White Paper

Hybrid IT Flexible Consumption Models Provide Customers with Options on How They Want to Consume

Sponsored by: HCLTech

Leslie Rosenberg Susan G. Middleton
October 2023

IDC OPINION

Enterprises continue to pursue digital transformation, which will be underpinned by modern, agile, and dynamic infrastructure that delivers flexibility and competitive advantage. Modernization of IT is one of the top priorities for businesses, according to IDC research. In the recent *Cloud Pulse Survey,* 68% of respondents indicated that they expect to undergo a near-major or major transformation of their IT or digital infrastructure environment to support business strategies over the next five years. And 24% of respondents to IDC's July 2022 *Future of Enterprise Resiliency and Spending (FERS) Survey, Wave 6,* indicated that the modernization of infrastructure and networks is one of the top technology initiatives for their organization.

At the same time, enterprises are facing macroeconomic headwinds and must align their strategic priorities. Enterprises cited their top 3 risk factors going into 2023 as rising costs/inflationary pressures, labor shortages, and the potential for a recession (source: IDC's *FERS Survey, Wave 3,* 2023). In that same study, they also highlighted top technologies that they felt would be immune regardless of economic pressures. These included security, IT infrastructure and operations optimization initiatives, and end-user devices.

A recent 1Q23 *Cloud Pulse Survey* highlighted that cost containment/management is important to 51% of cloud buyers as they consider cloud investments and that 42% of cloud buyers found the ability to leverage flexible consumption models as highly important. As enterprises consider their cloud strategies and deployment locations, IDC finds that workloads and data migrated to public cloud infrastructure do not always reside there permanently. Many workloads can fluctuate between deployment locations until they reach an optimal balance of cost, performance, and security. According to IDC survey data, 80% of enterprises expect to see some level of repatriation of compute and storage resources from the public cloud in the next 12 months (source: IDC's *Server and Storage Workloads Study,* April 2023).

October 2023, IDC #US51284123

It is against this backdrop that the importance of hybrid cloud will play a key role in IT transformation and modernization strategies. To implement these transformation and modernization strategies, 63.7% of enterprises will commit resources, skills, and development efforts across one or more clouds to address infrastructure, data, and application needs (source: IDC's *FERS, Wave 5,* June 2022). Leveraging cloud infrastructure (IaaS) is and will continue to be a critical deployment model for years to come, and it is essential that enterprises build a defined strategy across all deployment models to ensure that IT teams can extract maximum value from technology investments while effectively managing cost. Moving applications and workloads to the cloud can no longer be a foregone conclusion, as it must be coupled with a thoughtful business, technology, and operational use case to support fiscal and operational requirements.

Application and workload placement will not be an either/or decision but an iterative process that needs to be dynamic and seamless. Having tools, resources, and processes to enable this movement will be essential for hybrid IT success.

IN THIS WHITE PAPER

This IDC White Paper addresses the business, technology, and operational considerations that businesses need to consider when migrating applications and workloads to new deployment models across on premises and colocation and in the public cloud. Strategic planning must include the impact on people, process, and technology to ensure enterprises can capitalize on the benefits of migrating modernized hybrid infrastructure in support of and in alignment with their digital transformation road maps. This IDC White Paper specifically examines the benefits of leveraging as-a-service consumption models and the offer from HCLTech and Dell Technologies.

SITUATION OVERVIEW

Hybrid Cloud Trends

A vast majority of enterprises are pursuing hybrid cloud models. Dedicated cloud and dedicated cloud as a service (DCIaaS) will figure prominently in this strategy where it makes the most sense for workloads and is in alignment with business and operational objectives. Dynamics for the growth of hybrid models including the desire to repatriate applications and workloads stem from enterprises' "disillusionment" with the public cloud because of unforeseen, escalating costs and egress fees, vendor lock-in, security and compliance requirements, and the increasing availability of cloudlike experiences that dedicated cloud infrastructure and dedicated cloud IaaS can provide. These dynamics are coupled with the availability of vendors with the ability to provide software and services stacks that make integration and coexistence with other models more simplified and thereby more attractive to enterprise customers.

