

PROVEN ROI:  
**OPENSTACK**  
**PRIVATE CLOUD**



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## Introduction

Most organizations are moving to private cloud to reduce costs and increase agility (deploy features and applications faster). At the same time, they need to meet fundamental goals in the areas of reliability, performance, security, compliance and data sovereignty. But succeeding in private cloud isn't easy. The technology is complex and requires significant expertise. And for many organizations, the learning curve goes beyond technology, extending to operations, processes, culture change and toolkits.

We recently hired a third party, Fidelio Consulting, to conduct in-depth interviews with seven Rackspace® OpenStack® Private Cloud customers to understand how they have benefited from an OpenStack private cloud environment. Each of these customers confirmed that Rackspace OpenStack Private Cloud quickly delivered a compelling ROI. The customers realized value in three main ways: saving money, increasing productivity and sharpening the strategic focus of the organization as a whole. Additionally, the research proved that avoiding vendor lock-in was priceless.

## Rackspace OpenStack Private Cloud Saves Money

The customers we interviewed know that their core business competency does not involve managing a private cloud. Nor should it. Rackspace OpenStack Private Cloud saved these customers the trouble of hiring people and equipment to operate an OpenStack private cloud environment. Similarly, customers using OpenStack private cloud in a Rackspace data center saved money by not having to build out expensive facilities or hire additional staff.

### **SAVES \$258,000 IN EMPLOYEE OVERHEAD ANNUALLY PER EVERY 20 NODES IN THEIR CLOUD**

Customers using Rackspace OpenStack Private Cloud value not having to hire their own OpenStack engineers and architects or additional IT personnel. The customers in this study saved an average of \$258,000 annually per every 20 nodes in their cloud, driven by reductions in full-time employee costs. Beyond employee costs,

customers also have to spend time finding qualified candidates to manage OpenStack systems, so skipping that step eliminates the costs of recruiting employees and bringing them up to speed.

*"This was a huge factor in picking Rackspace ... [Without them,] you'd have to hire someone with certain certifications, which costs around \$150,000 a year."*

- LEADING MANAGEMENT AND COMMUNICATIONS PLATFORM

*"Finding OpenStack engineers in Chicago is tough. Most engineers would rather live in California."*

- FAST-GROWING MANAGED SERVICES AND IT CONSULTING FIRM

### **RACKSPACE DATA CENTER SAVES MONEY WHILE INCREASING AGILITY**

Customers who utilized a Rackspace data center saw additional savings in personnel and facilities costs, while avoiding unnecessary capital expenses and leveraging the flexibility of a private cloud.

One customer who moved to a Rackspace data center instead of upgrading aging hardware saw several financial benefits. Their business model involves acquiring and eventually sun-setting multiple products. Rackspace's private infrastructure-as-a-service (IAAS) gives them the flexibility to scale up or down based on demand. When a product no longer generates revenue, they can scale down to mitigate associated costs. There is an additional reduction in staff costs, since maintaining their own data center would have required two engineers to manage networking and facilities – an extra \$300,000 annually. With a Rackspace data center, businesses can expand or strengthen their core competencies without adding to their overhead.

*"Five years ago, we had aging servers and hardware failures. We were looking at a multimillion-dollar update on hundreds of servers."*

- SOCIAL GAMING AND ADVERTISING COMPANY

*"I don't want to buy more data centers around the world. Partnering with Rackspace means that I can offer products globally without any additional investment."*

- FAST-GROWING MANAGED SERVICES AND IT CONSULTING FIRM

## Rackspace OpenStack Private Cloud Can Increase Productivity by 15%

Across the board, customers said that Rackspace cloud management expertise frees their own staff to focus on more important activities, leading to increased business innovation. This is especially true for smaller, fast-growing businesses, which must hire judiciously and whose personnel already have multiple responsibilities. Customers stated that staff are 10–15% more efficient when using Rackspace OpenStack Private Cloud. When Rackspace manages the cloud, IT teams can better support development teams, which increases collective efficiency and speeds up service delivery.

*"We have no expertise in how to set up and operate an OpenStack cloud – we don't need to. That's what we rely on Rackspace for."*

- BROKER FOR SOCIAL MEDIA DATA

*"My IT ops team can spend more time supporting developers and giving them tools to get their job done than if we were dealing with our own data center."*

- SOCIAL GAMING AND ADVERTISING COMPANY



Customers using Rackspace OpenStack Private Cloud for their development environments found that on-demand, self-service access to resources increased efficiency and saved money. Customers were able to shorten the time needed to build virtual machines by 40%, helping to reduce time to market for new releases.

