What is the biggest disruptor in the video game industry?

Big game developers and small startup game studios are turning to cloud computing to bring titles to the market faster and at a lower cost.

White Paper by

OVHcloud®

Gaming: the new leader in entertainment

As of 2020, the **global gaming market was valued at $173.70 billion** and is expected to grow by almost 20 percent annually. By 2026, it is expected to reach $314.40 billion. Today, video games have surpassed movies as the world leader in entertainment. And the market is growing fast, with billions of players engaging in a wide array of games created by a growing number of developers across the globe. Every month, thousands of new games hit the market. With high development costs, game publishers need to mitigate financial risks wherever they can and build in flexibility for game development and distribution.

In 2023, it is expected that **3.2 billion people will play video games**, with the market continuing its upward trend. Multiplayer games are among the most popular and have grown in use over time. This **online gaming market segment is worth $56 billion**. While the arrival of consoles like Microsoft's Xbox and Sony's PlayStation helped make multiplayer games hugely popular, the main advancements in this type of game have been driven by ardent gaming fans pushing networks to the limit over the years. Games like League of Legends, Call of Duty, and Minecraft are played online by thousands of players each day. Multiplayer games have the advantage of being more social than single-player games. The COVID-19 pandemic also drove an increase in the number of players and casual gamers in general, partly because of people's need to engage with others outside of their homes.

Growing access to fast internet connections has increased the reach of online and mobile games. The lower latency and faster speeds of fiber networks support uninterrupted gameplay as well as more impressive graphics and feature-rich content. Game development often means having large teams and individuals in multiple locations—again facilitated by high-speed internet connections. The advent of cloud computing is proving to be one of the video game industry's biggest disruptors and is helping everyone, from big game developers to small startup game studios, as companies bring titles to the market faster and at a lower cost.

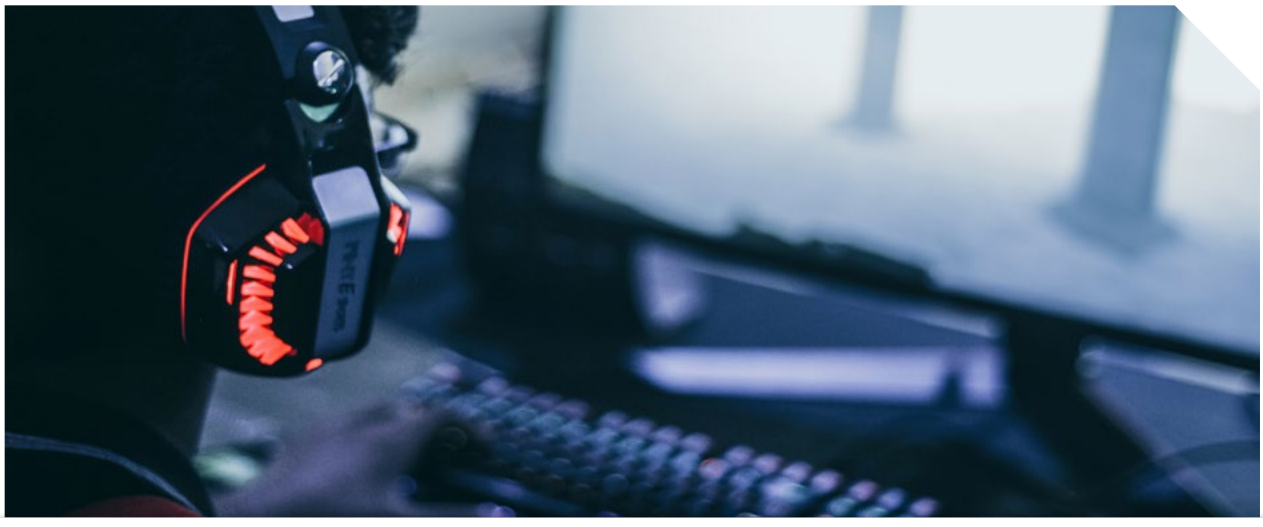
The complex world of video game development

Developing a game from scratch requires a lot of resources, taking between one and five years. Triple-A games—the gaming industry's equivalent of a blockbuster movie—such as Grand Theft Auto and The Witcher can involve hundreds of artists, programmers, designers, and producers just to make a single game.

For a major video game publisher, the **cost of developing a Triple-A game can run into the millions**. Grand Theft Auto V cost $256 million to produce, while Deadpool cost $100 million—and was more expensive to produce than the movie it was based on. While these games represent the top end of spending, it can be considered that any game that wants to reach a very wide audience will require several million dollars to finance its development. Costs include not just the staff to develop the game but also the supporting IT infrastructure and, further down the line, the distribution and marketing costs. It doesn't end there. From the testing phase through post-launch, the developer needs to fix bugs, possibly add new features, and potentially make the game available on multiple platforms.

