

CUSTOMER SUCCESS STORY

AI CHAT PLATFORM PROVIDER

#PRIVATECLOUD #MULTICLOUD #AI #AWS #DEVOPS #KUBERNETES #SAAS

AI chat platform SaaS provider achieves 50% savings by moving DevOps workloads to OpenMetal

Founded in 2015, this AI chat SaaS provider delivers the industry's most human-friendly self-service assistant, the Customer Engagement Center (CEC), a next-gen conversational AI solution that rapidly transforms any business into a fully automated digital brand.

Having developed seven ground-breaking automation patents in channel-based communications, they quickly became the leader in the fast-growing enterprise AI space. But make no mistake, people are at the heart of all that this provider does, from the customers engaging with their favorite brands to the people behind those brands.

While experiencing rapid growth from the outset of their organization, they knew that they needed to build a long-term multi-cloud technology roadmap to sustain their success. With cloud hosting expenses being their greatest challenge, they began to look for alternative cloud options.

OpenMetal On-Demand Private Cloud (built on OpenStack) helped this SaaS provider not only cut their cloud expenses in half, it gave them a true business partner to help them customize their cloud environment and fuel their growth even further.

THE CHALLENGE

AWS Challenges

Like many software development companies, this provider is using AWS as their primary cloud platform. And for many use-cases this remains the best option for them: this provider is still an AWS Partner using their GovCloud infrastructure. But requiring a cloud agnostic platform for new product offerings that were in the pipeline presented challenges.

- **High Costs:** With their current offering in production, AWS costs were increasing as business grew and the ability to reduce costs on AWS was challenging
- **Unpredictable Billing:** Usage billing and overruns on DevOps projects made budgeting for development costs difficult to manage
- **Proprietary Platform:** With already a strong foundation in open source, the team wanted to explore platforms with open standards versus a proprietary standard
- **Competitive Conflicts:** AWS was viewed as a competitor by many customers and potential customers that are concerned with funding AWS by working with this SaaS provider.

This SaaS provider knew that they needed to diversify their hosting providers to get better control over costs and to accommodate customer concerns.

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A Business Relationship

Their initial cloud provider had given them the tools to build success. But as they looked to the future, they wanted to work with a cloud provider that would build more of a relationship with them and not just see them as a customer number. They wanted a consultative partner who they could rely on to help them optimize their cloud platform and be ready to support them if and when necessary, a partner that had a vested interest in achieving success “with” them.

Regulatory Compliance

Working with customers requiring different levels of regulatory compliance certifications, this SaaS provider needed to ensure that any new or additional provider had well documented processes and procedures that they could use to demonstrate compliance for themselves and their own customer base.

Desire for OpenStack

Their team had also explored having its DevOps team manage a data center install with proprietary hardware on an OpenStack implementation. They felt strongly about using an OpenStack platform as a potential separate environment for development, quality assurance (QA), and for testing and demos to reduce cloud spend. But, ultimately, they felt that the time to deploy and manage the OpenStack platform was proving to take too much time, distracting the DevOps team from working on new product development.

PRIMARY GOALS:

The AI chat SaaS company wanted to find a provider that would commit to working closely with them to build and deploy a long-term solution that would deliver the advantages they needed to take their company to the next level:

Productivity

Operate easily and efficiently to keep DevOps focused on product development and customer support vs managing data centers or infrastructure

Profitability

Operate as cost-effectively and competitively as possible to maximize margins and use savings for reinvestment into additional staff and resources

Reliability

Ensure that their hosting platform delivers the 24/7/365 reliability and performance their own customers expected

SOLUTION

With a clear idea of what they wanted, they began evaluating cloud providers, only to find that very few were easy to work with. As an example, one well-known hosting vendor (from Texas) referred them to online self-service tools rather than just picking up a phone or setting up a video meeting to discuss opportunities.

Knowing the complexity, time and resources that would be needed to build and implement an OpenStack solution themselves, they started looking for OpenStack based IaaS providers that would be easy to migrate to. The SaaS provider found OpenMetal and (ironically) started their engagement by asking a few simple questions on the company's chatbot. That discussion rapidly moved into a scheduled meeting with OpenMetal's Cloud Services Director within 30 minutes and then OpenMetal's engineering team the next day.

