

CASE STUDY

# Guardians of Fair Play

How Denuvo and Small Impact Games Battle Cheaters in the Gaming Industry



This case study delves into the collaborative effort of [Small Impact Games \(SIG\)](#), an independent video game developer, and Denuvo by Irdeto, a leading provider of cybersecurity solutions. The study highlights the challenges faced by the gaming industry due to cheaters and explores how [Denuvo by Irdeto](#) has advanced anti-cheat technology which helps SIG maintain fair and enjoyable gameplay for its players.

[SIG was founded in 2013](#) by Mitchell Small, James Rowbotham, and Cameron Small, as a game development studio based in Leicester, England. The company boasts a team of 12 skilled developers who have previously worked for renowned companies like Electronic Arts and Rocksteady Studios. In 2022, SIG released its first-person shooter game, [Marauders](#), which gained popularity among gamers worldwide.

## The Impact of Cheaters

Cheating has become a pervasive issue in the gaming industry, causing significant disruptions and damaging the gaming experience for honest players. Cheaters exploit third-party tools and modifications to gain unfair advantages, creating an imbalance in multiplayer games. This is often frustrating for players that don't cheat, and eventually honest players may begin abandoning the game in favor of titles with a fairer gaming experience.

Cheating has far-reaching consequences which extend beyond immediate gameplay frustrations. When cheating occurs, it leads to a significant drop in player engagement. Over time, this results in a decline in the active player base and a potential loss of game revenue. According to [Irdeto research, the annual global online gaming market is estimated to be about US\\$37 billion](#). When 78% of gamers are put off by a game because of cheating, this means nearly US\$29 billion of revenue is at stake! [Nearly half \(46%\) of players say they're less likely to buy in-game content if there's cheating.](#)

The financial implications of cheating are clear and moreover, games that are known for struggling with cheaters also suffer from reputational damage, attracting fewer new players. The adverse effects can be even worse for publicly traded companies, as news of rampant cheaters can impact their stock market valuations. Cheating tarnishes a game's reputation, lowering trust and loyalty among its players.

If cheating is a fact of life, it needs a solution, and the best one is employing anti-cheat technology. This approach involves the development of sophisticated systems capable of detecting and preventing cheating in various forms. By addressing cheating head-on, gaming companies can foster a fair and enjoyable gaming environment for their players.

With SIG, it was no different. Cheaters started to infiltrate and grow in number within its first-person shooter game, Marauders.

"We wanted to keep the gaming experience fair and enjoyable for our players, but at the same time, we were facing an ever-increasing threat from cheaters. It was crucial for us to secure an anti-cheat supplier that understood the complexity of the issue, and that could harness the power of analytics to root out these bad actors.", said Mitchell Small, Managing Director at Small Impact Games.

To address the industry-wide cheating problem impacting Marauders, SIG had employed the use of a famous free anti-cheat service, focused on countering hacking and cheating in multiplayer PC games through the use of hybrid anti-cheat mechanisms. The experience with that previous anti-cheat service was not positive – the software did not perform well, it yielded false positives without providing evidence on detections, and SIG's team felt a lack of support throughout the process, which led to enormous frustration.

After hitting the market again for a better solution, the company turned to Denuvo by Irdeto. Denuvo, which is renowned for its cutting-edge anti-cheat technology, provided real-time cheat detection, with imperceptible impact on game performance and comprehensive support.

Denuvo's anti-cheat solution monitors gameplay on PC using hardware security features and game-agnostic machine learning. Unlike other anti-cheat technologies on the market which automatically ban without sharing any information, Denuvo's proactive monitoring identifies and flags unauthorized third-party programs or modifications, allowing game developers to take appropriate actions against cheaters whether it be banning, sending them to 'cheaters island' or other measures.

