Cloud Playtesting: Advantages, Disadvantages, Supply & Demand

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Art By Rachel Frick

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Playtesting is a crucial step in the game development process. With the rise of the cloud, the increase in users from 160.2 million in 2021 to 220.2 million in 2023, as well as the growth in market capitalization from $1.3 billion in 2021 to $2.3 billion in late 2022, playtesting in the cloud is becoming a popular option for game developers. **This research will discuss the advantages and disadvantages of playtesting in the cloud and provide insights into the current supply and demand of cloud playtesting solutions.**

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Whom did we interview?

Alexander Dzyuba
Sense.Vision
CEO
GEO: UKRAINE

Fernando Guillen
Playcocola
Founder
GEO: GERMANY

Tymon Smektala
Techland
Dying Light Franchise Director
GEO: POLAND

Urooj Iqbal
Playdew
Growth & Partnerships Manager
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Christian Ress
PlaytestCloud
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#1: Advantages of Playtesting on the Cloud

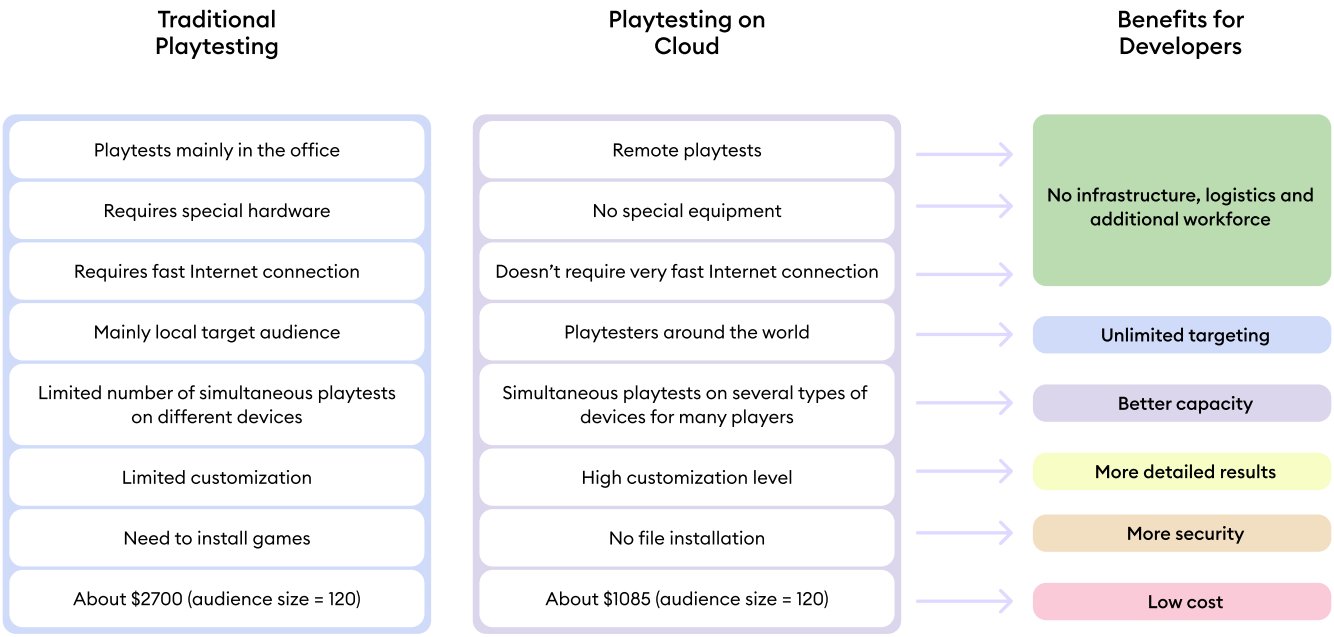
The cloud is a great remote playtesting tool that makes reaching a wide target audience around the world possible without large logistical efforts from developers. Playtesting on the cloud eliminates the need for physical hardware, such as consoles or powerful PCs, that would otherwise be necessary for traditional playtests. Additionally, online tests help developers save on rent costs, as they are conducted remotely. This makes playtesting easier and more cost-efficient than ever (savings are about $1,615 for an audience of 120 playtesters) for companies looking to test their games with real players before launching them commercially.

