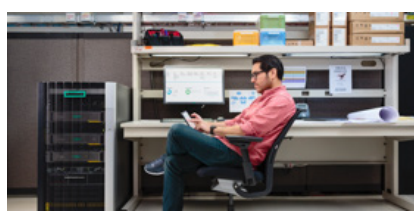


# Hybrid IT: Bringing together the best of IT infrastructures

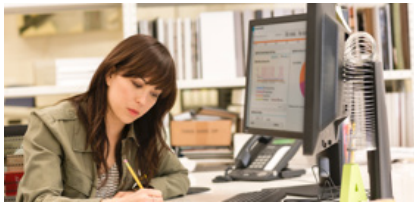
Retain the control over data, security, and performance of an on-premises infrastructure, integrated with the flexibility, scalability, and cost-savings of cloud



Introduction



Section 1  
The hybrid IT trend



Section 2  
The benefits of hybrid IT



Section 3  
Step 1—Identify your requirement



Section 4  
Step 2—Draft a hybrid IT plan



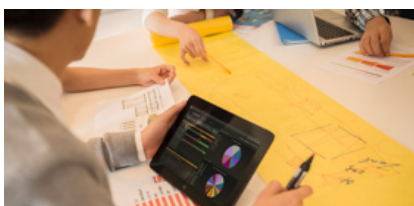
Section 5  
Step 3—Integrate for flexibility and scalability



Section 6  
Step 4—Divide your workloads



Section 7  
Step 5—Future-proof your infrastructure



Conclusion

# Introduction

As the backbone of any business, your IT infrastructure needs to keep up with rapidly evolving technology so you can continue to compete and grow in the marketplace. It needs to be flexible and scalable enough to meet your increasing business requirements while also being secure and manageable for your IT staff.

An on-premises IT infrastructure gives IT professionals control over data, security, and performance. But on-premises IT can be difficult to manage and, without additional investment, it can become an upfront investment that may not meet future needs.

The cloud enables you to increase scalability, ease management, and access world-class solutions for nearly any business task. With minimal effort, you can add solutions to handle CRM, ERP, customer service, marketing automation, e-commerce, and communications. And it doesn't require a big investment in new hardware and software or a large team to manage.

## **But an IT infrastructure hosted in the cloud brings concerns you don't see with on-premises IT, and can introduce obstacles to your business:**



Is the cloud secure enough to protect your data, especially healthcare, finance, and accounting information?



Will you have enough control over the solutions you use?



Can you use the cloud while still leveraging existing IT investments?



Will applications perform to the level you need?



Those questions naturally lead to another question: Is there a better way, something that offers the flexibility, scalability, and cost savings of the cloud with the security, performance, and control offered by on-premises IT?

The answer: Yes, and it's an approach a growing number of businesses are embracing. It's hybrid IT infrastructure.

Hybrid IT infrastructure offers the best of both worlds without sacrificing any of the advantages of either. This combination of on-premises IT and cloud services gives you the freedom to tailor your individual approach to IT. You decide which workloads to move to the cloud and which to keep on-premises, creating a customized infrastructure that provides serious benefits. Particularly for small and mid-sized businesses, it meets your needs by providing the flexibility and control you want without breaking the bank.

This eBook examines the rising trend in hybrid IT, the benefits of this approach, and how you can intelligently create a hybrid IT infrastructure that will work for your organization.

***“Hybrid IT is the wave of the future. It gives companies a chance to be flexible to an ever-changing computing environment, while allowing us to do business in new ways.”***

***—IT pro, Spiceworks survey<sup>1</sup>***



## Section 1

# The hybrid IT trend

In a recent Spiceworks survey of 300 U.S. IT decision-makers, 93% of respondents said their organization is using or considering a hybrid IT approach within the next year.<sup>1</sup> According to one respondent, “Some of our business-critical services (email, file storage, etc.) can benefit from the reliability of the cloud since our headquarters is in a hurricane-prone area.”<sup>1</sup>

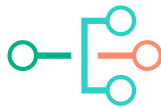
Almost 90% of respondents said hybrid IT is important to their current IT strategy, and nearly all (96%) expect it to be important to their future IT strategy—including half who said it would be critical for the future.<sup>1</sup>

Driving this trend is the desire to keep up with technology, according to the survey. Many of those who have already deployed or have started deploying a hybrid IT infrastructure said they see it as necessary for the future.<sup>1</sup> As businesses grow, they need their infrastructure to keep up with the pace of that growth, something static on-premises infrastructures might not be able to do, particularly those organizations with limited staff or shrinking IT departments being asked to do more with fewer resources.

