

BECOMING A COMPETITIVE, DATA-CENTRIC BUSINESS

Choosing the Right IT Foundation to Create Lasting Success

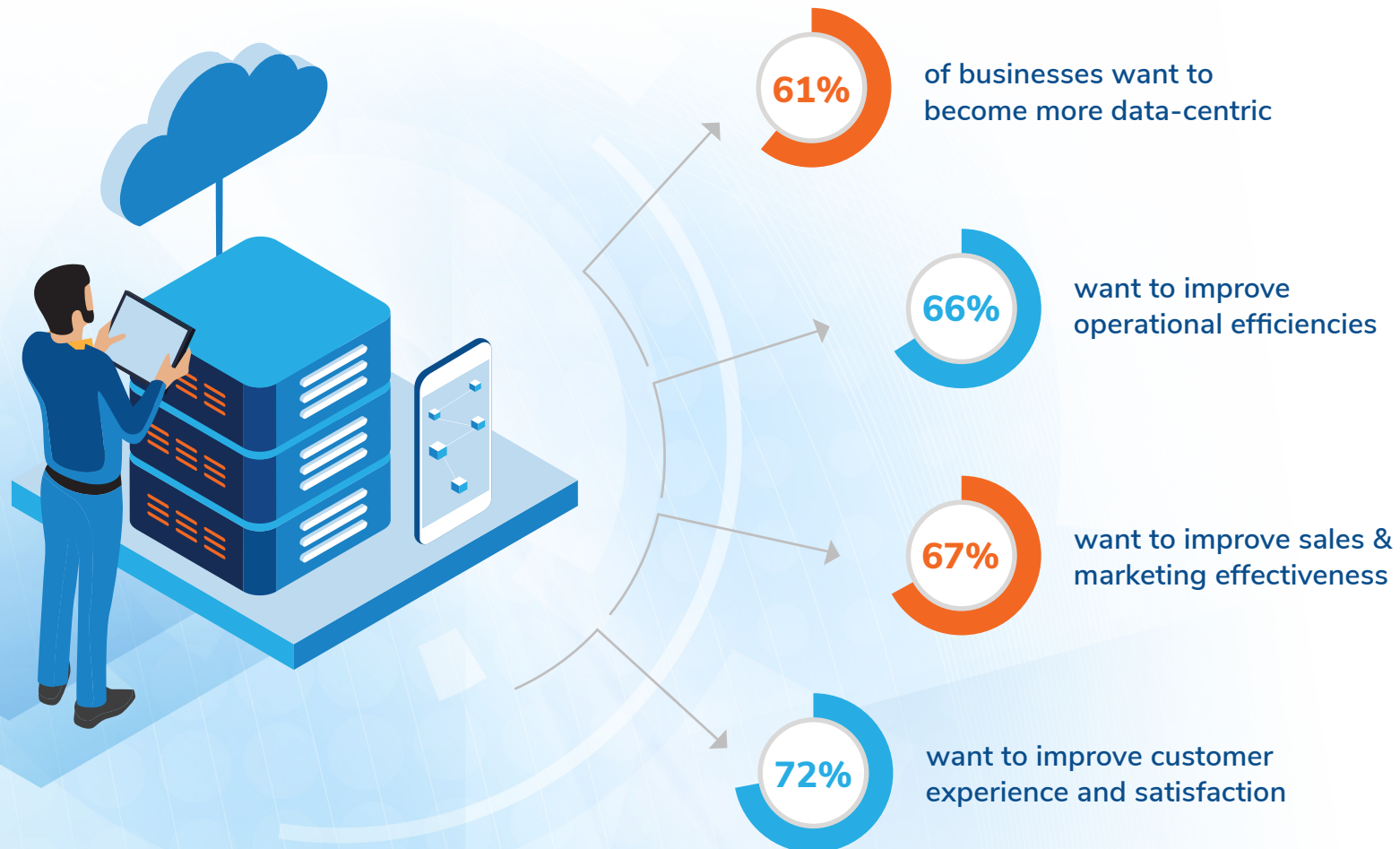
A FROST & SULLIVAN VBOOK ON IT MODERNIZATION, SPONSORED BY HPE

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Introduction:

Today's modern business collects a wealth of data every day. Whether about their own operations and processes, their sales and marketing, or their customers and partners, businesses have incredibly powerful information at their fingertips. To both increase competitiveness and drive toward a digitally transformed business, companies must learn how to harness the power of their data. Being able to act on data at speed is critical to achieving and maintaining a competitive edge in the market. Consider:



Source: Frost & Sullivan Global Cloud User Survey, 2021

Introduction (cont'd):

For most businesses, being able to act on data at the speed of business requires making a strategic, significant change to their IT operations to provide a firm foundation for the new, data-centric business. But digital transformation and IT modernization can be difficult. This evolution entails changes not only to infrastructure and resources, but often to fundamental business processes and departmental structures—which can be met with resistance.