Moreover, the capacity of playtests can be increased, since the cloud enables:

- Several different types of playtests (for example, A/B tests)
- Testing on different devices seamlessly
- Scalable and flexible playtester numbers

A platform with a range of these services gives developers an opportunity to level up their playtests' customization by changing the settings and design of playtests easily.

Compared to traditional playtesting, users can get the same game experience on the cloud because they don't need additional equipment and a very fast Internet connection (even 15 Mb/s is enough). If a company has servers in different countries, they can also choose a location with minimal ping in order to reduce delays in playtests on the cloud.



Picture 1. Comparison of cloud and regular playtests.

#2: Does the Cloud Solve Safety Issues?

Game studios care a lot about safety. Even the smallest information leaks affect brand perception, marketing plans, and company reputation (for example, EA and Ubisoft). **So, developers want to control every step of playtesting to avoid data leaks.** As a security measure, developers keep a user database with a wide range of playtesters' parameters, apply additional verification layers to users' information, and use special security systems allowing them to identify data leaks.

Cloud game testing minimizes the risk of code leaks, but does not protect against gameplay and story leaks. Unscrupulous testers can still take photos, screenshots, and make video recordings. AAA game studios are even concerned about using any third-party services, being rather skeptical of data security with outsourcing organizations. On the other side, indie developers invest much less in security and can't afford expensive solutions from outsourcing companies, preferring to conduct playtests involving their friends and family.

In order to reduce the risk of data leaks when working with third-party services, game developers choose trusted partners and sign NDAs with both the third-party service and their playtesters. Interviewees think that the severity of restrictions depends on the risk a studio can take.

NDA Check List

- Must contain legal aspects that specify the terms and conditions of use, and include information on the consequences of violating those terms.
- Should be short, concise and easy to understand
- Need permission of parents if a playtester is under 18 y.o.
- Can contain information about watermarks

Don't forget to give users an opportunity to share their opinion about the company or research with others.

Picture 2. NDA check list for cloud playtesting services.

Some developers have expressed concerns about the lack of control they have over the cloud playtesting process. For example, they fear they may not be available 24/7 to address technical issues in real time. Results of their testing may be distorted, as users who experience latency on the cloud or prefer in-person playtests may have a negative perception of the game.

#3: Supply & Demand

The demand for cloud playtesting solutions is rather low among our interviewees. Developers may not be aware of cloud playtesting due to limited knowledge, lack of experience with cloud services, or the belief that it's not necessary for their development process. They also seem hesitant to adopt new technology and change their established workflow due to the **uncertainty of cloud playtesting benefits.**

Cloud gaming services highlight security as a key benefit of the technology. However, there's a difference between how the services position themselves and what clients want for cloud playtesting solutions. **Developers want a platform that allows them to reach a large audience quickly and test their games efficiently, while also gathering qualitative data such as engagement and satisfaction.**

#4: Costs & Outcomes

Cloud gaming is 2.5 times more cost-effective than traditional methods. Cloud gaming platforms provide their services at an average price of $1,500–$2,500 per month. Renting servers from Amazon GameLift costs between $50–$2,500 per month based on server capacity. "Classic Playtests" among AAA and AA companies cost around $15–$30/hour per tester.

Cloud playtesting services aim to provide a solution that caters specifically to the needs of mid-tier/indie game developers by offering a fast, affordable, and user-friendly playtesting platform.

We need to keep a close eye on the development of gaming tests in the cloud because this is the technology of tomorrow, available today.

#1: Advantages of Playtesting on the Cloud

Alexander Dzyuba
Sense.Vision
CEO

There are benefits of using the cloud for playtests:

1. *The company can be sure that it's possible to run games for every respondent because there are no hardware compatibility issues as if the game were running on the responders' devices. So, the cloud can save time and give exactly the same gaming experience for all respondents;*
2. *Respondents don't get access to files. Even the passing of login and password happens when screen sharing is enabled.*

Running games on the cloud allows the studio to test them on different devices using only one build. Devices running Mac OS, Linux, Windows, consoles, and mobile devices can all be used for cross-platform testing.