Defining the Right Mix of Deployment Models

Enterprise applications, workloads, and infrastructure environments are complex, sprawling and, in many cases, not comprehensively inventoried, documented, nor supported. A critical first step in any hybrid cloud strategy is understanding and assessing the applications and infrastructure in alignment with business priorities. This can be an arduous and lengthy process. Work with a partner that has established best practices; the right tools for discovery, inventory and assessment; and the expertise to help an organization develop a strategy for defining appropriate deployment models that consider business, technology, and operational priorities such as security and compliance, cost, criticality of applications, skills, and resources as well as existing infrastructure investments.

Requirements for Visibility Across Deployment Models

Hybrid by design is now becoming the default deployment model and having visibility and management across all deployment locations continues to be a challenge for enterprises. Enterprises require a single pane of glass to see and understand their full estate regardless of where it is located. The ability to have insights and intelligence to make informed decisions is no longer a "nice to have" but a requirement for successful hybrid models. And for many enterprises, having a technology platform as a managed service is becoming more attractive due to limited resources and skills.

Technology Platform as a Managed Service

The benefits of hybrid cloud are clear. It allows enterprises to have boundaryless infrastructure, leveraging the benefits of software-defined infrastructure to deliver flexibility, scalability, and programmability. It is always "on" and elastic yet is standardized using validated and tested reference architectures for ease and speed of deployment. It can seamlessly connect to defined cloud providers and has a single pane of glass for hybrid integration and orchestration. This single pane of glass or technology platform encompasses the physical layer (network, compute, and storage), the virtual layer (software-defined infrastructure), and a platform layer of automated orchestration and management tools via APIs. These resources are delivered by a managed service so that enterprise IT teams can focus on transformation versus managing a multitude of tools and technologies.

Asset "Lite" Operating Models

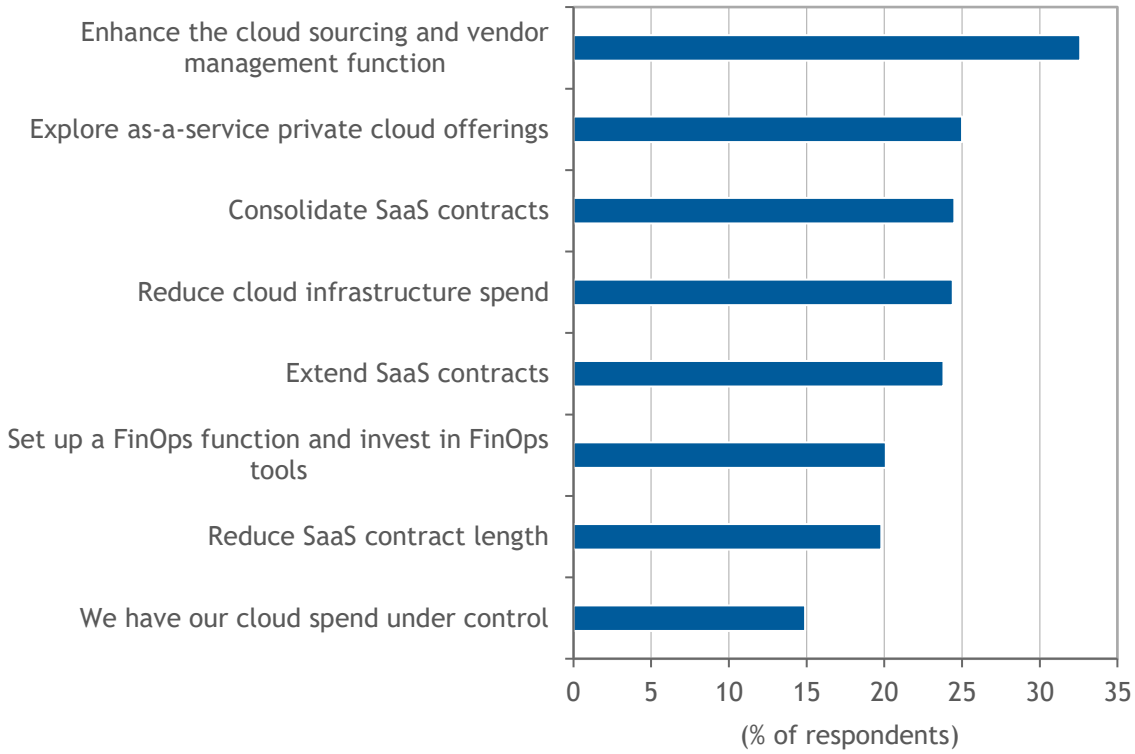
Organizations are looking for richer levels of visibility, cross-platform control, advanced data management, and protection that spans the entire ecosystem including public or private cloud, on premises, colocation facility, and edge. DX initiatives rely on data-driven insights to deliver competitive differentiation, increased customer engagement, streamlined business operations, increased staff productivity, and growth in revenue and profitability. IT infrastructure is one of the crucial pillars of DX and enables the delivery of critical insights to drive operational agility and resiliency. Because of this realization, organizations are now focused on managing outcomes instead of owning IT infrastructure and looking to vendors and partners to help.