Historically, the time and money involved in setting up a supporting IT infrastructure has been prohibitive for small- and medium-sized businesses. Along with the investment in on-premises IT comes the requirement to maintain and manage servers and network equipment. Examples include application updates, patching, and monitoring back-ups.

For a large video game publisher, these IT admin tasks will be easier to accommodate; however, for a smaller company with fewer resources, reducing or eliminating these tasks allows for more time to be spent on the core business of game development. The need for security in game studios is also very high, with sophisticated bad actors carrying out frequent DDoS attacks. In addition, there are many attempts by cyber pirates to infiltrate a developer's network to access a game in production. The cyber pirate will then seek to sell any new or innovative ideas to a game studio's close competition.



Increase your agility in game development with the cloud

With games offering more features and richer graphics, and therefore being more data-intensive, the need for more compute power is only growing. Even large developers can be held back by the inflexibility of their on-premises IT infrastructures and the related cost of not just extending them but also the cost of essential maintenance and management.

Game developers are under increasing pressure to get their products to market faster and, at the same time, keep their gaming customers happy. Since games are tested in early beta versions, bugs and issues need to be resolved rapidly. When a developer is slow to optimize a game, they may find that gamers will take to forums and blogs to air their criticisms publicly, as well as send in-game messages to each other during the beta phase.

Clearly, it is in a developer's best interests to limit any possible damage to their reputation by quickly fixing issues for games in beta and post-launch. Deploying a cloud-based infrastructure allows for this much more easily. Overall, the cloud helps game publishers be more agile, focus on product development, and achieve a much faster time-to-market.

How the cloud can speed game development and bring products to market quickly

Using the services of a cloud provider is proving to be a significant boost to game development, not only for established game developers but also for smaller independent and startup studios. Because cloud-based infrastructures can be set up rapidly—sometimes in minutes—and require little upfront investment, game developers of every type can access them. The cloud gives game developers much more flexibility, with costs met on a usage basis—with hourly or monthly charges—and the ability to increase and decrease compute capacity at will.

Cloud infrastructures also allow game developers to plan and budget more efficiently, offering more predictability on price. For each game, the developer will have an idea of how long time-to-market will take. This means a developer can commit to using a cloud provider's services over a specific period, agree to an upfront price for a term of say three or five years, and fix those costs. The cloud also reduces barriers to entry for smaller or startup businesses by avoiding the costly exercise of having to buy hardware and then build and maintain infrastructure, which would normally be out of their reach.

Startup studios are now finding it much easier to launch games with a cloud infrastructure by reducing risks and making it easier to stick to budgets. Once the development process is complete, the systems can be switched off, and the developer won't be left with idle infrastructure. Additionally, if a game is not successful, financial risks are limited with a cloud-based infrastructure.

Established game developers often work with small studios to help them widen their portfolio. In these scenarios, the developer will provide the supporting IT infrastructure to the studio to build the game. But, creating a new game requires a lot of IT resources. The developer is faced with extending its on-premises systems just so the studio can begin development—which can often mean a huge capital outlay. As well as being costly, provisioning a new environment takes time and will slow down development and possibly delay the target completion date.

Extending the capabilities of game producers

Many game producers want to reduce their reliance on a specific game genre and extend their portfolio to grow their revenue or reduce their risk through diversification. If this means producing resource-intensive games such as role-playing or strategy-based games, the developer will need even more compute power, databases, and storage to aid development and incorporate data-intensive maps and the sophisticated animations that these types of games most often require.

Also, many developers want to extend their audience by making their video games available on multiplayer platforms such as mobile devices, PCs, consoles, or live streaming platforms such as Twitch. This requires more compute power to support the running of additional apps, extra storage capacity for players' data, and the need to ensure low latency to drive and encourage the global uptake of a specific game.

Each cloud provider will have different options to support availability. It is essential to check what they offer, what their data center infrastructure looks like, whether the provider has enough network capacity to enable gameplay, and what service level agreements (SLAs) are in place to support the high availability that gaming requires.

Building in data protection and security for game developers

Because of the widespread popularity of video games, developers have a greater need to protect their intellectual property from data leaks, especially their games in development. If data isn't secure and the cloud provider doesn't offer a rigorous data protection policy, a company could find its unique game features on a competitor's product.