“We need a hybrid IT approach to survive in today’s hyper-competitive marketplace,” said one respondent. Another wrote, “Hybrid IT is the way of the future. No more clunky power-hogging servers cluttering up a room; you also have less to worry about.”<sup>1</sup>

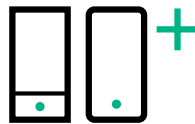
### Top 3 factors that lead organizations to use or consider a hybrid IT approach:<sup>1</sup>

1



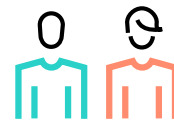
Technology refresh/  
modernization

2



Growing business/  
infrastructure needs

3







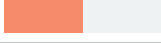

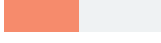













Limited IT staff resources and  
time to manage on-premises  
infrastructure

The cloud portion of hybrid IT is primarily used to support websites, data backup needs, and digital marketing/e-commerce initiatives. But the trend is toward not just increased usage in those areas, but in other areas, as well, including productivity and communications/collaboration apps, mobile services, and the Internet of Things—workloads that are primarily managed on-premises currently.



Even with the emergence of hybrid IT, though, there are some workloads that are going to primarily stay on-premises, such as relational databases and apps dealing with operations, HR, and finance because of security concerns, compliance regulations, or the costs of modernizing equipment<sup>1</sup> One of the strongest aspects of the hybrid approach is that it allows for both workload deployment options; companies can determine which applications should stay on-premises and which can be put in the cloud to save money and staff hours.

<b>Top workloads supported in cloud infrastructure:</b>	<b>now</b>	<b>within 2-3 years<sup>1</sup></b>
Website and content delivery	64% 	62%  ▼ 3%
Backup, archiving, and recovery	54% 	62%  ▲ 14%
Digital marketing and e-commerce	53% 	55%  ▲ 4%
Productivity apps	50% 	55%  ▲ 10%
Other apps	47% 	53%  ▲ 13%

<b>Top workloads supported on premises:</b>	<b>now</b>	<b>within 2-3 years<sup>1</sup></b>
Backup, archiving, and recovery	80% 	63%  ▼ 21%
Productivity apps	78% 	59%  ▼ 24%
Finance apps	75% 	63%  ▼ 16%
Relational databases	74% 	64%  ▼ 14%
Database apps	74% 	57%  ▼ 23%

***“Cloud services are getting more reliable and less expensive. What used to only make sense in certain cases is starting to make sense in most cases.”***

***—IT pro, Spiceworks survey<sup>1</sup>***



## Section 2

# The benefits of hybrid IT

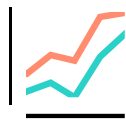
With Hybrid IT while you won't sacrifice any of the advantages of on-premises or cloud IT, you will gain financial savings. The hybrid IT approach can scale instantly to meet changing business conditions without the need to invest in new hardware and software to accommodate spikes in demand—which can be particularly ideal if your organization experiences dramatic and seasonal workload changes.

By shifting capital expenses (CAPEX) to operating expenses (OPEX), hybrid IT enables you to achieve a more predictable method of managing your budget. And when you move certain applications to the cloud, you no longer need the specialized resources to manage them. Updates happen automatically and seamlessly, ensuring you always have access to the latest features and security patches. Of course, as your use of cloud services grows, costs will increase and you may find it beneficial to move some workloads back on-premises.

Aberdeen Group reports that small and mid-sized businesses with hybrid IT are more than twice as likely to report having improved IT flexibility.<sup>2</sup> The ability to leverage on-premises or cloud—for the services that make the most sense—provides vital flexibility. And for many organizations, a hybrid approach can pay off by helping businesses reduce their overall IT expenditures. Along with increased flexibility and scalability, these cost reductions are probably due to less downtime and reduced IT risks.<sup>2</sup>

### Top 5 benefits organizations experience or expect to experience with a hybrid IT approach:<sup>1</sup>

1



Improved scalability

2



Reduced costs

3



Increased business efficiency

4



Simplified management

5



Increased reliability



## Small and mid-sized businesses with hybrid IT are:<sup>2</sup>



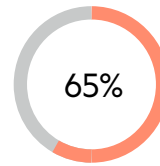
**6.3 times** more likely to report improved application performance



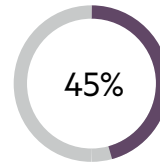
**3.8 times** more likely to have a lower total cost for storage



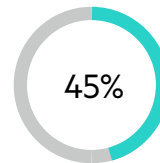
**2.0 times** more likely to have an increased ability to grow capacity



65% more likely to reduce overall cost of IT expenditures



45% more likely to have a more agile IT infrastructure



45% more likely to reduce the amount of downtime

To get to the true benefits of hybrid IT, you need to follow a few best practices to enable well-designed systems with high performance, reliability, and the ability to scale. In hybrid IT deployment, as in all areas of business, different methods work for different companies. But there are some commonalities that work best. In general, a sound approach involves developing a strategy, modernizing your infrastructure, auditing workloads, and prioritizing workloads and applications.