Recent IDC surveys demonstrate customer interest and market momentum. In a June 2023 *Future of Digital Infrastructure Survey,* 78% of IDC respondents agreed that shifting to consuming digital infrastructure as a service is a critical element of their future strategy. Adopters of consumption models recognize that using them provides the flexibility necessary to enable business growth. In addition, the current economic environment is compelling organizations to increase scrutiny on cloud spending, monitor budgets, and look for tactics to improve spending metrics. Figure 1 highlights IDC research from January 2023 and details the tactics that organizations are deploying to optimize cloud spending and "explore as-a-service private cloud offering" is one of the top strategies.

FIGURE 1

Tactics for Optimizing Overall Cloud Spending

Q. Which of the following tactics will your organization use to optimize its overall cloud spend in 2023?



Unweighted valid n = 985

Source: IDC's *Future Enterprise Resiliency and Spending Survey, Wave 1,* February 2023

Flexible Consumption Models and Hybrid IT

As stated in *IDC FutureScape: Worldwide Future of Digital Infrastructure 2023 Predictions* (IDC #US48376222, October 2022), by 2026, 65% of tech buyers will prioritize as-a-service consumption models for infrastructure purchases to help restrain IT spending growth and fill ITOps talent gaps. The basis for this prediction was the multiple IDC surveys and customer interviews that underscore key themes about the advantages of these models; XaaS enables organizations to modernize their IT environment, reduces IT staff workloads, and provides predictable pricing that aligns with budgets.

Organizations rely on technology to achieve strategic competitive advantage and are focusing more on the ability to enable top priority business outcomes throughout their digital infrastructure selection processes. The promise of as-a-service delivery is to minimize the disruption of technology adoption, refresh, and operations, allowing enterprises to confirm that their technology investments yield the desired business results. IDC believes the focus on a superior experience has boosted demand for consumption-based models, and IT leaders are also relying on IT suppliers and partners to address

other operational pain points like the IT talent skills gap, sustainable tech spending, and funding new digital infrastructure initiatives.

IDC believes this focus on superior experience will boost demand for consumption-based models that provide the metrics and insights that organizations require to operate in a more efficient and agile manner.

XaaS Drivers and Trends

The adoption of as-a-service models for IT infrastructure continues to accelerate. In today's environment of economic uncertainty and budget scrutiny, organizations are tasked with faster responsiveness to new initiatives and investing within budget parameters. This requirement for improved IT agility means that the traditional procurement strategies of significant capital investment, long planning, and procurement cycles must be reevaluated. Organizations are embracing XaaS to reduce the complexity of managing their IT ecosystems, align usage with budgets, and improve operational efficiencies.