The main difference between games in the cloud and local devices is that in the first case, there's no need to set up a game. After logging in to the cloud, players only need to wait 2–5 seconds to start the game. Therefore, respondents don't face the device preparation process.

Respondents play games in full-screen mode. So, it isn't clear to people who don't know the specifics whether respondents are playing in the cloud or whether the game is installed on their devices.

The company's cloud is in several data centers at the same time. Before the playtest, the studio chooses a location with ping that is less than 20 milliseconds. It's near impossible to notice this ping.

It doesn't matter what device players have. The user experience will be the same because the same machine settings are used.

To run a game with FHD 60fps in the cloud, people only need to have an internet speed of only 15 megabits. So, the custom cloud works regardless of the quality of the internet.

Urooj Iqbal
Playdew
Growth & Partnerships Manager

The main advantage of playtesting in the cloud is reaching a wider audience in different countries, because you don't need to do playtests in-person or in-house.

Christian Ress
PlaytestCloud
Co-Founder

Playtesting in the cloud is basically a form of remote user research, where it happens remotely instead of in person. So, instead of having a player come into their office or lab to play their game, companies can get players to do it remotely — which, understandably, creates quite a few opportunities, and theoretically opens playtesting to millions of new players.

This means there is no need of commuting the player to a company's office and no logistical work for the game developers/researchers. Along with this, this remote way of research allows for easier collaboration between different teams and offices.

By using remote playtesting, the process itself is much faster, more flexible, and more collaborative. Players from all over the world, instead of just the ones that can travel over to your office or lab, become available, also allowing for almost unlimited targeting regarding which players you'd like to playtest with, and the results you'd like to gain from their playtests. The reach you have with in-person vs. remote playtesting just can't be compared — it's the same as comparing the reach one has with people before the internet vs. now.

With this remote approach, the customization you can do with your playtests becomes much higher, along with the way you can interpret the results. By allowing a suite of different services under one single platform, along with more than one million players available, at PlaytestCloud we can create an almost unlimited way of creating and customizing playtests, along with the way their results are interpreted and, if desired, shared.

Along with this, the capacity at which a user researcher can conduct playtesting & other research studies is immediately increased, as with a platform like ours, they can create and schedule several playtests at the same time. This, of course, also makes everything much more cost-efficient for game studios: less labor required, no more logistics, and no more infrastructure.

#2: Safety Issues

Alexander Dzyuba
Sense.Vision
CEO

Sence.Vision has a database that allows it to track respondents who ever had contact with the studio. These are the following indicators:

1. *Participated/didn't participate in research;*
2. *Came/didn't come at the invitation;*
3. *Internal rating;*
4. *Informativeness;*
5. *Adequacy;*
6. *Blacklists (the studio saves respondents who registered and if they refer to people who must not participate in research, then the company knows that there's no need to send invitations).*

Data is verified manually through open sources like social media to make sure it's correct. Before being invited to participate in research or playtesting, a person must pass an interview on the main parameters and show progress in the reference game by answering several questions about the game plot.

Respondents sign an NDA before participation in research. But, researchers understand that people get a lot of emotions testing games and want to share impressions with others, so the studio gives permission to players to share their impressions of the company. For example, they can tell how interested they were in participating in the research or whether they liked the reward but they can't share opinions about the games.

Another security measure is using the game cloud for mobile, PC, and console games. A game runs through a virtual machine in the cloud and players have their unique logins and passwords to enter the game. Then the game is streamed to players through the browser, while the user experience remains the same as if the game was running locally.

There's a possibility that respondents can screen capture something. They can also save materials if the company gives them a setup file.

Sometimes Sense Vision uses watermarks. It depends on the game graphics (how detailed it is), but watermarks can distract players, so the company doesn't use them, subject to the agreement of this aspect with a game developer.

After a game session, players' access to logins is closed. So, they can't return to the game and do something outside the scope of research.

On the one hand, the Sense Vision NDA for respondents is very short (one page) so players aren't afraid of it and can easily read it. But on the other hand, this NDA contains aspects that may entail the responsibility of the players in court in case of their violation. That was a challenge to make this document. Once Wargaming helped Sense Vision with wording in some places of the NDA, and the company still uses this template.