*“With our old system, we could deploy seven VMs on our own servers, but it wasn’t dynamic. Automating this through the API saves time and money. It’s 60% faster than the old way, and we don’t need a dedicated person.”*

– BROKER FOR SOCIAL MEDIA DATA

*“Rackspace makes it easier for us to build services. We went from three hours to 30 minutes to build a VM.”*

– LEADING MANAGEMENT AND COMMUNICATIONS PLATFORM

## The Strategic Value of Rackspace OpenStack Private Cloud Impacts 15% of Revenue

Most customers moved from public to private cloud because it provided strategic value and improved their bottom line. Customers indicated that server downtime and security issues **could impact up to 15%** of their revenue – and **100% of their reputation**.

Both B2B and B2C customers who use Rackspace OpenStack Private Cloud stated that the 99.99% uptime, software updates and security controls were critically important in their decision to switch to private cloud.

This was especially true for one customer, a fast-growing managed services provider. They rely on Rackspace’s 99.99% uptime guarantee to provide the security and reliability that their customers demand. With Rackspace managing their cloud, they can focus on managing their own proprietary product.

*“Risk reduction was the biggest factor in moving to private cloud. We wanted to get away from unplanned downtime. The cost was similar to public cloud and worth it to get the 99.99% uptime guarantee.”*

– LEADER IN CLOUD-BASED TALENT MANAGEMENT

*“Gamers are not very patient with outages. If we have significant outages, we could lose 15% revenue in the long term.”*

– SOCIAL GAMING AND ADVERTISING COMPANY

### SOFTWARE AND SECURITY UPDATES SUPPORT STRATEGIC VALUE

Customers also considered the strategic value of regular software updates and security patches when deciding to move to Rackspace OpenStack Private Cloud. Businesses today know that security breaches are a widespread problem that can impact brand credibility and customer satisfaction. Unlike do-it-yourself OpenStack, where patches, fixes and security updates are the responsibility of the customer, Rackspace assumes responsibility for software and security updates. Customers said that they value this service.

*“Security is very important to us because we store sensitive HR data.”*

– LEADER IN CLOUD-BASED TALENT MANAGEMENT

### PUBLIC, PRIVATE OR HYBRID: CREATING THE RIGHT VALUE MIX

Several customers reported using a hybrid public-private cloud mix to optimize performance and contain costs. For hybrid customers, there was strategic value in Rackspace’s ability to provide both a managed public and private cloud platform.

*“We use a private cloud combination with Rackspace’s public cloud offering. Private cloud is easier to scale than our own data centers because service provisioning is easier, but the biggest benefit is being able to use a hybrid public and private cloud from the same vendor.”*

– MULTI-PLATFORM GLOBAL MEDIA COMPANY

## Avoiding Vendor Lock-In Is Priceless

For organizations committed to using open source and open principles throughout their environment, OpenStack is the only logical choice.

Rackspace OpenStack Private Cloud customers value an IAAS offering built using upstream OpenStack because it gives them options. If they want to create a hybrid infrastructure, or migrate from private to public, relying on standard OpenStack streamlines their migration and simplifies the experience for users and administrators alike.

Many customers also want to see the infrastructure and audit code. These customers realize that proprietary systems are costly and cannot be audited. **Avoiding lock-in is important to 100% of customers interviewed.**

*“We are very open-source-centric in everything we do, from IT to the OpenStack layer. We definitely try to avoid lock-out in everything we do.”*

– FAST-GROWING MANAGED SERVICES AND IT CONSULTING FIRM

*“With OpenStack, we get to see the infrastructure and can audit the code. This was the absolute reason we picked OpenStack ... [It] is the opposite of vendor lock.”*

– LEADING MANAGEMENT AND COMMUNICATIONS PLATFORM

## Summary

The customers we interviewed who use Rackspace OpenStack Private Cloud found value in:

- Saving money
- Increasing productivity
- Providing strategic value

Of course, these are the primary benefits every organization looks for when shifting to a new IT infrastructure. But as our customers told us, Rackspace OpenStack Private Cloud delivers these compelling benefits. Our offering goes beyond simple cost savings, also boosting productivity and providing strategic value. Organizations across many industries have discovered the value of OpenStack with Rackspace.