The provider's team was quickly set-up with an initial 30-day cloud trial. Upon completion of their trial, the OpenMetal Engineering team worked closely with their counterparts at the company to ensure they had everything they needed for smooth migration via a Proof of Concept and Product Validation Mechanics.

The provider recognized that OpenMetal's On-Demand Private (OpenStack) Private Cloud was a fit for multiple reasons:

Ease of Migration

OpenMetal gave them the ability to use OpenStack "as-a-service" for the quickest transition path.

Compliance

In addition to being in Tier 3 data centers, OpenMetal's private cloud had built-in compliance advantages over public cloud.

Transparent Pricing

OpenMetal offered transparent and fair hardware-based pricing to simplify billing and make expenses more predictable.

Consultation

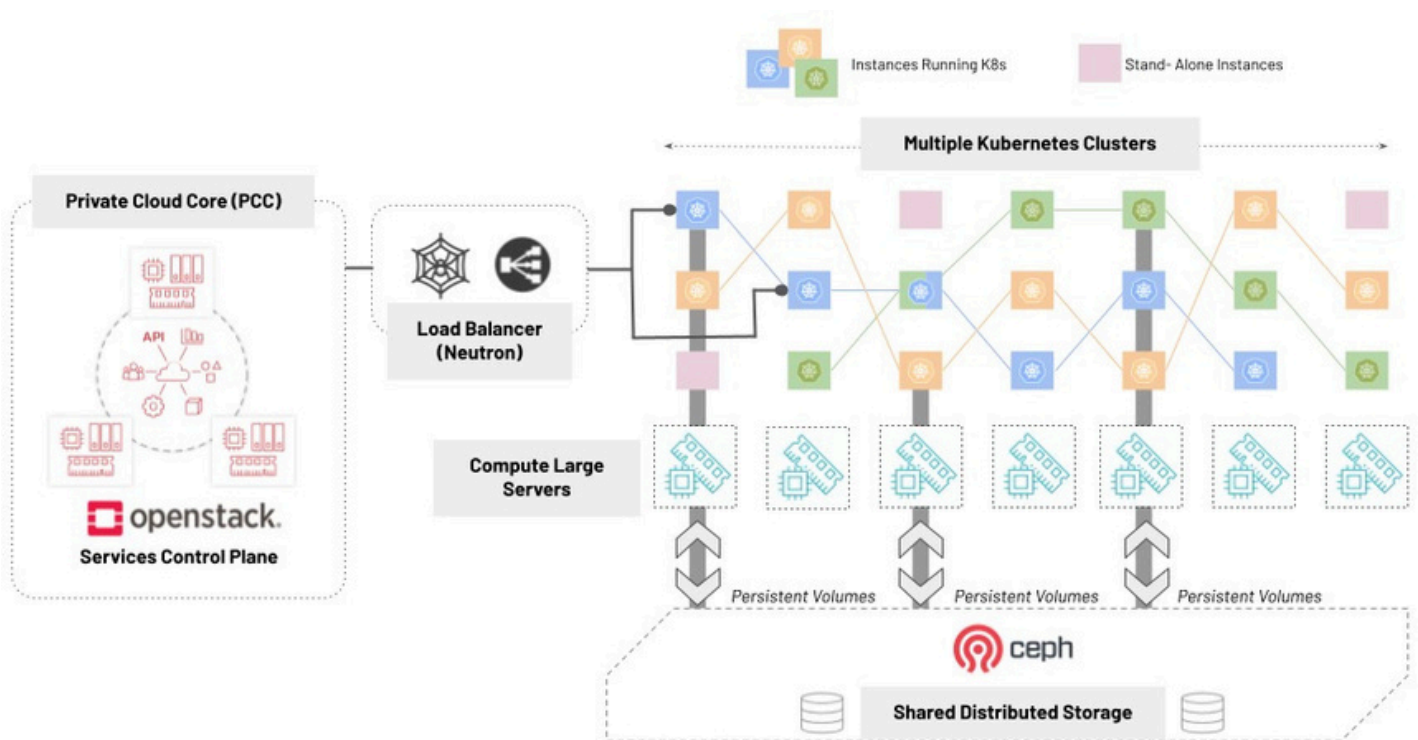
OpenMetal's engineering team worked closely with them to review usage and costs and trained their team on changes that would lead to even more savings.