On the following pages, we will look at the most common challenges to digital transformation and some best practices on how to overcome them and put your business on the path to a successful transformation.



IT Modernization:

IT modernization is the process of updating legacy IT hardware and software to take advantage of the latest technology. It can involve streamlining processes and gaining new efficiencies through automation.



Digital Transformation:

Digital transformation is the changing of business processes and operations through automated business practices in a way that can create new revenue streams.

Source: Frost & Sullivan Global Cloud User Survey, 2021

CHALLENGE

#1

Business and IT Change Is Happening ... Fast

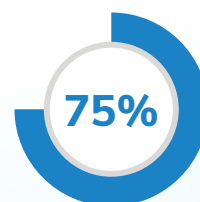
As businesses shift from the third to the fourth Industrial Revolution, IT and business operating environments are changing at breakneck speed. Business trends toward green operations and an eye toward being good corporate citizens has required new uses of technology to enact better business processes.

IT trends involving automation, data-centricity, and the connectedness of a majority of systems are creating a need for a strong IT infrastructure that allows companies to leverage the latest tech trends today but is flexible enough to handle deployment of newer technologies tomorrow.

Keeping on top of the changing environment is challenging. Consider:



of businesses said that keeping up with the pace of changing tech is a critical challenge for their business



said that a cloud strategy is essential to remaining competitive in their industry



said they don't have sufficient expertise in their organization to implement their desired tech initiatives



of shareholders at US companies support environmental, social, and governance (ESG) initiatives, as compared to just 21% in 2017¹



¹ "Analysis: How 2021 Became the Year of ESG Investing," Reuters, December 23, 2021
Source: Frost & Sullivan Global Cloud User Survey, 2021

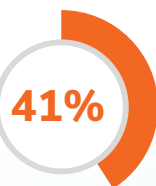
CHALLENGE

#2

Current IT Environments Are Complex

For most businesses, the IT environment has grown incredibly complex. Those that have not started the IT transformation journey are often dealing with legacy hardware and software that may be nearing end of life. Businesses with multiple locations or that acquire other entities typically inherit multiple types of environments that are all configured differently and use diverse resources. Many don't support newer virtualization protocols like containers, and it can be difficult to deploy security, access controls, and governance consistently across all environments. And even more critical in the post-pandemic operating environment – many don't easily allow for secure access by employees, regardless of location or device.

For those who have started the journey, they may continue to leverage private resources in addition to clouds for reasons tied to security, investment, or familiarity. Consider:



of businesses said that different workgroups have or had the ability to choose their own infrastructure or cloud



said a merger or acquisition led to a multi-cloud environment



said staff comfort with on-premises solutions led them to keep at least some colocation, on-premises, or edge infrastructure



wanted to continue to leverage their existing infrastructure

The result of integrating cloud with existing private resources is a complex environment with numerous types of infrastructures, platforms, and tools that are managed independently of each other. This makes control over security, compliance, utilization, and spend very challenging.