## The Success of Denuvo Anti-Cheat

Upon integrating Denuvo by Irdeto Anti-Cheat software, SIG witnessed remarkable results. Within a few months, Denuvo identified and thwarted 26 different types of cheats in Marauders, including wall and camera hacks, lag switches, aim bots, and currency manipulation: cheats that were all undetected by the free anti-cheat software previously used by SIG. Denuvo's transparent data sharing, with full cheat evidences, has empowered the gaming studio to make well-informed decisions regarding cheaters. The system also allows customers to check the solution is really working and not producing false positives.

When SIG ran into more technical cheats, the anti-cheat team at Denuvo by Irdeto was able to promptly find new ways to stop them. Keeping direct contact with counterparts at SIG and providing fast response times made a difference in the battle against cheaters.

The ease of integration and transparency of Denuvo's product made life easier for SIG's developers – who could instead focus on creating player-centric experiences without worrying about cheat-related issues.

Denuvo Anti-Cheat's exceptional features and capabilities stand out in the industry. The solution offers real-time cheat monitoring without disabling debugging, making it efficient and unintrusive. Additionally, all cheat detections occur server-side, preventing tampering by clients.

The anti-cheat device fingerprinting technology prevents repeat offenders from circumventing detection. At the same time, its installation is limited to competitive aspects of the game, leaving single-player and non-competitive modes unaffected. Furthermore, Denuvo's AI learning continuously evolves to detect new cheating attempts as they emerge.

According to James Rowbotham, Game Developer at Small Impact Games, Denuvo by Irdeto has been a game-changer in the battle against cheaters and in the quest to ensure fair gameplay. "After optimizing the anti-cheat tool, we found the game's performance was the same, and the evidence given by Denuvo for identification and banning cheaters has made our lives much easier."



SIG and other studios using Denuvo by Irdeto Anti-Cheat have enjoyed numerous benefits:

- **Improved Gameplay Experience:** Cheaters are deterred, leading to a more enjoyable gaming environment for honest players.
- **Real-time Detection and Transparency:** Denuvo's proactive cheat monitoring identifies and reports cheaters in real-time, sharing comprehensive data and stats about cheaters and facilitating effective action against them.
- **Web-Based Game Management:** Denuvo provides a user-friendly web-based project management system that includes configuration, reporting, and investigation tools. This streamlined interface empowers developers to efficiently manage cheat detection and handle any potential issues that arise.
- **No Need for APIs:** Unlike some other anti-cheat solutions, Denuvo by Irdeto does not require the integration of complex APIs. This simplifies the implementation process and reduces the burden on build engineers and developers, allowing them to focus on other critical aspects of game development.
- **Easy Integration with Existing Releases:** Denuvo's anti-cheat solution can be easily tested on existing game releases without the need for extensive integration work. No source code modification is necessary – it works directly on the binary. This feature provides developers with valuable insights into the effectiveness of Denuvo's technology before committing to a full implementation.
- **Security and Privacy:** Gamers' data remains private, with no sharing of cheat data with third-parties.
- **Mixed mode:** Require Anti-Cheat to be installed and run only for game modes worth protecting like ranked matches but leave it disabled for single player or private games.

## An invaluable asset for studios of all sizes

While anti-cheat technology has traditionally been associated with major gaming studios, the truth is that indie and smaller gaming studios can also benefit significantly from implementing anti-cheat measures to level the playing field.

The beauty of modern anti-cheat software lies in its versatility and adaptability, catering to developers of all sizes and platforms. These user-friendly solutions empower indie developers and large studios alike by providing seamless integration processes that fit their specific needs and resources.

