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Malicious Bots and Slow Site Speed: The Villains of eCommerce Flash Sales

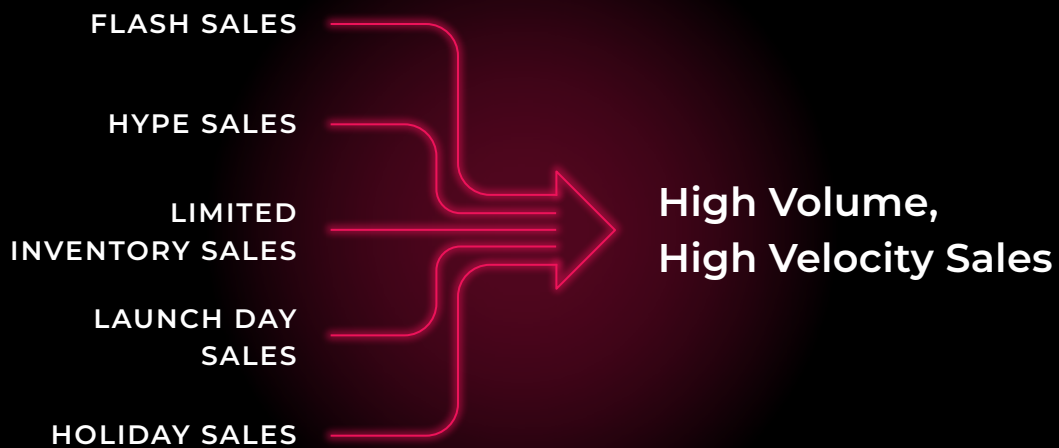
Be your Brand's Hero with Bot Mitigation and Page Load Optimization

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Bot-induced Mayhem



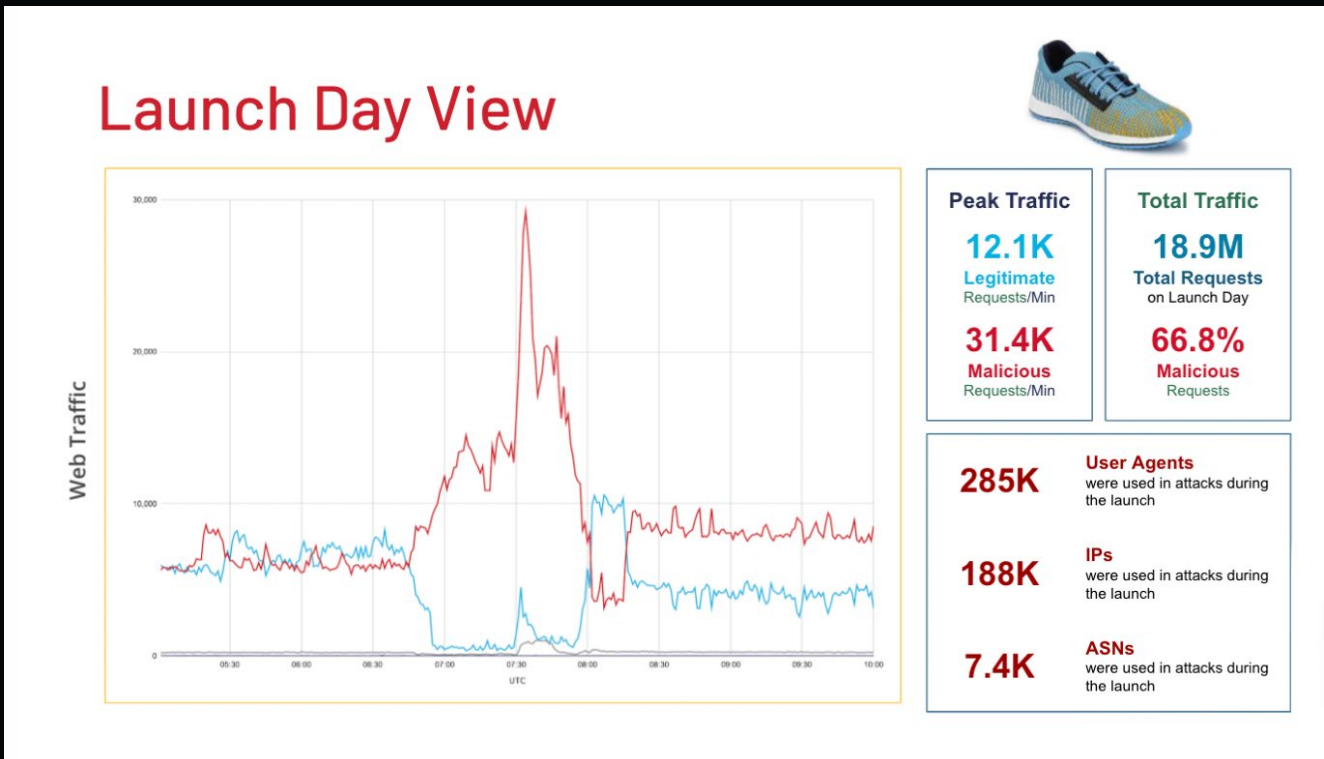
It doesn't matter what you call them: flash sales, hype sales, launch day sales, holiday sales and limited inventory sales are all high volume, high velocity events with the potential to bring in big revenue. The publicity surrounding them helps create high product demand which earns brands both market share and profit. But they also bring out bad bots and cause high volume traffic, which can slow eCommerce sites way down, wreaking havoc on sale day.