It is vital to make sure that a cloud provider has a watertight data policy, preferably one that does not allow access of customer data to any third party—or even the provider itself—to minimize leaks. Stringent security is another area game developers should look for, such as in-built protection from cyber-attacks, especially DDoS attacks, which are increasingly targeted at game developers and with growing sophistication via multiple entry routes.

DDoS attacks are a particular area of concern for the gaming industry. Attacks are ever more prevalent and with much higher attack volumes than for other industry sectors. Most DDoS attacks are targeted at web use, such as navigations and redirections. Game networks are more vulnerable since DDoS attacks are targeted at the application layer, bypassing the standard network firewall. For example, attackers will often generate a high volume of packet requests aimed at a developer's infrastructure, which can take down their server in seconds. This means that any hosting platform needs to protect the server's IP address against attack constantly.

Cloud services have built-in DDoS protection, firewalls, and service certifications that are usually extremely rigorous in defending against an attack. Since gamers have a higher need for security and protection, the best solution is to find a cloud provider that can offer the service of a network security team. This means the network can be constantly monitored to assess whether the defenses in place are adequate and can counter elaborate threats and attacks. This is especially useful for those developers who do not have the financial resources to protect their on-premises set-up to the degree required.

Increasingly, private networks are being used by organizations to protect data from attack and to stop data leaks. These can be expensive, so being able to set one up easily and at an affordable cost could be critical to game developers to protect infrastructure and guard intellectual property. This is essential for a complex private network set-up that spans multiple data centers around the world.

Managed cloud services offer the benefit of easy infrastructure management, whether for extending databases, automatically spinning up new instances for testing and development, or scaling to meet increased demand. This means that game companies can focus on development and innovation instead of being concerned about the syncing of data and ensuring media and content are delivered in the right way and at the right time. For game hosting, cloud-based systems assure game producers that latency won't be an issue and that games will not crash when they see a surge in players.

And the cloud offers even more for game developers

With the ability to set up cloud-based solutions in minutes, game developers are much better positioned to increase compute power as needed. The cloud makes it much easier to spin up GPU instances for heavy-duty graphics processing—which is essential in the gaming world. Additionally, being able to easily use Kubernetes, a highly portable and easily extendable open-source platform, makes it simple to structure servers and cloud services. It enables easier and faster configuration and automation of containerized workloads. Along with GPU processing, Kubernetes can also facilitate the use of AI or assist in the development and deployment of private networks.

Game distribution is made much simpler and faster with the cloud. In addition, using the cloud backed up by a global network of data centers means games can be distributed anywhere in the world and don't have to rely on the use of local teams. Pre- and post-distribution, game developers can also easily overcome one of their biggest challenges, fixing bugs and ensuring that the game is market-ready. Since cloud infrastructures speed up game development, it is also much simpler to add new features that gamers demand post-launch. Many developers have lost audiences by making promises to add features, which they were unable to implement post-launch because their IT infrastructures would not allow them to.

Game developers of any size can easily extend their universe, gain and maintain customers, and at the same time get to market faster when they turn to the cloud. Not only can they limit costs and keep themselves protected from attack, but they can also benefit from almost instant agility, develop for multiple platforms, and focus on what they do best. The video game industry must embrace the potential of cloud technologies to compete successfully in an ever-growing and adapting market.

How OVHcloud helps game developers

OVHcloud can support any game producers with their game development or game hosting needs.

Create your own private, cloud-based data center with our dedicated server or bare metal server offerings.

Get access to the cloud-based infrastructure that suits your needs and a range of cloud services that support both game development and multiplayer game hosting.

Our full range of offerings include:

- General-purpose dedicated servers
- Game dedicated servers
- Eco range servers
- VPS
- Managed databases
- Managed Kubernetes
- AI solutions
- vRack private network

More reasons for choosing OVHcloud

- Gain billing transparency and budget flexibility with hourly and monthly billing options, depending on the service chosen, with visibility to your upfront costs for specific time periods.
- High 70 Tbps network capacity for maximum availability worldwide
- Built-in DDoS protection
- Network of 34 data centers worldwide
- Sustainable and responsible cloud and network infrastructure development model

OVHcloud US is a subsidiary of OVHcloud, a global player and Europe's leading cloud provider operating more than 400,000 servers within 43 data centers across four continents. For over 20 years, the company has relied on an integrated model that provides complete control of its value chain, from the design of its servers to the construction and management of its data centers, including the orchestration of its fiber-optic network. This unique approach allows it to independently cover all the uses of its 1.6 million customers in more than 140 countries. OVHcloud now offers latest generation solutions combining performance, price predictability, and total sovereignty over their data to support their growth in complete freedom.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