

LET QUALITY DECIDE

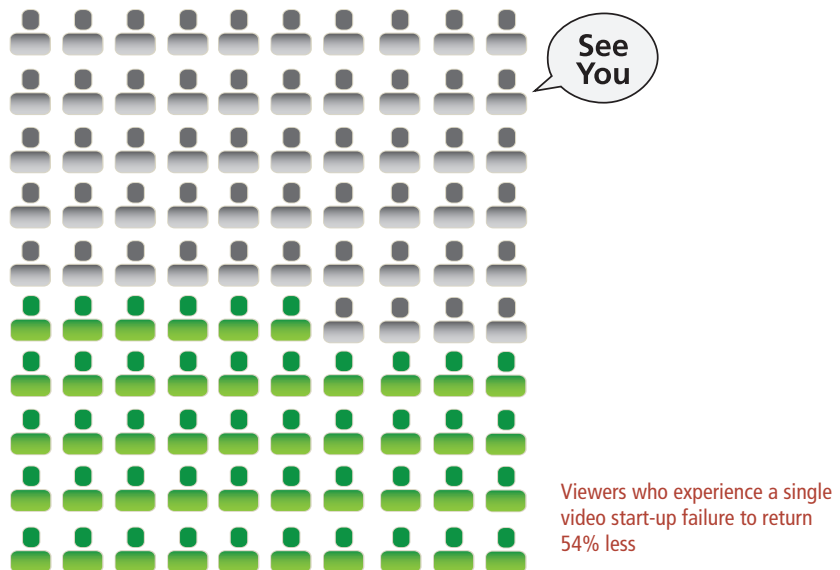
How Client Side Statistics Can Enable Optimal End User Experience and Asset Monetization



Overview

Most organizations lack real-time visibility into the performance of their online videos. And in turn, they have little understanding of their audience's immediate experience. 54 percent of viewers will not give you a second chance if they experience a failed start up.¹ While server-side statistics provide a great deal of data that can help gauge network performance, client-side data lets a business virtually watch over the shoulder of their end users.

"It's estimated that, by 2014, 77 percent of all online activity will be video streaming."



What if you had real-time insight into how the audience is interacting with your videos? Who is watching? Where are they? Are videos starting with normal buffering times? Which assets are attracting the most eyeballs, right now? Answers to these questions give you the information you need to make informed decisions, to quickly turn a bad experience around and ultimately to achieve highest return on the time and money you invest into your videos.

It's estimated that, by 2014, 77 percent of all online activity will be video streaming.² To reap the highest return on the time and money you invest into videos, you need real-time visibility into buffering, video start failures, CDN performance and online asset popularity. That's the power you get with the Level 3sm Client-Side Statistics offering, powered by Conviva®.

Following are brief case studies that illustrate how client side statistics can help make a big difference in:

- Understanding how your content delivery is performing, and which vendors are providing the best video experience for your end users
- Providing relevant, quality content for an online environment that promotes visitor loyalty and protects revenue
- Simplifying management of multiple vendors, portals, and bills in order to create an optimal online experience

¹. Used with permission of Conviva®

². Video Content and Syndication: Long-Form Content on the Rise, eMarketer.com, 2011

News That's Fit to Watch

Readers tell news agencies what online content they care about by clicking on headlines and thumbnails, watching the associated videos and sharing stories with friends. Bureaus face the challenge of posting and promoting what is important to their readers not only each day, but with each passing hour or even minute.

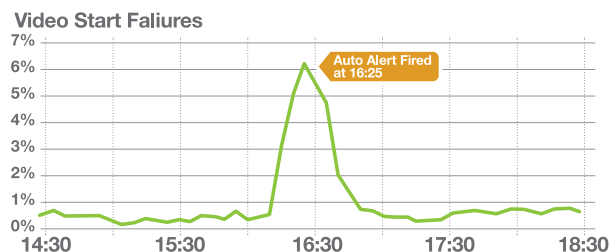
A case in point is a major news agency that is among the world's leaders in online news and information delivery. They monitor audience behavior, with attention primarily focused on their site's homepage. According to a representative of the organization, they very quickly see what stories are doing well and which are bubbling up, especially on their main page. They monitor the volume of people watching each video and immediately know what to take off the page and replace, and what to feature.

Behind most important headlines online are videos, and the experience created when watching them influences how effective the message is as well as the companies that invest in the ads which preface big stories. And that's true for each regional edition of the news; what intrigues and entertains readers in one part of the world probably won't garner similar attention elsewhere. Website analytics can help to a degree, but they don't give the same depth of insight that you can get with statistics gathered directly from the online viewer.

With Client-side Statistics, news agencies can monitor stories to determine what is attracting attention and what not to promote.

Sometimes, Everyone Wins

People are passionate about their favorite teams, and are particularly vocal when they pay for a special broadcast package that fails to meet their expectations. This scenario recently played out when many online viewers were unable to see the streamed sports broadcast they had paid to watch online.



Real-time monitoring of video start failures helps you better understand the user experience. Pre-programmed alarms warn you of performance problems.

The first sign of trouble was the trigger of an auto alert that had been set to fire if video start failures exceeded 5 percent. Next, a flood of negative remarks poured through social media channels and into the broadcaster's support center. The technicians began diagnosing the issue by checking on the buffering ratio of desktop devices vs. iOS devices, and found that desktop buffering was normal, at approximately 3 percent, but iOS device buffering was reaching 40 percent and higher. Digging deeper into the client-side statistics, they identified the source of the problem: the paywall application was preventing the video stream from being allowed to reach the iOS audience. The application was disabled, buffering dropped to normal and the video streamed as expected.