Game sessions are recorded on video but there's a possibility that respondents can screen capture something from aside camera or in a different way.

Each respondent agrees to the NDA, so legally it's well protected. Still, players tend to share experience when they have plenty of emotions, generated by a game. So it's impossible just to restrict, instead, we suggest freely sharing experience from playtest regarding company, moderators (if are), and any experience, related to the company - then it's easier to not violate NDA sharing emotions, related to the playtested game.

The downside of the cloud is that there's no testing of the game installation process. So, game developers need to think about this aspect after release or test this process separately from research.

Fernando Guillen
Playcocola
Founder

In Playcocola developer needs to create a description of the game and upload some assets like screenshots. Then they only invite their community through a special link to test the game.

Players don't need to register on the site or install any special application to test the game.

Tymon Smektala
Techland
Dying Light Franchise Director

It's important to have trusted partners in order to avoid data leaks. And that's why Techland tries to conduct as many playtests as possible internally.

I don't think it's possible for a small code leak to lead to a whole game being hacked because usually a playtests build misses a lot of the content and features of the full game. But leaks have damaged the brand and game. Games look best only when they are released, so every time the general public has access to a game that isn't looking at its best, then it can create wrong assumptions and expectations from players.

To control outsourcing organizations that conduct playtests, Techland signs an NDA with them. NDAs include build protection and watermarks added to the build, so the company can verify where materials could be leaked. They also work with trusted companies. Sometimes people take photos or make screenshots but it isn't a big problem.

If the build is secured specifically and the visual elements are watermarked, it will be quite easy to see the source of the leak or which instance of the build the leak comes from. Then the studio can find a person who leaked the data. It isn't always the person who used the build.

Techland's playtesters database has existed for a few years. It started by cooperation with media outlets, websites, and magazines that are focusing on games. The company gathered a database of players that they could call if needed. Then the studio moved to social media to find playtesters. The database is active and has an influx of new players constantly.

The different way is giving a preview version to a journalist who just needs to get accustomed to the content. They don't need the most optimal gameplay experience. But when testing difficulty, then it's very important to have an optimal gameplay experience which is the main limitation of the cloud.

When doing playtests, you need to solve technical issues for people quite often. I supposes that playtests in the cloud seem like the perfect solution but it often doesn't correspond to reality.

I doesn't think that there will be a lower risk of getting leaks if he does playtests in the cloud. When the company does internal playtests, it has full control over what's happening. When they do playtests with trusted partners, then they assume that partners have full control. But if they did playtest through the cloud with links for playtesters, then users would have access to a game at any time and could send a link to anyone. Although there are some security measures, playtests in the cloud would happen outside of the studio's control.

Urooj Iqbal
Playdew
Growth & Partnerships Manager

All developers fear that their ideas can be leaked. Indie studios build games on a small scale, so anyone can leak the idea and release the same game earlier. Big companies make games for 5-6 years, so it's difficult for a leaker to create a full game quickly. But it can also hurt their marketing plans and finances.

Urooj thinks that code leaks aren't very common in indie studios unless someone on the inside is involved in it or there's a security breach of systems. But generally, it isn't easy to get code out of game builds for people outside the company.

Sometimes users can have data mined from game assets that should be used in the future by the company. But players can release them in public and it can damage marketing plans and the motivation of the team.

The studio can receive biased results when playtests are controled a lot. People can refuse playtests if the company uses many NDAs and other concepts. That's why Playdew tries to let gamers play as freely as possible. But there should be a trade-off between commerce control that the company needs and accurate results.

Playdew has NDAs with playtesters. Urooj thinks that small studios can use NDA templates without a lawyer but if there's a breach, it will be really hard and expensive to fight in such legal cases.

You can be able to exactly identify who has done a leak through a special system. You will also be able to track a person's location. But you need to invest a lot of money and time into developing such a system. Probably it's suitable for big companies that have thousands of playtesters and can spend money on it.

There's a risk of working with any third-party service because partner companies can have professional industrial spies who can leak the data.

If players want, they can leak something anyway. It isn't clear how the connection is secure in cloud services and if it can be hacked. Playdew excluded all important content that can be leaked for playtesting. It's always a matter of how much risk you can take.