Rackspace is:

- The leading operator of OpenStack clouds
- The market leader, with five times more OpenStack revenue than our closest competitor
- The single largest contributor to the OpenStack code base

We will continue to drive OpenStack forward so that it meets the requirements of organizations like yours. If you take away anything from this paper, know that we’re here to help you understand OpenStack, find the right path forward with OpenStack, and succeed with OpenStack – on your terms.

To uncover what we can do for you to improve and enhance your OpenStack cloud capabilities, sign up for our free OpenStack strategy session at: [go.rackspace.com/OpenStackExperts](https://go.rackspace.com/OpenStackExperts)

## CASE STUDIES

Derived from customer interviews, these case studies illustrate the specific ways in which customers find value in Rackspace OpenStack Private Cloud.

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### Customer One

TYPE: **Managed Services/IT Consultant**

RACKSPACE SOLUTION: **OpenStack Private Cloud**

This customer is a rapidly growing managed services and IT consulting company based in Chicago. When they started looking for a private cloud solution for one of their products, they immediately recognized the value of Rackspace's OpenStack managed services.

#### SAVING MONEY

Leveraging Rackspace OpenStack expertise not only saves money but also eliminates the headache of trying to hire and retain talent in a part of the country where OpenStack engineers and architects are particularly scarce. "We'd need to hire four people, and that's if we could find them in Chicago," explains the managing director.

#### INCREASING PRODUCTIVITY

The company uses their data center to host a web-based tool that allows clients to manage their environment. However, they needed Rackspace's talent around OpenStack so that they could focus on managing the tool. As the company's managing director explains, "Rackspace is the creator and has the teams to adopt and support the methodology and lifecycle path. We know that when there's a problem, there's a solid team of dozens or more working to solve that problem. They also have the advantage of exposure to many customers, whereas we have a more limited view. We just couldn't afford to do it on our own."

#### STRATEGIC VALUE

Having quadrupled in size in past three years, both organically and via multiple acquisitions, the company relies on Rackspace's "expertise, methodologies and standardization of the development process to ensure that we can continue to grow to scale while minimizing risk," says the managing director. "We count on that because our business is growing so fast and we are expanding our offerings. We know we can count on our partnership with Rackspace so we can answer our clients with confidence."

As an IT company, open source is a strategic organizational decision for the company. "We are open-source-centric in everything we do, from IT to the OpenStack layer," the managing director says. "We definitely try to avoid lock-out in everything we do."

## Customer Two

TYPE: **Organizing Application**

RACKSPACE SOLUTION: **OpenStack Private Cloud**

This customer is a management and communications platform for organizing and coaching sports teams and similar groups. With over 12 million users, it is a longtime Rackspace OpenStack Public Cloud customer that began moving to OpenStack Private Cloud in January 2016. The company continues to use public cloud for additional capacity.

### SAVING MONEY

"We evaluated public versus private cloud and Rackspace had the complete package, including networking, which is a gap for us," says a senior database administrator (DBA) at the company. "With private cloud, we can plan better and control reboots and patches." Rackspace's managed services is a big plus. "We have a very small facilities footprint," explains the DBA. "The big meat and potatoes are definitely at Rackspace."

Leveraging the Rackspace team also limits the need for additional hiring. "This was a huge factor in picking Rackspace, especially on the private cloud side," he says. "You'd have to hire someone with certain certifications for us, which costs about \$150,000 a year. We don't touch our hardware on a regular basis, and we've been super happy with the Rackspace OpenStack team."

### INCREASING PRODUCTIVITY

The company's IT team has seen operational efficiencies increase since it switched from public to private cloud. "It makes it easier for us to build services than it did in public cloud," explains the DBA. "Building a virtual machine went from three hours to 30 minutes."

### STRATEGIC VALUE

Open source is part of the corporate philosophy. "We always knew we wanted OpenStack," he says. "We don't like the lack of transparency with VMware. We hate virtual machines that you can't audit. With OpenStack, we do get to see the infrastructure and can audit the code. This was the absolute reason we picked OpenStack. OpenStack is the opposite of vendor lock-in."

The DBA expects the benefits of OpenStack Private Cloud to increase over time, especially when the OpenStack upgrades are completed and leveraged. In the meantime, reliability is the name of the game. "If the network is down," he says, "we might as well go home."

## Customer Three

TYPE: **Social Gaming and Advertising Company**

RACKSPACE SOLUTION: **OpenStack Private Cloud**

Founded in 2005, this customer is a social gaming and advertising company that owns dozens of rotating gaming titles at any given time. They buy older but still popular video games and run them through “the long tail,” says the company’s senior director of IT/ops.

