The Fight Against Ticket Scalping

Ticket scalping (buying and reselling tickets) has become a significant problem in Japan. eplus, a ticket agency specializing in online sales, found its website was being inundated with traffic that they suspected was from scalping bots buying up tickets. The company tried everything they could to stop this happening.

Oshu Ozaki, an expert from the System Development Department at eplus, explains: “If scalpers buy up all the tickets, legitimate users who really want those tickets miss out. And if those tickets reappear on scalping websites, both our legitimate users and the partners who trust us to sell tickets on their behalf lose faith in us.”

Masaharu Konishi, the Manager of the System Operations Department, tells us that things are only getting worse: “Especially as cloud services are easier to use than ever before and bot apps are everywhere, ticket-scalping techniques are becoming increasingly sophisticated. We knew we had reached a point where what we were able to do inhouse was simply not enough to counter the bots.

Searching for a Reliable Solution

This led eplus to start searching for an innovative solution to effectively prevent ticket scalping. “Our first idea was that we could use CAPTCHAs with distorted, difficult-to-read letters to determine whether the user was a bot or a human. However, more and more bots now have ways to solve and bypass CAPTCHAs automatically, so this tactic didn’t really solve anything. Our next idea was to determine whether the user was a bot or a human by using a CAPTCHA that asks them to perform some kind of user action on the site. However, the cloud-based service that we relied on for this was sometimes unavailable. Whenever this happened, our customers couldn’t buy tickets. So, we had to abandon that system where what we were able to do inhouse was simply not enough to counter the bots.

A Better Level of Detection

During their search for a solution, the company discovered Akamai’s Bot Manager Premier. The bot management product detects and increases the visibility of bots, but also uses machine learning to analyze user behavior such as keystrokes, mouse movements and gestures in internet browsers or on smart devices. This enables Bot Manager Premier to detect and manage the access of even the most sophisticated bots.

At that point, eplus had tried so many different solutions they found it hard to believe that Bot Manager Premier could be so effective. The first thing eplus did was trial Bot Manager Premier to see if it could really detect bot traffic. “The results were astonishing. During the trial, we asked Akamai to analyze our site traffic for all kinds of bots. When we saw the final data, we realized that Bot Manager Premier had detected bot traffic that we hadn’t even been aware of. That’s when we really started to believe it could deliver results,” Ozaki says.

Zero Impact on Customers

The results of the trial clearly demonstrated that Bot Manager Premier was the answer to their problem, so eplus decided to adopt the solution and began using it in earnest. “We used Bot Manager Premier to analyze the site access log for the first 30 minutes on the first day of ticket sales. Over 90% of all web access traffic buying tickets came from bots. We were shocked. We never imagined that so much of our traffic was coming from bots. Bot Manager Premier was detecting all of these bots based on their behavior and blocked every single one of them. After that, the bots temporarily dispersed. The results were clear,” notes Konishi.
At first, eplus was concerned that legitimate users could be affected by Bot Manager Premier’s detection and blocking functions. However, this wasn’t the case. “We didn’t get a single complaint from a user who found themselves unable to buy a ticket. We’re very impressed by how Bot Manager Premier not only uncovered such a startling amount of bot traffic, but also blocked it all without affecting a single legitimate user,” Konishi remembers.

eplus also appreciates that Bot Manager Premier offers a diverse and flexible suite of traffic control features to counter detected bots. These features reflect Akamai’s many years of web access research and expertise.

“We’re now in the process of tuning Bot Manager Premier by trialing various policies and evaluating how effective they are. Decreasing the load on our systems even more would represent a major step forward in our battle against ticket scalping. We also expect this to be very good for business because we can simplify our site and make it easier to use for legitimate users,” Konishi says.

A Stable Solution

eplus has a wealth of experience in testing a variety of website solutions. That experience has taught the company that system stability is particularly crucial.

“When you start using a new system, its stability is paramount. Especially when you use an external cloud-based service as part of your own system, everything hinges on how available that service is. We are keenly aware of that. Since we started using Akamai, we haven’t had a single stability issue. We can trust Akamai,” Ozaki says.

eplus points out two other advantages of Bot Manager Premier: System improvements are easy, and regular users who come to buy tickets are not unduly burdened. “Bot Manager Premier works on a CDN rather than our own website, which means that improvements don’t need to be implemented on the website itself. And Bot Manager Premier doesn’t ask our users to jump through annoying bot-detection hoops like CAPTCHAs, so it doesn’t affect usability. Bot Manager Premier detects bots while everyone else can carry on as before. It’s really a win-win situation for us and for our users,” Ozaki explains.

Future-ready

“Blocking malicious web traffic is always going to be a game of tag between us and the ticket scalpers. We’ll have to keep working on ways to counter them. We expect that as the bots get more sophisticated, Bot Manager Premier will keep pace with them. We also have high expectations of managed services to keep improving efficiency,” adds Konishi.

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