



FRAUD ON ACTBLUE: HOW THE DEMOCRATS' TOP FUNDRAISING PLATFORM OPENS THE DOOR FOR ILLEGAL ELECTION CONTRIBUTIONS

Interim Staff Report of the

Committee on House Administration,
Committee on the Judiciary, and
Committee on Oversight and Government Reform

U.S. House of Representatives



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EXECUTIVE SUMMARY

The Committee on House Administration, the Committee on the Judiciary, and the Committee on Oversight and Government Reform are charged with ensuring the integrity of American elections.¹ To that end, the Committees are examining allegations that ActBlue, a leading political fundraising organization, allowed bad actors, including foreign actors, to exploit its online platform to make fraudulent political donations.² This interim staff report details the Committees' troublesome preliminary findings. Internal documents produced to the Committees by ActBlue and its fraud-prevention contractor, Sift, demonstrate a lack of commitment to stopping fraud and paint a picture of complacency on ActBlue's fraud-prevention team. Put simply, the documents reflect a fundamentally unserious approach to fraud prevention at ActBlue—one that has left the door open for large-scale fraud campaigns on Democrats' top fundraising platform.

In particular, the Committees' investigation has uncovered evidence that ActBlue made policy changes in 2024 that resulted in more fraudulent donations on the platform. Twice—once in April and once in September—ActBlue changed its fraud-prevention standards to make them “more lenient.”³ ActBlue internally assessed that the April change alone led to between 14 and 28 additional fraudulent contributions each month.⁴ Internal documents also confirm that before implementing anti-fraud measures, including a requirement that users enter card verification values (CVVs) at the time of donation, ActBlue tested whether the new measures would hurt Democrat fundraising.⁵ Then, once ActBlue implemented anti-fraud measures, it attempted to hide the changes so that they did not spark discussions of fraud on the platform.⁶

Internal documents also show that ActBlue staff and executives fail to take the threat of fraud seriously. ActBlue employees regularly demonstrated an unfounded belief that bad actors were not seeking to fraudulently contribute to Democrat campaigns and causes.⁷ For example, ActBlue's training guide for new fraud-prevention employees instructed them to “look for

¹ Rules of the House of Representatives R. X (K) Committee on House Administration, (L) Committee on the Judiciary, (N) Committee on Oversight and Government Reform (2025).

² See Letter from Rep. Bryan Steil, Chairman, Comm. on H. Admin., to Ms. Regina Wallace-Jones, Chief Executive Officer, ActBlue (Oct. 28, 2024); Letter from Rep. Jim Jordan, Chairman, H. Comm. on the Judiciary, to Ms. Regina Wallace-Jones, Chief Executive Officer, ActBlue (Dec. 9, 2024); Letter from Rep. Bryan Steil, Chairman, Comm. on H. Admin., Rep. James Comer, Chairman, H. Comm. on Oversight and Gov't Reform, & Rep. Nick Langworthy, to Hon. Scott Bessent, Sec'y, U.S. Dep't of Treasury (Mar. 10, 2025); Letter from Rep. Bryan Steil, Chairman, Comm. on H. Admin., Rep. Jim Jordan, Chairman, H. Comm. on the Judiciary, & Rep. James Comer, Chairman, H. Comm. on Oversight and Gov't Reform, to Ms. Regina Wallace-Jones, Chief Executive Officer, ActBlue (Apr. 2, 2025).

³ ActBlue memorandum, *Summary of changes made to Sift rules since 2023*; see Ex. 1; ActBlue memorandum, *Sift – Rule Change Proposal*; see Ex. 2; see also ActBlue memorandum, *2024 Q2 – Sift Rule Change Proposal*; Ex. 3; ActBlue memorandum, *Sift – RiskWatch (Percentile Scoring) Proposal*; Ex. 4.

⁴ ActBlue memorandum, *Summary of changes made to Sift rules since 2023*; see Ex. 1.

⁵ ActBlue product brief, *Broader CVV Support Product Brief & Development Checklist*; see Ex. 6; see also Email from ActBlue Product Manager to ActBlue Staff (Jan. 2, 2024); Ex. 7; ActBlue memorandum, *Capture CVV AB Test – Q4 2023*; Ex. 8.

⁶ ActBlue memorandum, *CVV Rollout Communications Plan*; see Ex. 9; ActBlue customer service inquiry (Sept. 11, 2024); see Ex. 10; ActBlue customer service inquiry (Oct. 25, 2024); see Ex. 11.

⁷ See ActBlue memorandum, *Summary of changes made to Sift rules since 2023*; Ex. 1; ActBlue memorandum, *2024 Q2 – Sift Rule Change Proposal*; Ex. 3.

reasons to accept contributions,” rather than err on the side of flagging a suspicious donation.⁸ ActBlue also subordinated its efforts to prevent fraud to its diversity, equity, and inclusion (DEI) goals. In 2024, ActBlue’s top fraud-prevention specialist told supervisors that he intended to “focus on DEI work[,]” even as he listed his top goal as “not allowing more than 10 [percent] *additional* missed fraud.”⁹ Rather than seeking to reduce or eliminate fraud on the platform, ActBlue’s chief fraud-prevention official was willing to accept 10 percent more fraud while he focused on DEI.

These attitudes persisted at ActBlue despite a pattern of fraudulent donations on the platform. In recent years, according to internal documents, ActBlue has detected at least 22 significant fraud campaigns, including patterns of fraudulent donations to Representative Steven Horsford (D-NV), Representative Kevin Mullin (D-CA), Governor Laura Kelly (D-KS), and the Democratic National Committee (DNC).¹⁰ Nine of these 22 fraud campaigns had a foreign nexus, and in three cases, candidates resisted ActBlue’s request that they return suspected fraudulent donations.¹¹ Internal documents also indicate that there have been instances in which bad actors have fraudulently taken control of user accounts, giving them the ability to make straw donations appearing to be from regular donors.¹² ActBlue has even seen brazen instances of fraud in which multiple people have made donations using the same credit card information, and has internally acknowledged multiple incidents in which fraudulent donations evaded ActBlue’s automatic fraud review processes.¹³

ActBlue acknowledges that serious gaps in its fraud-prevention systems remain. Internal communications explain that “if someone could coordinate a big attack where each individual donation fell below the [fraud review] threshold, they would go through.”¹⁴ For some donations, ActBlue’s fraud-prevention controls do not even apply. Transactions made using PayPal are not subject to ActBlue’s standard fraud-prevention process through Sift,¹⁵ and it is unclear whether ActBlue collects card verification values (CVVs) for the first donation in a series of recurring contributions—which constitute almost half of ActBlue’s donations.¹⁶

Altogether, ActBlue’s internal documents and communications paint a damning picture: despite repeated instances of fraudulent donations to Democrat campaigns and causes from domestic and *foreign* sources, ActBlue is not demonstrating a serious effort to deter fraud on its

⁸ ActBlue meeting notes, *Things to go over with associates about how we can be better about catching fraud*; see Ex. 12.

⁹ [ActBlue Fraud Specialist] 2024 Goals; see Ex. 13 (emphasis added).

¹⁰ ActBlue memorandum, *Known Instances of Fraud [Associates]*; see Ex. 14; ActBlue memorandum, *Known Instances of Fraud* (Dec. 1, 2024); see Ex. 51.

¹¹ *Id.*

¹² ActBlue memorandum, *Proposal for Solution to ActBlue Express Profiled Compromised During a Fraud Attack*; see Ex. 19; see also ActBlue memorandum, *Proposal for ActBlue Express Profile Recovery for Compromised Donors*; Ex. 20.

¹³ ActBlue memorandum, *Boeing VP Fraud Situation*; see Ex. 15; ActBlue memorandum, *Sift Rule Proposal – Same Payment Fingerprint*; see Ex. 21. ActBlue meeting notes, [Fraud Specialist] : [Donor Support Manager] Work Time (May 17, 2022); see Ex. 16; Email from ActBlue Fraud Specialist to Sift personnel (July 18, 2024); see Ex. 17.

¹⁴ ActBlue memorandum, *2024 Q2 – Sift Rule Change Proposal*; see Ex. 3.

¹⁵ ActBlue memorandum, *Fraud Prevention FAQ*; see Ex. 18.

¹⁶ ActBlue memorandum, *CVV Rollout Communications Plan*; see Ex. 9; Sarah Potter, *The power of recurring contributions*, ACTBLUE (Sept. 16, 2019).

platform. At best, ActBlue’s conduct displays a profound disrespect for the principle that only Americans should decide American elections. At worst, it may violate the Federal Election Campaign Act of 1971 (FECA), which states that persons who “knowingly accept a contribution made by one person in the name of another person” may face criminal liability.¹⁷ The Committees are deeply committed to protecting the integrity of American elections, and will continue investigating to inform potential legislative reforms to improve and strengthen our democracy. This oversight work is necessary and important to ensure that American elections are free, fair, and decided by Americans alone.

¹⁷ 52 U.S.C. § 30122; 52 U.S.C. § 30109(d)(1)(D); *see United States v. Hui*, No. 2:23-mj-00865 (E.D.N.Y. 2024).

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BACKGROUND

ActBlue is a “powerful online fundraising platform for Democratic candidates up and down the ballot, progressive organizations, and nonprofits.”¹⁸ Since its founding in 2004, ActBlue has raised over \$13.6 billion for Democrat campaigns and causes, and has developed a virtual monopoly over small-dollar fundraising on the American political left.¹⁹ As the Democrats’ one-stop-shop for political donations, ActBlue’s fraud-prevention policies have an outsized effect on the American electoral process. Integrity and confidence in American elections requires successful detection and deterrence of fraudulent donations made using ActBlue.

ActBlue employs Sift, an “AI-powered fraud decisioning” platform, as the key cog in its fraud-prevention operations.²⁰ Most ActBlue transactions are processed through Sift, which assigns each transaction a 0 to 100 fraud likelihood score based on various indicators of fraud.²¹ ActBlue sets and periodically tweaks guidelines dictating which transactions Sift flags for ActBlue staff to review.²² Transactions with high Sift scores (indicating a high likelihood of fraud), from high-risk countries, or bearing other indicators of fraud may be flagged for automatic rejection or manual review.²³

Following Sift’s review, ActBlue automatically accepts 99.8 percent of donations.²⁴ According to ActBlue, the remaining 0.2 percent are manually reviewed by ActBlue staff, or automatically rejected if they “use foreign prepaid/gift cards, domestic gift cards, are from high-risk/sanctioned countries, [or] have the highest level of risk as determined by Sift.”²⁵ Only five percent of contributions that are manually reviewed are rejected, meaning that ActBlue rejects significantly “less than 0.1 [percent] of all contributions” for suspected fraud.²⁶

ActBlue has made several fraud policy changes over the last year. In January 2024, ActBlue began requiring a CVV—the three or four number code often found on the back of a credit or debit card—for most transactions.²⁷ In August 2024, ActBlue stopped accepting donations made using foreign prepaid credit cards,²⁸ and in September 2024, ActBlue stopped accepting all donations made using gift cards.²⁹ These policy changes were adopted in direct response to the Committee on House Administration’s oversight; however, major gaps in ActBlue’s fraud-prevention practices remain. Indeed, ActBlue made two policy changes

¹⁸ *About Us*, ACTBLUE, <https://secure.actblue.com/about> (last accessed Mar. 24, 2025).