Key trends that are driving interest in XaaS offers include:

- **Economic uncertainty.** Recent inflationary pressures, lingering supply chain challenges, and uneasiness about a pending recession are a driver for organizations to reduce capital expenditures and shift to an operating budget.
- **Partner investment in XaaS.** Relying on partners to manage infrastructure life-cycle management activities enables CIOs to focus on increasing the efficiency of the IT team with both flexibility and predictability and reduces IT staff workloads. In addition, by relying on the skills of their partners, IT teams have access to additional IT talent and resources removing another obstacle for IT organizations — keeping and retaining IT talent.
- **Sustainability objectives.** The scope of sustainability initiatives can be daunting, but working with a like-minded vendor or partner can reduce the complexity of these projects.

Sustainability Across the Life Cycle

The growing interest in sustainability is reframing how organizations think about IT asset usage, life-cycles services, and end-of-life disposal practices. A successful sustainability strategy needs funding and a framework to cover the entire asset life cycle from procurement to decommissioning. This requires developing a vendor selection process that is tied to the goals of building a sustainable equipment life cycle from design and material selection to the end-of-life disposal and recycling process. Many organizations now require sustainability metrics from their vendors and partners in the request for proposal (RFP) to reduce security risks and financial penalties. To address these requirements, many organizations are focused on working with trusted partners or suppliers to help improve sustainability metrics and will select their final choice based on these criteria.

Adopting a XaaS model gives IT organizations the opportunity to work with a partner that will oversee all the end-of-life asset disposal objectives and include recycled and refurbished equipment within their IT portfolio and will provide detailed metrics about the process. These metrics are growing in importance and enable the IT team, sustainability leaders, and the facilities group to provide achievements of key sustainability milestones and report to senior leadership.

CONSIDERING HYBRID CLOUD AS A SERVICE BY HCLTECH

HCLTech along with Dell Technologies powered by Intel has developed a turnkey managed hybrid cloud offering across products, platforms, and services to help enterprises securely accelerate their journey to hybrid cloud operating models, improve application and workload performance, manage costs, and improve security and meet regulatory requirements. With the hybrid cloud-as-a-service HCLTech offering, customers can expect a future-proofed infrastructure solution leveraging flexible consumption models that can expand and grow as their business, technology, and operational needs evolve. HCLTech works closely with OEMs like Dell Technologies to ensure a tested and vetted catalog that seamlessly integrates for ease of visibility and management. Highlights of hybrid cloud as a service include:

- Standard reference architecture
- Cloud-connected technology platforms such as Power Flex, VxRail, and Azure Stack
- Workload alignment guidance from Intel
- CPU and memory guidance from Intel
- Performance optimization of x86 workloads on the Intel platform
- As-a-service consumption commercials
- Automation across deployment, configuration, and management of IT assets automation capabilities
- Modern operations with full-stack observability
- Tangible sustainability powered by design and Intel Granulate

HCLTech Hybrid Cloud as a Service Five Key Elements

HCLTech has developed a hybrid cloud-as-a-service strategy comprising five key elements that are designed to deliver a custom hybrid cloud solution (see Figure 2). This solution can enable end-to-end IT transformation more easily with a road map to help customers reduce costs and improve performance. These elements are underpinned by security, governance, and compliance competencies for added security.

FIGURE 2

HCLTech Hybrid Cloud as a Service Key Elements

Source: HCLTech, 2023

Technology Platform

HCLTech hybrid cloud as a service provides customers with a technology platform that defines a technology reference architecture offering finite and combinable options across the platform that are pretested and integrated. HCLTech will leverage this architecture to define the most viable deployment options and technology solutions that align to customer requirements and outcomes.

