

# Hybrid Cloud

The Evolved Enterprise Cloud of the Future

Toby Owen, Head of Technical Strategy  
Gerardo Dada, Head of Product Marketing  
Lizetta Staplefoote, Online Content Strategist

# Table of Contents

---

Introduction	2
Defining Hybrid Cloud	3
Reasons Hybrid Cloud is the Best Fit for Enterprise	4
Hybrid Cloud at Rackspace	5
Start Your Hybrid Cloud Journey Today	5
More Hybrid Cloud Resources	6
References	7

## Introduction

With the benefits of cloud undeniable, enterprises are moving more aggressively toward growing cloud investments. Many startups and SMBs have had the benefit of beginning their IT journey in the cloud era, making adoption of new cloud technologies a standard part of their long-term IT strategy. However, the cloud journey for an enterprise opens up an array of issues – from re-architecting existing applications to protecting massive stores of sensitive data, while maintaining compliance and security mandates.

The cloud is a different IT model that comes with incredible opportunity along with new threats and limitations. While the benefits of public cloud have been proven for certain workloads and use cases (i.e. startups, test & development, handling burst traffic, etc), there is growing acknowledgement of its tradeoffs in areas like performance, customization and security. Therefore, it isn't realistic to expect that the future is all-cloud, for all applications.

The fundamental problem is that organizations betting on a cloud-only strategy are starting with a specific technology as the answer for every problem. It is like the old adage 'for someone with a hammer, everything looks like a nail'. While most organizations are likely to have nails, some have screws.

Applications and workloads have different and often complex demands. Hybrid cloud is meeting the need for cloud-powered enterprise architectures that can satisfy the need for speed and performance without sacrificing security or control.

---

*77% of enterprises have a multi-cloud or hybrid cloud approach<sup>1</sup>*

## Defining Hybrid Cloud

After finding success with workloads like test & development environments, websites and collaboration, enterprises are eager to adopt a service provider mentality and take advantage of the benefits of cloud across more workloads.

In the zeal to push to the cloud, some organizations are finding that not every use case is right for public cloud. The idea of becoming an all-public cloud shop, while an attractive theory, is simply unrealistic for many multi-faceted enterprise IT configurations. Adding in cloud elements may provide isolated benefits for certain apps or workloads, but can also create security issues, overly complex architectures and higher total cost for other workloads if improperly architected.

Hybrid cloud offers a more holistic approach where public cloud, private cloud and dedicated servers (including virtualization) are combined, working together as one platform to minimize tradeoffs and get the maximum value and effectiveness of each component of a workload. In the hybrid paradigm, systems live where they make the most sense – on-premise or hosted, running on bare metal or virtualized, in dedicated or cloud. Enterprises have different sets of requirements for different types of applications, and hybrid cloud solutions offer the flexibility to meet these needs.

For mission-critical applications, including line-of-business and proprietary applications, governance and security requirements may point to the need for dedicated hosting. Usage associated with promotional events and campaigns, or any application that experiences highly variable traffic and usage patterns, may be better suited to scalable cloud solutions. The nature of some applications and the licensing model might also result in different benefits of vertical versus horizontal scaling.

Most applications evolve over time. The application itself evolves, the business and/or the business requirements change, the scale and complexity might change. With a hybrid cloud, businesses have the ability to switch between dedicated resources, to choose public or private cloud services, or use several simultaneously as the needs of the application change.

Technology is evolving at a pace that makes it difficult to predict the future. Most people would not have predicted the impact of cloud computing five years ago. It is impossible to predict with precision how technology platforms will evolve in the next five years. Rather than making a commitment to just one model for the long term, hybrid cloud gives businesses access to multiple platforms, and the peace of mind that these platforms can meet the business needs of tomorrow.

---

*“The hybrid cloud offers the best of all worlds. It allows you to blend the best of the public cloud with private cloud and bare metal servers into one common architecture. The hybrid cloud provides the best possible combination of cost-efficiency, security, reliability, performance and control. There are no tradeoffs in the hybrid cloud.”*

**John Engates**  
[Rackspace CTO<sup>2</sup>](#)

# Reasons Hybrid Cloud is the Best Fit for Enterprise

Hybrid enables businesses to find the right combination of cloud and existing resources to do the job. "Hybrid is the end-state. A lot of people say 'the end state is cloud' I

don't buy that at all... It is about creating the *right architecture to support the application* and the evolution of the application over time," says James Staten, Forrester VP & Principal Analyst<sup>3</sup>.

Mixing and matching infrastructure components allows enterprises to create a cloud strategy around their unique needs instead of building around the components of a single provider or platform.

