

3 Industries that Can Benefit from Better CDN Monitoring



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In 2022,

global CDN usage is expected to reach over 250 exabytes per month.

With more and more industries reaping the benefits of CDNs, CDN monitoring is going to become a valuable new source of information for anyone looking to understand their operational challenges or how their customers interact with their product. Industries all over the world are waking up to the powerful hidden data, locked inside their CDN solutions. Here are 3 industries that stand to benefit hugely from sophisticated monitoring of their CDNs.



Gaming

In 2021, there were roughly [3 billion people](#) playing games on mobile, PC or console platforms. That number is set to rise again in 2022. Video games have truly crossed the chasm and are lightyears away from the niche hobby that they used to be. However, with such a high volume of new gamers, comes some new, complex engineering challenges.

Both single player and online games have huge amounts of downloadable assets. In the case of single player games, these downloads are happening in a one-off download, but in the case of online games, many of these textures are downloaded and rendered on the fly, as the game is running.

For example, running a triple A title like Destiny 2 will [require 300MB of data](#), every hour. Destiny 2 has a total of 38 million players with as many as [1.2 million playing](#) at the same time, meaning that they could be pushing out as much as 360 terabytes of data, every hour. This is a huge volume of traffic to manage and the only way to do this in a cost effective way is to utilise a CDN.



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Luckily, many of the textures, skins, new graphics and animations don't change much, once they are uploaded. This means they can be heavily cached in CDN edge nodes and served up very efficiently. However, even with this caching capability, your CDN still needs to be running at peak performance to service the kind of volumes that online games require.

Your CDN logs will give you insight on your latency, packet sizes, slow resources and request volumes, so that you can ensure that the right resources are being cached so users spend more time gaming and less time sitting on loading screens.

Games also post score charts and game reports on their site for users who wish to review their previous performance. This data is a great way to bring traffic to their site and present new products to their target audience. However, competitors regularly scrape these scoreboards to build up their own cache of data. It can be very difficult to detect and respond to this kind of attack, but with a properly monitored CDN, [utilising modern anti-bot solutions](#), you can prevent your information from making it into the hands of your competitors, while still providing a great service to your customers.

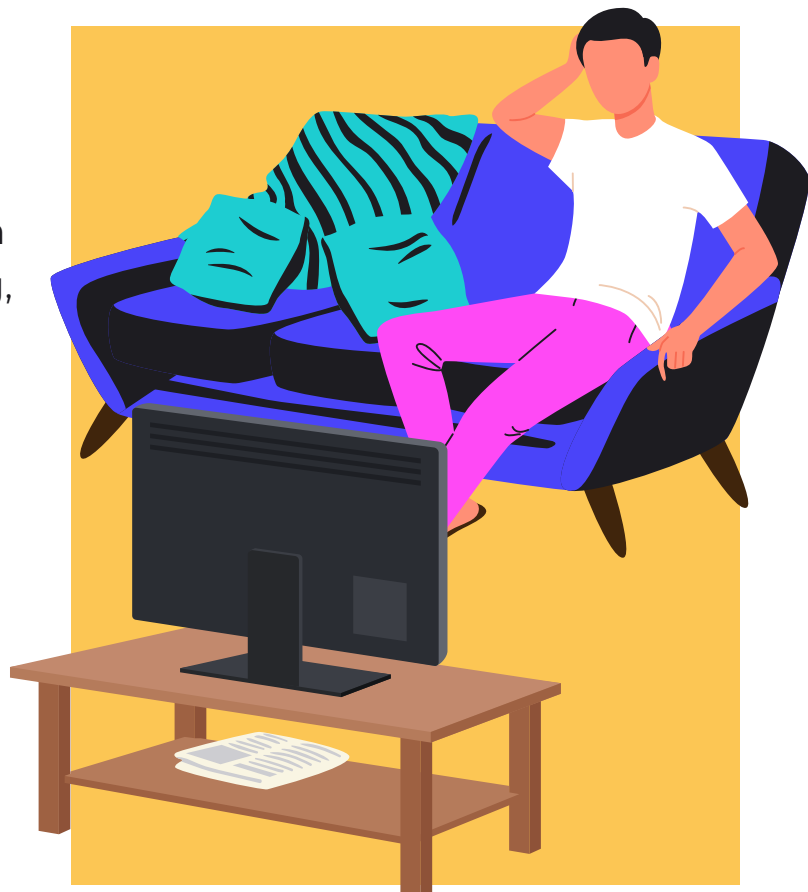
Video Streaming

Online streaming has continued to grow in the past few years. Netflix has grown to [220 million subscribers](#) despite its growth beginning to slow down. Amazon Prime Video has grown to over [200 million subscribers](#), with Disney sitting at [179 million](#). The average streaming session, without any HD capabilities, uses roughly [1GB of data per hour](#). With users watching more and more content, these numbers translate into enormous volumes of data in transit, every year.

With so many users watching content, a CDN rapidly becomes an absolute requirement. Like gaming, CDNs fit very well into the video streaming industry because, once uploaded, videos are very rarely edited, meaning they can have running cache timeouts, which minimises the impact on servers.