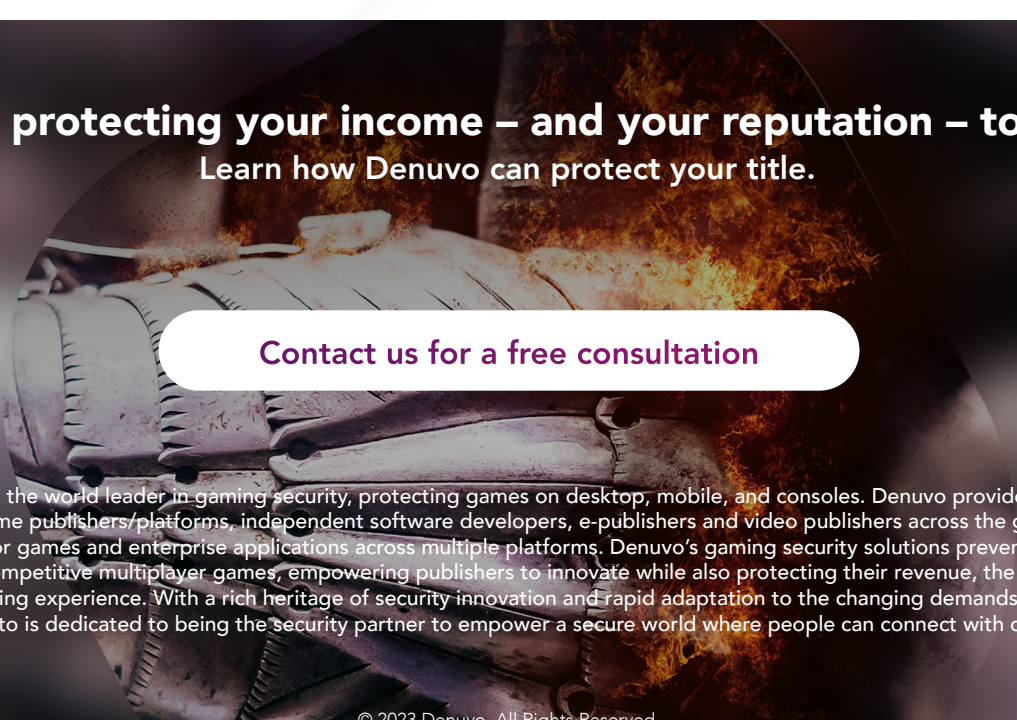
For instance, leading anti-cheat solutions like the Denuvo Anti-Cheat offer integration processes that simplify the implementation for game developers. Indie studios can leverage such technologies by simply submitting their games in binary form, eliminating the need for complex coding efforts. This streamlined approach allows anti-cheat measures to be swiftly added to the game without burdening small development teams. As a result, indie studios can focus on their creative vision and core gameplay mechanics, knowing that their game is safeguarded against potential cheaters.



Denuvo by Irdeto has a strong track record in the gaming industry, protecting thousands of games with its technologies. As of the time of this case study, Denuvo has safeguarded more tens of millions matches, ensuring fair and secure gameplay for players all around the globe. Furthermore, the company has validated and issued more than 2.4 billion software licenses through all its products, demonstrating its extensive reach and impact in the market.

Denuvo by Irdeto's Anti-Cheat solution has proven to be an invaluable asset for SIG and the gaming industry at-large. By successfully combating cheaters and ensuring fair gameplay, Denuvo helps developers retain players, protect their revenue, and enhance the gaming experience. As an essential tool in the fight against cheating, Denuvo's technology sets the standard for effective and transparent anti-cheat solutions in the video game industry.

[Denuvo by Irdeto](#) also offers services like the Denuvo Cyber Services Suite, to protect a studio's business model, profitability and brand reputation. It includes Brand Protection, to block the online sale and distribution of stolen products, Threat Risk Assessments, to learn where the vulnerabilities lie and identify, prevent and defend products against cybercrime.



**Start protecting your income – and your reputation – today!**  
Learn how Denuvo can protect your title.

[Contact us for a free consultation](#)

Denuvo by Irdeto is the world leader in gaming security, protecting games on desktop, mobile, and consoles. Denuvo provides core technology and services for game publishers/platforms, independent software developers, e-publishers and video publishers across the globe, enabling binary protection for games and enterprise applications across multiple platforms. Denuvo's gaming security solutions prevent piracy and expose cheats in competitive multiplayer games, empowering publishers to innovate while also protecting their revenue, the integrity of their game, and the gaming experience. With a rich heritage of security innovation and rapid adaptation to the changing demands of the cyber security space, Irdeto is dedicated to being the security partner to empower a secure world where people can connect with confidence.