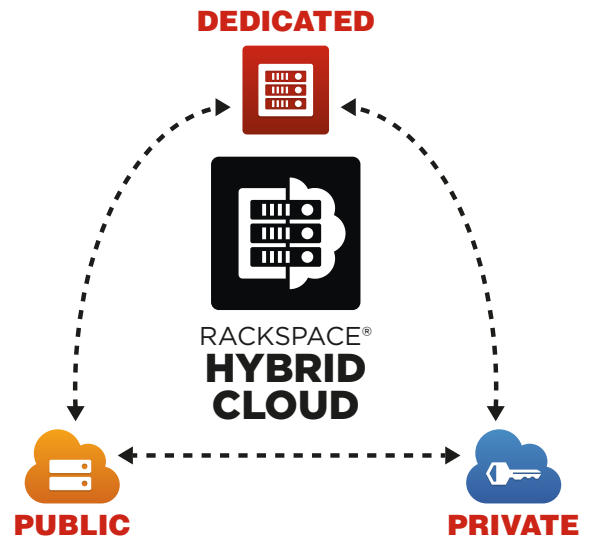
How does hybrid cloud computing serve enterprise IT strategy?

- **Improves TCO:** By connecting dedicated or on-premise resources to cloud components, IT can weave cloud efficiencies into existing IT investments that aren't ready for cloud to boost performance, maintain security, and enhance reliability while reducing the total cost of ownership. Though it offers a lower cost entry point, public cloud alone is often not the most cost effective solution at scale.
  - **Gradual cloud adoption:** Making the most of public cloud often requires understanding new paradigms and new terminology, re-architecting applications, and writing code to allow applications to control resources via APIs to provide scalability and resiliency. Hybrid cloud, on the other side, allows customers to start by taking advantage of dedicated servers and virtualization using existing applications and paradigms, and eventually evolve the application by moving the right elements to a public cloud over time as needed. The flexibility of moving certain workloads or components of an application between platforms gives IT shops the ability to transition to cloud at their own pace and only with the components that make sense.
  - **Enables innovation:** Hybrid cloud brings all the benefits of the public cloud: access to massive public cloud resources to test out new capabilities and try out new technologies without investments that hang around strangling floor space and budget. Developers can focus on developing instead of provisioning. With ready-made compute power at your fingertips and fully integrated into your existing infrastructure, new system enhancements or application updates get through the software lifecycle faster, and you get your products to market faster.
  - **Security and Compliance:** Combining dedicated and cloud resources, enterprises can more easily address many of the security and compliance concerns of a fully cloud-based solution. An application that requires PCI-DSS compliance and strict audits, for example, can place secure data on dedicated physical servers and databases isolated from other portions of the website, while the product catalog can reside on cloud servers for responsive scaling under fluctuating traffic patterns.
- 
- ## How Will Hybrid Serve You?
- Enterprise IT professionals weigh in on the value of adopting a hybrid strategy:*
- *52% On-demand flexibility for hosting workloads on premises or in the cloud*
  - *39% Reduces overall costs*
  - *38% Faster, more flexible response to market and business needs*
  - *34% Helps IT be more strategic (better aligned with business activity/goals)<sup>4</sup>*

## Hybrid Cloud at Rackspace

Rackspace, the leader in hybrid cloud and the co-founder of OpenStack, started on a journey to hybrid cloud in 2009. For years, customers have enjoyed unique technologies like RackConnect, our unique technology that securely connects dedicated hosted IT infrastructure or hosted OpenStack private clouds to Rackspace public clouds on an internal local network centrally managed with the MyRackspace® customer portal.

- **Open cloud platform:** Maximum portability with build once/run anywhere infrastructure using battle-tested software, based on our experience designing, deploying, and operating the world's largest OpenStack cloud.
- **Fanatical Support:** Our award-winning brand of support that encompasses both delivering expert guidance and best practices as well as around the clock managed services and troubleshooting.
- **Broad service portfolio:** With storage, compute, and networking across public, private, and dedicated (including virtualization) offerings all under one roof paired with seasoned IT experts to help you put it all together, you have all the tools needed to build your optimal hybrid environment.



## Start Your Hybrid Cloud Journey Today

For detailed insight to make decisions around cloud adoption and help identifying potential areas for cost reduction through consolidation, modernization, and application retirement, schedule an [Application Profiling Workshop](#). The workshop is a free service that combines collaborative planning with an onsite visit from our Senior IT Consultants to provide you with formal cloud recommendations. At the end of the workshop, you'll understand:

- Applications that can move to the cloud today
- Levels of complexity and risk involved in re-engineering applications to run in the cloud
- Ideal platforms for your applications: public cloud, private cloud, virtualization, or bare-metal infrastructure

**CALL US TODAY AT 1-800-440-2149 TO SCHEDULE YOUR FREE APPLICATION PROFILING WORKSHOP.**

## More Hybrid Cloud Resources:

**Video:** *Why Hybrid is a Must Have in the Enterprise:* [http://www.rackspace.com/knowledge\\_center/whitepaper/why-hybrid-cloud-is-a-must-have-in-the-enterprise](http://www.rackspace.com/knowledge_center/whitepaper/why-hybrid-cloud-is-a-must-have-in-the-enterprise)

**Case Study:** *Rackspace Serves and Delivers Hybrid Hosting to Domino's:* [http://www.rackspace.com/knowledge\\_center/article/rackspace%20AE-serves-and-delivers-hybrid-hosting-to-dominos](http://www.rackspace.com/knowledge_center/article/rackspace%20AE-serves-and-delivers-hybrid-hosting-to-dominos)

