

# 2022 Holiday Bad Bot Report

Bot Activity for Black Friday & Cyber Monday Sales

## Introduction

The **2022 Holiday Bad Bot Report** compiles threat intelligence data during the month of November to demonstrate how bots and automated threats impacted holiday sales.

During the November holiday season, Kasada processed over 6.8 billion eCommerce requests and over 400 million bad bot requests.

Kasada protects some of the largest retail brands in the world from malicious automation and safeguards \$50+ billion in eCommerce, \$10+ billion in gift cards, and 2+ billion accounts globally.

## eCommerce Holiday Traffic Processed

November 2022



Total Requests:

6,877,984,899

Total Bad Bot Requests:

400,720,729

% of Bad Bots to Humans:

5.8%

# Key Findings

## Bots Ramped Up Attacks During Cyber Sales

Through processing over 6.8 billion requests, Kasada observed a 23% increase in bad bot traffic in the week before Thanksgiving and a 50% increase during Black Friday week.

Kasada's Threat Intelligence team identified four major cyber threats to retailers this holiday shopping season. Our data reveals a surge in scraping attacks, Freebie Bots, fake account creation, and gift card fraud. Bot operators frequently used open-source dev tools, spoofed browser platforms, and headless browsers to perform their attacks at scale.



**50%** increase in bad bot traffic the week of Black Friday.



**43%** increase in scraping attacks leading up to Black Friday, including the use of **Freebie Bots** that scored **\$1M** worth of products.



**40%** increase in fake account generation from Black Friday to Cyber Monday.



**6X** spike in gift card lookups **every weekend** compared to bad bot traffic just hours prior to the attack.

## Bad Bot Traffic

by Country of Origin



Country	Total Bot %
1. United States	49%
2. United Kingdom	10%
3. Canada	7%
4. Australia	6%
5. Korea	5%
6. Denmark	4%
7. Japan	3%
8. China	3%
9. France	2%
10. Netherlands	1%

# Scraping Attacks



## 43% Increase in Scraping Attacks Leading Up to Black Friday

Scraping was the most prevalent automated threat Kasada observed leading up to Black Friday. Over 3 million scraping requests per day during peak times represents a staggering 43% increase as compared to October.

Rather than target specific product pages, bots indexed entire websites, leading us to believe their goal was to monitor stock and price changes for arbitrage.

Scrapers are a common reason why websites suffer slow speeds and degraded site performance. Around the holidays, this is particularly troublesome for retailers since conversion rates are on the line and websites are already inundated with higher traffic volumes.