VILLAIN #1

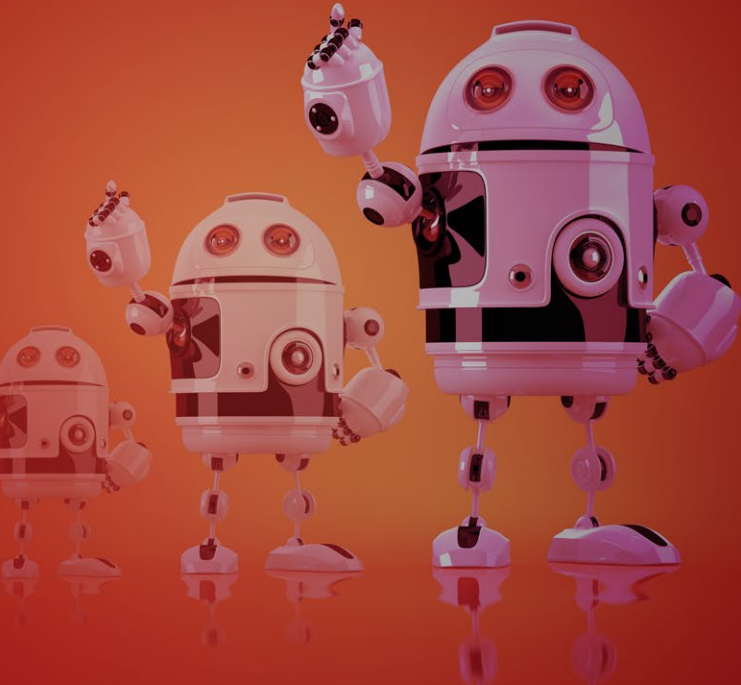
BOTS

At best, bots can purchase a major chunk of your inventory before real shoppers get a chance. At worst, high bot traffic, combined with real shopper traffic, can significantly slow down or even crash your site. Either way, if flash sales aren't properly run, they can leave real customers frustrated, your brand's reputation in question, and your revenue stream dry. The graphic below illustrates a typical launch day bot attack.



As you can see, there's a spike in malicious traffic exactly when the sale begins. Bots immediately attempt to load up their carts and check out. At the same time, there is a much smaller spike (shown in blue) as the real shoppers begin the buyer journey. The sale item is sold out 10 to 15 minutes after release time.