**Whitepaper:** *Nervous About Cloud? Go Hybrid Instead:* [http://www.rackspace.com/knowledge\\_center/whitepaper/nervous-about-cloud-go-hybrid-instead](http://www.rackspace.com/knowledge_center/whitepaper/nervous-about-cloud-go-hybrid-instead)

**Whitepaper:** *Top Ten Considerations for Enterprise Cloud:* [http://www.rackspace.com/knowledge\\_center/whitepaper/top-ten-considerations-for-enterprise-cloud](http://www.rackspace.com/knowledge_center/whitepaper/top-ten-considerations-for-enterprise-cloud)

# About Rackspace

Rackspace® Hosting (NYSE: RAX) is the open cloud company, delivering open technologies and powering hundreds of thousands of customers worldwide. Rackspace provides its renowned **Fanatical Support**® across a broad portfolio of IT products, including Public Cloud, Private Cloud, Hybrid Hosting and Dedicated Hosting. The company offers choice, flexibility and freedom from vendor lock in.

## GLOBAL OFFICES

### Headquarters Rackspace, Inc.

5000 Walzem Road | Windcrest, Texas 78218 | 1-800-961-2888 | Intl: +1 210 312 4700

[www.rackspace.com](http://www.rackspace.com)

### UK Office

Rackspace Ltd.  
5 Millington Road  
Hyde Park Hayes  
Middlesex, UB3 4AZ  
Phone: 0800-988-0100  
Intl: +44 (0)20 8734 2600  
[www.rackspace.co.uk](http://www.rackspace.co.uk)

### Benelux Office

Rackspace Benelux B.V.  
Teleportboulevard 110  
1043 EJ Amsterdam  
Phone: 00800 8899 00 33  
Intl: +31 (0)20 753 32 01  
[www.rackspace.nl](http://www.rackspace.nl)

### Hong Kong Office

9/F, Cambridge House, Taikoo Place  
979 King's Road,  
Quarry Bay, Hong Kong  
Sales: +852 3752 6465  
Support +852 3752 6464  
[www.rackspace.com.hk](http://www.rackspace.com.hk)

### Australia Office

Level 4, 210 George Street,  
Sydney, NSW 2000  
Phone: 1-800-722577  
[www.rackspace.com.au](http://www.rackspace.com.au)

© 2013 Rackspace US, Inc. All rights reserved.

This whitepaper is for informational purposes only. The information contained in this document represents the current view on the issues discussed as of the date of publication and is provided "AS IS." RACKSPACE MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, AS TO THE ACCURACY OR COMPLETENESS OF THE CONTENTS OF THIS DOCUMENT AND RESERVES THE RIGHT TO MAKE CHANGES TO SPECIFICATIONS AND PRODUCT/SERVICES DESCRIPTION AT ANY TIME WITHOUT NOTICE. USERS MUST TAKE FULL RESPONSIBILITY FOR APPLICATION OF ANY SERVICES AND/OR PROCESSES MENTIONED HEREIN. EXCEPT AS SET FORTH IN RACKSPACE GENERAL TERMS AND CONDITIONS, CLOUD TERMS OF SERVICE AND/OR OTHER AGREEMENT YOU SIGN WITH RACKSPACE, RACKSPACE ASSUMES NO LIABILITY WHATSOEVER, AND DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO ITS SERVICES INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NONINFRINGEMENT.

Except as expressly provided in any written license agreement from Rackspace, the furnishing of this document does not give you any license to patents, trademarks, copyrights, or other intellectual property.

Rackspace, Fanatical Support, and/or other Rackspace marks mentioned in this document are either registered service marks or service marks of Rackspace US, Inc. in the United States and/or other countries. OpenStack is either a registered trademark or trademark of OpenStack, LLC in the United States and/or other countries. Third-party trademarks and tradenames appearing in this document are the property of their respective owners. Such third-party trademarks have been printed in caps or initial caps and are used for referential purposes only. We do not intend our use or display of other companies' tradenames, trademarks, or service marks to imply a relationship with, or endorsement or sponsorship of us by, these other companies.

### References:

- 1 <https://www.rightscale.com/pdf/rightscale-state-of-the-cloud-report-2013.pdf>
- 2 <http://www.rackspace.com/blog/new-survey-says-customers-crave-hybrid-clouds/>
- 3 [http://www.rackspace.com/knowledge\\_center/whitepaper/why-hybrid-cloud-is-a-must-have-in-the-enterprise](http://www.rackspace.com/knowledge_center/whitepaper/why-hybrid-cloud-is-a-must-have-in-the-enterprise)
- 4 [http://www.cisco.com/en/US/prod/collateral/switches/ps9441/ps12904/white\\_paper\\_c11-726438.pdf](http://www.cisco.com/en/US/prod/collateral/switches/ps9441/ps12904/white_paper_c11-726438.pdf)