**43%** ▲

Increase in scraping attacks compared to October

**11.5M+**

Scraping requests during Black Friday week

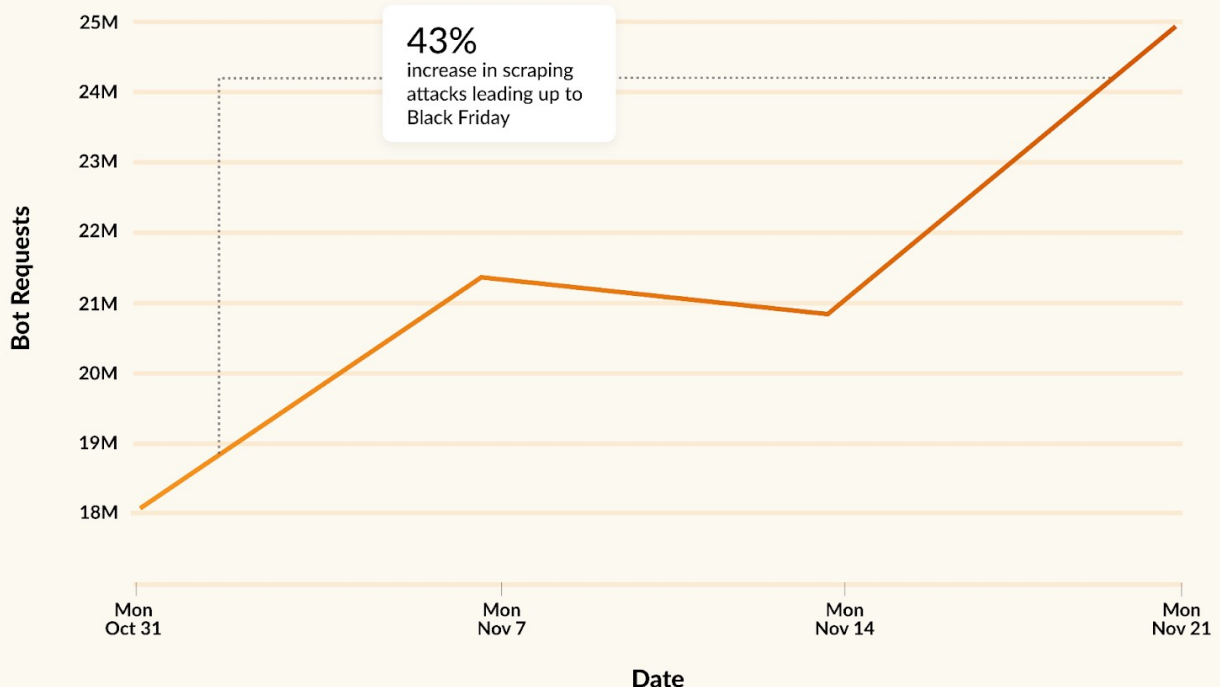
**3M+**

Scraping requests a day

## eCommerce Scraping Attacks

Oct 31- Nov 21

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# Freebie Bots

## Bot Operators Scored Over \$1.1M in Products with Freebie Bots

Freebie Bots leverage automation to scan retail websites for mispriced or discounted goods and purchase them at scale before the error is fixed.

Freebie Bots were drawn to Black Friday and Cyber Monday deals to score items at a fraction of the price and then resell them for a profit. Products with the highest discounts (70%-100% off) offered bot operators the best profit margin and were subsequently the most desirable. Items purchased by Freebie Bots typically weren't high-value items or in high demand, but rather ordinary consumer products such as LED strips and dog collars.

Kasada estimates that Freebie Bots successfully purchased over 40,000 products during Cyber 5 week (11/17 to 11/29), totaling over \$1.1M in retail value for a small price of \$134. Earlier in the month, a group of Freebie bots targeting a single retailer was solely responsible for obtaining over \$500,000 worth of goods (over 20,000 products) that cost the bot operators only \$85.

In the weeks leading up to Black Friday, bot checkouts steadily increased daily, with spikes occurring at 12:00 a.m. PST on Thanksgiving and Black Friday. Data suggests retailers had products scheduled to go live at midnight and as soon as the product became available, Freebie Bots quickly identified pricing and checked-out.