¹⁹ Maria Jose Hurtado, *Celebrating ActBlue’s 20th Year Anniversary!*, ACTBLUE (June 25, 2024); see Sean J. Miller, *Democrats Get Competition in the Donation Processing Space*, CAMPAIGNS & ELECTIONS (June 4, 2024). (“[ActBlue] currently has a virtual monopoly on processing Democratic fundraising payments.”)

²⁰ *About Us*, SIFT, <https://sift.com/company> (last accessed Mar. 24, 2025).

²¹ ActBlue memorandum, *Fraud Prevention FAQ*; see Ex. 18.

²² ActBlue memorandum, *Summary of changes made to Sift rules since 2023*; see Ex. 1.

²³ *Id.*

²⁴ *Id.*

²⁵ *Id.*

²⁶ ActBlue memorandum, *How Sift is Impacting Our Work at ActBlue*; see Ex. 22; ActBlue memorandum, *Fraud Prevention 101 for New Associates in the Workflow*; see Ex. 23.

²⁷ Email from ActBlue Product Manager to ActBlue Staff (Jan. 2, 2024); see Ex. 7.

²⁸ ActBlue memorandum, *Summary of changes made to Sift rules since 2023*; see Ex. 1.

²⁹ *Id.*

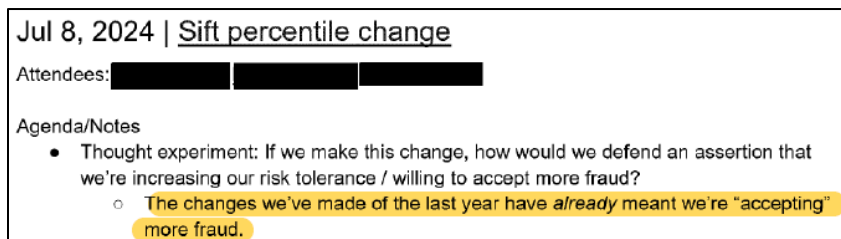
weakening its fraud-prevention standards in 2024 to adjust for rules that ActBlue deemed to be “historically too strict.”³⁰ These new policies reduced the volume of manually reviewed donations and raised the score threshold of multiple fraud indicators to allow for a higher rate of acceptance.³¹

I. ACTBLUE HAS MADE POLICY CHANGES THAT ALLOW FOR MORE FRAUDULENT DONATIONS.

Internal documents produced to the Committees show that ActBlue policy changes have made it easier for bad actors to fraudulently donate to Democrat campaigns and causes. ActBlue weakened its fraud-prevention rules twice in 2024, even after internal assessments confirmed that these policy changes would lead to more fraudulent donations. While ActBlue boasts about its recent changes requiring CVVs and banning certain donations made using gift cards and prepaid cards, internal documents confirm that these rule changes were carefully calibrated to minimize the effects on ActBlue’s donation volume and reputation.

A. ActBlue lowered its fraud-prevention standards in 2024.

ActBlue weakened its standards for reviewing potentially fraudulent donations twice in 2024. First, in April 2024, ActBlue increased the Sift score thresholds that trigger fraud review “across the board,” taking “a more lenient approach” to fraud prevention.³² ActBlue’s internal assessment found that during the first month of this policy change, ActBlue missed between 14 and 28 additional fraudulent contributions³³—potentially totaling thousands of dollars in fraudulent donations to Democrat campaigns and causes. A few months later, in July 2024, ActBlue once again confirmed that its policy changes led to more fraud: internal meeting notes recount that “the changes we’ve made [over] the last year have *already* meant that we’re ‘accepting’ more fraud[.]”³⁴ Importantly, the document refers to the full year from July 2023 to July 2024, indicating that the April 2024 score threshold increase allowed more fraud than the January 2024 CVV requirement prevented. Even with ActBlue’s new CVV requirement, the organization knew that it was accepting more fraudulent transactions.



*An internal meeting agenda confirmed that ActBlue policy changes led the platform to accept more fraudulent donations.*³⁵

³⁰ *Id.* (emphasis deleted).

³¹ *Id.*

³² *Id.*

³³ *Id.*

³⁴ ActBlue meeting agenda & notes, *Sift percentile change* (July 8, 2024); see Ex. 5 (emphasis in original).

³⁵ *Id.*

Later in the year, ActBlue once again weakened its fraud-prevention standards, implementing a new Sift feature intended to reduce the volume of donations that ActBlue manually reviewed. In September 2024, ActBlue replaced “all Sift score thresholds with the equivalent (slightly more lenient) RiskWatch thresholds[,]” meaning that instead of reviewing all transactions over a certain Sift score, ActBlue would only review a set percentage of the most fraudulent transactions.³⁶ As an example, consider a donation with a Sift score of 95, indicating a high likelihood of fraud. Under the previous policy, this donation would always have been manually reviewed because of its high score. Under the new policy, however, that donation would be reviewed only if it were one of the highest scoring transactions of the day or week, meaning that the likely fraudulent donation would have been accepted if there were a large number of more obviously fraudulent donations. While one ActBlue employee made the misleading claim that this change would “reject more fraud” and accept fewer false positives on donations that are “overscored by Sift’s scoring issues[,]” other employees more accurately stated that the policy change was likely to “increase[e] our risk tolerance.”³⁷

ActBlue made these policy changes despite evidence that fraud on ActBlue in 2024 was more rampant than ever before. In July 2024, ActBlue’s Fraud Prevention Specialist wrote that the average Sift score—the 0 to 100 score indicating likelihood of fraudulence—for ActBlue transactions was “the highest it [had] ever been and appear[ed] to be climbing further.”³⁸ Inexplicably, against the backdrop of increasing fraud, ActBlue still decided to weaken its fraud-prevention standards.

B. Before implementing potential anti-fraud measures, ActBlue tested their effect on Democrat donations.

While ActBlue seeks credit for making some positive anti-fraud changes to its rules since 2023,³⁹ internal documents produced to the Committees show that ActBlue instituted its CVV requirement in January 2024 only after ensuring that the change would not negatively affect Democrat donations. Internal memoranda updating ActBlue’s staff on forthcoming policy changes explain that before instituting a CVV requirement, ActBlue tested whether such a change would have “negative impacts to conversion”—that is, a drop in the likelihood that a user who clicked on the “donate” button would follow through with their donation.⁴⁰ Only once ActBlue confirmed that the new CVV policy would not lower donation volume did ActBlue implement it.⁴¹

³⁶ ActBlue memorandum, *Sift – Rule Change Proposal*; see Ex. 2; see also ActBlue memorandum, *Sift – RiskWatch (Percentile Scoring) Proposal*; Ex. 4. For example, ActBlue may have shifted from reviewing all transactions with a Sift score over 90 to reviewing only the top 1% of fraudulent transactions.

³⁷ ActBlue memorandum, *Sift – Rule Change Proposal*; see Ex. 2; ActBlue meeting agenda & notes, *Sift percentile change* (July 8, 2024); see Ex. 5.

³⁸ Email from ActBlue Fraud Specialist to Sift personnel (July 2, 2024); see Ex. 24.

³⁹ ActBlue memorandum, *Summary of changes made to Sift rules since 2023*; see Ex. 1.

⁴⁰ ActBlue memorandum, *Capture CVV AB Test – Q4 2023*; see Ex. 8; see also Email from ActBlue Product Manager to ActBlue Staff (Jan. 2, 2024); Ex. 7; ActBlue product brief, *Broader CVV Support Product Brief & Development Checklist*; Ex. 6.

⁴¹ *Id.*

- The majority of ActBlue payment flows haven't previously required users to input CVV when entering credit card information, which boosts donor confidence and doesn't negatively impact conversion rates. We tested adding CVV to credit card entry on forms to understand if this change would have negative impacts to conversion. CVV is not required for Entry Mode.

An internal ActBlue memo confirmed that the CVV change was only implemented after testing its potential effect on Democrat donations.⁴²

C. ActBlue sought to keep recent anti-fraud policy changes quiet to prevent discussions about fraud on the platform.

ActBlue also took steps to hide its recent anti-fraud measures from the press and ActBlue users to tamp down discussions of potential fraudulent activity on the platform. Internal communications show that ActBlue intended to “acknowledge the [CVV] rollout, but quietly[,]” aiming to minimize coverage of the policy change so that the media, Congress, and other parties would not inquire more broadly about ActBlue’s fraud policies.⁴³

Likewise, ActBlue appears to have instructed customer service agents not to mention the prepaid and gift card policy changes in their interactions with frustrated donors. An internal ActBlue customer service note, dated shortly after the policy change, states that “we wouldn’t want to comment on the gift cards” in response to customers inquiring why ActBlue had not successfully processed their gift card donations.⁴⁴

September 12, 2024 at 2:33 PM

Internal note

Choose the reason for sending to Donation Processing below and delete the rest (reference the [Donation Processing Issue Guide](#) if needed). If none apply, do a general escalation instead.

If donor's:

- Attempted donations are declining

Have you reviewed the Contribution Details Page in Indigo for the Change History, Payment Info, and Payment Authorizations? Please specify what you have done or N/A:

Hey [REDACTED] checked in with [REDACTED] about this one since the donor references they are using a giftcard. He said it looks like a better fit for donation processing WF since it is declining with the code "do not honor".

He noted that we wouldn't want to comment on the gift cards and instead just refer them to their bank

An internal ActBlue customer service note advised staff not to mention the gift card policy change in interactions with frustrated donors.⁴⁵

⁴² Email from ActBlue Product Manager to ActBlue Staff (Jan. 2, 2024); Ex. 7.

⁴³ ActBlue memorandum, *CVV Rollout Communications Plan*; see Ex. 9 (emphasis in original).

⁴⁴ ActBlue customer service inquiry (Sept. 11, 2024); see Ex. 10.

⁴⁵ *Id.*

ActBlue repeatedly gave donors the runaround, referring them to their banks or giving evasive answers instead of admitting that ActBlue had decided to change its prepaid and gift card policies.⁴⁶

October 25, 2024 at 7:31 PM

I've made donations using gift cards to both the Harris/Walz campaign and the Colin Allred campaign. I'm trying to make a \$25 donation to the Debbie Murcasel-Powell campaign and when I do it online I get caught up in an endless loop of "almost there...", "working on it....", etc. Can you help me make this donation?

October 27, 2024 at 8:55AM

Internal note

I am escalating this ticket because (select one):

• Other (explain): Seems to be related to the gift card change!