Netflix relies on a streaming protocol called [DASH](#), which carves up videos into lots of small HTTP requests. This means that, rather

than one big request, every client is constantly making a huge volume of tiny requests, to pull down the next few seconds worth of content. CDNs are great at this, but in order to make sure that users aren't constantly waiting for their videos to buffer, streaming companies need sophisticated monitoring in order to ensure their content is flowing smoothly.



This means tracking not just the average latency across all servers, but also [visualising the 50th, 95th and 99th traffic percentiles](#). Any delay in the processing of this information will diminish its value. [85% of companies surveyed reported](#) that real-time data is either essential or very important for their strategy. This means that your data will need to be backed by an observability platform that can operate in real time, so that when there is a slow down, engineers can jump in and solve the problem before millions of people are left looking at the loading icon.



This represents an enormous amount of lost revenue for streaming companies that rely on the security of their video content to ensure the survival of their businesses.

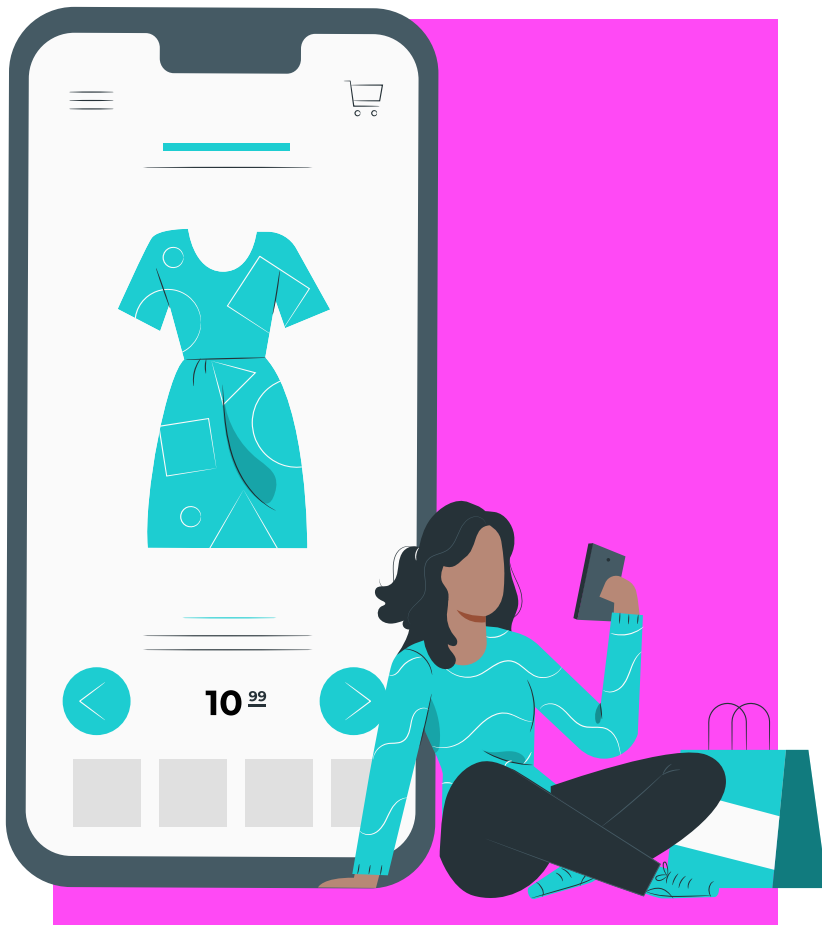
In 2021, [\\$29.2 billion](#) was lost to piracy in the US alone

Sophisticated CDN monitoring can detect anomalous usage patterns, such as the same IP address scraping a wide number of videos at once, or unrecognised User-Agent headers, and quickly alert operators to this new threat. Protecting their content is absolutely vital as streaming platforms head into 2022, with more and more sophisticated tooling needed to combat the growing wave of automated online piracy.

eCommerce

During the pandemic, online shopping saw an enormous spike. Amazon reported a [220% spike in profits](#) in Q1 2021, versus Q1 2020. [Alibaba saw a 64% revenue increase](#) in the same period. Indeed, in 2021, [27.6% of the global population](#) shops online. This represents a huge amount of traffic that needs to be managed. Every major eCommerce site makes use of a CDN for good reason. Users quickly drop off from their sites and the performance offered by a CDN is essential to maintaining a quality conversion rate at scale.

eCommerce sites have a specific challenge, when it comes to operational performance. In the world of online shopping, every second matters. [The BBC](#) found that a page latency increase of just one second translated into a bounce rate increase of 10%, and a 1.8 second delay on the skilled.co website translated into a [conversion rate drop of 1%](#).