### Freebie Bot Checkout Success

Nov 17- Nov 29



Total Retail Value

**\$1.1M+**

# of Products

**40,000+**

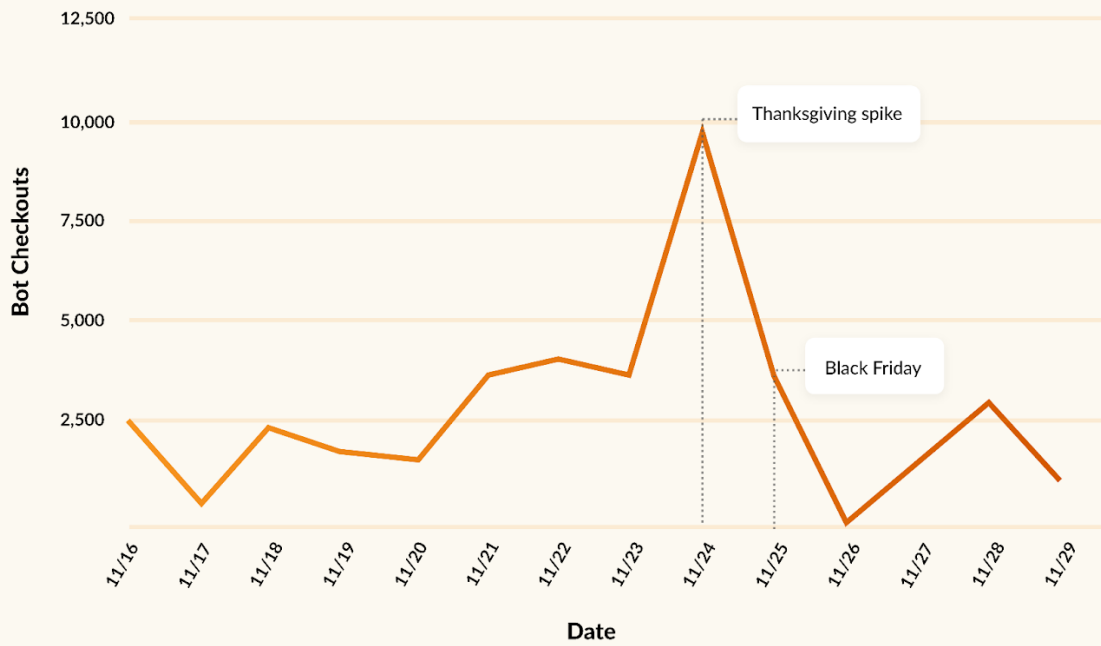
Total Paid

**\$134**

# Freebie Bot Checkouts

Nov 16- Nov 29

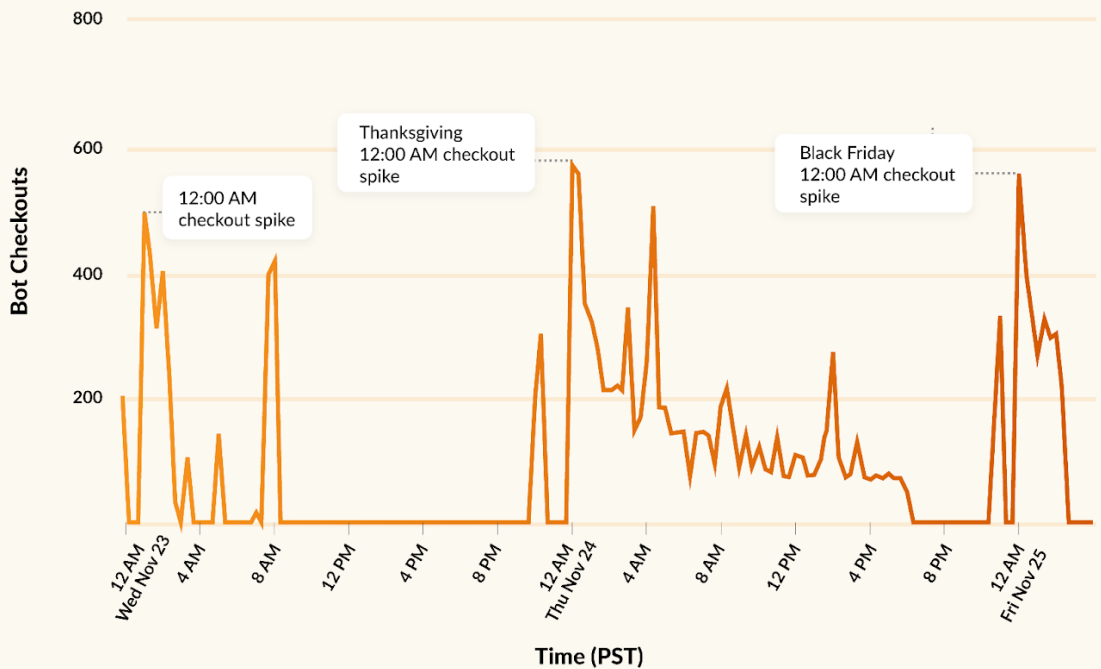
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# Freebie Bot Checkout Activity

