

CloudHealth & Six Nines IT help Cadence run faster and more efficiently through the cloud

CADENCE DESIGN SYSTEMS IS A SOFTWARE development company and manufacturer of chip design software used in the electronic design automation (EDA) industry.

“The level of support we’ve received from CloudHealth Tech and Six Nines is unmatched.”

– **MIKE STANTON**
IT Director and R&D Solutions, Cadence

THE CHALLENGE

Cadence was looking for a more cost-effective way to augment the compute needs of their software developers, and provide greater agility and consistency. With everyone working out of a single environment, a common server farm with thousands of machines, different workload types and users competed with each other for resources. “Jobs were delayed, and didn’t run in a consistent manner. What might take 45 minutes one day, could take six hours the next,” said Mike Stanton, IT Director, R&D Solutions for Cadence. “The level of inconsistency was frustrating for developers, who didn’t know when their job would run or complete.”

THE SOLUTION

One forward thinking individual on the Cadence development team saw the potential in Amazon Web Services (AWS) to cut costs and improve efficiency, leading the company to explore moving some of their workloads to the public cloud. “We didn’t have anyone on staff with direct experience working in the cloud and wanted to ensure we started on the right foot and overcame any potential skepticism,” said Stanton.

By way of recommendation, Cadence turned to Six Nines IT, a premier Information Technology consulting company specializing in helping businesses move to Amazon Web Services (AWS), Azure, and Google

1 Hour

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— **JASON CUTRER**
Founder & President, Six Nines IT

Cloud Platform. As their cloud architect, Six Nines provided resources who helped Cadence understand how AWS operates, how to best utilize the resources offered by AWS, and ensure that those resources could support the needs of their developers.

As a partner of CloudHealth Technologies, Six Nines leveraged the power of the industry leading Cloud Service Management platform, CloudHealth, enabling them to continuously optimize and proactively monitor Cadence’s environment.

THE RESULTS

AWS allowed Cadence to isolate workloads from one another and ensure users and applications didn’t compete for resources. The company was able to run faster, and significantly reduce job times. “What took one group 4-8 hours to run a single regression now takes less than one hour,” said Stanton. “Test results are received much quicker and multiple iterations can be run.” Furthermore, when workloads don’t perform as expected, Cadence has CloudHealth’s performance metrics to analyze and troubleshoot the problem. “Now that our cloud implementation is more mature, we’ve shifted our focus to optimization and agility: can it be done faster and cheaper.”

In an effort to continuously optimize and cut costs, Cadence leverages reserved instances (RIs) for many servers that run 24/7. With the CloudHealth RI optimizer, they’re able to determine the most optimal reservation scenario based on the budget they define.

CloudHealth alerts and reporting give them insight into how well utilized their RIs are (and any modifications they should make), and if any are near

expiration. Cadence and Six Nines are also in the process of identifying time windows in their non-production environments when there's not a lot of activity so they can automatically shut systems down and restart them when needed, which CloudHealth will help automate. In addition, they began taking advantage of Spot instances on non-critical jobs, which is driving costs down to almost half compared to when they first started in the cloud.

Cadence sees enormous value in the CloudHealth budget feature, which they use to track budgets by business unit and automatically receive reports and alerts to ensure they're within budget. In addition, CloudHealth Pulse reports enable Cadence and Six Nines to compare current cost and usage with last month and better analyze growth patterns for capacity planning.

With multiple development teams spread across four business units and the product teams developing hundreds of products, Cadence and Six Nines are continuously identifying where it makes sense to transition environments to the cloud. They've built on early success transitioning workloads to the cloud and keep the momentum rolling with increasing interest from additional groups within the organization. In addition, Cadence is exploring a multi-cloud approach with the support and guidance of Six Nines. "It's always been a strategy to use multiple cloud providers," said Stanton, "It's great to know that CloudHealth gives us visibility across all of our workloads, whether they are on AWS, Azure, or Google." Six Nines has a similar viewpoint: "At Six Nines we are big proponents of a multi-cloud strategy," said Cutrer. "By using CloudHealth and the strengths of the largest cloud providers in the industry, we give our customers control and scalability of their infrastructure while maintaining strict cost controls and vendor flexibility. It's a win-win for everyone." Pleased with the initial phase of the migration project, Stanton says: "The level of support we've received from CloudHealth Tech and Six Nines is unmatched."

Six Nines is a premier IT consulting company specializing in helping businesses move to the public cloud responsibly. We are a team of proven professionals who are passionate about solving business problems with technical solutions. Our decades of Enterprise IT support, project management, systems/network engineering, and software engineering will pay dividends to your bottom line. After hundreds of cloud deployments, our core business is based on four pillars: Security, Reliability, Performance, and Cost Savings. Contact Six Nines IT for a complimentary cloud assessment. www.sixninesIT.com