These traffic stats show that at peak, there were 31,400 malicious requests per minute from bots, and the daily total of malicious requests landed at 66.8% for the entire sale. At sale launch, an estimated 90% of the traffic is malicious - true eCommerce villains.

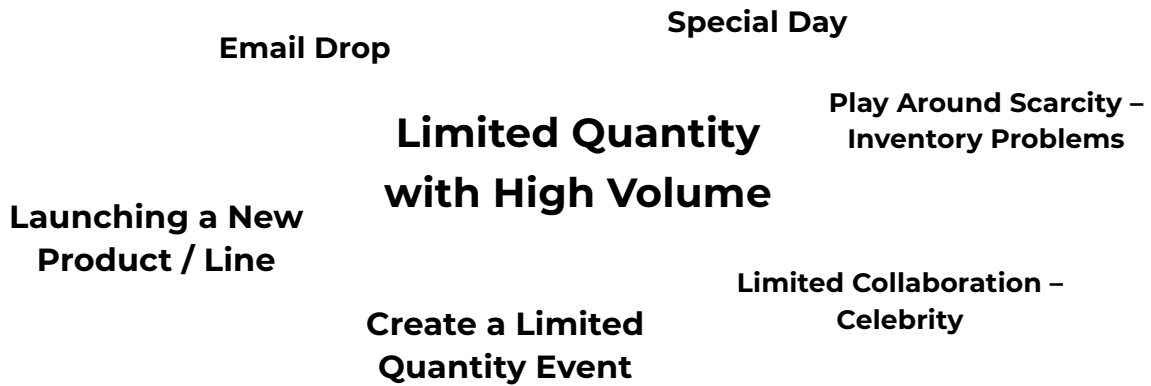


Flash Sales – and Bots – are Growing

Online flash sales were originally popular for event tickets, but with the rise of eCommerce, more retailers are getting in the game. Limited inventory, time embargoed sales for sneakers, electronics, street wear, and handbags create demand and generate big revenue in a short amount of time, offering brands a great opportunity to increase their market share and bottom lines.

Flash sales are a great way to launch a new product, increase brand awareness, or kick off a new advertising campaign. They can also be timed with events such as the Cyber 5 or other high traffic shopping times to increase revenue. The graphic below offers suggestions on ways to design a flash sale.

How can drops, flash sales apply to other verticals and use throughout the year



But just as flash sales offer brands a chance to make money, they also provide economic incentives for bot operators as they purchase high demand items and resell them for a profit. Sites such as stockx.com support these operators by making it easy for shoppers to purchase popular items with just a few mouse clicks. Many shoppers are more than happy to pay more if it means they get what they want without the hassle of a flash sale or the worry of an item selling out before they can purchase it.



VILLAIN #2

SITE PERFORMANCE

Although bots cause high-volume traffic jams and hoard inventory, legitimate traffic during flash sales can be a problem on its own. The hype around a shoe drop or the limited release of new technology like a phone or gaming system can add enough extra legitimate traffic to cause sites to load slowly or even crash. If your site can't scale to accommodate the extra load, your shoppers will leave and your bottom line will suffer. Setting up waiting rooms, properly sequencing the loading of 3rd parties, and optimizing for speed and performance are strategies to keep these problems in check.

High traffic times like Black Friday and Cyber Monday are other examples of when eCommerce sites must be able to handle high volume and high velocity sales without slowing down. Benchmark data from the [Site Speed Standard](#) reveals that when eCommerce sites take longer than 4 seconds to load there is a 58% greater chance that shoppers will bounce from the site, resulting in lost revenue and decreased customer loyalty. The following tips will prepare your site to be at peak performance during high traffic times:

58%

There is a 58% greater chance that shoppers will bounce from an eCommerce site that takes longer than 4 seconds to load

- ✓ Compare your site's performance to other leading brands
- ✓ Confirm your holiday or high-volume website staffing hours
- ✓ Load test web pages to handle the additional influx of holiday or high-volume traffic
- ✓ Finalize adding any features and functionality to your site
- ✓ Establish an emergency plan for site performance issues



How to be a Flash Sale Hero

The following tips will help prepare your site to deal with overwhelming bot and legitimate traffic without crashing and ensure that real customers are the ones making purchases during a flash sale.