The last step was to update the code and catch up on payments, all of which happened within 24 hours. The ability of the broadcaster to quickly isolate the issue and fix it enabled them to protect their brand and retain viewer loyalty. The nature of tweets turned from complaints about the service to cheers and heartbreak.

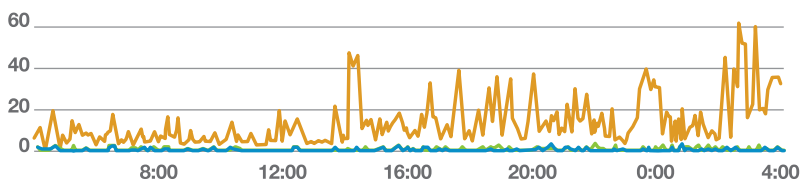
According to what Conviva® has observed by analyzing a large volume of client-side statistical data, when a viewer has a good experience (no buffering), they will watch 40 to 200 percent more video on average than those who have problems; every 1 percent increase in buffering leads to an average decrease of 3 minutes in viewing time. And viewers who experience a single video start-up failure return to the site 54 percent less. In this case, because the event being watched was known to the provider, the ability to better understand the quality of the experience impacted the provider in terms of revenue and reputation.

“Viewers who experience a single video start-up failure return to the site 54 percent less.”

The Technology Behind the Statistics

The Level 3 Client-Side Statistics service, powered by Conviva, is the technology delivering quality, audience and CDN performance data to the broadcaster described above. One of the unique characteristics of this service is that users have access to unbiased, third-party collected data. The Client-Side Statistics offering opens real-time visibility into all networks and CDNs that you are using, completely embedded in the Level 3SM Media Portal.

Exits Before Video Start



When videos fail to start quickly, viewers become impatient and simply move on. Every 1 percent increase in buffering leads to an average decrease of 3 minutes in viewing time.

The Client-Side Statistics Quality Analytics Bundle provides the up-to-the-second data on buffering which, along with the statistics for video start failures, proved to be quite useful in the news agency application.

The bundle includes the average transmission bit rate. Why is this important? Conviva has found, through analysis of transmission data, that high bit-rate-to-viewer performance results in a 40 to 70 percent increase in video watching than a lower bit rate. The module also displays the video start-up time and number of viewers in the 15 most engaged cities.

The Client-Side Statistics Audience Analytics Bundle delivers statistics that are instrumental in helping organizations such as the broadcaster described in the second application, including:

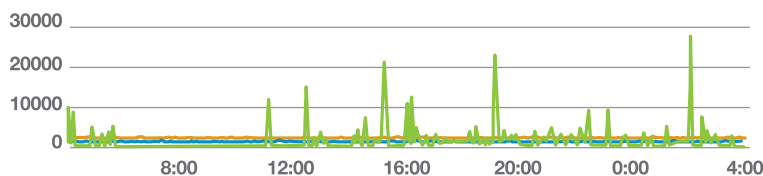
- Peak concurrent views
- Unique visitors
- Total views
- Viewer hours
- Historical data
- Viewers by region

With this data at hand, news agencies and other organizations that use dynamic asset placement to engage readers can not only make informed decisions day-to-day, but they can also look at month-over-month and longer trends to get a better understanding of their audience's preferences. Editorial content can be tailored to those preferences, ad dollars more wisely spent and website real estate better utilized.

Real-time CDN performance monitoring can make all the difference in delivering the best video streaming experience. If one CDN is failing to perform as necessary, you can immediately identify an optimal substitute CDN and switch over. This is significant because the average viewing time for video that does not buffer is 108 percent higher than video that does. When it comes to live events like that in the first application, viewers watch 240 percent more video when no buffering occurs.¹

Real-time CDN performance monitoring can make all the difference in delivering the best video streaming experience.

Average Bitrate



Bit rate stats from three CDNs. Real-time CDN performance monitoring helps ensure that you are delivering content as fast as possible for optimal user experience.

And while the ability to monitor CDN reliability is great for on-the-fly network control, it also gives you historical, hard data you can use to help decide which CDN provider should be your first choice.

Video Demo

For more information on how the Level 3 Client-Side Statistics service, powered by Conviva can open visibility into video asset performance, watch this online demo.

[Go to site](#)

Conclusion

The applications presented here represent a fraction of how video messaging and event broadcast will be used in the future. Ultimately, more effective messaging will help companies of all kinds operate more efficiently and grow, by refining strategies for asset development and use, and by fostering more solid, lasting relationships with their customers — whether they're sports fans, movie buffs or people interested in what's happening in their community or the other side of the world.

However, realizing these benefits is contingent upon effective transport of video from its source to the audience, which is becoming increasingly more sophisticated, demanding and fickle. Compelling their loyalty and willingness to pay for the experience requires meeting their expectations, and doing that can happen only when you have keen insight into what they want and what occurs when they are online.



© 2012 Level 3 Communications, LLC. All Rights Reserved. Level 3, Level 3 Communications, and the Level 3 Communications Logo are either registered service marks or service marks of Level 3 Communications, LLC and/or one of its Affiliates in the United States and/or other countries. Level 3 services are provided by wholly owned subsidiaries of Level 3 Communications, Inc. Any other service names, product names, company names or logos included herein are the trademarks or service marks of their respective owners.

www.level3.com