

A new generation of alternative cloud providers with offerings that blur the lines between products and services has begun to emerge, bringing fresh ideas — and solutions — to enterprises seeking improved cost, portability, and integration.

Economic Outlook and Customer Needs Set to Drive Demand for Alternative Cloud Platforms Beyond the Hyperscalers

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Introduction

Hyperscale public cloud platforms constitute a business that is now worth hundreds of billions of dollars, and they serve millions of customers around the world. Beyond a rolling avalanche of new cloud services, these platforms are being built out globally across an ever larger number of datacenter locations and points of presence. One may conclude that there is limited room for new entrants to the hyperscale cloud market, but the indications are manifest that this conclusion is wrong.

The vast majority of hyperscale customers are happy with their providers in terms of performance, reliability, and innovation, but fewer would say the same regarding the perennial bogeymen of enterprise IT — cost, portability, and integration.

A new generation of alternative cloud providers and products has begun to emerge and is bringing fresh ideas to market that target these areas of concern while also aspiring to deliver a user experience comparable to the user experience provided by hyperscalers. To be sure, however, these alternative cloud providers may present themselves not as full-on replacements for hyperscalers but as ways to augment, extend, and harmonize customers' use of public cloud relative to considerations such as cost, skills, and integration. They also seek to ameliorate the challenges and limitations associated with private and hybrid cloud deployments, such as integration, system visibility, and harmonization with other systems. In this Spotlight paper, IDC examines what's at stake in the hyperscale cloud market and how customers, vendors, and channel partners can adapt and benefit.

AT A GLANCE

KEY TAKEAWAYS

- » Although a handful of hyperscale cloud vendors hold most of the global market share for IaaS, PaaS, and SaaS solutions, their hegemony is far from total.
- » Enterprise customers will increasingly value alternative cloud providers that can help them augment, replace (in some cases) and, above all, rationalize and integrate with major hyperscale platforms in the public cloud, at the edge, and in private locations.

Benefits

Alternative clouds can either augment or, for certain use cases, replace hyperscale cloud platforms. The following key benefits are offered by fresh thinking and approaches from emergent alternative cloud vendors:

- » Modular hardware can be quickly deployed for rapid availability in regional zones.
- » Partnerships with managed service providers (managed SPs) and other channel participants enable white-label clouds, adding density of availability around the world, particularly in emerging markets that the hyperscalers don't pay as much attention to.
- » Many alternative cloud providers place an emphasis on combining their often-substantial investments in proprietary functionality with open-source software to lower provider cost and reduce the specter of lock-in for customers. This approach is not always explicitly called out in the marketing messages for alternative clouds, but it is part of the customer experience with respect to improved pricing and flexibility. While more conservative buyers may be wary of open source in standalone form, such fears can be alleviated by a platform provider's brand and SLA. What matters to the end customer is a performant, affordable, and scalable platform that integrates with other systems — public, private, and at the edge.
- » Alternative cloud providers have a second-mover advantage of sorts in that, from the start, they cannot afford to be overly proprietary from a strategic standpoint. They instead can use portability and cross-platform integration as inherent strengths from the beginning.

Key Trends Driving Alternative Clouds

The following important trends will impact the adoption of alternative clouds:

- » **Unexpected or overly high hyperscale cloud costs.** These types of costs continue to prompt customers to rethink their spend or look for alternatives. Despite advances in cost monitoring and management, as well as sincere efforts by hyperscalers to lower customer bills (albeit on a per-project versus total spend basis), hyperscale customers still find themselves with unwelcome surprises on bills due to factors such as simple user error or neglect or overlooking the fine print in usage policies. Upstart cloud providers may not have the sheer scale of the hyperscalers but can be attractive for lower prices on common services (storage, networking, compute) as well as simpler price lists that may limit flexibility but provide more transparency. The smaller mix of service offerings these alternative providers have can further simplify the user experience, albeit while forcing potential compromises around application development and delivery.
- » **Data sovereignty.** According to an IDC survey released this year, 54% of 800 respondents cited data sovereignty and governance as a key area to address moving forward. While hyperscalers are moving quickly to roll out more regions under the auspices of data sovereignty/governance, the market is far from won and there is ample opportunity for nimble, smaller cloud service providers — particularly managed SPs that have not only deep local market knowledge but also employees who reside in the countries they serve. These added factors — beyond locally installed and operated infrastructure — can provide an extra edge to providers and comfort level to customers with the highest data sovereignty requirements.

- » **Edge computing.** The definition of edge computing has become more complex over time. We are years removed from the days when edge scenarios could be summarized somewhat simply — say, by a remote sensor array in an oil field that collects data and submits it in real time or asynchronously, depending on available connectivity, to a central store for processing. Today, IDC defines edge IT as a continuum. It exists in many locations: cloud providers, colocation facilities, operational settings, the field, remote offices. It consequently relies on coordination between many partners — telcos, managed SPs, systems integrators, hardware manufacturers, cloud service providers, and software vendors — while being compatible with computing architectures such as HCI, x86, ARM, and bare metal. And the overarching demands are many as well: interoperability, security, scalability, and ease of management.

Considering SoftIron

SoftIron, known for its Ceph-based storage appliances, has introduced HyperCloud, a cloud-in-a-box solution geared toward both enterprise IT organizations that want to transform and become internal service providers and regional managed SPs. HyperCloud systems are designed, built, delivered, and serviced by SoftIron and include the full suite of physical and virtual network, compute, and storage as well as the automation and secure multitenancy features that provide a cloud consumption experience. Full API access capability to all clouds and on-premises locations results in a solution that seeks to coexist with and unify customers' disparate environments at the same time, lowering TCO with extensive automation and simplified management.

