



## OVERVIEW



Gearbox Software, an award-winning, independent developer of interactive entertainment, responsible for acclaimed franchises such as Half-Life, Brothers in Arms, Counter-Strike, Duke Nukem, Borderlands, and more, has distinguished itself as one of the most respected independent video game makers in the world. With talented artists in high demand and realizing that undiscovered talent might not have access to the right tools and education, Gearbox decided that it was time to establish a new type of remote training infrastructure that it could use to teach students around the globe. The group knew that a cloud-powered Virtual Desktop Infrastructure (VDI) would be necessary, and that GPUs would be needed so that students would have the power to run the required software and workloads. With a vision in mind for how it could develop educational curriculums for training the next generation of game developers, Gearbox turned to Six Nines to help make their dream a reality.

## CHALLENGES

With experienced educators on the team, Gearbox knew what would be needed to successfully pull off a functional and adaptable environment to enable the hands-on training necessary for game development. The solution needed to have access to NVIDIA GPUs to remotely run powerful game development software such as Epic Games' Unreal Engine with a comparable experience to a personal on-premises workstation. Gearbox wanted a standardized environment that could excel at both classroom-style instruction, as well as one-on-one tutoring where the student and the instructor could interact dynamically. "In a typical computer training lab, the instructor can 'teach by walking around' and peering over shoulders," says Aaron Thibault, VP of Strategic Operations at Gearbox Software. "Quality interaction between the instructor and students, both in a classroom as well as lab setting, is a critical success factor. We knew that interactivity would be important to realize the results we were looking for." With ambitions to expand its educational outreach around the globe, Gearbox needed to have the most robust and dynamically interactive training environment possible.

## SOLUTION

After consultation with Gearbox Software and making a full discovery of needs using Six Nines' Cloud Adoption Framework (CAF), the best tools and technology for achieving a successful remote classroom were determined.

Leveraging its Studio in the Cloud solution, Six Nines implemented a shared classroom environment using Amazon Virtual Private Cloud (VPC) as the backbone of the network. Amazon FSx for Windows File Server was used as the file system, enabling the ability to source classroom files, provide storage access for students, and general file distribution and management. Access to NVIDIA GPUs was provided through an integration with AWS Elastic Compute Cloud (EC2), giving students the ability to run sophisticated modelling software and game engines.

To provide the best interactive experience in a remote learning environment, Six Nines chose NICE DCV, a high-performance remote display protocol with collaborative capabilities. Using NICE DCV, instructors have KVM (keyboard, video, mouse) sharing with their students, enabling them to "reach in" and help when they are having trouble.

Capping off the implementation was AWS Directory Service to enable students and teachers to log in remotely and with the appropriate permissions for their roles.

*“Six Nines understood very quickly what we were trying to achieve. Their experience translated into getting the pilot project up very quickly, enabling us to test our concept using students worldwide. Their expertise allowed us to focus on the curriculum, rather than the technology.”*

**-Aaron Thibault, VP of Strategic Operations, Gearbox Software**

### AWS SERVICES USED

- NICE DCV with Amazon Elastic Compute Cloud (EC2)
- Amazon Simple Storage Service (S3)
- Amazon Virtual Private Cloud (VPC)
- AWS FSx for Windows File Server
- AWS Directory Service

### SIX NINES EXPERTISE

- Studio in the Cloud
- Security, Cost Optimization and Governance

## RESULTS

With the pilot up and running and with a curriculum prepared, Gearbox engaged with a group of students in Kenya, successfully working with them to teach them math and the basics of video game creation.

“There is no substitute for having great talent on your team, and I don’t know how you get better than this,” says Aaron Thibault, VP of Strategic Operations at Gearbox Software. “We can now reach students anywhere, on almost any device, expanding the talent pool globally. We can engage in the education process with them, with a custom curriculum built with all the same tools used in our professional production. We have the ability to inspire students and work with them in ways that develop connections and chemistry that can only come from the learning environment. We’re very happy with the results from our partnership with Six Nines and are excited about the potential this remote learning environment has for our future.”



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## WHY SIX NINES?

Six Nines IT is an AWS Premier Consulting Partner and AWS Solution Provider specializing in helping businesses migrate to the cloud responsibly. A member of the AWS Partner Network since its inception, Six Nines has successfully migrated hundreds of customers across all industries to the cloud and offers an unparalleled combination of speed, agility, experience, and proprietary solutions to deliver accelerated solutions and a rapid time-to-value. The Oakland-based company combines old-school, on-premises IT roots together with deep expertise and a laser focus on all things AWS – including a core concentration on High Performance Computing, AI/ML, AWS Microsoft Workload Competency and AWS DevOps Competency – to deliver solutions that are individually tailored to meet customers’ needs throughout the cloud lifecycle.