One big disadvantage of playtesting in the cloud as with any third-party services is that you can't be connected anytime and solve issues in real time. When you host a playtest yourself, you have more control over it.

Christian Ress
PlaytestCloud
Co-Founder

At PlaytestCloud, this process is simple, and everything happens on our platform: companies tell us what kind of player(s) they'd like to playtest with, we find them from our global player panel (with more than one million players, spread around the world), schedule and run the playtest, and then clients have the playtest recording along with all our other tools and services in their PlaytestCloud account.

What companies need to keep in mind, too, is the choice they make given the risk vs. the reward. If you have a hard line on sharing your game, then playtesting in general probably won't work — meaning you'll never get feedback from players, at all.

In general, however, we offer a combination of both legal and security features to ensure the safety of a company's game and intellectual property, throughout any stage of the process.

Game source code leaking is, by itself, impossible. Studios only ever share playable builds, so the only possible risk would be from that.

Typically when these concerns are brought up, they come from internal compliance teams that want to make sure unfinished builds aren't leaked or shared, sometimes creating overzealous compliance terms. As such, all of this is also related to how the company is organized internally, its concerns, its processes, etc. At the end of the day, companies need to also create their own safeguards and ensure that what they send out is safe. Platforms can also help with this.

Developers want to control every step of playtesting. It depends on the team, of course, and their needs, but the general answer is yes, they want more control than less.

Each and every playtester agrees to an NDA before each playtest. It's all done automatically through our platform.

We track many interactions that players have with the game and have numerous legal and safety measures to ensure the risk of leaking is as low as it can be. If a leak ever happens, we'll use all means at our disposal to take action.

There are perceived cons of playtesting in the cloud. One could argue security will always be safer in a strictly controlled environment, such as the one offered by in-person playtesting. After all, when you're conducting research with players in a lab, after taking their phones and other electronic devices, the environment can arguably be safer.

#3: Supply & Demand

Alexander Dzyuba
Sense.Vision
CEO

There are two kinds of parameters to select players for playtest:

1. *Standard parameters: socio-demographic characteristics, quotas by age, gender and region of residence, monetization experience, average time spent playing video games per week, preferred genres and whether they're "hardcore" or "casual". If a game is for children, then their presence will be checked and their parents will participate in choosing games for kids.*
2. *Custom parameters: experience in certain titles that are referenced in the development of the project, reaching a certain level in these games, how long people play them and when was the last game session. Sometimes the studio uses additional parameters. For example, if they work with an online board game, players for research should have experience in playing offline board games.*

Sense Vision doesn't invite players to participate in research more than once every six months. ***They also don't use monetary rewards for motivation, replacing them with certificates in Steam, and Google Play, food delivery services, movie tickets, and other things connected with entertainment.*** *The use of non-monetary rewards solves a key research problem — the presence of professional respondents registering in several profiles because such rewards aren't interesting to them.*

At least half of the sample set of each research session are new respondents. Although the database contains around IOO,OOO people around the world, the studio always recruits new players.

Sometimes the company can change the conditions of research at the request of the client. For example, a game studio wanted to test its game in the USA three months ago. But, they didn't have colleagues in this country and worried that players would not understand how to use the cloud. So, the client asked Sense Vision to conduct classic playtests with game installations on local computers.

Fernando Guillen
Playcocola
Founder

Playcocola focuses on indie developers and their special needs. It translates to an affordable, easy-to-use, low-friction, and quick feedback loop. If people have to register and be accepted on other platforms, it can take days. But in Playcocola users can register using Twitter or other applications. You can receive feedback in 10–60 minutes and don't need to go through the acceptance process and learn the contract. Fernando thinks that indie developers need a quick feedback loop because they don't have as long of a development process as AAA games.

Fernando thinks that it's a good idea for AAA games to keep test builds in the cloud but indie developers are okay with beta builds of their games being installed on the PC of testers.