Nov 23- Nov 25

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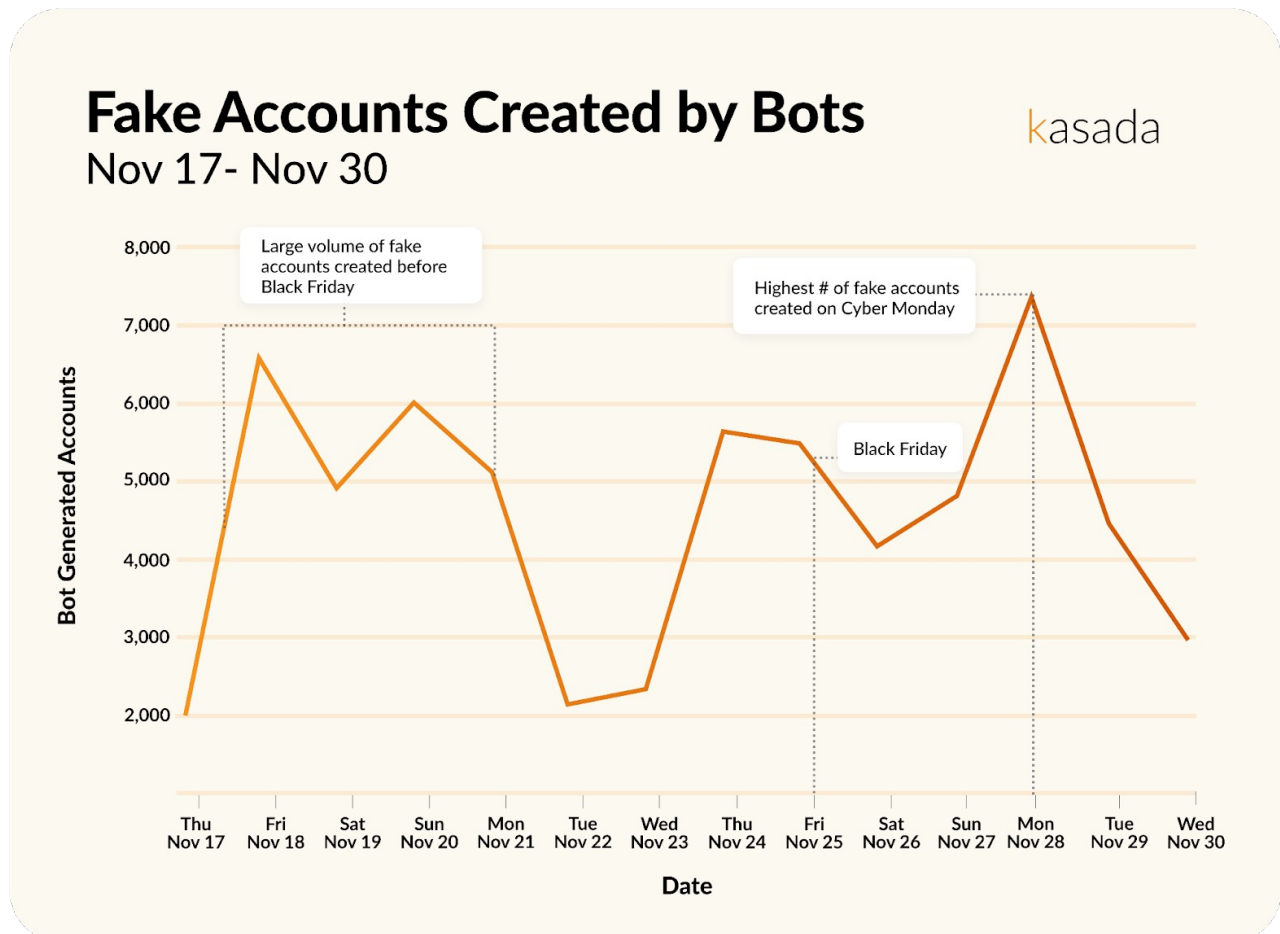
# Fake Account Generation

## 40% Increase in Fake Accounts Created by Bot Operators

Kasada's Threat Intelligence team observed large amounts of new accounts generated a week before Black Friday and on Cyber Monday. New accounts are typically created by bad actors using free email providers like iCloud and Gmail to create fake accounts and circumvent inventory checks during checkout.

A 3x increase in fake account creation before Black Friday suggests that adversaries were preparing for holiday sales and hype drops by aging fake accounts. Bot operators "age" accounts by creating fake user accounts days before a sale starts to avoid detection and increase the likelihood of securing products. Aged accounts are either used for personal gain or sold to other parties.

From Black Friday to Cyber Monday, the number of fake accounts generated rose by 40%. We suspect fake accounts were used to commit new account fraud and take advantage of sign-up promotions. The better the incentive, the more likely bots are to create massive volumes of new accounts to claim the free product or coupon.