### SAVING MONEY

“Five years ago, we had aging servers and hardware failures,” he explains. “We were looking at a multimillion-dollar update on hundreds of servers.” They selected Rackspace as their new provider, and four years ago moved their data center to a combination of OpenStack Private Cloud and dedicated servers. “We don’t have to deal with drives going down, and leasing through Rackspace is much less expensive than spending over a million dollars buying our own servers,” he says.

### INCREASING PRODUCTIVITY

As their Rackspace environment has grown, the company has avoided hiring additional staff to support it, relying instead on the knowledge and experience of the Rackspace OpenStack team. “We certainly don’t have the expertise in building a private cloud; we’ve relied on Rackspace engineers to help us build that,” continues the senior director of IT/ops. “I’ve seen better support from Rackspace than any of the other vendors by a large degree. Having the expertise available from Rackspace engineers was part of our security valuation from the get-go.”

He adds, “Using Rackspace engineers instead of our own saves us costs and time in training. My IT ops team can spend more time supporting developers and giving them tools to get their job done than if we were dealing with our own data center. Keeping updates current without any effort from my team is definitely a huge benefit.”

### STRATEGIC VALUE

Rackspace OpenStack Private Cloud gives the company “a tremendous amount of flexibility to scale up and down based on our needs,” he says. “OpenStack gives us the capability to shrink the infrastructure as players leave, and to reuse infrastructure with the next game acquisition. We have a lot of games that we sunset once revenue hits a certain point. We can take those costs directly and fully off our books as soon as we end that game.”

Finally, the company loves the reliability they get from Rackspace OpenStack Private Cloud. “Gamers are not very patient with outages,” notes the senior director of IT/ops. “We definitely would lose players in the long term with any significant outages.”



## Customer Four

TYPE: **Community Platform and Hosting Company**

RACKSPACE SOLUTION: **OpenStack Public Cloud and OpenStack Private Cloud**

This customer is a community platform and hosting company currently in growth mode. They have been with Rackspace since their founding in 2009.

### SAVING MONEY

"Pretty much our entire computer structure is in Rackspace, both public and private, with customer sites in the private cloud," explains the company's VP of operations. The company cut their costs in half by moving to private cloud four years ago. In fact, they have quadrupled the size of their environment and are only now approaching their previous public cloud costs.

The Rackspace data center is not the only place where the company sees cost savings. "We constantly evaluate our options," says the VP. Without Rackspace's managed services and OpenStack expertise, he explains, "we'd need two to three additional head count. We really benefit from not needing hardware expertise in the company."

### INCREASING PRODUCTIVITY

Private cloud also means more control. The company can decide how VMs are located, and they no longer have to worry about site performance being impacted by their neighbors in the public cloud. Rackspace saves the VP time as well. "The less actual hardware and cloud management I have to do, the more time I have to do other things," he says.

### STRATEGIC VALUE

A highly secure and reliable private cloud environment is a strategic benefit. "We actively target prospects that have recently been hacked and promote our superior security and uptime," the VP notes. "We couldn't get 99.99% uptime before private cloud; now we can. Being able to confirm that we offer a secure and hardened device helps when answering RFPs, too. These things impact revenue because they are part of our sales messaging."

## Customer Five

TYPE: **Media Company**

RACKSPACE SOLUTION: **OpenStack Public Cloud and OpenStack Private Cloud**

This customer is a multi-platform media company based in Austria, with global offerings. When they were looking for a vendor to support their expansion into North America, three factors led them to Rackspace.

### SAVING MONEY

The company has a very small IT group and depends heavily on outsourcing, so Rackspace managed services are critical. "That's the nice part of leveraging Rackspace – you get their experts instead of hiring," says the company's IT manager. Without Rackspace support, they would have needed to more than double the size of their IT team.

### INCREASING PRODUCTIVITY

For the IT manager, having access to the experts at Rackspace means that "I don't need to hire a specific IT skill set, so I can hire other skill sets and utilize the existing staff for other projects that match their talents."

### STRATEGIC VALUE

The company needed to integrate public and private cloud into a hybrid solution. As the IT manager explains, "One of the biggest benefits is being able to use a hybrid public-private cloud from same the vendor." The company architects their systems to mitigate risk, and Rackspace is a part of that. "The nature of Rackspace private cloud decreases the risk because someone else takes care of it," he says.