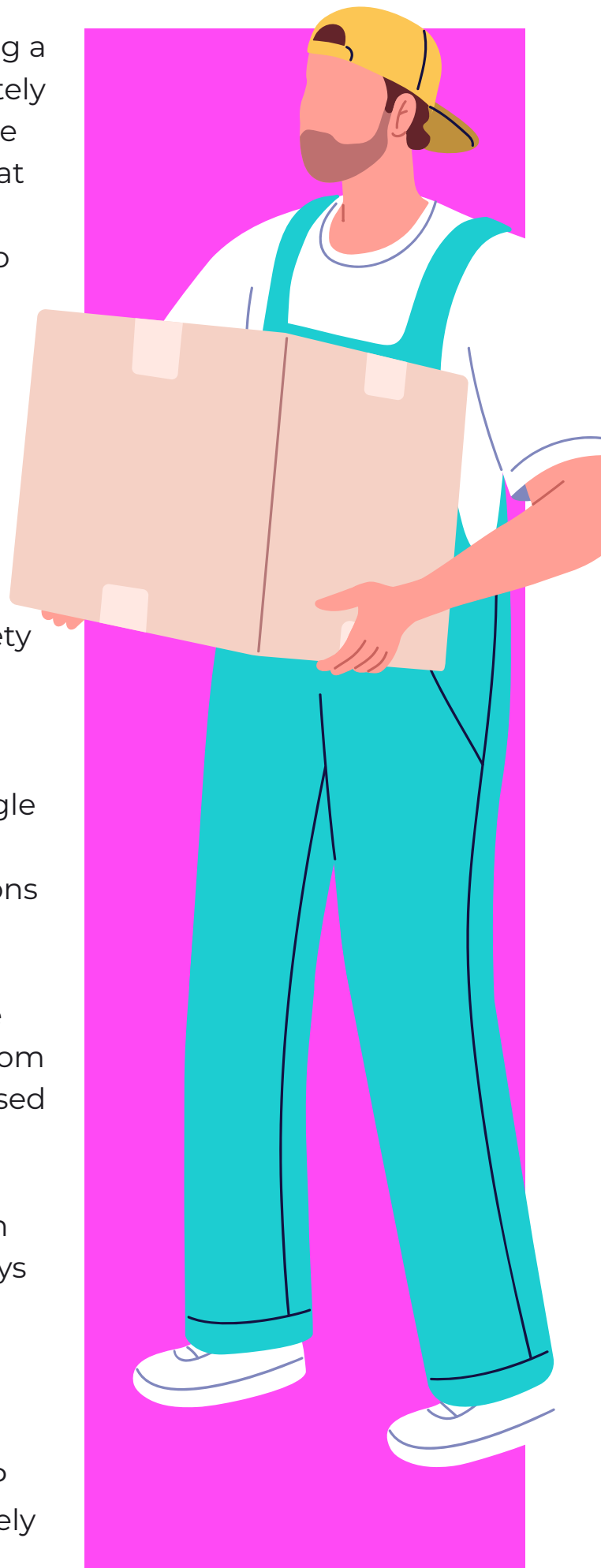
Your site's performance directly impacts your ability to sell products. That's why CDNs are so essential for eCommerce

With such fine-tuned differences having a major impact on your sales, it is absolutely necessary to know everything about the performance of your CDN, to ensure that you're consistently delivering content to your customers, as fast as possible, to ensure you do not disrupt your sales.

eCommerce sites experience a wide range of [specific attacks](#) that make it difficult to respond quickly to all of their many threats at once. Due to the presence of PCI/PII information, eCommerce sites need to maintain a strict level of security to ensure the safety of their customer data.

Your CDN logs are an essential part of this defense. They are a list of every single page that was requested, including headers, payload body sizes, http versions and much more. By processing and analysing this data, you can build up normalised pathways through your site that typical users take. Any deviation from this pattern can be detected and assessed for any malicious intent.

When you combine your CDN logs with a rapid observability platform that delays indexing to ensure the fastest possible response time, you can rapidly detect a growing DDOS attack. If you decide to combine this data with a SIEM/SOAR solution, you can automatically block IP addresses as they appear, and proactively defend against the would-be attackers.



Why Can't You Tap into These Benefits... Yet?

CDN logs contain a wealth of information, but accessing that information is not always simple. CDNs don't provide sophisticated observability tooling out of the box. When attempting to build an effective data strategy, the scale and inflexibility of the data [appears as one of the biggest blockers](#). An observability platform that can integrate directly with your CDN is essential, to ensure that you're getting the insights you need, precisely when you need them.



About GlobalDots

GlobalDots is a 20-year world leader in cloud & web innovation, connecting over 1,000 global businesses such as Lufthansa, Playtika, AppsFlyer, Fiat and Payoneer with the latest technologies. Our ever-growing solution portfolio contains over 80 innovative technologies, including: Security, Performance, DevOps & Cloud Management, Corporate IT, and advanced AI/ML models.

Led by a team of innovation-driven engineers & architects, GlobalDots offers easy end-to-end technology adoption. Proactively introducing newer, better solutions, it helps businesses maintain a scalable, up-to-date technology posture in a quickly-changing world. Its enterprise clients breeze through cloud transformation; Its growing, cloud-native clients benefit from scalable, cost-effective and highly secure infrastructures.

With our services, clients achieve significant cost reductions, accelerated business processes, and globally scalable infrastructures.



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