Source: Frost & Sullivan Global Cloud User Survey, 2021

CHALLENGE

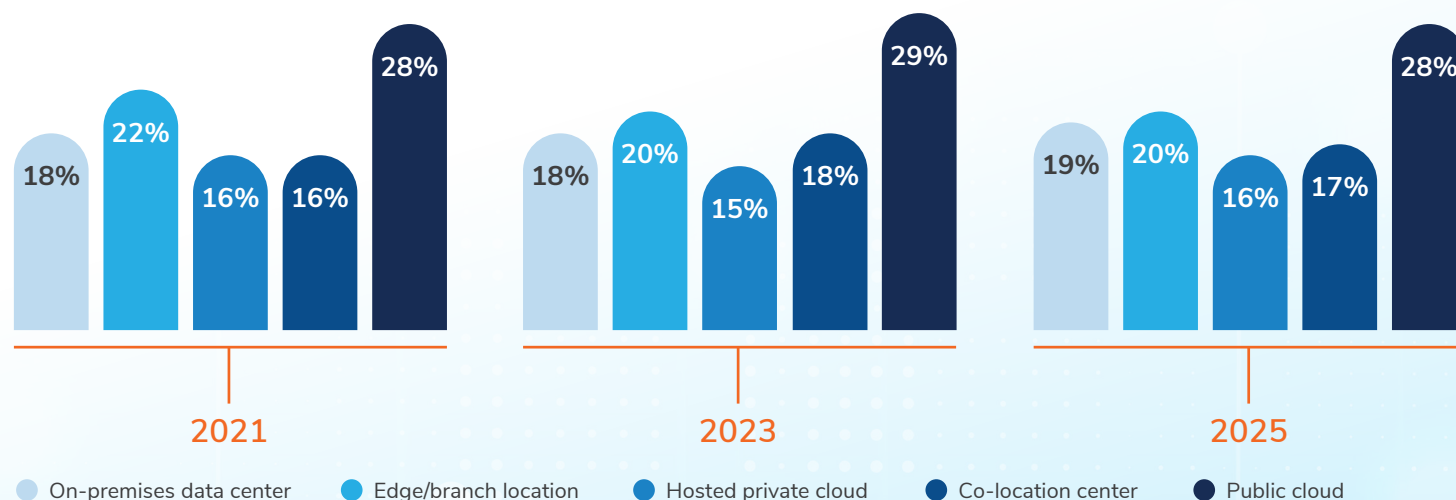
#3

Data Growth Outpaces Insights

Today's businesses gather a wealth of information; whether about their internal business processes and operations, about their employees and partners, or about their customers and buying patterns, businesses generate and store vast amounts of information in the daily course of operation.

But for many companies, data remains locked in the infrastructure where it was generated or stored—which is split among a wide variety of locations.

Figure 1: Data Storage Environments, Global, 2021, 2023 and 2025



With data split among so many different infrastructures, pooling it into a single, cohesive data lake to analyze and make actionable business decisions remains a challenge. Of the global businesses surveyed by Frost & Sullivan, 15% state that obtaining large-scale data sets for machine learning has been a key issue hindering their AI/big data strategy. Some sources report that more than 70% of the business data they collect goes unused.² And with data split across so many infrastructures and locations, it can also be hard to ensure security and compliance, as well as to reduce your carbon footprint by optimizing the amount of infrastructure resources in use.

² <https://www.inc.com/jeff-barrett/misusing-data-could-be-costing-your-business-heres-how.html>
Source: Frost & Sullivan Global Cloud User Survey, 2021

Digital Transformation: Creating a Foundation for Modern, Data-Driven Operations

In order to achieve the valuable, data-driven insights today's businesses require, in a way that is operationally, fiscally, and socially sound, your business needs to modernize its IT resources. Most critical is employing infrastructure that offers a more flexible, secure, and consistent IT experience, regardless of where or how it is accessed. Today's modern businesses are almost never "all-in" on cloud, or "all-in" the private data center.

For most, the key to a successful IT environment is finding the right mix of public and private cloud and solving how to leverage existing data center and colocation resources optimally and to the fullest extent. While some companies are able to evaluate this mix and determine how best to move forward themselves, many turn to a trusted provider to assist with the transition. Consider:

