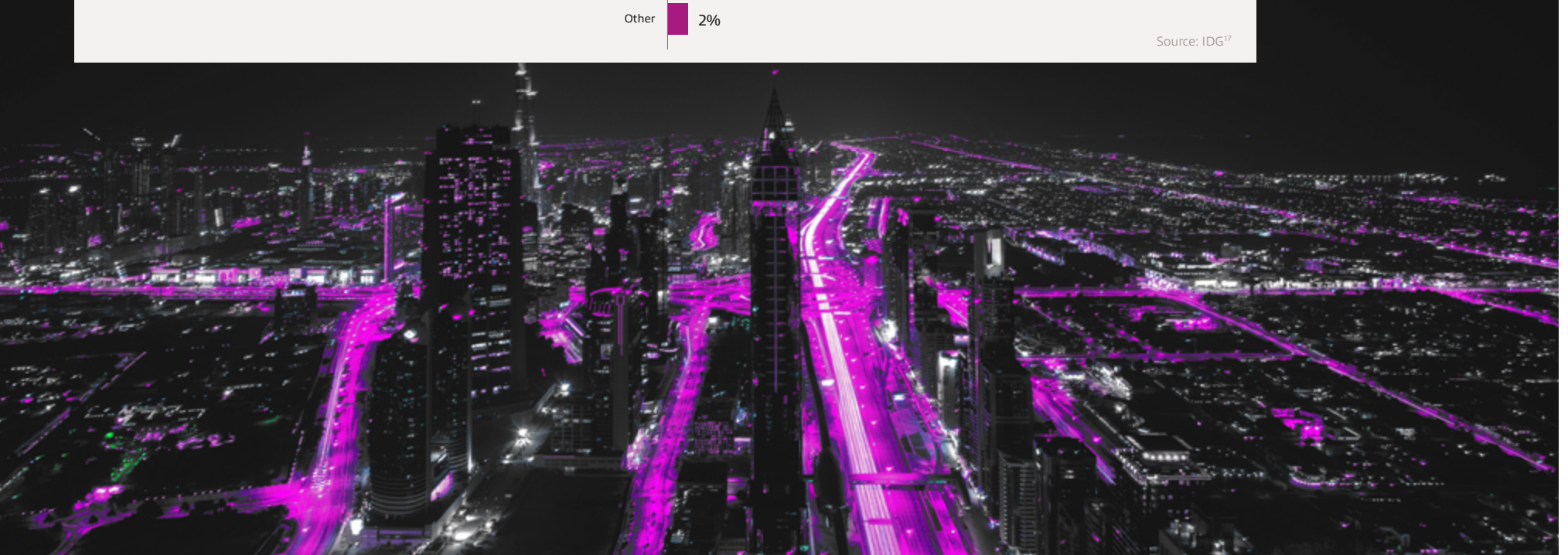
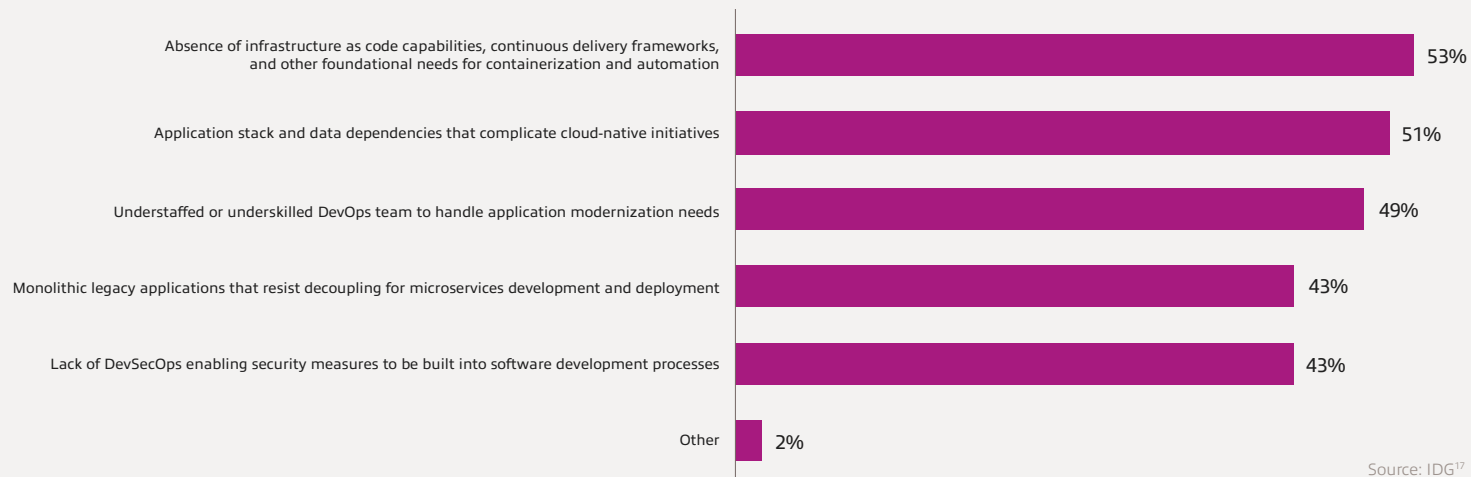


¹⁶ The State of IT Modernization 2020. Slide 33. (February 2020). Marketpulse Research by IDG Research Services, commissioned by Insight.

For 2020, survey respondents identified a few IT operations hurdles and/or challenges to support app modernization.

The top hurdles include lacking infrastructure as code capabilities, lacking DevSecOps, and legacy applications that are difficult to modernize. In many ways, these are the next frontiers — the messiest tangles and, perhaps, some of the most fertile grounds for innovation.

Q: What are the major hurdles (past and/or future) in updating your IT operations to execute your application modernization strategy?



¹⁷ The State of IT Modernization 2020. Slide 35. (February 2020). Marketpulse Research by IDG Research Services, commissioned by Insight.



A clear path

The State of IT Modernization 2020 survey doesn't just tell us where we are — it tells us where we need to go.

New centers of data spanning cloud, on-premises, and edge need to be optimized and integrated. Workloads and platforms need to be properly aligned. IT environments and operations must be prepared for accommodating data growth and capitalizing on the value of data. Clouds need to be better managed to ensure cost and performance objectives are met. Application modernization must be pursued alongside other IT modernization initiatives.

Companies seeking successful IT modernization understand the need for exceptional alliances. Insight Cloud + Data Center Transformation can be the partner that helps you prioritize, strategize, solve challenges, set new standards, and achieve outcomes. Explore our end-to-end services and unique capabilities [here](#).



Explore more survey resources.

- The State of IT Modernization 2020 complete survey results
- The State of IT Modernization 2020 infographic

Let's work together.

Tell us how we can support you in your IT modernization.
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