October 28, 2024 at 10:38AM

Hi

Thanks for reaching out and I'm sorry to hear about your declined donation.

We recommend getting in touch with your financial institution for further information about why the contribution is not being processed.

Please let me know if you have any other questions!

Best,

ActBlue customer service staff gave donors the runaround instead of informing them about the gift card policy change.⁴⁷

* * *

Twice in 2024, ActBlue lowered its fraud-prevention standards in ways that it assessed would allow more fraud on the platform. And while ActBlue did take positive fraud-prevention steps such as requiring CVVs for most transactions, internal documents show that ActBlue's changes were insufficient to reduce fraudulent donations and calculated to minimize potential negative effects on Democrat donations. Likewise, in interactions with the media and even its own customers, ActBlue sought to downplay policy changes to suppress any potential discussion of fraud on ActBlue.

II. ACTBLUE'S UNSERIOUS APPROACH TO FRAUD ENFORCEMENT INVITES FRAUD ON THE PLATFORM.

Beyond lenient policy changes, ActBlue's general attitude towards fraud prevention is unserious. ActBlue's actions and internal communications discount the notion that fraudsters would try to make fraudulent political donations using stolen credit card information.⁴⁸ Internal

⁴⁶ ActBlue customer service inquiry (Oct. 25, 2024); see Ex. 11; ActBlue customer service inquiry (Sept. 12, 2024), see Ex. 46; ActBlue customer service inquiry (Sept. 12, 2024); see Ex. 47.

⁴⁷ ActBlue customer service inquiry (Oct. 25, 2024); see Ex. 11.

⁴⁸ ActBlue memorandum, *Summary of changes made to Sift rules since 2023*; see Ex. 1.

training for staff dealing with fraud instructs them to accept as many donations as possible—even when some signs point towards fraud. And ActBlue’s commitment to fraud prevention is inconsistent, waxing and waning with the size of its fraud team. This unserious attitude towards fraud prevention persists even though ActBlue has detected significant fraudulent donation schemes, *including from foreign sources*.

A. Internal communications show that ActBlue does not take the threat of fraud seriously.

In internal communications, ActBlue employees repeatedly demonstrate a false certainty that bad actors are not seeking to make fraudulent donations using ActBlue’s platform. In one fraud policy update shared with ActBlue staff, for example, the fraud-prevention team assured employees that “we are not the primary target of people looking to commit merchant fraud. People who steal credit card information do not try to give that money away.”⁴⁹ ActBlue’s team responsible for deterring fraud failed to recognize the obvious reason why individuals might want to make fraudulent contributions using the platform: to illegally influence the outcomes of U.S. elections.

ActBlue also acknowledged that its fraud review processes lag far behind industry standards. In one policy proposal, ActBlue’s fraud team told senior executives that “[s]ome companies manually review like, 25-40 [percent] of orders,” compared to ActBlue’s 0.2 percent review rate.⁵⁰ ActBlue justified this discrepancy by claiming that other e-commerce platforms review a larger volume of orders only “because they sell physical goods.”⁵¹ This attitude is even more concerning given the evidence that fraudulent donations on ActBlue are generally quite large: internal documents show that over one seven-day period, the average size of contributions manually rejected by ActBlue was over \$6,000.⁵²

Conclusion

Without guidance from ELT/Finance/etc. on what our fraud tolerance is, we need to do that ourselves. It is very difficult for us to track what success looks like, because for the most part industry standard is chargebacks and false declines. Some companies manually review like, 25-40% of orders, but that is because they sell physical goods or similar.

*An ActBlue policy document compared ActBlue’s fraud-prevention standards to other e-commerce platforms.*⁵³

ActBlue’s training guide for new fraud-prevention staff displays the same carelessness about the platform’s susceptibility to fraud. Rather than training staff to look at transactions with a discerning and skeptical eye, ActBlue encourages them to look past obvious concerns, teaching

⁴⁹ ActBlue memorandum, *Summary of changes made to Sift rules since 2023*; see Ex. 1.

⁵⁰ ActBlue memorandum, *2024 Q2 – Sift Rule Change Proposal*; see Ex. 3.

⁵¹ *Id.*

⁵² ActBlue internal donation data, see Ex. 52.

⁵³ ActBlue memorandum, *2024 Q2 – Sift Rule Change Proposal*; see Ex 3.

that “[w]e want to give our donors the benefit of the doubt and think about the reasons why a contribution is legitimate.”⁵⁴ Even a fake name is not enough for ActBlue to reject a donation. The training guide states that “if an otherwise legitimate donor uses a fake name, we would want to accept their donations[.]”⁵⁵ Similarly, ActBlue staff are specifically taught to accept large donations inputted directly by campaigns, because it can “put the [campaign] in an awkward position when they need to reach back out to the donor to ask that they reattempt a, often very large, contribution.”⁵⁶

4. How to review a contribution

- a. This is obviously the most important, most frequently used skill you will use while working regularly in Sift. Getting good at this will take time and practice, but you will get good at this. Here are some helpful tips when doing regular reviews (the sections that come later will outline what to do when things are significantly out of the ordinary).
- b. When you review a contribution, you want to look at the totality of the donation, not just the specifics, meaning, you want to look at the totality of the characteristics and context of a contribution rather than making decisions based on a single signal. We want to give our donors the benefit of the doubt and think about the reasons why a contribution is legitimate.

*ActBlue training documents instruct new fraud-prevention staff to accept as many donations as possible.*⁵⁷

In one meeting, even long-time fraud-prevention staff were reminded about ActBlue’s weak anti-fraud procedures. Team leaders told fraud-prevention associates to “remember that we want to look for reasons to accept contributions[.]” rather than examine them closely for indicators of fraud.⁵⁸ In the same meeting, staff were reminded not to “reject contributions for a single suspicious characteristic.”⁵⁹

Internal performance reviews of ActBlue’s fraud-prevention staff underscore this point. Each quarter, leaders of ActBlue’s fraud-prevention operations audit a select number of donations reviewed by each fraud-prevention staffer to provide feedback on whether they are effectively implementing ActBlue’s fraud policies.⁶⁰ It appears to be a serious and prudent fraud-prevention practice—until one examines the results of the audits. In these performance reviews, ActBlue instructed fraud staff that they could have accepted donations with indicators of fraudulence, including:

⁵⁴ ActBlue memorandum, *Fraud Prevention 101 for New Associates in the Workflow*; see Ex. 23.

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ ActBlue meeting notes, *Things to go over with associates about how we can be better about catching fraud*; see Ex. 12.

⁵⁹ *Id.*

⁶⁰ See, e.g., ActBlue Performance Review of Fraud Prevention Employee (Oct. 31, 2024); Ex. 45.

- “Name/email . . . apparent mismatch and . . . IP/billing mismatch”⁶¹
- “Can’t figure out an explanation for their IP addresses . . . and couldn’t confirm the donor with a Google search”⁶²
- “All signs point to this person b[e]ing from Canada but they used a Missouri billing address”⁶³
- Donor name “amy amy”⁶⁴
- “A [Sift] score of 100”⁶⁵
- “Donors who initialize their name”⁶⁶
- “Contributions made with incomplete names”⁶⁷
- “Wrong state code”⁶⁸
- “High volume of failed donations”⁶⁹
- “One foreign IP address”⁷⁰
- “A foreign IP address”⁷¹
- “Foreign IP”⁷²
- “One foreign IP ping”⁷³

Beyond these instructions to potentially accept donations with major red flags, ActBlue’s culture of complacency towards potential fraud led to low-quality work by the fraud-prevention team. One internal document indicated that the fraud team was “not diligently reviewing contributions” and “not flagging possible fraud trends.”⁷⁴ This demonstrates that mere changes in policy may not be enough to successfully deter fraud on ActBlue’s platform. Fraud-prevention staff also must take their jobs, and the threat of fraud, seriously. Even strong fraud-prevention measures can fail if they are not enforced with focus and dedication. In ActBlue’s case, weak fraud-prevention measures are compounded by uncommitted staff and poor internal practices.

The performance reviews also demonstrated that some fraud-prevention staff accepted donations so clearly fraudulent that ActBlue could not look the other way. Fraud team management auditing found that ActBlue staff accepted donations with obviously fraudulent characteristics, including:

⁶¹ ActBlue Performance Review of Fraud Prevention Employee (Oct. 31, 2024); *see* Ex. 38.

⁶² *Id.*

⁶³ ActBlue Performance Review of Fraud Prevention Employee (Oct. 31, 2024); *see* Ex. 39.

⁶⁴ ActBlue Performance Review of Fraud Prevention Employee (Oct. 31, 2024); *see* Ex. 40.

⁶⁵ ActBlue Performance Review of Fraud Prevention Employee (Oct. 31, 2024); *see* Ex. 41.

⁶⁶ ActBlue Performance Review of Fraud Prevention Employee (Oct. 31, 2024); *see* Ex. 42.

⁶⁷ *Id.*

⁶⁸ ActBlue Performance Review of Fraud Prevention Employee (Oct. 31, 2024); *see* Ex. 38.

⁶⁹ ActBlue Performance Review of Fraud Prevention Employee (Oct. 31, 2024); *see* Ex. 42.

⁷⁰ ActBlue Performance Review of Fraud Prevention Employee (Oct. 31, 2024); *see* Ex. 40.

⁷¹ *Id.*

⁷² *Id.*

⁷³ ActBlue Performance Review of Fraud Prevention Employee (Oct. 31, 2024); *see* Ex. 39.

⁷⁴ ActBlue meeting notes, *Responsibilities we need to improve*; *see* Ex. 26.

- “[M]ultiple different credit cards . . . an IP/billing location mismatch and was giving to candidates in cities other than their own, an[d] an extremely suspicious email domain[.]”⁷⁵
- “[O]dd, high dollar donations to a c3,” a “suspicious” email, and “numerous IP/billing mismatches[.]”⁷⁶
- “[A] triple country mismatch: a NG credit card, a Canadian IP, and CA billing address.”⁷⁷
- “The name and address are fully fake[.]”⁷⁸

While these donations were returned after audits determined them to be fraudulent, they exemplify ActBlue’s lack of commitment to preventing fraud in the first place.