In the following sections, we explore what you should consider when designing and deploying your hybrid IT infrastructure.



### Section 3

## Step 1—Identify your requirements

Start with an analysis: What do you have from a hardware and applications perspective, and what applications will you want to use in the future? What is the condition of your current infrastructure?

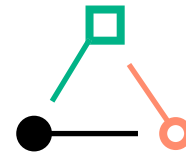
Evaluate your IT environment to understand your infrastructure requirements. Get a thorough understanding of your technology requirements, including your servers, processes, and applications, both on premises and in the cloud. That way, you'll have a grasp of what is necessary to grow and improve your system—not just for the hybrid IT implementation, but for the future. Gaining the benefits of hybrid IT is impossible if your organization's on-premises systems are out-of-date, overwhelmed, and poorly managed.

If you have outdated infrastructure, it might simply be impossible to implement a hybrid approach—but that's a problem true of outdated infrastructure in general, which makes it difficult to compete successfully in this digital age. When running applications in a hybrid IT environment, you need modern servers for faster processing to decrease latency. Modern networking gives you higher bandwidth to ensure fast transfer of data from your on-premises IT environment to the cloud and back again. And modern storage ensures you have enough space for growing amounts of data.

### Ask yourself:



How can you leverage your current IT investments?



What do you need to change?



Will you need faster processing, higher bandwidth, or more scalable storage?



Is your existing IT environment efficient and easy to manage?





Section 4

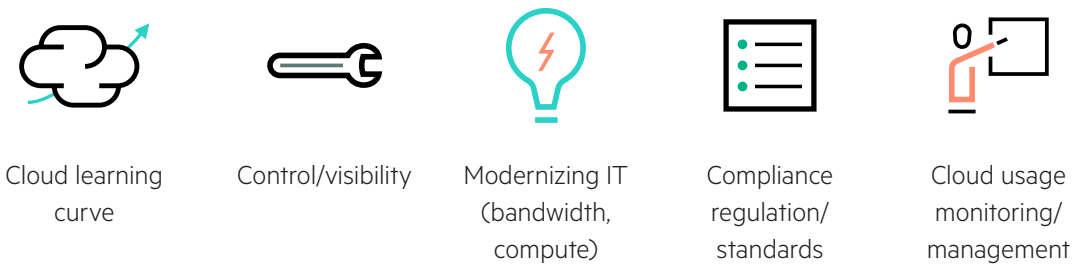
# Step 2—Draft a hybrid IT plan

Use your initial analysis to create a hybrid IT plan based on your business goals. Determine the timeline, resources, and investments you need. Decide whether you will pay up front or as you go. Your plan needs to include business, operational, and financial considerations.

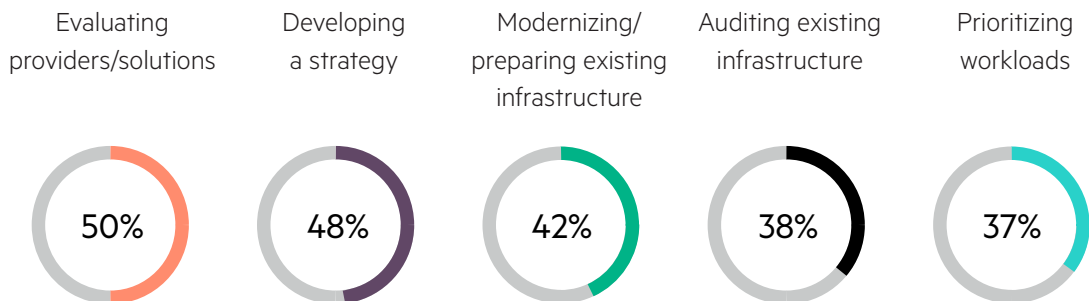
You'll want an IT environment with simple, effective management tools that provide end-to-end visibility and that can proactively alert you to potential hardware issues, automatically triggering orders for replacement parts.

While the Spiceworks research indicates most IT pros feel excited and positive about the possibilities presented by hybrid IT, many aren't certain how to design and deploy the hybrid approach to best suit their needs.<sup>1</sup> If that's how you feel, you're not alone. More than one-third of survey respondents reported the learning curve was the biggest challenge they faced, or anticipated facing, when deploying hybrid IT.<sup>1</sup> Working with an experienced partner can help overcome these concerns and eliminate headaches, speed implementation, increase ROI, and help design a system that meets your specific needs.