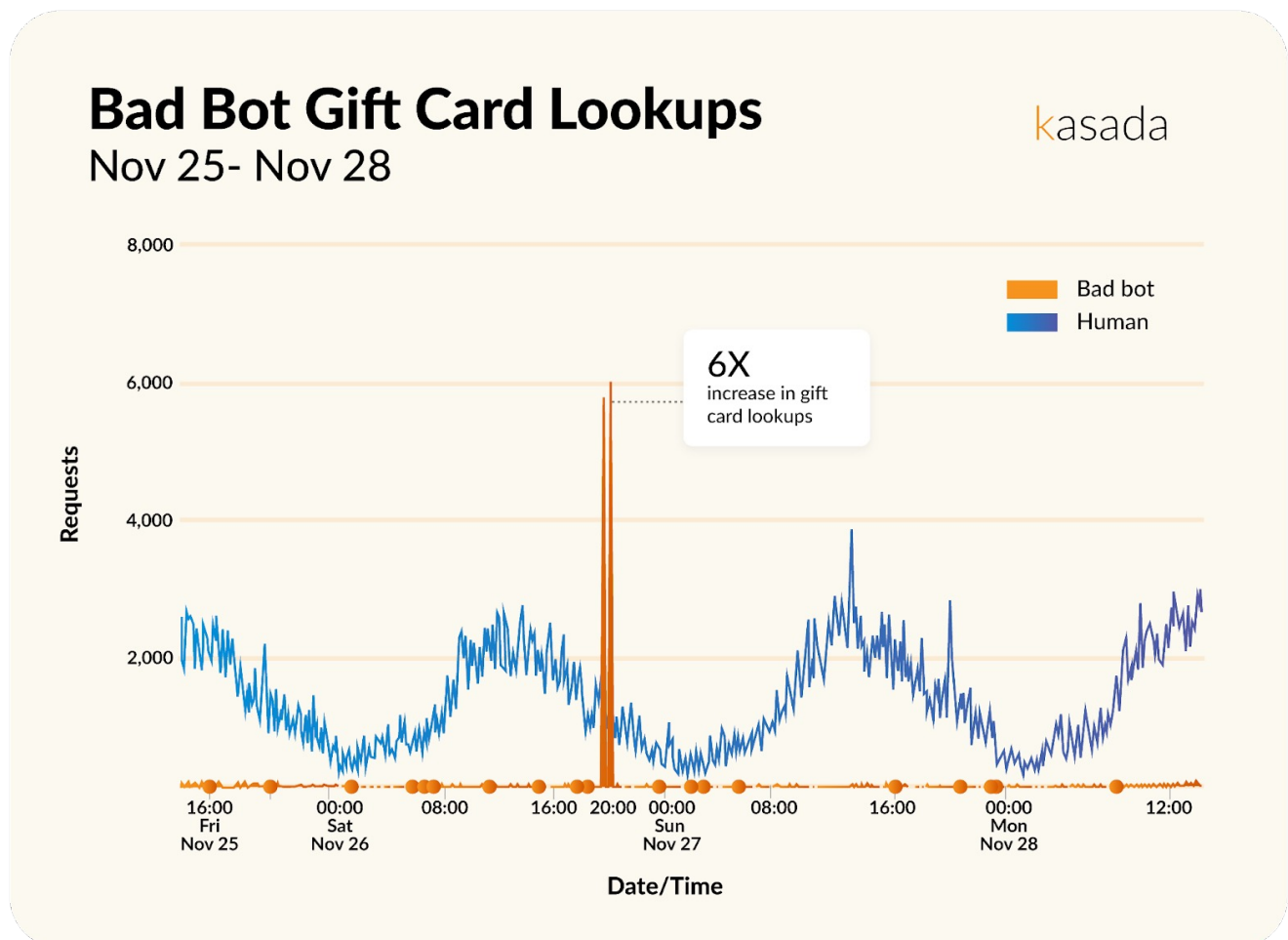


# Gift Card Fraud

## 6X Spike Every Saturday in November

Throughout the holidays, fraudsters regularly check balances by performing automated gift card lookups. Kasada has observed a 6x increase in gift card lookups over the span of a few hours during weekend holiday shopping in November.

Last year, gift card lookups quadrupled, which was an early warning sign and a key indicator that fraudsters were using bots to quickly identify and steal the remaining balances on gift cards at scale.



## About Kasada

Kasada is the most effective and easiest way to defend against bot attacks across web, mobile, and API channels. Its modern, proactive approach adapts as fast as the attackers working against them. Kasada is based in New York and Sydney, with offices in Melbourne, Boston, San Francisco, and London. For more information, please visit [www.kasada.io](http://www.kasada.io) and follow us on Twitter, LinkedIn, and Facebook.