ActBlue’s fraud-prevention staff is instead committed to promoting DEI initiatives. At the beginning of 2024, ActBlue’s top fraud-prevention employee informed ActBlue leadership that he intended to “focus on DEI work” in the upcoming year.⁷⁹ In the very same document, he informed them that his primary goal for 2024 was “not allowing more than 10 [percent] *additional* missed fraud.”⁸⁰ Remarkably, in a presidential election year, ActBlue’s lead fraud-prevention employee decided to focus on DEI while openly admitting that he was planning to allow more fraud on ActBlue’s platform. Similarly, in 2023, the full fraud-prevention team proposed initiating a study of “algorithmic bias” on ActBlue’s website to “propose possible anti-bias solutions.”⁸¹

ActBlue’s weak commitment to monitoring and deterring fraudulent transactions also filters through to its policies. Internal documents show that ActBlue adjusts its fraud-prevention standards at will in response to “our team’s capacity.”⁸² For example, according to one internal document, “something occurred in mid-October [2023]” that caused Sift scores for ActBlue donations to rise, meaning that ActBlue’s manual review volume spiked.⁸³ Subsequently, ActBlue repeatedly “bump[ed] up the [Sift] score thresholds”—that is, made fraud standards more lenient—to reduce the number of manual fraud reviews it had to conduct.⁸⁴ Instead of setting a high fraud-prevention standard and expecting staff to maintain it, ActBlue intentionally weakened its fraud-prevention standards during periods of increased workload or limited staff capacity. Similarly, in 2023, when ActBlue conducted an internal review of its fraud-prevention practices, the “overarching goal [was] to decrease the number of reviews” of potentially fraudulent donations.⁸⁵

⁷⁵ ActBlue Performance Review of Fraud Prevention Employee (Oct. 31, 2024); *see* Ex. 45.

⁷⁶ *Id.*

⁷⁷ ActBlue Performance Review of Fraud Prevention Employee (Oct. 31, 2024); *see* Ex. 40.

⁷⁸ ActBlue Performance Review of Fraud Prevention Employee (Oct. 31, 2024); *see* Ex. 41.

⁷⁹ [ActBlue Fraud Specialist] 2024 Goals; *see* Ex. 13.

⁸⁰ *Id.* (emphasis added).

⁸¹ ActBlue 2023 Fraud Prevention Roadmap; *see* Ex. 27.

⁸² ActBlue memorandum, 2023 Sift Workflow Rules Assessment; *see* Ex. 28.

⁸³ Email from ActBlue Fraud Specialist to Sift personnel (Jan. 16, 2024); *see* Ex. 29.

⁸⁴ Email from ActBlue Fraud Specialist to Sift personnel (Dec. 11, 2023); *see* Ex. 29.

⁸⁵ ActBlue memorandum, 2023 Sift Workflow Rules Assessment; *see* Ex. 28.

High Score Rules

We have the following rules that only have a Sift Score component threshold, which we use as a “catch-all” where we trust Sift’s scoring methodology to capture risky donations when no specific signals apply.

We have traditionally adjusted these threshold rules up or down based on our team’s capacity to review additional donations. Our company is in the process of formalizing our risk tolerance. Until we know exactly what that entails, we can maintain a capacity based approach to these rules.

*ActBlue’s commitment to fraud prevention waxed and waned with the ease of preventing fraud.*⁸⁶

Not even congressional scrutiny of ActBlue’s fraud-prevention practices could change its attitude. Internal documents showed that ActBlue called investigations into its fraud practices—including the Committees’—a “scare tactic” and a “coordinated disinformation campaign” by “extreme right-wing individuals[.]”⁸⁷ Instead of taking steps to better detect and deter fraud, ActBlue turned to the legacy media for backup. One internal document instructed ActBlue communications staff to engage with “legitimate [media] outlets” ahead of the CVV rollout, while warning them not to engage with “right wing outlet[s.]”⁸⁸

B. ActBlue knows fraudulent actors—both foreign and domestic—are exploiting its platform.

ActBlue’s apparent lack of interest in policing fraud is inexcusable on its own terms. But it is especially dangerous in light of the platform’s awareness that fraudulent actors have repeatedly sought to donate to Democrat campaigns and causes through ActBlue. With little more than a token fraud-prevention program, ActBlue has detected at least 22 wide-ranging domestic and foreign fraud campaigns pushing donations to candidates, campaign committees, and advocacy groups at every level of American politics. Most alarmingly, ActBlue has detected foreign fraud attempts emanating from Brazil, Colombia, Ecuador, India, Iraq, Jordan, Myanmar, the Philippines, and Saudi Arabia.⁸⁹ The 22 fraud campaigns outlined in ActBlue internal documents show patterns of fraudulent donations to:⁹⁰

- Democratic National Committee (DNC)
- Governor Laura Kelly (D-KS)
- Representative Steven Horsford (D-NV)
- Representative Kevin Mullin (D-CA)
- Former U.S. Senate candidate Luke Mixon (D-LA)
- Former U.S. House candidate Audrey Denney (D-CA)

⁸⁶ ActBlue memorandum, *2023 Sift Workflow Rules Assessment*; see Ex. 28.

⁸⁷ ActBlue talking points, *Key Themes for Validators*; see Ex. 30; ActBlue talking points, *ActBlue Executive Tough Q&A*; see Ex. 31.

⁸⁸ ActBlue memorandum, *CVV Rollout Communications Plan*; see Ex. 9.

⁸⁹ ActBlue memorandum, *Known Instances of Fraud [Associates]*; see Ex. 14; ActBlue memorandum, *Known Instances of Fraud* (Dec. 1, 2024); see Ex. 51.

⁹⁰ *Id.*

- Supervisor David Canepa (D-San Mateo County, CA)
- Mayor Erin Joyce (D-Braintree, MA)
- Councilor Kendra Hicks (D-Boston, MA)
- Alderman Justin Sawyer (D-Chicago, IL)
- Center for American Progress (CAP)
- National Association for the Advancement of Colored People (NAACP)
- The Ocean Agency
- Global Zero
- ChildFund International
- Courage California
- National Bail Out
- Vote Common Good
- Defund Apartheid Action
- Democratic Committee of Morris Plains (NJ)
- Volusia County Young Democrats (FL)
- Souderton Democrats (PA)

The Committees have no evidence that any of these candidates or entities solicited the fraudulent donations, though at least three campaigns did knowingly attempt to profit from them after being informed of their likely fraudulence. Internal documents indicate that the campaigns of Representative Kevin Mullin (D-CA), former U.S. Senate candidate Luke Mixon (D-LA), and Supervisor David Canepa (D-San Mateo County, CA), resisted when ActBlue asked them to return possible fraudulent donations.⁹¹ It is unclear to what extent any fraudulent donations detected by ActBlue were ultimately returned, though after a fraud attack in early June 2023, ActBlue internally noted that “most of [the fraudulent donations] were caught and rejected.”⁹² ActBlue may now perform additional manual review of contributions to these entities and contributions emanating from high-risk countries, including countries with a history of fraudulent donations.⁹³ Nonetheless, it is highly alarming that concerted fraudulent donation campaigns are so common—especially in light of ActBlue’s weak fraud defenses.

Spotted by associates on 3/31/2022. Someone made many contributions to the Luke Mixon campaign for \$1.00 and a different person made many contributions to the David Canepa and Kevin Mullin campaigns for \$25.00. These donors each used many different credit cards to make these donations. The first donor used 27 different cards. This was highly suspicious and the associate and myself thought it was card testing. However, I escalated these donations to the Outreach Associates for the campaigns, and they reached out to admins at all three campaigns who said they wanted the donations to go through. This does call into question our processes around admin outreach and who has the final say on what gets accepted.

*ActBlue staff noted that certain campaigns resisted when ActBlue asked them to return donations that appeared to be fraudulent.*⁹⁴

⁹¹ ActBlue memorandum, *Known Instances of Fraud* (Dec. 1, 2024); see Ex. 51.

⁹² ActBlue memorandum, *Known Instances of Fraud [Associates]*; see Ex. 14; ActBlue memorandum, *Known Instances of Fraud* (Dec. 1, 2024); see Ex. 51.

⁹³ *Id.*

⁹⁴ ActBlue memorandum, *Known Instances of Fraud* (Dec. 1, 2024); see Ex. 51.

More broadly, ActBlue has expressed doubts about Sift’s ability to effectively detect fraudulent transactions. In July 2024, ActBlue’s Vice President of Customer Service wrote to Sift, lamenting that ActBlue was “told over and over again that there was nothing wrong with the [Sift] model, despite every metric suggesting there was[.]” before Sift eventually “acknowledged that there [were], in fact, issues” with the model.⁹⁵ Indeed, by that time, Sift had been investigating “why risky [ActBlue] users were not scoring high enough” for several months.⁹⁶ During this internal investigation, ActBlue wrote to Sift specifically about its failure to detect a fraud campaign in which several donations “had the same billing address, IP address, credit card (!!), and email domain[.]”⁹⁷ Despite these obvious indicators of fraud, each of these transactions received low Sift scores.⁹⁸ In the same period, ActBlue asked Sift why 49 potentially fraudulent contributions, all using the same email and credit card information, were not flagged by Sift’s model.⁹⁹ This lack of trust in Sift’s model led ActBlue to ignore Sift’s warnings altogether in at least one case. In October 2023, ActBlue pushed back when Sift employees flagged two users who had nine or more credit cards associated with their accounts, indicating a “card tester” fraud operation.¹⁰⁰ ActBlue’s top fraud-prevention employee instead argued that there could be “plausible explanations for someone using that many cards”¹⁰¹

On Thu, Jul 18, 2024 at 11:02 AM [REDACTED] wrote:
Hi [REDACTED],

Thanks for following up with us!

Next Tuesday at 12:30 PST works perfectly for me to meet about workflow optimizations. Could you please go ahead and send me an invite for that?

I would also appreciate us going over the chargebacks issue you mentioned at the coming meeting. I checked with our payments team and provided the examples, but they did not quite understand what the ask is, and I am unable to elaborate on it to them.

Finally, I just wanted to provide some examples of donations that *feel* like they are not scored well correctly.

1. [REDACTED] - Sure, the donor has a lower case name, but nothing else looks suspicious and it scored 94.
2. [REDACTED] - Similar as above. Score of 93 without a very obvious reason why
3. [REDACTED] - A good example of payment fingerprint being the riskiest signal despite there not being a clear connection to the others that also have that fingerprint. This one also interestingly is connected to a ton of users based on failed transactions from that BIN across your network.
4. [REDACTED] - This has a Sift score of 100, a.k.a. would be an example of a good donation being auto-rejected despite being completely normal and having no red signals at all
5. [REDACTED] - MEANWHILE, this donation has a billing address far from the IP address and a foreign prepaid credit card and only scored a 90. That is the kind of donation we would hope to score very high.
6. [REDACTED] - This is an example of donations from a missed fraud situation that we feel *should* have been caught. The donations all had the same billing address, IP address, credit card (!!), and email domain, and this donation was scored as 69.

Looking forward to discussing this all some more!

Best,

*ActBlue alerted Sift about a fraud campaign that Sift failed to detect.*¹⁰²

⁹⁵ Email from ActBlue Vice President of Customer Service to Sift personnel (July 30, 2024); *see* Ex. 33.

⁹⁶ Email from ActBlue Fraud Specialist to Sift personnel (June 4, 2024); *see* Ex. 48; Email from ActBlue Fraud Specialist to Sift personnel (July 24, 2024); *see* Ex. 49.

⁹⁷ Email from ActBlue Fraud Specialist to Sift personnel (July 18, 2024); *see* Ex. 17.