The demand for developers to do playtests through third-party services depends on the market. In Fernando's experience, indie developers don't pay much attention to professional playtests. The reason is the budget. If you want proper playtesting, you will have to invest a lot of money. Usually, a professional playtester costs €20–30 per hour, and indie developers can't spend even €100–300 for playtesting. So, they have to make playtests with their friends and communities that are committed to the game. They neglect to playtest. But Fernando supposes that a new generation of developers is coming, and they are really going to be interested in playtesting and understanding how important it is. There are affordable tools for playtesting like Playcocola, so Fernando sees more interest in playtests among indie developers.

Christian Ress
PlaytestCloud
Co-Founder

Our global player panel has more than one million players, spread around the world, all with different tastes and ages (from 3 years to 80+ years old). This allows for a reach and customization of each playtest that's unparalleled.

We focus on educating and helping clients understand how to exactly use each tool and remote playtesting in general. Our Mobile Playtesting Playbook, for example, was written exactly with this in mind.

We're industry-leading in what we do, powering 45 of the 100 top-grossing games in the App Store and with an incomparable experience. We run thousands of playtests every year, work with some of the biggest studios in the industry, and all because we deliver the results that back all that up.

#4: Costs & Outcomes

Alexander Dzyuba
Sense.Vision
CEO

There are few developers who know about playtests in the cloud. That's why Sense Vision researchers tell clients that playtests in the cloud are a standard form of testing and there are no extra costs for them. Usually, clients are surprised by this technology, if they haven't heard about it before.

Despite the fact that the company has been using playtests in the cloud for a long time, Alexander heard from developers the question "What is it?" about 5 times.

The cost of playtests in the cloud doesn't affect the price for the client.

Fernando Guillen
Playcocola
Founder

Now Playcocola strives to create the best tool for indie developers. They aren't driven by profits and investors. The studio needs people to use their platform because now it's free for indie developers. They want to work with these developers and receive feedback. They also need gamers who will join their community and test games out of passion, not profit. So, there will be a community of developers and enthusiastic players that work together. Players may not receive money but they can get credits on the game, privileges on the Discord channel, or other things that can give them a feeling of belonging to the game. Fernando thinks that participating in the game is more rewarding than receiving €20 per hour.

Web testing isn't new and there are a lot of competitors that use web-based playtests. Some studios don't offer installed applications for playtesting. Playcocola tries to avoid this method because playtesters need to install or register in the site to do playtesting.

In the indie developers' environment, studios often use two ways of holding playtests. The first is going to a conference and watching how playtesters play the game. It's a valuable kind of playtesting but it's not scalable. The other way is asking people to record the screen with open-source recording tools like OBS. It's a complex tool that is for technically advanced users. Indie developers receive a bias in the playtesting feedback because they are only receiving it from very committed playtesters and advanced technical profiles.

Tymon Smektala
Techland
Dying Light Franchise Director

Techland playtests are focused on the quality of the experience, not using it to catch bugs. We have an internal QA Department and outsourced QA that is responsible for bugs. Playtests are used for gathering data about how players consume products, and collecting feedback and information regarding specific features that the company has doubts about. Playtests are done before putting features into the game and before this game is released to the market.

Application of cloud technology depends on technical progress. It also comes from the change of perception and perspective. If studios do playtest through the cloud once and it works, they will try it again and again. They will be braver about it because people are always a little bit hesitant with something new. So, if the risk of latency is solved and there's a mental willingness to do something new, then the company will be able to conduct playtests in the cloud.

Urooj Iqbal
Playdew
Growth & Partnerships Manager

The kind of conducting playtest depends on the objective of the project, the stage of the development, and costs. Playtests can be very expensive for indie studios and solo developers. Usually, Playdew tries to conduct playtests in-house through internal members like friends or family. But the company also uses third-party services.

As for working with any third-party service, it's hard to change something or test features that they don't support. They usually have fixed methods of how people are operating in their teams. That's why it's important to ask what kind of playtests can be conducted and how much freedom the system provides.

Christian Ress
PlaytestCloud
Co-Founder

We aim to increase awareness about the importance of playtesting for all game studios, big or small, as it provides valuable feedback from the players themselves. This is crucial for successful game development and we want to introduce new research methods, such as remote player interviews and moderated playtesting. Our goal is to bridge the gap between game developers and players, and unlock new capabilities for playtesting.

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