TECHNICAL ARCHITECTURE

OpenMetal built and deployed a cloud for their DevOps infrastructure that includes:

- Private Cloud Core with three Standard servers which runs their Control Plane
- Additional of several Large V1 Servers that are added in a converged fashion (no Control Plane, Compute and Storage only).
- Ceph network distributed Storage Cluster
- OpenStack API integrations and cloud capacity to run Kubernetes across 140 Compute Instances.

When transitioning from AWS, the provider was able to easily move their microservices and Kubernetes instances into OpenMetal's environment by using OpenStack APIs.



TECHNICAL ARCHITECTURE

The provider's OpenMetal architecture includes multiple Kubernetes clusters of different sizes and purposes. They have standalone instances for other various services and tech stacks. All standalone and clustered instances run on the same hardware footprint, but utilize different Virtual Private Clouds (called Project in OpenStack) with their own autonomous networks, points of ingress and security rules.

By focusing on their real usage of the hardware under the Virtual Resources, they optimized the utilization of the hardware available by adding more Projects and Clusters while consulting with the OpenMetal team on server health. This resulted in very significant savings, even more than anticipated at the onset.

Some additional technical details of the architecture include:

- Compute nodes that run the K8s clusters use density mechanics that are under the provider's control.
- Kubernetes clusters are load balanced via Private Cloud Cores (PCC) LBaaS service (Octavia), allowing easy horizontal scaling by introducing more nodes within the application, and more ways to distribute traffic horizontally as they grow.
- K8s connects through OpenStack to Ceph (via volumes) to attach hundreds of hard drives to the K8s clusters. This allows the application to access stored data, and because it is on Ceph's distributed storage system, the data can be accessed by any pod on any node.
- In OpenMetal's private cloud, the size of the instances (vCPUs, memory etc.) can be controlled and custom created based on the exact needs of the application.
- The entire cloud and each individual project is encased within its own network. The cloud networks are fully private and backed by fully isolated hardware. This allows for consistent performance and full control over security.
- Additionally, the company uses a VPN to connect to the K8s clusters using their existing networks.



With an OpenMetal cloud deployment, the SaaS organization owns all of their cloud infrastructure so they can control their own density. Instead of paying per Virtual Private Cloud or by running VMs, they are able to provision multiple Projects and Clusters at a flat rate.

Overall, the biggest advantage that the SaaS company gained through OpenMetal's architecture based on OpenStack is the ability to control density and layer multiple workloads across the same hardware.

THE OUTCOME

“The solution we found with OpenMetal was perfect because we are now able to spin up new environments very cost-effectively, get to market faster with our solutions, and still create an agile environment that supports existing production customers while enabling net-new customer opportunities.” -Quote from the CTO

- **Significant Cost Savings:** Within the first six months, the provider recognized cost savings of over 50% over AWS, which they have used to reinvest in new staffing, resources and initiatives.
- **Greater Competitiveness:** The lower cost of operations is affording them to be competitively priced in the marketing to attract and grow additional customers.
- **Increased Market Productivity:** Greater agility within their testing and production environments is increasing productivity and helping get products to market faster.
- **Customer Empowerment:** The open source nature of OpenStack on the OpenMetal infrastructure is empowering their team to spin up a brand new low-code/no-code environment for their customers to be able to build their own solutions.
- **Geographic Expansion:** The security protocols of the private cloud enables them to launch more production environments that can be quickly dropped into EU and other geographical locations.

OpenMetal took away the complexity of implementing an OpenStack private cloud and helped the company arrive at a cost-effective alternative cloud solution that is helping to fuel their growth further.

ABOUT OPENMETAL

OpenMetal is an infrastructure-as-a-service (IaaS) company delivering cloud and cloud-based technology services that enable easy use of complex open source options to provide greater performance, productivity, and profitability for companies of all sizes. As a strategic member of the Open Infrastructure Foundation (OIF), OpenMetal is committed to empowering individuals – by themselves or within teams – to meaningfully contribute to the larger open source community to foster innovation that benefits all.

Does this customer story resonate with your business needs? Contact our sales and business teams to find out how OpenMetal can optimize your infrastructure costs.



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