⁹⁸ *Id.*

⁹⁹ Email from ActBlue Fraud Specialist to Sift personnel (June 4, 2024); *see* Ex. 48.

¹⁰⁰ Emails between ActBlue Fraud Specialist and Sift personnel (May 3, 2023); *see* Ex. 50.

¹⁰¹ *Id.*

¹⁰² Email from ActBlue Fraud Specialist to Sift personnel (July 18, 2024); *see* Ex. 17.

Finally, ActBlue has identified other, less systematic attempts to exploit its platform. In one thirty-day window in September and October 2024, ActBlue detected 237 separate donations made from foreign IP addresses using domestic prepaid cards—a leading indicator of fraud.¹⁰³ In response, ActBlue banned contributions made from foreign IP addresses using domestic prepaid cards.¹⁰⁴ ActBlue further acknowledged that it has experienced instances of fraud in which multiple people have made donations using the same credit card information.¹⁰⁵ As a result, ActBlue instituted a rule that it would manually review more of these transactions.¹⁰⁶ Individuals have also reported that their stolen credit cards have been used on ActBlue. In June 2020, for example, one user informed ActBlue of \$500 in donations made using a credit card that was stolen from him via pickpocket in Spain the previous year.¹⁰⁷ ActBlue documents also detail impersonation attempts that failed to trigger its automated fraud-prevention rules, including a January 2024 incident in which a left-wing activist impersonated a Boeing executive and attempted to make fraudulent contributions.¹⁰⁸ Likewise, in April and May 2022, ActBlue’s fraud specialist found six fraudulent donations that had gone undetected by ActBlue’s automatic fraud review process.¹⁰⁹ Upon this discovery, ActBlue rejected the donations. In total, between September 2022 and November 2024, ActBlue internally tagged donations as potentially fraudulent at least 1,900 times.¹¹⁰ Though some donations may have been tagged more than once, this indicates that fraud on ActBlue appears to be widespread.¹¹¹

* * *

While ActBlue detected, and may have stopped, these fraud campaigns, they make ActBlue’s unserious attitude towards fraud prevention even more alarming. ActBlue knows that domestic and foreign actors are trying to donate to Democrat campaigns and causes, yet still refuses to make a serious commitment to fraud prevention.

III. GAPS IN ACTBLUE’S FRAUD-PREVENTION PRACTICES REMAIN.

Given ActBlue’s recent policy changes and apparent disinterest in policing fraud, major gaps can be seen in its fraud-prevention practices. Indeed, ActBlue admits that these blind spots could permit fraudulent donations to continue to flow to Democrat campaigns and causes.

Most alarmingly, ActBlue acknowledges that well-planned fraud campaigns could fool its fraud-prevention system and go undetected. In an internal policy document, ActBlue’s fraud-prevention team wrote that “hypothetically if someone could coordinate a big attack where each

¹⁰³ ActBlue memorandum, *Sift Rule Changes – Adjustments to Prepaid Cards*; see Ex. 35.

¹⁰⁴ *Id.*

¹⁰⁵ ActBlue memorandum, *Sift Rule Proposal – Same Payment Fingerprint*; see Ex. 21.

¹⁰⁶ *Id.*

¹⁰⁷ ActBlue customer service inquiry (June 8, 2020); see Ex. 44.

¹⁰⁸ ActBlue memorandum, *Boeing VP Fraud Situation*; see Ex. 15.

¹⁰⁹ ActBlue meeting notes, *[Fraud Specialist] : [Donor Support Manager] Work Time* (May 17, 2022); see Ex. 16.

¹¹⁰ ActBlue spreadsheet tracking internal tags applied to donations (Dec. 1, 2024); see Ex. 43.

¹¹¹ *Id.*

individual donation fell below the [Sift red flag] threshold, they would go through.”¹¹² This is especially true for donations made using PayPal, which are not processed through Sift at all.¹¹³

Moreover, the January 2024 CVV requirement may have major loopholes. It is unclear from the documents whether the CVV requirement applies to the first donation in a series of recurring donations, which constitute almost half of ActBlue contributions.¹¹⁴ While one internal document stated categorically that a CVV requirement for “[r]ecurring [donations was] NOT getting rolled out” in January 2024, an August 2024 policy update noted that “ActBlue cannot use a CVV for a recurring contribution *where the charge is automatically initiated* on an ongoing basis at the consumer’s prior direction.”¹¹⁵ The latter document indicates that ActBlue may collect CVV for the first in a series of recurring donations that is *manually* initiated by the donor. However, if CVV is not required for the first in a series of recurring contributions, there seems to be a perverse and absurd incentive: fraudsters who have a stolen credit card but do not have the CVV can make fraudulent donations on ActBlue, but only if they do so repeatedly.

Until recently, campaigns could also “bypass [the CVV] requirement by using [ActBlue’s] Entry Mode feature.”¹¹⁶ Entry Mode “create[d] an alternate version of [a campaign’s] contribution form that [did] not store any user data in the internet browser.”¹¹⁷ ActBlue “recommend[ed] using this feature when multiple people [were] giving on the same device, like at in-person events[.]”¹¹⁸ However, if a campaign were orchestrating a fraud effort and directly entering fraudulent contributions itself, it could have used this mode to bypass the CVV requirement. ActBlue informed the Committees on February 6, 2025, that it intended to discontinue Entry Mode.¹¹⁹

ActBlue also acknowledges that fraudulent donations may occur when individuals’ ActBlue profiles are hacked. An internal policy proposal noted that “[t]here are situations where a donor has had their ActBlue Express profile compromised . . . because their credentials were stolen elsewhere . . . and the fraudster has allegedly changed the email associated with the profile.”¹²⁰ In these instances, if the rightful account holder has payment information saved in his account, the fraudster can make illegal straw contributions in the account holder’s name. Even more concerning, ActBlue does not require a CVV when users “add a new payment method to

¹¹² ActBlue memorandum, *2024 Q2 – Sift Rule Change Proposal*; see Ex. 3.

¹¹³ ActBlue memorandum, *Fraud Prevention FAQ*; see Ex. 18.

¹¹⁴ ActBlue memorandum, *ActBlue Summary on CVV Practices*; see Ex. 36; Sarah Potter, *The power of recurring contributions*, ACTBLUE (Sept. 16, 2019). The Committee repeatedly sought clarity on this question from ActBlue’s counsel, who did not provide an answer.

¹¹⁵ ActBlue memorandum, *CVV Rollout Communications Plan*; see Ex. 9; ActBlue memorandum, *ActBlue Summary on CVV Practices*; see Ex. 36 (emphasis added).

¹¹⁶ ActBlue memorandum, *CVV Expanded Roll Out Language post 1/2/24 Roll Out*; see Ex. 37.

¹¹⁷ *Creating & Customizing Contribution Forms*, ACTBLUE SUPPORT, <https://support.actblue.com/campaigns/gettingstarted/creating-customizing-contribution-forms/> (last accessed Jan. 17, 2025).

¹¹⁸ *Id.*

¹¹⁹ Letter from Mr. Brian D. Smith, Counsel for ActBlue, to Rep. Bryan Steil, Chairman, Comm. on H. Admin, & Rep. Jim Jordan, Chairman, H. Comm. on the Judiciary (Feb. 6, 2025).

¹²⁰ ActBlue memorandum, *Proposal for Solution to ActBlue Express Profile Compromised During a Fraud Attack*; see Ex. 19; ActBlue memorandum, *Proposal for ActBlue Express Profile Recovery for Compromised Donors*; see Ex. 20.

their account[,]” indicating that in these instances, the fraudsters would be able to make contributions without entering the CVV on a stolen card.¹²¹

CONCLUSION

The Committees’ investigation paints an alarming picture of potential campaign finance fraud playing out on the largest online donation platform for the Democratic Party. Twice in 2024, ActBlue made its fraud-prevention rules “more lenient[,]” even though the platform knew that these policy changes would result in more fraudulent donations to Democrat campaigns and causes. In recent years, ActBlue has detected at least 22 large-scale fraud campaigns, including at least nine from foreign sources—yet it still maintains a casual, unserious, and uncommitted approach to fraud prevention. Unsurprisingly, this approach has left large loopholes for potential fraudulent donations, including from foreign sources, to Democrat campaigns and political organizations.

This investigation is not complete. The Committees are committed to ensuring the integrity of American elections, and we will continue to probe fraudulent donation activity on ActBlue. Americans deserve—and indeed, have a right to—free and fair elections decided without illegal election interference.

¹²¹ ActBlue product brief, *Broader CVV Support Product Brief & Development Checklist*; see Ex. 6.

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EXHIBIT 1

ActBlue Memorandum, Summary of Changes Made
to Sift Rules Since 2023

Summary of changes made to Sift rules since 2023

Introduction

Our approach to fraud prevention has been to leverage our solution provider's (Sift) scoring system while minimizing friction to the donor and admin experience. We have rules that automatically reject donations that use foreign prepaid/gift cards, domestic gift cards, are from high-risk/sanctioned countries, and have the highest level of risk as determined by Sift. We manually review all contributions a tier lower than that highest level, and even some lower than that if they have certain risky signals (i.e. an IP/billing country mismatch).

Ultimately, we are not the primary target of people looking to commit merchant fraud. People who steal credit card information do not try to give that money away, they try to buy things on Amazon, etc. Our true rate of fraud is very low, and we only needed to reject ~1,000 donation attempts out of ~6.5 million attempts in August.

From an election integrity standpoint, we take things extremely seriously, and you will find that our rules do an excellent job of preventing inappropriate donations. Risky donors with foreign characteristics are very frequently manually reviewed and we do not accept donations from the riskiest donors at all.

As you will see in the rule changes we have made, we have introduced new rules as we have learned the ways in which we are targeted by fraudsters, but actually, our rules have been historically too *strict*, and we review too many false positive, good donors, and so we have needed to make adjustments to not interfere with the donation process, without opening us up to increased levels of fraud.

Current Rules (as of 9/9/2024)

These rules work in a waterfall manner. A contribution comes into Sift, and then is checked against each rule, in order. This means that a contribution may have characteristics that would, as an example, trigger rule 29 had it made it to it, but if it had triggered rule 12, it would take whatever action in the "Decision Applied" column we have chosen.