### Top 5 challenges organizations experience or expect to experience with a hybrid IT approach:<sup>1</sup>



### Among Spiceworks survey respondents planning to deploy hybrid IT, half have already learned about the approach. Other respondents are:<sup>1</sup>



## Section 5

# Step 3—Integrate for flexibility and scalability

When designing your hybrid IT system, consider how to make the cloud and on-premises integration work. Doing so will help you determine how to modernize your infrastructure and design your hybrid IT deployment to save you time and pain later.

Proper integration creates the flexibility to scale and address security and compliance concerns. While you may feel safe using a cloud-based application to manage sales leads, compliance regulations may restrict you from hosting other types of data outside your firewall. With an on-premises IT presence, you can store that data onsite without concern.



# Step 4—Divide your workloads

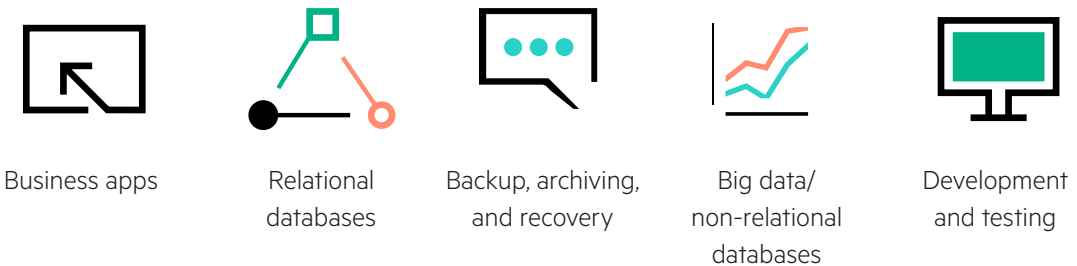
Audit your workloads to determine how much you should keep on premises, and how much can go into the cloud. Consider issues such as processing latency, security, and compliance. Anything not adversely affected by these considerations may be a good candidate for the cloud.

There are reasonable fears about data security, regulation compliance, and the effects that increased cloud usage will have on the IT workforce. According to one Spiceworks survey respondent, “I don’t feel that security in the cloud has reached the maturity it needs to have for my business.”<sup>1</sup>

In fact, 60% of survey respondents indicated some workloads can never move to the cloud because of security concerns and compliance regulations. Those include finance, accounting, and customized apps; big databases; operations and HR apps; and healthcare information.<sup>1</sup>

The cost related to managing bigger databases or modernizing old apps also makes IT pros more likely to keep some workloads on premises.<sup>1</sup> But that’s why the hybrid approach is so effective: It takes the best of both approaches and marries them together.

## Spiceworks survey respondents say the following on-premises workloads would or could never move to the cloud:<sup>1</sup>



## Top reasons these workloads wouldn’t or couldn’t be moved:<sup>1</sup>



## Section 7

# Step 5—Future-proof your infrastructure

Perhaps most importantly, create a future-proof IT infrastructure. Your organization will need to be ready for the inevitable new technologies that will bring new opportunities and increased IT complexities. An agile and flexible hybrid infrastructure can reduce the complexity of those technologies and increase your ability to take advantage of them.

Ask yourself:



What applications do you plan to run in the next three years?



Will your IT environment accommodate these new workloads and apps?



Will these new workloads stay on-premises? Which are good candidates for the cloud?

***“As we become larger and more diverse in our work locations, we will need more resources and better connectivity and redundancy than we can perform locally onsite at our data center,” said one IT pro.<sup>1</sup>***



# Conclusion

## **It's not an either/or world. It's about finding the right platform for each app, workload, and service. Hybrid IT gives you the best of both cloud and on-premises IT.**

You'll likely need help planning, developing, and implementing your new IT environment. A trusted partner can help you build a hybrid infrastructure based on your specific needs. Hewlett-Packard Enterprise (HPE) and our partners offer a variety of products and services to help small and mid-sized companies transition to a hybrid IT infrastructure. These include HPE Just Right IT products solutions, as well as financial and technical services—which are sized right for your business to handle many workloads for both on-premises and hybrid IT environments. With HPE Just Right IT, your business can find success with limited resources, staff and budget.

Our cloud technology consultants and managed services experts provide the support you need to deploy a robust, open infrastructure, along with a hybrid environment that scales with business needs and boosts ROI. Our cloud solutions deliver IT services and apps quickly on a proven, open-source platform, giving you the agility to respond to fast-changing business demands. With our integrated system, you get compute, storage, networking, and software in one converged IT system, allowing you to leverage new and existing technology investments, reduce system integration costs, and improve cloud storage capabilities.

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Sources:

<sup>1</sup> Spiceworks Voice of IT research panel of 300 IT decision-makers in the U.S., on behalf of HPE, October 2016.

<sup>2</sup> "The Best of Both Worlds: Using a Hybrid Approach to Boost IT Agility," Aberdeen Group, August 2016.

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