How CloudHealth Helped Toast Quickly Scale Their Cloud Environment

Toast empowers restaurants of all sizes to build great teams, increase revenue, improve operations, and delight guests. Toast pairs their deep understanding of the restaurant industry with powerful cloud-based software and restaurant-grade hardware to deliver an intuitive, all-in-one platform across point of sale, guest marketing, digital ordering and delivery, and payroll and HR.

Born in the cloud
Toast has been an engineering-driven company since their founding in 2011. As a start-up, Toast built their infrastructure quickly in the cloud. The competitive restaurant technology was running on premises, and Toast was a leader of their kind: a cloud-based solution that could scale quickly on demand.

The technology operations team is responsible for Toast’s cloud strategy and for making sure infrastructure meets demand. Another group, the scale team, ensures databases are healthy and conducts research on cloud technology. Toast also regularly evaluates new Amazon Web Services (AWS) offerings to find the best solutions for their environment.

“By just glancing at a report, within seconds you can see if there’s a big spike, and in a matter of minutes you can turn around and turn off AWS services that shouldn’t be running.”

Ken Siskind, Engineer Programming Manager, Toast

Cloud challenges
Toast’s biggest hurdle as a cloud native start-up was decentralization. There was no unified vision at the outset, and the company had to quickly standardize their processes to control costs. Ken Siskind, engineer programming manager at Toast, used to work primarily with the TechOps management team. Now Siskind works across teams and with other program managers to improve feature delivery processes and control AWS cloud costs.
Early on, Toast was using AWS native tools that weren’t sufficient for deep cost analysis. The Toast team needs granular visibility into the cost of running new features they develop, and AWS native tools are like a black box. From a leadership perspective, it’s crucial to understand costs to know if they’re getting good payback for what’s being built. “AWS native tools weren’t enough to figure out where our spend was. The team was moving so fast and focusing on features, and we realized we needed another tool to help figure out where our spend was,” Siskind said. The TechOps management team realized Toast needed a third-party tool that could help them spend more wisely.

Partnering with VMware

Toast uses many CloudHealth reporting features to optimize their cloud environment. Custom reports are delivered daily to the appropriate stakeholders.

The team uses the RDS Instance Usage Report to see instances that haven’t been used in 30 days. Siskind describes the report as “a quick win” that saves the team about $1,000 per month with one email. Siskind sees the report and can quickly ping the Toast DevOps team to get to the root of the problem. “It’s very satisfying to see the next time that report comes out, that line item is gone. You realize that just with one email you quickly save money,” Siskind highlighted.

With the Unattached EBS Volumes Report, Siskind realized there were cost spikes by teams that had gone unnoticed. Once the team identified the wasted spend, they were able to quickly optimize.

“Having those email reports really help us know what to keep an eye on,” Siskind highlighted.

Toast also reviews daily cost history reports within the CloudHealth platform to see a detailed breakdown of where their money is being spent. A monthly cost report keeps the team accountable for cloud spend, showing exactly how they’re doing against their budget. Due to the level of detail in Toast’s reports, CloudHealth helps break down and communicate the important information, improving general data hygiene and eliminating wasted time and effort.

A weekly analysis of costs used to take hours, but with CloudHealth, it only takes 15 minutes a week. “We don’t have to dig around and spend a lot of time within the tool now that we have the infrastructure,” Siskind said.

The Unattached EBS Volumes Report saves Toast more than $27,000 per month.

Adapting to COVID-19 with CloudHealth

Up until COVID-19 hit, Toast was investing heavily in the cloud and didn’t worry about optimizing cloud costs. The main focus was to release more features and stabilize the platform. But at the start of the pandemic, the team immediately shifted strategy and started thinking about how they could cut costs.

Toast dove deeper into the CloudHealth platform to figure out opportunities to optimize.

With CloudHealth, Toast saved $50,000 during the first month of COVID-19 without negatively impacting business performance.

The team looked at oversized and underused resources to save money fast. “It was a big effort to reach out to teams and pare back what we were doing,” Siskind shared. When going to production with new services, “you really need to be diligent about spinning up and launch dates,” Siskind highlighted.
CloudHealth Perspectives have been a huge help for Toast during COVID-19, allowing the team to see their costs by relevant business groupings, such as by team or environment. When Siskind and team began building Perspectives last summer, they didn’t know where to begin. VMware’s CloudHealth team set up reports in advance so they could hit the ground running. Toast’s CloudHealth technical account manager showed the team new features and how to use them, so they felt up to speed with everything in the platform. “When we have a problem, [VMware’s CloudHealth] team is really responsive. It’s been a great team to work with,” Ken shared. “I don’t know how we would’ve gotten to the point we are without [VMware’s CloudHealth] team.”

Check out how Toast relied on CloudHealth to scale and optimize their cloud environment, as featured in the VMworld 2021 General Session.