

Changing the cloud conversation: Elevating the value of private cloud through innovative technologies



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For too long, enterprises have operated under the impression that public cloud services are where all the new technology lives. If you want agility, artificial intelligence (AI), containers, serverless computing and the like, it's public cloud for you.

Private cloud, we've been told, is where all the old, staid legacy technology lives. Many enterprises still need private cloud, however, for reasons including security, compliance, and performance.

It's time to set those stereotypes aside. Today, technology exists to bring the benefits of public cloud to a private cloud environment, enabling companies to leverage the benefits of each type of cloud where and when they make the most sense.

Hybrid cloud is the way forward — and Rackspace Technology offers an approach to modernizing private cloud to operate more efficiently with greater flexibility and ease of use. Hybrid cloud allows organizations to employ technology innovations to get the best of both worlds.

Public cloud benefits

There's no denying the benefits of public cloud, including capacity on demand with near-unlimited scalability. This helps

explain why companies continue to move IT infrastructure off premises and to the cloud. Whereas 38% of respondents to the [IDG 2020 Cloud Computing Survey](#) said their IT environment is either mostly or completely in the cloud, in 18 months 59% expect to be in that camp.

And then there are the applications and data. These are at the heart of the move to the cloud. Organizations are increasingly demanding easier ways to develop and deploy applications across the enterprise and into the cloud as well as more efficient ways to access and use data to make better business decisions. Innovations such as AI, machine learning, containers, serverless computing, and analytics have typically been benefits associated only with public cloud.

Given that, the question becomes how to apply those technologies to private cloud environments, enabling the benefits of private cloud while also accessing leading-edge applications.

The case for private cloud

Private clouds won't be going away any time soon; there are too many important use cases for and benefits from them.

Security is at the top of the list. With the number of reported data breaches growing

every day, companies need greater control over IT security. Some are hesitant to trust sensitive applications and data to a public cloud service.

Governance and compliance is another issue, as companies in many industries face restrictions on where and how data is stored, managed, and shared. Depending on the industry and where business is being conducted, organizations could be subject to any number of regulations.

The IDG survey bears out the importance of these challenges. Data privacy and security were cited by 38% of respondents as being among their biggest challenges to taking full advantage of public cloud resources, second only to controlling costs, cited by 40%. Nearly a third cited securing/protecting cloud resources (31%) and governance/compliance (30%).

Performance is another use case for private cloud. Applications that require rapid response times, such as the growing cadre of edge applications, are often best suited to a private cloud environment because they can't tolerate the latency involved in accessing public cloud services.

The next generation of private cloud

Adopting innovations and other capabilities once thought available only in public cloud into a private cloud environment is key to changing the cloud conversation. It puts private cloud on equal footing with public cloud and removes the barrier to the platform debate, letting organizations focus on data and applications. The next-generation private cloud (or modern private cloud) gives organizations the best of both worlds.

The next-generation private cloud fosters greater interoperability between public and private clouds, enabling a hybrid cloud environment that delivers real value to the business. Hyperscale providers have forged relationships with software providers such as VMware to create services that can span across public and private clouds, whether on or off premises, so users don't have to be concerned about choosing one over the other — or worried whether they're making the right decision. Rather, they just decide where it's best to run each workload. Public cloud attributes like consumption-based pricing, real-time provisioning, and intelligent automation, among others, are now obtainable in a private cloud.

It's also possible to bring technologies such as AI and ML from the public cloud domain and into the private by using APIs to make such capabilities accessible when needed. Such APIs make private clouds operate more efficiently. Say a hospital wants to use an AI application but can't put its data in the cloud due to privacy concerns. With an API call to a public cloud-based AI application, the modern private cloud can use AI at will.

The ability to use data that lives in a private cloud with public cloud services is key to the next generation of private cloud. Companies often pay significant sums of money to store data in a cloud environment even though it's not being used often. A better approach is to store data wherever it makes the most sense from a price/performance perspective. Organizations that want to use public cloud services on data stored in a private cloud should be able to do so — perhaps caching data to reduce latency if necessary. This would open up new opportunities in areas like financial services, for example, to use a public cloud AI application on data that's too sensitive to store in a public cloud.

Similarly, there's no reason technologies such as containers and serverless computing can't be applied to private cloud environments, providing new ways to optimize and scale. A private cloud managed by Rackspace Technology, for example, could include a fully managed Kubernetes environment, as well as serverless applications running on Knative. Such features will give developers the public cloud experience in a private cloud environment.