The company does not view HyperCloud as a full replacement for relationships with hyperscale platforms. Rather, a primary goal of the systems is to address the combinatorics problem that arises every time a new technology is brought into an IT organization's operations model. Each new endpoint must be connected to and managed alongside others in the environment over time, resulting in an increasingly complex series of threads between endpoints.

Interestingly, SoftIron has taken cues from hyperscalers themselves in creating HyperCloud. Although integration levels between hyperscale providers varies immensely, each environment contains a control plane that ties every service together consistently. The core value proposition of HyperCloud is an integrated physical and virtual compute, network, and storage hardware stack coupled with a control plane that provides workload orchestration across core, edge, and cloud environments within as little as 8U of rack space and without limits to scalability. Rather than manage many silos of technology, operations teams instead manage the consumption experience of their users. SoftIron has architected HyperCloud so the systems operate as stateless, turnkey building blocks of IT infrastructure optimized for low-power footprints. This makes them highly suitable for edge locations, where space and power are concerns.

The control plane is owned by customers and sits privately and securely within their infrastructure. It is agnostic to public, private, sovereign, or industry cloud providers, providing complete control from a single interface over both private and public cloud resources. As a result, operations teams can regain some of the consultative influence they may have lost as line-of-business users bought into public cloud services without IT's input. IT teams can now focus on optimizing users' consumption experience rather than spend time and resources scrambling to govern sprawling amounts of disparate services requiring multiple skill sets.

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As HyperCloud systems scale out, they are defined with federated zones, with only basic network connectivity required. Compute and storage systems have no identity or persistent configuration information within them. This is all handled via the HyperCloud control plane, which is embedded throughout the network. Thus, according to SoftIron, building blocks can be treated like "cattle" rather than "pets." Should a HyperCloud node go bad, customers can simply contact SoftIron or their SoftIron channel partner, which will ship a replacement that can be swapped in. Further, SoftIron has placed multi-architectural support at the core of HyperCloud's design. The systems support both x86- and ARM-based compute and storage nodes. For deployment modes, virtualization and container workloads are supported, with support for bare metal coming soon.

Challenges

The early success that SoftIron had with its Ceph-based storage appliances proved the company can execute on a novel vision. With HyperCloud, SoftIron must convince customers — enterprises and managed SPs — that it can handle a much larger set of requirements and capabilities across the stack while delivering the same quality of service for which it has been known. The fact that SoftIron will continue the model of building out the appliances itself as well as managing the software layer is ambitious but not without risk.

SoftIron can help convince the skeptics with a few solid early wins, not just in terms of sales also but with named examples of companies using HyperCloud at meaningful scale and TCO. This will take time, but it is the challenge for all new products and services that take such a novel approach to market.

The pricing of HyperCloud pricing is expected to be highly competitive with the pricing of both turnkey offerings such as AWS Outposts and HPE GreenLake, which are dedicated cloud infrastructure-as-a-service (DCIaaS) offerings that also use the consumption-based model and offer similar messaging around data security and customer control, and DIY clouds built using combinations of proprietary and open source tools from vendors such as Nutanix, VMware, and OpenStack. SoftIron says HyperCloud will also be cost competitive from a TCO standpoint due to significant enhancements related to design, deployment, and ongoing skills needed to manage the system.

HyperCloud's sharp divergence from the other offerings' more vendor-dependent approach to the control plane can clearly be a selling point, but again, the challenge for SoftIron as an up-and-coming provider will be its ability to deliver the message clearly and crisply.

Conclusion

When it comes to IT infrastructure, enterprises have a panoply of choices for both vendors and deployment modalities. The problem that can arise, however, is the paradox of choice, when the abundance of options can seem overwhelming and ultimately leads to less-than-optimal results.

Thus, the IT infrastructure market has ample room and opportunity for vendors that not only can address multiple deployment options but also can present a way to ingest and interact with the greater market in a manner that emphasizes ease of use, resiliency, and strong customer controls over the entire environment. SoftIron has approached HyperCloud with this very blueprint in mind.

About the Analyst



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Chris Kanaracus is a Research Director in IDC's worldwide infrastructure practice, where he focuses on emerging technology and strategies concerning public cloud, hybrid cloud, and related workloads. With 15 years covering enterprise technology as a journalist and analyst, Chris brings a broad perspective to this area of market research.

MESSAGE FROM THE SPONSOR

More About SoftIron

Digital transformation requires CIOs to balance the need to responsibly invest in technology strategies and application owners' need for increasing agility and flexibility.

HyperCloud, from SoftIron, establishes cloud as the baseline for private infrastructure operations, enabling IT organizations to enable their teams while maintaining control and compliance. By eliminating the need to operate independent silos of physical and virtual network, compute, and storage technologies, HyperCloud reduces complexity and the need for specialized skillsets, delivering services faster and more consistently than DIY solutions. Native secure multi-tenancy empowers lines of business to consume IT through self-service, and by providing a rich set of container, virtualization, data, and networking services in a single platform enables IT organizations to leverage a single platform across a variety of app team needs.

For more information, check out the HyperCloud demo on demand at www.softiron.com/hypercloud/demo-on-demand.



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