Because the company operates in an open-source environment, OpenStack Private Cloud matched their philosophy.

## Customer Six

TYPE: **HR SaaS**

RACKSPACE SOLUTION: **OpenStack Private Cloud**

This customer is the leader in cloud-based talent management solutions for education and government. A longtime Rackspace public cloud customer, they moved to the private cloud in 2014 to provide greater security and availability for their customers.

### SAVING MONEY

The company uses Rackspace's data center in the U.S. and their own in Canada while leveraging Rackspace managed services across both countries. Using Rackspace's data center for their 700-plus U.S. customers is a significant money saver, both in infrastructure and staff. A senior DevOps engineer estimates that "we'd need at least another admin to maintain those servers."

### INCREASING PRODUCTIVITY

The engineer explains that the company's talent management solution for higher education was consuming large amounts of bandwidth in the public cloud, leading to unanticipated downtime. With the private cloud, they have more control over both their usage and their downtime schedule.

### STRATEGIC VALUE

"Risk reduction was the biggest factor in moving to private cloud," he says. "We wanted to get away from unplanned downtime. The cost was similar to public cloud and worth it to get the 99.99% uptime guarantee."

Since the company's solutions contain highly sensitive employee and applicant information, security is of paramount importance. "We take our clients' security needs very seriously," he explains.

The company isn't strictly an open-source organization — they are willing to pay for proprietary solutions if they see the value in it. In the case of OpenStack, the open-source value was clear.

## Customer Seven

TYPE: **Media Data Broker**

RACKSPACE SOLUTION: **OpenStack Public Cloud and OpenStack Private Cloud**

A broker for social media data, this customer has been collecting and indexing data from forums and other social media for ten years. Three years ago, they began collecting and streaming data in near real time, at which point speed and security became critical elements of their business strategy. They came to Rackspace from a bare-metal service with some open-source virtual machine technology. Today, they primarily use Rackspace OpenStack Private Cloud but also leverage the Rackspace OpenStack Public Cloud.

### SAVING MONEY

"When we got started, it wasn't even a question of cost," says the company's senior project manager. "We didn't think we could find anyone capable of doing an OpenStack implementation because the technology was too new." They believe in open source throughout their development and IT organization. "We looked at proprietary OpenStack and VMware," she recalls, "but it was costly and didn't work with our philosophy of open source and avoiding vendor lock-in."

### INCREASING PRODUCTIVITY

Over time, however, it wasn't just about finding OpenStack experts. "It was just more cost-effective to continue our partnership with Rackspace," she says. It's not just that Rackspace allows their team to focus on core business and avoid at least three additional hires – it's also the "breadth of knowledge that Rackspace has. No one person could support the cluster the way Rackspace's managed services can – and 24/7 too. We have no expertise in how to set up and operate an OpenStack cloud, and we don't need to. That's what we rely on Rackspace for."

Operational efficiency is a significant factor for the company, in several different ways. First and foremost is scalability. "When we launched this business unit, we didn't know how quickly we'd be growing our customer base, and we needed a solution that we could scale up quickly," explains the senior project manager. Day-to-day efficiency also matters, both internally and with clients. "In our old environment, we could deploy seven VMs on our own servers, and it wasn't dynamic," she says. "Automating through the API is 60% faster than the old way."

### STRATEGIC VALUE

On the customer side, Rackspace OpenStack Private Cloud speeds up implementation. "Each customer gets their own environment," she explains, "and with Rackspace, we can spin up faster. They can be up and running the same day. The entire business unit couldn't exist without this."

## ABOUT RACKSPACE

Rackspace, the #1 managed cloud company, helps businesses tap the power of cloud computing without the complexity and cost of managing it on their own. Rackspace engineers deliver specialized expertise, easy-to-use tools, and Fanatical Support® for leading technologies developed by AWS, Google™, Microsoft®, OpenStack, VMware® and others. The company serves customers in 150 countries, including more than half of the FORTUNE® 100. Rackspace was named a leader in the 2015 Gartner® Magic Quadrant for Cloud-Enabled Managed Hosting, and has been honored by Fortune, Forbes®, and others as one of the best companies to work for.

Learn more at [go.rackspace.com/OpenStackExperts](http://go.rackspace.com/OpenStackExperts) or call us at **1-844-858-4874**.

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PRI-CCS-OS\_PC\_ROI\_Report-B-4839

MARCH 6, 2017