Rule Number	Rule Name	Rule Specifics	Decision Applied	Notes
1	Internal Testing Email Whitelist	[REDACTED]	Automatically Accept	In place so ActBlue tech employees can run tests without getting stuck in Sift
2	Foreign Issued Prepaid Cards	[REDACTED]	Automatically Reject	
3	Domestic Gift Cards	[REDACTED]	Automatically Reject	
4	Sift Score 100 Rejection	[REDACTED]	Automatically Reject	The name of the rule needs to be updated, but the rule essentially says we are going to automatically reject what we consider to be the riskiest of all donations regardless of any specific signals
5	High Risk Countries (Review) - IP	[REDACTED]	Manually Review	
6	High Risk Countries (Review) - Billing	[REDACTED]	Manually Review	
7	High Risk Countries (Review) - Credit Card	[REDACTED]	Manually Review	

8	High Risk Countries (Reject) - IP		Automatically Reject	
9	High Risk Countries (Reject) - Billing		Automatically Reject	
10	High Risk Countries (Reject) - Credit Card		Automatically Reject	
11	Naughty Words List		Manually review	Slurs, curses, etc.
12	Griefing Words List		Manually Review	Different from naughty words, more like "Donald Trump", "Joe Biden", etc.
13	Fake Addresses List		Manually Review	
14	X Names List		Manually Review	For when donors try to anonymize themselves by putting "X", "XX", etc. as one of their names. We do proactive outreach to those people asking them to stop.
15	IP/Billing Country Mismatch + Score		Manually Review	This rule captures donors who say their billing address is in one country, but their IP suggests they are donating from another. Could be considered a rule that looks for "foreign" donors, but it isn't that black/white (i.e. if a US citizen is traveling abroad and donates, they aren't a "foreign" donor but may be caught by this rule). There is a score component to this rule so we are reviewing the riskiest donations with this characteristic (but lower than the threshold to be automatically rejected).
16	Multiple Users, Same Device + High Score		Manually Review	
17	■ w/Same Email + Score		Manually Review	

18	Disposable Email Domain + Score		Manually Review	
19	ISP is Cloud Provider + Score		Manually Review	
20	Chargebacks in Last Month		Manually Review	There is a very clear fraud component to chargebacks but we also use this rule to find donors to whom we want to proactively reach out to about their trouble donating.
21	Chargebacks + Successful TXNs in Last Month		Manually Review	There is a very clear fraud component to chargebacks but we also use this rule to find donors to whom we want to proactively reach out to about their trouble donating.
22	High Score (c3/c4)		Manually Review	This rule flags for manual review the riskiest of contributions, regardless of any specific characteristics (but not risky enough to automatically reject). We allow for slightly more leniency for charitable and civic donations because we accept foreign donations and don't require a billing address (which increases Sift scores).
23	High Score (Political)		Manually Review	Same as above, but stricter rules for political contributions.
24	Everything Else		Automatically Accept	If a donation does not match any of the previous characteristics/scores, it gets accepted in Sift (this is ~99.8% of volume that flows through Sift).

Changelog this cycle

Key changes highlighted.

Date	Summary of changes made	Notes
10/16/2023	<ul style="list-style-type: none"> Manual Review Countries (IP/Billing/CC Country Matches) 	Added review and rejection rules for

	<div> <div></div> <ul style="list-style-type: none"> Block Countries (IP/Billing/CC Country Matches): Automatically reject contributions with Sift score of (monitor heavily and adjust downwards as needed) Rename High Risk Country rules Rename "Chargebacks in Last Month + Successful TXNs" -> "Chargebacks in Last Month + Successful TXNs in Last Month" Rename "Chargebacks Last Month" -> "Chargebacks Last Month" Remove the Sift score component of the Foreign Issued Prepaid Card rule Lower the Sift score component of the IP/billing mismatch rule by 1 Increase Sift score component of the c3/c4 rule to Flip the chargebacks rules in the waterfall and change the "Chargebacks in Last Month + Successful TXNs" from less than successful transactions in a week to less than successful transactions in a month Split "Naughty Words" list into "XX" names and everything else Always manually review XX names Add score threshold of to Naughty Words rule Move High Sift Score rules to end of waterfall </div>	<p>risky/sanctioned countries.</p> <p>Added the rule to automatically reject the riskiest of donations.</p> <p>Removed the score component on this rule so that we review ALL donations with this characteristic.</p> <p>Lowered score in this context means more reviews and a more strict fraud approach.</p> <p>Increased score in this context means less reviews and less false positives reviewed.</p>
4/2-4/2024	<ul style="list-style-type: none"> Txns in Last Day: Score threshold → High Sift Score (c3/c4): Score threshold → High Sift Score (political): Score threshold → IP/Billing Country mismatch: Score threshold → Multiple Users/Same Device: Score threshold → Similar emails: Score threshold → ISP Cloud Provider: Score threshold → Unique CC Bins in past day: Score threshold → Txns in Last Day + Dollar Amount: Score threshold → 	<p>Increased score thresholds across the board. This technically means a more lenient approach, but it should be noted that the lower ends of these score ranges included an extreme amount of false positives, so we actually did not increase our exposure to fraud much, if at all.</p> <p>Over 1 month period:</p> <p>Reviews saved: ~13,534 (about 65% of total review volume)</p> <p>Rejections missed: ~14-28 (around 3.2% - 6.4% of total rejection volume)</p>
6/17/2024	<ul style="list-style-type: none"> IP/Billing Country mismatch: Score threshold → Multiple Users/Same Device: Score threshold → Similar emails: Score threshold → ISP Cloud Provider: Score threshold → Unique CC Bins in past day: Score threshold → Txns in Last Day + Dollar Amount: Score threshold → 	<p>Over 1 month period:</p> <p>Reviews saved: 3684 (about 28% of total review volume)</p> <p>Rejections missed: 0</p>

	<ul style="list-style-type: none"> • [REDACTED] Txns in Last Day: Score threshold [REDACTED] → [REDACTED] 	
7/3/2024	<ul style="list-style-type: none"> • Number of users with <i>similar</i> email -> Number of users with <i>same</i> email • Eliminated the following rules <ul style="list-style-type: none"> ◦ Unique BINs ◦ Unique Last 4 ◦ High Order Velocity #1 ◦ High Order Velocity #2 ◦ High Order Velocity #3 	<p>Historically, fraudsters on our platform have used the same IP address, email, or credit card, rather than similar ones.</p> <p>These rules were catching almost exclusively false positives. We kept them for a long time to do proactive outreach to these donors, but changed that policy.</p>
8/12/2024	Changed Foreign Issued Prepaid Card rule to automatically reject, rather than send to manual review	
9/9/2024	Added rule to reject all gift card donations	

EXHIBIT 2

ActBlue Memorandum, Sift – Rule Change Proposal

Sift - Rule Change Proposal

THE RULE CHANGES WERE MADE , BUT NOT A SWITCH TO RISKWATCH

Introduction

When creating rules for our Sift workflow, we can set the thresholds for review based on Payment Abuse Score (also referred to as Sift Score). Recently, Sift introduced the ability to set that threshold based on a percentile score.

Percentile scoring is an incredibly powerful tool, as it allows us to normalize our review volume across time and set our review volume according to our capacity, which is more in line with how we execute our fraud prevention strategy.

Route 28

IF ORDER MATCHES

Payment Abuse Score > 90

+ Add Criteria

May 22, 2024 to Jun 21, 2024

Run Test

Runs started 0 (~0%)

Unique users 0 (~0%)

VS

Route 28

IF ORDER MATCHES

Payment Abuse RiskWatch Percentile (7D) > 98.5

+

May 22, 2024 to Jun 21, 2024

Run Test

Runs started 0 (~0%)

Unique users 0 (~0%)

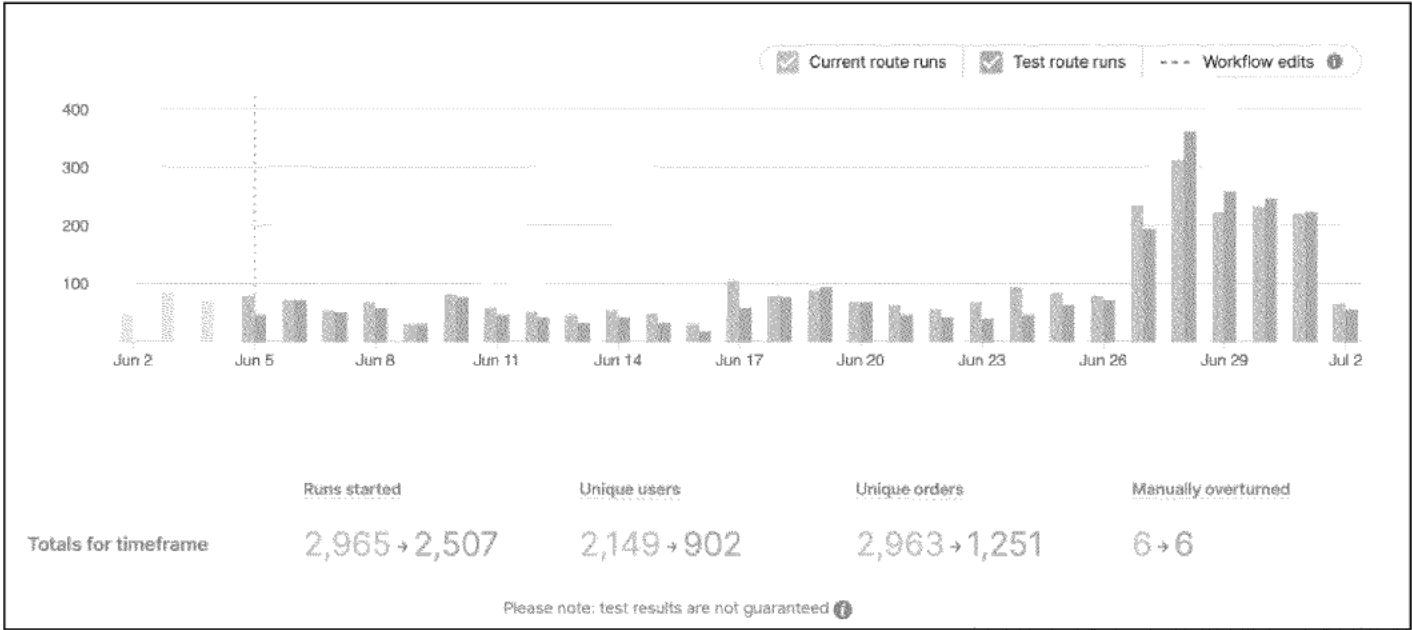
RiskWatch automatically adjusts to changing market conditions and fraud activity. This minimizes the pressure on us to continuously adjust score thresholds as Sift will calculate and adjust the thresholds accordingly.

Backtesting

In these charts, you can see volume with our current rule (in green) and what the last month would look like with the proposed RiskWatch change (in purple). Ignore opacity issues.

Commented [1]: Can you explain a bit about what runs started, unique users and orders mean so I can understand how to interpret these changes?

