HPE GreenLake

Finding the right mix of IT for your workloads

Do you know how to build a cloud operating model to accommodate all your workloads wherever they reside? A data-driven approach to workload placement will help you proceed with confidence.

There is no optimal formula to suit every company. The right mix for one organization may be the worst approach for another, even when their products or services are roughly the same.

Haphazard approaches to hybrid cloud and modernization typically result in a less-than-optimal—and costly—mishmash of resources. Here's how to fix that. Take a look at any large company's IT landscape and you will find a complex mix of resources, both physical and virtual: a public cloud platform or two, likely a private cloud, plenty of on-premises servers, an assortment of applications connected in various ways, and a growing edge estate.

Having the best of both worlds makes sense for most organizations. They pursue hybrid because it allows them to reap the low cost, agility, and scalability advantages of public cloud infrastructure while also benefiting from the high availability, security, and regulatory compliance advantages that on-premises IT brings. And as more data is created at the edge, organizations are looking to take advantage of more powerful compute and analytics tools placed at the point of data creation to make better decisions, faster.

Ideally, if organizations can provision infrastructure and optimize their operating model, they are also capable of delivering consistent cloud experiences to anyone accessing network resources, no matter where they may be.

But are they anywhere close to achieving this vision? Not likely. Indeed, most organizations began their march toward cloud adoption and modernization with two more simplistic goals in mind: get to the cloud ahead of competitors and do so without disrupting ongoing operations. For many, there was no grand strategy guiding this journey. Rather, choices were made based on immediate needs or emotions that, in some cases, ended up causing substantial challenges down the road and increasing the total cost of ownership.

Straightening out the mess

For many organizations, it's all become a difficult-to-manage mess because they laid the foundation for their hybrid cloud formations in fits and starts rather than as part of a carefully planned strategy.

It doesn't have to stay this way, however. It's not too late to change. The key is to take a deep breath and fully commit to doing whatever it takes to achieve the right mix of IT resources.

Doing so comes down to three factors:

- Asking the right questions
- Analyzing the impact of application and data residency
- Maintaining standards-based compliance in the process

You need to know where you stand. Asking insightful questions enables you to better understand and align to the true business objectives of the company. For years, cost reduction and avoidance were the overriding factors. In certain cases, it still may be. But your organization might have some other combination of objectives in mind—say, time to value, escalating merger and acquisition activity, global expansion, or market differentiation. These goals should be factored into any hybrid cloud infrastructure road map as well.

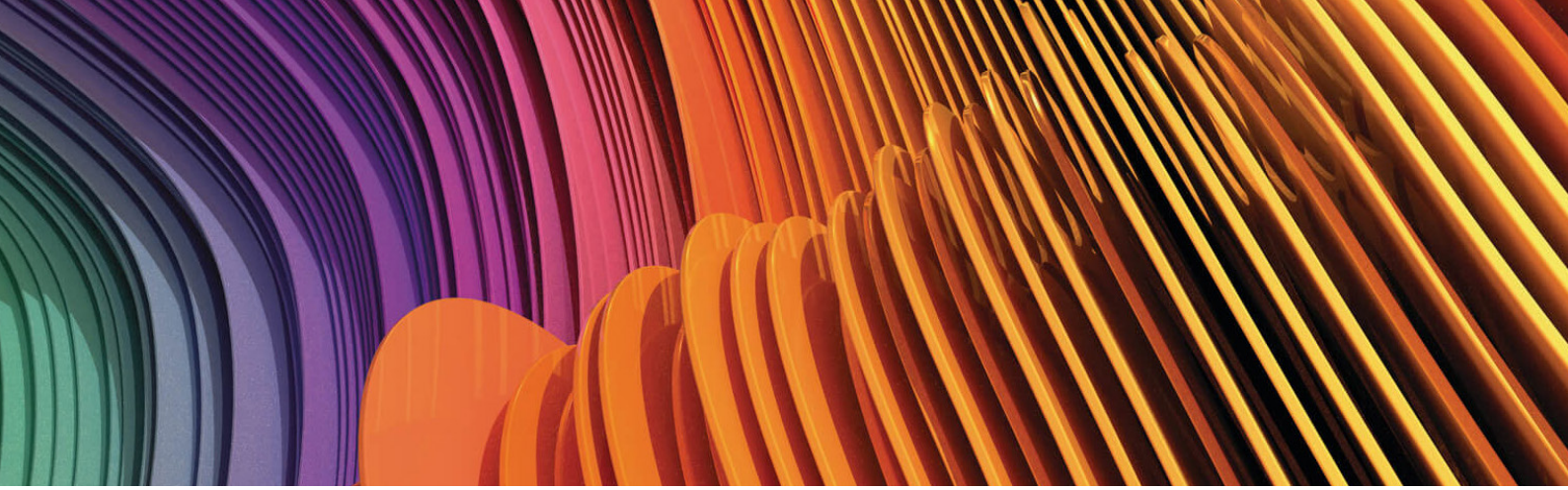
It's also worthwhile to assess decision drivers around data residency and gravity. Companies need responsive applications, and the distance between the apps and data matters. When data gets separated from applications, performance can slow. So, organizations end up running their apps near their data. But data has gravity and can be difficult to move. Once it is planted, it sets down roots like a tree, meaning apps that need access to the data tend to be near the platform where the data lives. As such, you need to be able to establish and maintain consistent processes accounting for these factors over time.