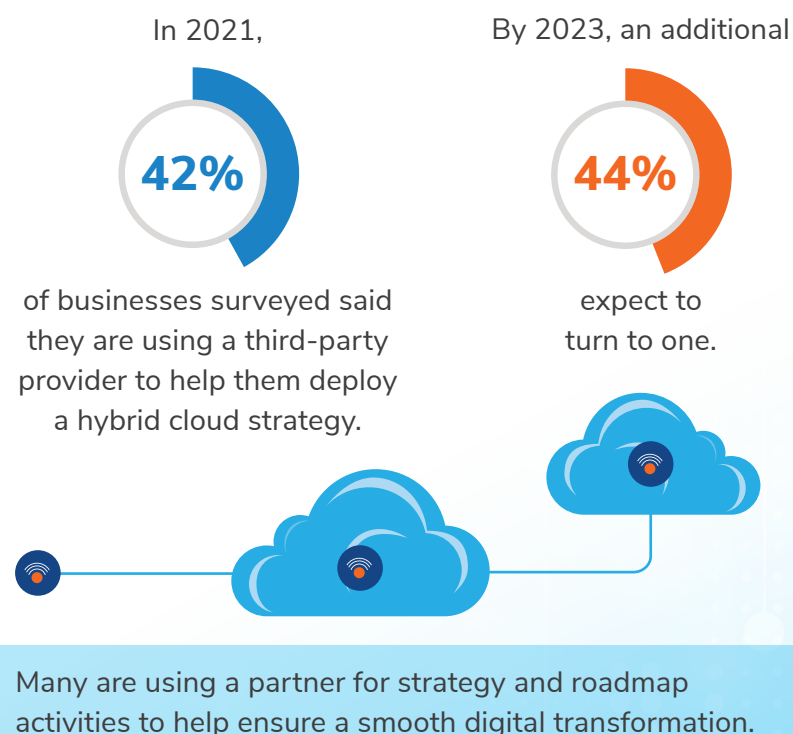
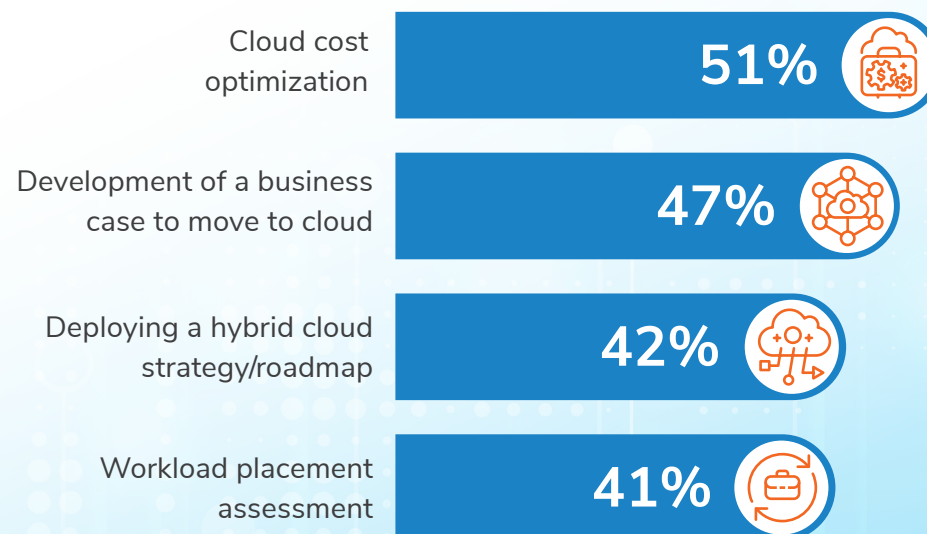


Figure 2: Services Procured through a Third-party Services Provider, Global, 2021



Source: Frost & Sullivan Global Cloud User Survey, 2021

What You Need in a Modern IT Environment: Flexibility

Whether deploying alone or through a partner, the biggest criterion you need in a modern IT infrastructure is flexibility. You need a foundation that allows you to deploy applications on any infrastructure or cloud, using any virtualization model. You also need scalability, to be able to process growing volumes of data and perform analytics that give your business information it can act on, in real-time. This requires a robust platform that enables consistent governance across any infrastructure giving businesses the ability to migrate or scale workloads as needed, without having to reconfigure apps for a new environment.

THE BENEFIT?

Having a flexible infrastructure allows you to adapt to business changes by deploying new infrastructure rapidly, in the environment best suited to the workload from scalability, security, location, and cost perspectives. Whether your app needs to be in the corporate data center, at an edge location closer to users, or in a more efficient cloud; the right infrastructure gives your business the flexibility to deploy, manage, and govern workloads and data in any location.

THE RIGHT INFRASTRUCTURE GIVES THE FLEXIBILITY TO



workloads and data in any location

Source: Frost & Sullivan Global Cloud User Survey, 2021

What You Need in a Modern IT Environment: Security

With cyber threats mounting on a daily basis and the reputational and financial risks of a breach being steep, security is among the most highly concerning topics when businesses make *any* change to their IT environment. You need an infrastructure—and an IT partner—that understands the stakes and can protect your sensitive data against today's threats, while mitigating what hackers might do tomorrow. Having a platform that offers comprehensive visibility across every infrastructure in the environment and the ability to manage security and compliance is key. Solutions that embed artificial intelligence (AI) into their security practices also help ensure that you're not only prepared for the threats facing your organization today, but for those that sneak into the environment tomorrow.

THE BENEFIT?

Having an infrastructure that facilitates strong, consistent security and governance enables you to set policies that automate infrastructure governance. This can help you prevent unauthorized app or data access, ensure protection against common threats, and leverage the latest in AI and machine learning (ML) to detect potential new threats that can harm your business. Delivering automated infrastructure governance through a common platform also reduces maintenance burdens and allows you to refocus staff on higher value activities.

Source: Frost & Sullivan Global Cloud User Survey, 2021

What You Need in a Modern IT Environment: Consistency

Many businesses with a heterogeneous, unintegrated environment find visibility and management incredibly difficult. They often find themselves using different tools, with no common way to ensure that standard best practices, security measures, or optimization are performed consistently across all resources.



You need infrastructure with consistent management capabilities, regardless of where infrastructure is deployed.

