

Girls Who Code Uses D2iQ Konvoy to Reimagine the Learning Space for Women in Tech

Introduction

The coronavirus (COVID-19) pandemic has led to the largest disruption of education in history. The temporary closure of thousands of schools has forced students to quickly adapt to a virtual world to continue their learning. While the impact of the pandemic has created challenges for just about every high school and college student, women pursuing a career in technology face an even steeper uphill battle as they try not to get left further behind in an already underrepresented industry.

Girls Who Code, an international non-profit organization working to close the gender gap in technology, saw an opportunity to reimagine the learning space. By embracing a new infrastructure and Kubernetes supported technology stack, the company could operate at scale and provide women more opportunities to learn how to code amid the 'new normal.'

Challenge:

Turning this idea into a reality didn't come without its challenges, though. Before D2iQ Konvoy, the Girls Who Code educational platform was being supported by a growing number of legacy services and systems that had insufficient monitoring and Kubernetes capabilities. As the company grew and more customers were onboarded, their platform experienced an increase in performance, scaling, and stability challenges. Both of which had a significant impact on the user experience and reputation of the business.

Results Driven by D2iQ Konvoy:

- Saved an estimated 3-4 weeks in deployment running on AWS
- Zero production downtime in the past 12 months
- Ability to easily scale platform to accommodate 300,000 concurrent students



“If you’re using the Girls Who Code platform to learn how to code, you want to have a positive experience on it,” said Jessica Hunsinger, Product Manager at Girls Who Code. “If you’ve ever been in an online learning environment and experienced a hiccup or an outage, you don’t always get a second chance. Making a good first impression was an important factor for us. We want these women to feel like they are working with the right company and supported by the right team to continue their education.”

D2iQ Konvoy not only gave Girls Who Code the ability to adapt to the needs during a global pandemic, but provided them a flexible solution to operate in the future.

“There was a moment when we started experiencing a rescheduling storm when for some reason one node would stop performing and tried to reschedule everything to another node,” explained Yuri Gubin from DataArt, a technology advisor and partner of Girls Who Code. “We had very limited observability. We could not identify the root cause of the issue and why it was causing random downtime during the day. And because it was happening during peak time when there were more students on the platform, it caused a lot of frustration.”

In the wake of the pandemic, Girls Who Code had to quickly change course and develop things that weren’t on their radar a few months ago. Setting up remote access for hundreds of thousands of students and instructors worldwide was no easy task. The company needed a flexible and resilient solution that allowed them to enhance their remote production workflows and provide continuous learning opportunities for a growing number of students on the platform.

“When things like the pandemic happen, you need to make adjustments,” explained Hunsinger. “We needed to do something about this issue fast. We realized that if we wanted to increase the average number of girls enrolled in a platform, we needed to switch to a solution that could support that.”

Solution:

To bring their vision to light, Girls Who Code turned to D2iQ Konvoy to tackle their unique infrastructure and operations challenges and provide them with the necessary scalability and flexibility during an unprecedented crisis.

With D2iQ Konvoy, Girls Who Code was able to quickly stand up a production-ready environment. Clusters were created in hours instead of weeks. And when the team moved forward with production, the switch from the old environment to the new environment was “seamless.”

“As soon as we implemented D2iQ Konvoy, we had all the instances and VMs we needed up and running,” explained Gubin. “We had extensive monitoring. We had all the automation and CI/CD processes in place. It had all the templates to provision infrastructure and AWS. So, from a technical perspective, we were very happy with everything that was there. We didn’t need to solve it ourselves because D2iQ Konvoy already solved it for us.”

With D2iQ Konvoy’s built-in automation capabilities, the team was able to provision, configure, and deploy new services and applications at scale, providing students with a world-class remote learning experience.

In addition, D2iQ provided ongoing technical support to Girls Who Code so when issues arise, they could troubleshoot issues quickly and effectively.

“No matter where we were in the implementation phase, D2iQ was always reaching out to us to ask, ‘is everything okay?’ ‘how are you guys doing?’ ‘are there any changes or issues?’” said Gubin.

“There was a moment when we had trouble with one of the services that we were running, and I was surprised by how comprehensive D2iQ’s response was. Usually when you work with support teams, the response time is very long. Within just a few hours, D2iQ provided a diagnosis of what was causing the issues and suggestions for how to configure the services in a different way.”

CUSTOMER STORY

They didn't provide us with a link to go read and figure out the answers for ourselves. They told us what we needed to do. I couldn't imagine troubleshooting issues without D2iQ."

Impact:

Within the coronavirus pandemic is an opportunity to reshape the education system. D2iQ Konvoy not only gave Girls Who Code the ability to adapt to the needs during a global pandemic, but provided them a flexible solution to operate in the future.

By using containerized applications and Kubernetes, Girls Who Code can provide young women with a solid foundation—both inside and outside of school—to be successful.

In return, their strong alumni network can bring what they're learning in the technology world back to Girls Who Code to keep them abreast on the latest technology trends and provide value to the students.

No matter where the technology landscape is headed, Girls With Code has the infrastructure in place to meet young women where they are and adapt to any situation that comes their way.

With D2iQ Konvoy, Girls Who Code was able to quickly stand up a production-ready environment. Clusters were created in hours instead of weeks. And when the team moved forward with production, the switch from the old environment to the new environment was "seamless."



d2iq.com | sales@d2iq.com