Mind those guardrails

Organizations also need to consider certain organizational, industrial, and regulatory guardrails as they build out the right IT mix for hybrid cloud infrastructure. Some of the main guardrails are:

- **Security and compliance:** Security and compliance must be a top priority from this point, if it isn't already. With 80% of companies surveyed by IDC experiencing at least one cloud data breach,[1] this is absolutely critical. And because information privacy and data protection laws are fluid, varying by region and country, you must ensure your hybrid cloud formation maintains continuous compliance or you risk running into legal and public relations nightmares. It's vital to know all security regulations, compliance rules, country-specific rules, and state rules governing data limits and choice of locations involving your IT assets. Also, pay attention to data residency issues between countries and states. The impact of placing the data in a highly regulated data privacy area could be devastating to the success of your program—and company—if any of these factors go sideways on you.
- **Culture and organization:** You need to evaluate your institutional readiness and talent enablement to ensure you have the right plan for moving things forward. Specialists in one platform or another will not be as useful as generalists who understand how public and private clouds need to come together to enable the "cloud experiences everywhere" approach.
- **Process and governance:** This is about the discipline you enforce in rolling out the hybrid cloud you've prioritized, as well as the applications and services that go along with it. As part of determining whether you are on the way to the right IT mix, you should be asking whether IT is empowered to make decisions and force developers and communities to fall in line with them. If teams are not aligned, whether for technical or political reasons, the speed of deployment will be greatly reduced and the march to a well-oiled hybrid infrastructure could stall in its tracks.

[1] businesswire.com/news/home/20200603005175/en/Ermetic-Reports-Nearly-80-of-Companies-Experienced-a-Cloud-Data-Breach-in-Past-18-Months



Different mixes for different situations

There is no optimal formula to suit every company. The right mix for one organization may be the worst approach for another, even when their products or services are roughly the same. The only real way to determine what's best for your organization is to perform a comprehensive analysis across the IT landscape. Cost, of course, is a major factor for most organizations. Others include performance, latency, risk, data protection needs, network connections, architecture, and cybersecurity.

Again, every organization is different. So, when your cloud business office (CBO)—a group your company should establish if it hasn't already—starts debating the merits of one scenario over another, it needs to weigh the value of each factor against others. For example, does the company place performance above costs? Is it willing to spend a little more for better latency or slightly better customer or end-user experiences? Is it willing to pay more for this and less for that and to sacrifice some of its sacred cows to optimize performance everywhere? Successful strategies are built on a sound business case that is driven by total cost of ownership and return on investment.

Technology's role

Decisions about complex mixes of platforms and services are ultimately made by people engaged in long, heated debates. But other technology tools can also play a role in determining the right IT mix for cloud infrastructure. With so many factors in play and myriad nuances to consider, CBOs are turning to a variety of business intelligence and analytical tools, many powered by automated technologies like artificial intelligence, to derive data-driven decisions and recommendations more quickly and efficiently on important IT questions.

Questions to ask during this analytical phase include:

- Which applications would benefit most from a move to public cloud?
- What is the prioritization, based on benefit vs. cost of a cloud migration program?
- For workloads remaining on-premises, what is the best modernization route to deliver a cloud experience?
- What are the dependencies between applications and data?
- How do edge use cases factor into decision-making about workload and data placement?

The bottom line is that achieving the right mix of IT assets for cloud infrastructure is crucial for providing cloud-like experiences everywhere. But it can be tremendously complex and difficult. No organization should pursue such programs haphazardly. Rather, it's vital to adopt plans and processes to guide your work. If you haven't done this already, it's time to begin, to ensure your hybrid cloud journey pays off the way it should for your organization.

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