THE BENEFIT?

Using a consistent management platform allows your business to see usage, security metrics, and optimization potential for the complete environment, in one single tool. This further reduces the management burden on your team and provides concrete proof of how you're leveraging your IT investments, as well as where you can afford to make changes to enhance operations.

Source: Frost & Sullivan Global Cloud User Survey, 2021

What You Need in a Modern IT Environment: Sustainability

In recent years, businesses have increasingly focused on how well they care for the environment and those around them, in addition to their bottom line. For many, that has meant elevating ESG goals in daily operations. Within IT, the challenge can be significant: data centers and IT resources traditionally have a large carbon footprint and consume a great deal of power.

Managing these resources with an eye toward optimization can help advance your ESG priorities.

THE BENEFIT?

Savvy IT partners are actively seeking to achieve strong ESG ratings themselves, as well as help customers put ESG practices into effect in their businesses. They are not only helping businesses like yours reduce their energy consumption and carbon footprints, but in many cases they are also helping customers achieve higher ESG index ratings with investors.

SAVVY IT PARTNERS ARE HELPING BUSINESSES



reduce energy
consumption



reduce carbon
footprints



achieve higher ESG index
ratings with investors

Source: Frost & Sullivan Global Cloud User Survey, 2021

Finding the Right IT Provider

With the fast-paced changes happening in today's business markets, you need an IT partner that can provide you with a flexible suite of infrastructure and tooling that can be deployed when and where you need it, in order to meet business goals both today, and in the future. Let's look at some of the specific attributes you should seek in a trusted partner.

- **Cloud-like operations:** Look for a provider that can work to help you modernize your infrastructure to take advantage of cloud “economics.” Whether it is consumption-based pricing, scalability of infrastructure, or availability of modern virtualization and tooling—like containers, serverless computing, and advanced intelligence—seek a provider that can help you optimize your environment and your spend, or leverage the public cloud as needed.
- **Optimized Data & Workloads:** Modern IT providers offer a platform that can help you manage, optimize, and protect your workloads and data in a way that is consistent across every resource you deploy. Look for providers that support a wide range of infrastructure types, virtualization protocols, toolsets, and APIs for integration.
- **Flexible Modernization Strategies:** Some providers expect you to make an “all-in” investment on a path to cloud, but this may not be realistic for your business. Seek out providers that can meet you where you are on the journey. Whether it means updating existing infrastructure with “greener” solutions in the corporate data center, or going “all-in” on an “as-a-Service” model of digital transformation, look for a partner that can meet you where you are today, and provide a realistic path to modernizing your environment – on your terms.
- **Streamlined Management Ability:** The right provider will offer easy ways to consistently manage your whole IT environment—ideally through a single pane of glass. Streamlining your management gives you more complete visibility of your environment, offers more consistent management and optimization capabilities, and ultimately frees staff from management burden and giving them the time to focus on higher value work.
- **Intelligent Security:** With evolving threats looming daily, you need an IT provider that leverages the latest in AI and ML to detect threats and anomalies before they become issues, and can help you mitigate them—whether manually or through automation.
- **Sustainable Business Practices:** With ESG gaining prominence in every sector of business, seek a provider that has integrated sustainable practices into their own business, and can help you measure, quantify, and improve your operations, with an eye on sustainable business practices.

Source: Frost & Sullivan Global Cloud User Survey, 2021

The Last Word

An evolving business landscape, mounting pressures to transform operationally, escalating security threats, and the green business movement all require IT to operate far differently than in the past. The modern business needs to leverage data to create actionable insights and differentiate its offers from the competition. Leveraging the latest technologies and digitally transforming IT operations to improve data utilization, productivity, and customer experiences are critical. And doing so with an eye on sustainable business practices is key to long-term market success.

Your IT infrastructure plays a critical role in streamlining operations, enhancing IT security, and enabling data to be analyzed and acted on in a way that offers real benefit to your business. You need an infrastructure—and provider—that can offer you flexible infrastructure and deployment options, cloud-like benefits and economics in any location, and the latest in security and intelligence, with an eye toward sustainable business practices. Savvy infrastructure providers have developed solutions that offer the best of cloud, with the control of the private data center. Those that can do so in a secure and sustainable way will lead the market with sought-after infrastructure solutions.

Source: Frost & Sullivan Global Cloud User Survey, 2021



Growth is a journey. We are your guide.

For over six decades, Frost & Sullivan has provided actionable insights to corporations, governments and investors, resulting in a stream of innovative growth opportunities that allow them to maximize their economic potential, navigate emerging Mega Trends and shape a future based on sustainable growth.

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