Hybrid cloud re-imagined

Rackspace Technology believes the next-generation private cloud is the impetus for changing the cloud conversation from focusing on which platform, to focusing on business outcomes. And given its strategic relationships with other industry leaders such as Intel, VMware, Dell Technologies and key hyperscalers, Rackspace Technology is best positioned to lead the efforts in helping organizations re-imagine hybrid cloud — one that enables secure, multicloud low-latency connectivity and operates more efficiently with greater agility and ease of use while maintaining key benefits of a private cloud for enhanced security, cost containment, performance, and data privacy.

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Five steps to accelerating enterprise IT modernization with hybrid cloud

According to Forrester, “74% of enterprises describe their strategy as hybrid.”¹ To take full advantage of deploying hybrid cloud, organizations must learn how to take advantage of new technologies, as well as integrate their data and applications, to facilitate flexible, fast, and secure applications throughout the hybrid environment.

Here are five critical steps in your hybrid cloud modernization journey:

1. Define your hybrid cloud strategy

The right hybrid cloud strategy maps to your organization’s business goals, enabling the creation of new business models, acceleration of new products and services, increased business agility, and delivery of superior customer experiences. Gartner reports that organizations with a cross-discipline cloud strategy are more likely to find success in cloud initiatives and recognize the full benefits of cloud.²

2. Develop an integration strategy

Organizations are using more applications than ever before, and all applications

and their data sources need to be integrated to deliver superior customer experiences. Through 2020, integration work will account for 50% of the time and cost of building a digital platform, according to Gartner.³

3. Leverage cloud-native applications

Cloud-native applications allow for consistent deployment and automated management to help optimize performance of existing applications, speed the development of new applications, and connect both new and legacy applications — regardless of the underlying infrastructure. Enterprises whose new application inventory is at least 20% cloud-native are twice as likely to report increased revenues than enterprises with fewer cloud-native applications.⁴

4. Adopt container architectures

Containers allow organizations to reliably deploy applications in different computing environments and offer performance and security benefits at a lower cost than traditional application deployment.

¹ Source: www.forrester.com/report/Top+10+Facts+Every+Tech+Leader+Should+Know+About+Hybrid+Cloud/-/E-RES143160

² Source: www.gartner.com/en/documents/3905470/formulate-a-cloud-strategy-in-the-context-of-your-overall

³ Source: www.gartner.com/smarterwithgartner/use-a-hybrid-integration-approach-to-empower-digital-transformation/

⁴ Source: cio.economicstimes.indiatimes.com/news/cloud-computing/cloud-native-applications-adoption-is-set-to-double-by-2020-study/58940984

Enterprise adoption of Kubernetes is at 60% with the market expected to grow at 30% CAGR to reach \$4.3 billion by 2022.⁵

5. Adopt a multi-layer security strategy

A multi-layer security strategy helps to ensure data and applications are secure and protected across your hybrid environment. Through 2022, at least 95% of cloud security failures will be linked to customer-side operations.⁶

Rackspace accelerates hybrid cloud modernization

With a comprehensive stack of services to enable hybrid cloud, we can help you deploy, manage, and optimize your hybrid cloud environments. From migration services and hybrid cloud integration to cloud-native application development and Kubernetes as a service, Rackspace offers customizable solutions to meet you where you are in your modernization journey and accelerate the value of the cloud.

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Today's clouds are powered by Intel

Organizations today are under unprecedented pressure to adapt.

Challenges run the gamut, from scaling infrastructure to handle data growth to optimizing systems for AI workloads, guarding against evolving threats, and accelerating performance at every level. Driven by the need for more efficient and resilient infrastructure deployment, a growing number of enterprises have turned to cloud.

Cloud service providers (CSPs) also face these challenges, operating at hyperscale. Banking on its experience at the forefront of hyperscaling for cloud services for decades, Intel has met their needs.

Through co-engineering and business relationships with top CSPs, Intel has delivered five generations of custom silicon built for cloud scale. What's more, Intel's data-centric technology portfolio is engineered for use in data centers of all sizes.

Your top cloud providers are powered by Intel® Xeon® Scalable Processors.

⁵ Source: <https://451research.com/451-research-says-application-containers-market-will-grow-to-reach-4-3bn-by-2022>

⁶ Source: <https://www.gartner.com/smarterwithgartner/is-the-cloud-secure/>