Once deployed, the platform delivers visibility and insights across the infrastructure enabling customers to make informed decisions as required by the business. The platform encompasses physical and virtual infrastructure, automation, integration, and orchestration tools as well as other technologies that integrate directly into HCLTech's proprietary DRYiCE software that leverages automation, AI and ML for insights, and HCLTech's cloud management platform MyCloud, which also integrates other AIOps, DevOps, and managed capabilities via APIs. This integration makes the platform extremely robust, providing customers with speed, agility, and insight.

Financial Engineering: Opex Consumption Offers

Hybrid cloud as a service offers customers a variety of vehicles to help keep costs predictable including a buy-back program and utility-based programs such as back up as a service (BaaS), storage as a service (STaaS), compute as a service (CaaS), and hyperconverged infrastructure as a

service. The advantages of these model are many: the use of operating budgets, continuous monitoring, and the flexibility to increase capacity as needed. Organizations deploy these cloudlike offers to address common pain points associated with owning IT assets such as the need for significant capital expenditures, long planning processes, and over-provisioning of infrastructure. Adopters of these models find both business and operational benefits that deliver the agility and resilience their organizations require to thrive.

Integration and Automation

Hybrid cloud as a service, together with Dell Technologies, provides capabilities to automate, accelerate, and derisk implementation of hybrid infrastructure regardless of location. HCLTech's DRYiCE provides automated configuration, integration, and onboarding of applications leveraging AI/ML capabilities. HCLTech's MyCloud enables simplified consumption and management of hybrid cloud through an easy to navigate graphical interface. Collectively, the investment that HCLTech has made in its tools and processes allows enterprises to capitalize on the benefits that automation provides by accelerating their time to value and delivering increased agility, faster provisioning, smoother integrations, and quicker time to market.

Operations

Using a targeted operating model (TOM), HCLTech aims to reduce operational silos, as well as provide services to help upskill and train IT teams, providing SRE and technology expertise to ensure successful knowledge transfer and day 2 operations.

Sustainability

Ensuring continuous optimization of infrastructure, HCLTech aims to help enterprises reduce their energy costs and carbon footprint. Leveraging Intel's Granulate technology, a new real-time workload optimizer, enterprises can optimize their production workloads while reducing their carbon footprint. The optimizer leverages usage patterns and data flows to automatically adapt OS and runtime management to best fit an application's needs while reducing energy usage.

Wrapped in Security

HCLTech's hybrid cloud as a service leverages Dell Technologies Zero Trust framework coupled with HCLTech's suite of security services and best practices bringing best-of-breed security solutions delivering an automated security architecture that ensures users, devices, and services are verified and authenticated.

CHALLENGES/OPPORTUNITIES

It is clear that hybrid cloud deployment models are instrumental to successful digital transformations and must be strategic by design and deployment models that encompass architectural, financial, and operational impacts. For many enterprises, this will be overwhelming and leveraging professional services that have thoughtfully developed a suite of offerings that expand across all considerations for hybrid cloud will allow customers to accelerate their digital ambitions:

- **Opportunity:** To attract new customers, HCLTech must articulate the predictability that hybrid cloud as a service provides to IT organizations in terms of procurement, management, and upgrades. Current customers are biggest advocates.
- **Challenge:** Differentiating from other XaaS offers is a challenge.

CONCLUSION

CIOs and IT managers are facing economic headwinds, budgetary constraints, and pressure to meet sustainability timelines. The as-a-service consumption model has proven to be a foundational framework for digital transformation and operational improvements.

Awareness of the benefits-as-a-service model is increasing, and organizations are looking for innovative solutions to traditional procurement models. For organizations struggling with legacy infrastructure, budget constraints, and IT staff shortages, XaaS models can reduce these operational challenges and improve business results.

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

Global Headquarters

140 Kendrick Street
Building B
Needham, MA 02494
USA
508.872.8200
Twitter: @IDC
blogs.idc.com
www.idc.com