

CASE STUDY

HARMONIX®

Harmonix performs load testing on Datapipe cloud infrastructure

ORGANIZATION:

Harmonix Music Systems is a videogame development company that specializes in music-based games.

CHALLENGE:

Harmonix needed a load testing solution that was able to simulate both the expected load of a new release and an influx of heavy usage during a holiday season

SOLUTION:

Datapipe managed hybrid cloud solution

DATAPIPE

US: +1 877 773 3306 UK: +44 800 634 3414 HK: +852 3521 0215

FINDING THE PERFECT LOAD TESTING SOLUTION

SNAPSHOT

Harmonix Music Systems is a videogame development company that specializes in music-based games. Based in Cambridge, MA, the company was founded in 1995. The core principle at the heart of all Harmonix products is to share the joy of creating and performing music with everyone, regardless of their musical experience. The Rock Band series has brought the company's mission of bringing the joy of making music to living rooms, garages and practice spaces around the world. They are full-blown band simulation games that combine guitar, bass, drum and singing gameplay as well as online multiplayer competition and co-op play. Harmonix continues to live and grow in Cambridge, expanding the Rock Band franchise, developing new titles and searching for new and unique ways to bring the joy of music to the world.

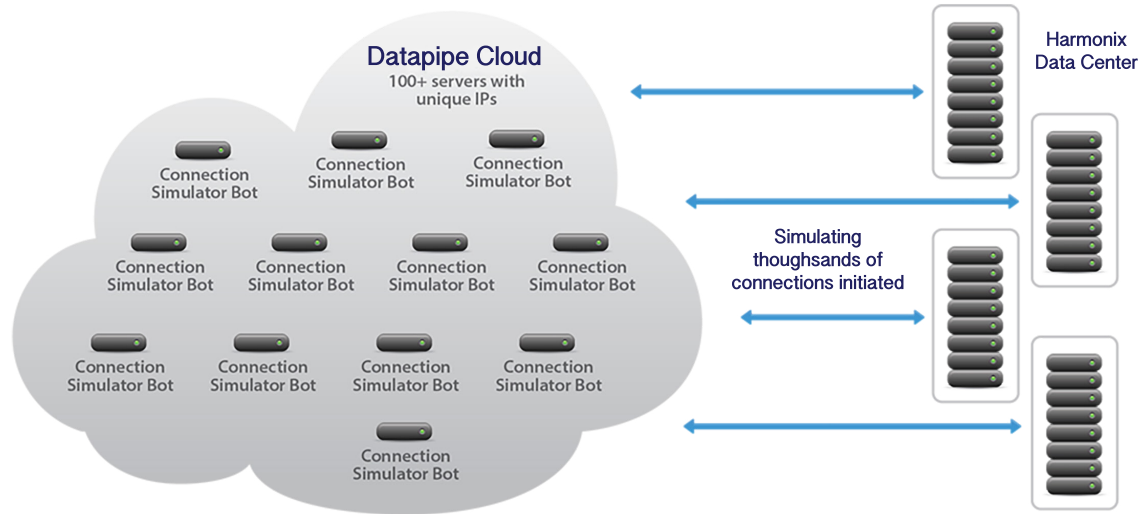
THE CHALLENGE

With the successful releases of Rock Band and Rock Band 2, Harmonix became a well-respected name in the gaming market place and helped revolutionize the way music is shared and experienced. Launching a successful product is no easy feat; it takes collaboration and very detailed planning. And with each release there are a lot of lessons learned. One item that Harmonix learned was that significant spikes in network traffic occurred with

each new release and traffic further increased during the holiday season.

Harmonix needed a load testing solution that was able to simulate not only the expected load of a new release, but also an influx of heavy usage during a holiday season. While planning for the release of Rock Band 3, load testing became an even more critical component of the release process. John Eskew, Networking Technical Team Lead, said "One of our biggest challenges is designing the systems to handle peak loads that we know are going to come. We always have our eyes on that. It is during the launch of a new game that we see our largest loads. During these peak periods, loads can be twenty times more than on a normal day."

"For Rock Band and Rock Band 2, we performed load testing on our servers using an in-house solution. This configuration created security concerns and resource issues. Also, we could not launch as many instances as we wanted to in order to scale the load testing. These issues combined with the desire to save money on load testing led us to look at cloud computing options for load testing when launching Rock Band 3."



THE SOLUTION

As innovators in the gaming industry, Harmonix was quick to use the benefits of cloud infrastructure such as scaling on-demand and paying for only the resources/ compute consumed. As savvy consumers, they also realized that using Datapipe's cloud infrastructure could be leveraged in many other ways as well. Harmonix uses Datapipe's cloud infrastructure to ensure successful new product launches by:

Scaling hundreds of cloud servers on-demand, allowing them to simulate peak traffic loads.

With the use of the Datapipe API, Harmonix can programmatically run scripts to provision cloud servers on-demand, and then automatically upload the necessary software and testing scripts.

Performing simple login/ logout tests, simulating more than 60,000 concurrent users at a time.

The results were automatically reported to a centralized reporting server back at Harmonix. After testing one activity for several hours, the Datapipe cloud servers were automatically instructed to initiate the next test.

Creating new standards and robust testing into existing procedures.

Harmonix pushes their back end networking systems to the point of failure which was previously not possible due to the enormous cost and infrastructure required to make the test run properly. Now, with the use of Datapipe cloud servers, this test is not only plausible, but has become a standard part of their testing procedure. Harmonix then analyzes the results, makes the necessary changes, and can run the test protocols again as needed. When testing is complete, the cloud servers are quickly decommissioned until they are needed again.

OPERATIONAL IMPACT

RESULTS & BENEFITS

- Lower total costs of ownership
- Brand protection and improved user experiences
- Revenue assurance
- Reduced effort and stress for the networking team

Harmonix has realized significant benefits from using Datapipe's cloud infrastructure to perform peak period load testing.

Lower total cost of ownership

"Using Datapipe has reduced the total cost of ownership for the load testing infrastructure. Since we require around 100 servers, the economics of doing this in-house does not make sense."

Brand protection and improved user experiences

"The online component is critical to the user experience. Players use the online site to view leader boards, find other players to team up with, and listen to new song snippets. If the service is not available, our customers do not have a good experience and potentially lose confidence in our service."

Revenue assurance

"One of the ways we make money is through our online store. Players can download additional songs for a fee. If the store is down, we don't make any money off of downloadable content. So, it is important that our online services stay up."

Reduced effort and stress for the networking team

"If the network services don't work the way we intended, we have to scramble to fix them in the live environment. Therefore, we want to be 100% certain that we can handle launch day traffic before that day arrives. Otherwise, the impact on our team is significant in terms of effort and stress."

DATAPIPE

A next generation MSP, Datapipe is recognized as the pioneer of managed services for public cloud platforms. Datapipe has unique expertise in architecting, migrating, managing and securing public cloud, private cloud, hybrid IT and traditional IT. The world's most trusted brands partner with Datapipe to optimize mission-critical and day-to-day enterprise IT operations, enabling them to transform, innovate, and scale. Backed by a global team of experienced professionals and world-class interconnected data centers, Datapipe provides comprehensive cloud, compliance, security, governance, automation and DevOps solutions. Gartner named Datapipe a leader in the Magic Quadrant for Cloud-Enabled Managed Hosting.

DATAPIPE.COM US: +1 877 773 3306 UK: +44 800 634 3414 HK: +852 3521 0215