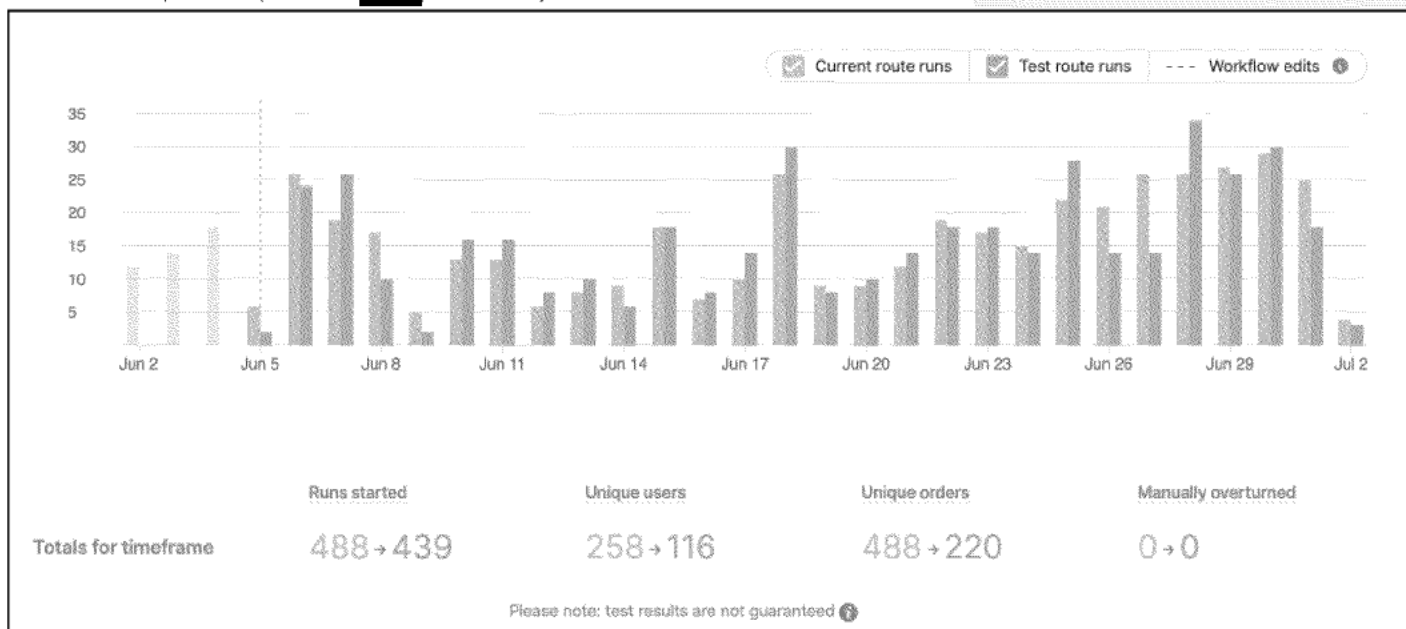
High Sift Score Political Rule (Score -> [redacted] Percentile)




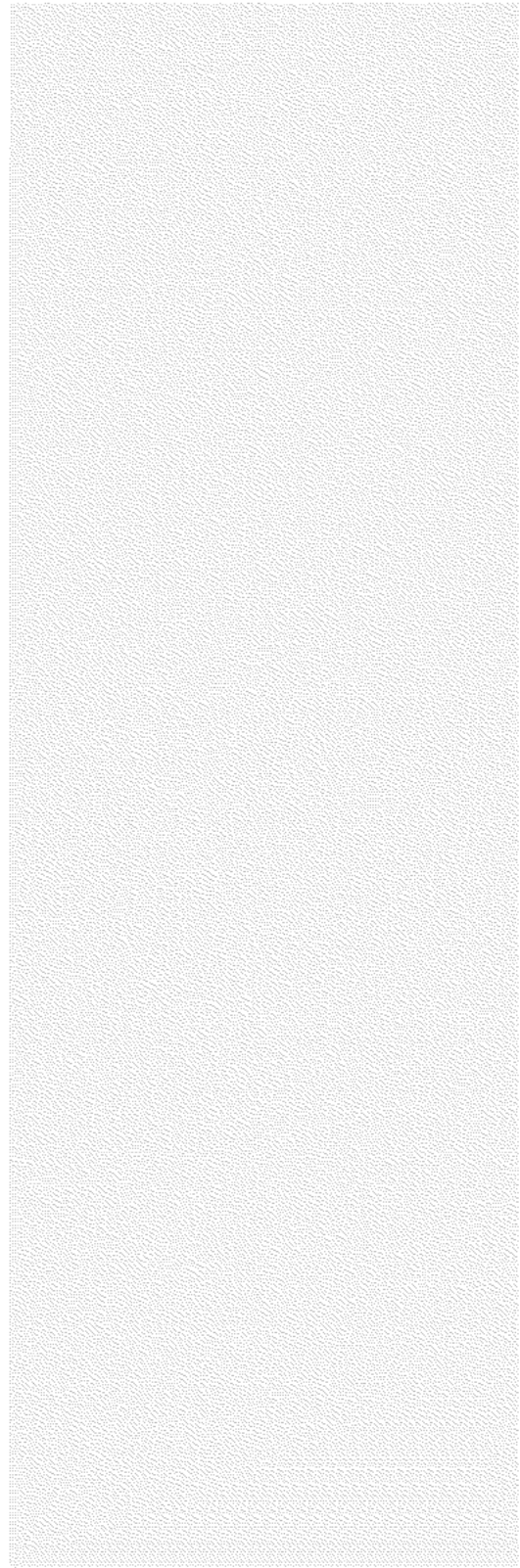
High Sift Score Political c3/c4 (Score -> [redacted] Percentile)



ISP is a cloud provider (Score -> [REDACTED] Percentile)



Disposable email domain (Score ->  Percentile)



80
60
40
20

Jun 2 Jun 5 Jun 8 Jun 11 Jun 14

Runs started

Unique users

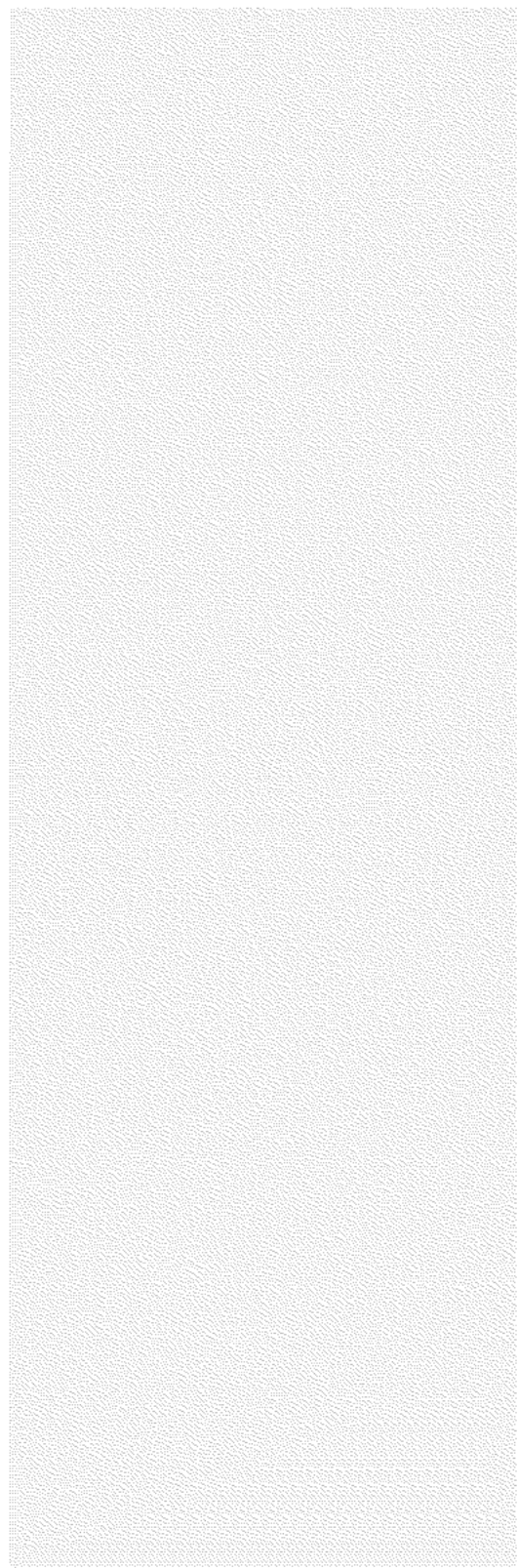
Totals for timeframe

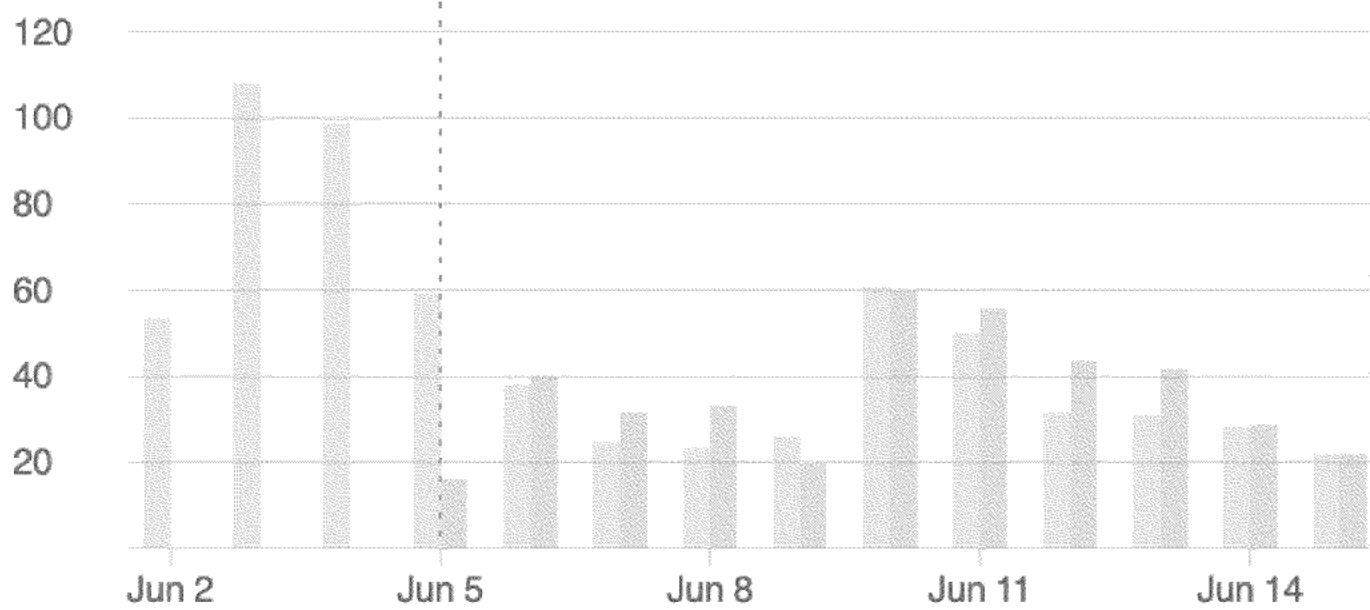
507 → 233

298 → 9

Please note: test result

Similar Emails -> Same Emails (Score -> [REDACTED] Percentile)