Optimize for faster page load times and 3rd parties to ensure peak site performance. [Data](#) proves that decreasing page load time by just 1 second lifts conversion rates by 5.7% on mobile devices and 3.3% on desktop devices, while decreasing bounce rates by over 12% on both.



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Implement highly specialized rules that are executed immediately prior to launch. These rulesets should be configured to address your site's traffic patterns and purchase flow. Changes can be made right up to launch, enabling your team to focus on the sales event itself.



Flash sales protection should address both the human and bot components of limited time sales. When it comes to bots, use advanced machine learning and behavioral analysis to stay ahead of bot-driven disruptions. Since humans behave differently than bots, machine learning capabilities should be highly tuned and accurate to ensure that actual buyers complete their transaction and buy the desired product. As the sales event progresses, site owners should be able to dynamically determine what kinds of traffic to prioritize.



At the end of your sales event, you should be able to receive feedback on anomalous activity. From this analysis, future launch rules can be modified to support improvements for future events. Sales and regular traffic can be clearly delineated from each other using specific SKUs by traffic type.



A successful flash sale not negatively impacted by bots or high traffic is possible. The graphic below illustrates the requirements for flash sale protection.

Requirements for Flash Sales Protection



Maintain Site Speed and Performance



Increase Human Purchases



Increase Revenue

Site Speed Optimization and Bot Mitigation Save the Day!

Optimizing your eCommerce site will ensure that it is available and performing at peak during high volume sales events. If your site crashes or is loading too slowly, your brand will miss opportunities to increase market share, foster customer loyalty, and most importantly, raise revenue.

Bot detection and mitigation are also necessary and effective for successful flash sales. Identifying non-human site activity and known offenders is critical to accurately thwart bad traffic and protect inventory while allowing legitimate traffic through.

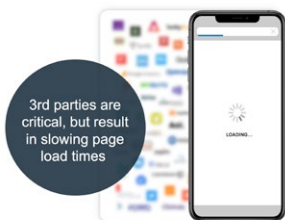
Whether your brand is preparing for a flash sale, the Cyber 5, or any other high traffic shopping period, there are best

practices you must follow to protect your inventory supply and revenue stream:

- Have a rule book that is strictly adhered to
- Work with partners who are dedicated to your brand's success
- Optimize for speed and 3rd parties
- Use a WAF
- Employ real time analytics and alerts
- Use bot mitigation
- Employ waiting rooms

Best practices for success

- Launch Playbook / Rules
- Have partners that are all in!
- Optimize speed and 3rd parties
- WAF – Web Application Firewall
- CDN
- Real time analytics and alerts
- Waiting room
- Bot mitigation – eliminate bad traffic
- Fraud and compliance



YOTTAA and PerimeterX to the Rescue!

Bots can do a lot of damage. When it comes to protecting your brand's reputation and bottom line, don't risk fighting alone. YOTTAA and PerimeterX are partners you can trust to make sure your eCommerce site is operating at peak performance without the interference of bots.

YOTTAA's eCommerce acceleration and optimization solutions will significantly improve your eCommerce site's performance, resulting in higher conversions of up to 20% and providing more engaging shopper experiences.

PerimeterX Hype Sales Protection uses a behavioral analysis and machine learning to accurately block bot traffic and ensure the successful sale of your products to real customers.

Knock down bots by combining YOTTAA's traffic and performance insights with PerimeterX technology to make your eCommerce brand the clear winner!

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