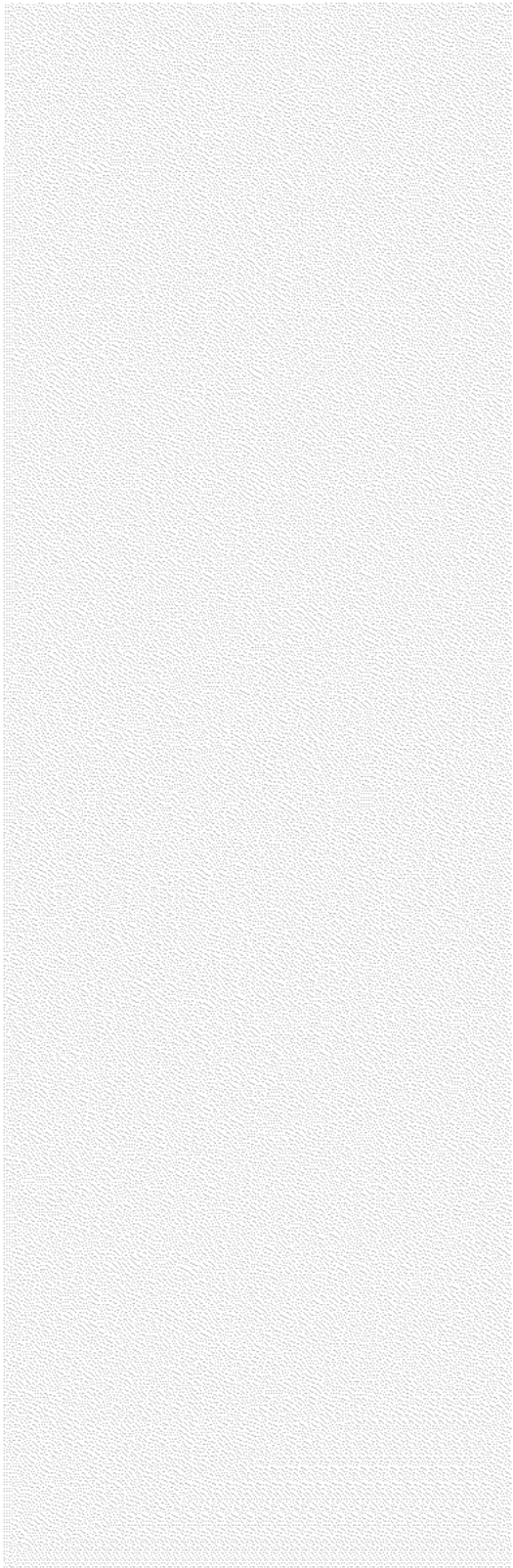


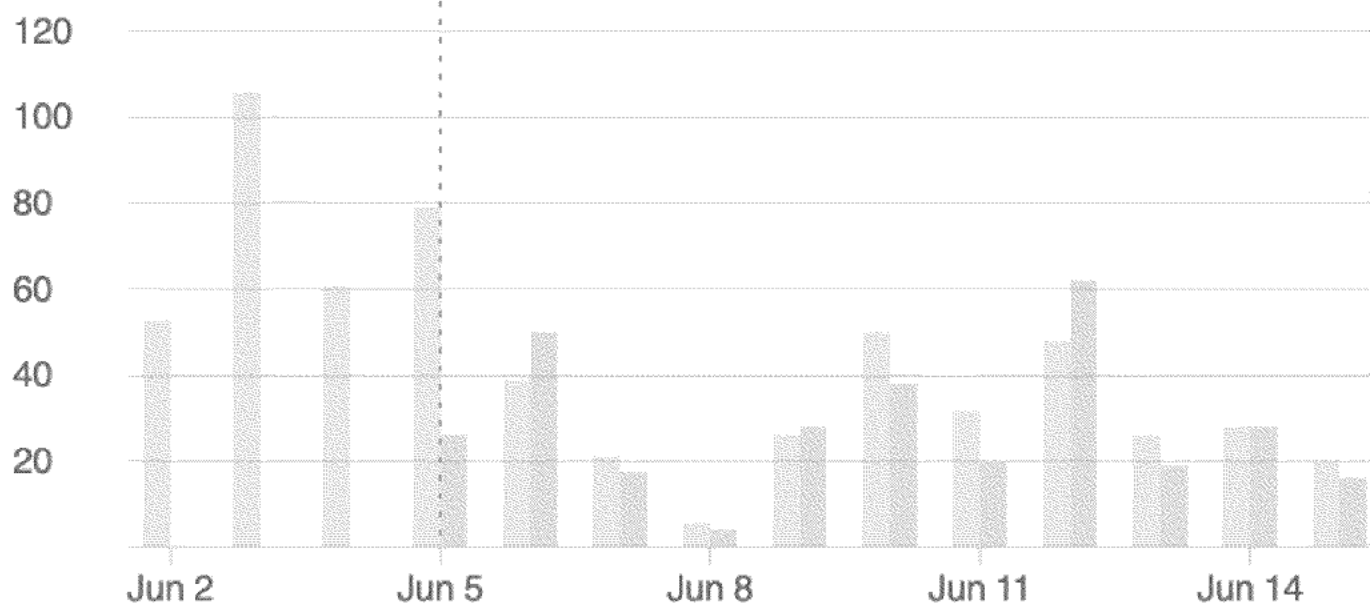


	<u>Runs started</u>	<u>Unique users</u>
Totals for timeframe	1,260 → 926	584 → 1

Please note: test results

Same Device (Score -> [REDACTED] Percentile)

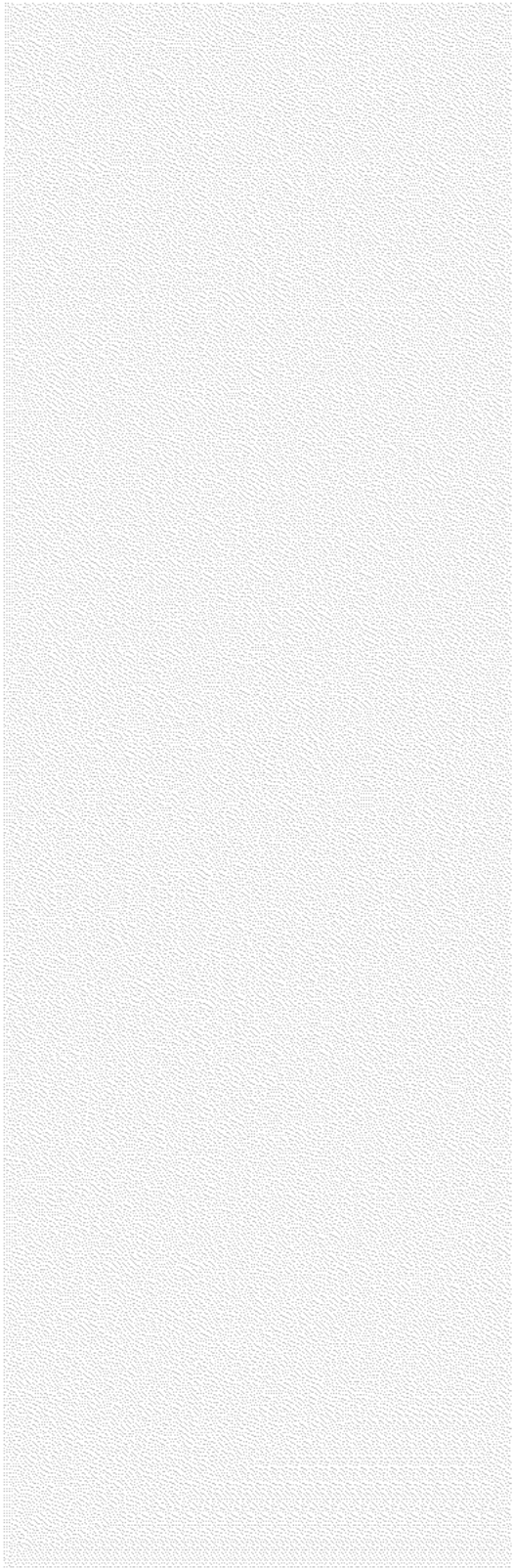


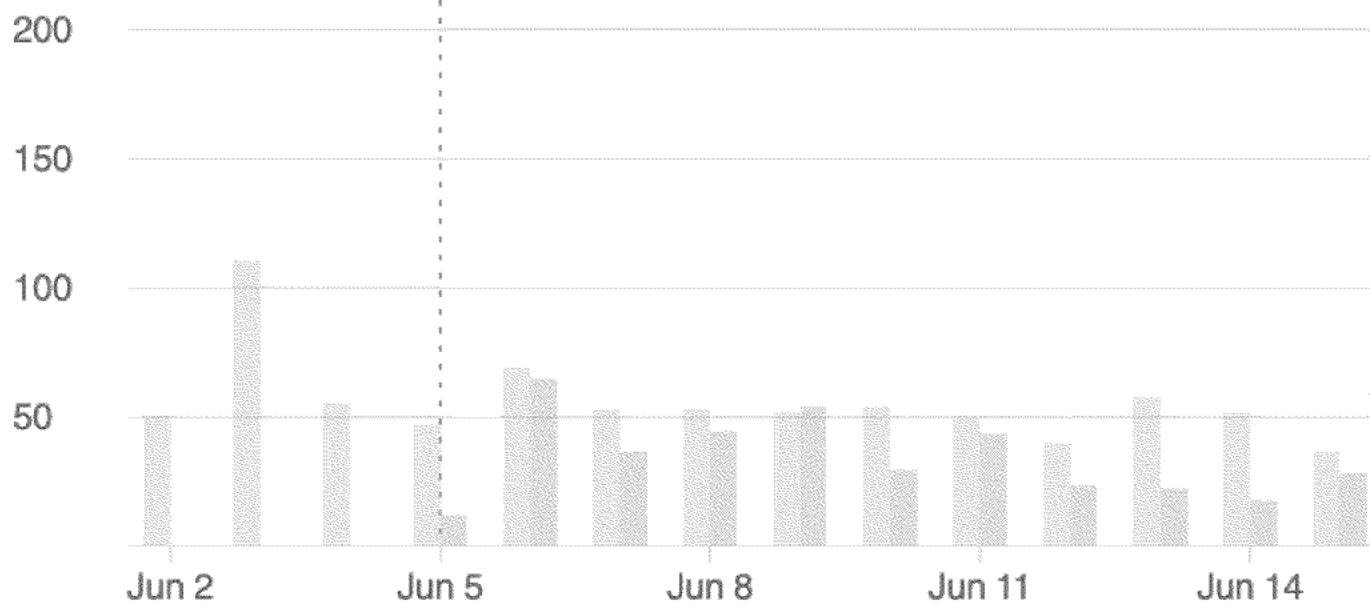


	<u>Runs started</u>	<u>Unique users</u>
Totals for timeframe	1,140 → 844	334 → 1

Please note: test results


IP/Billing Country Mismatch (Score -> [REDACTED] Percentile)

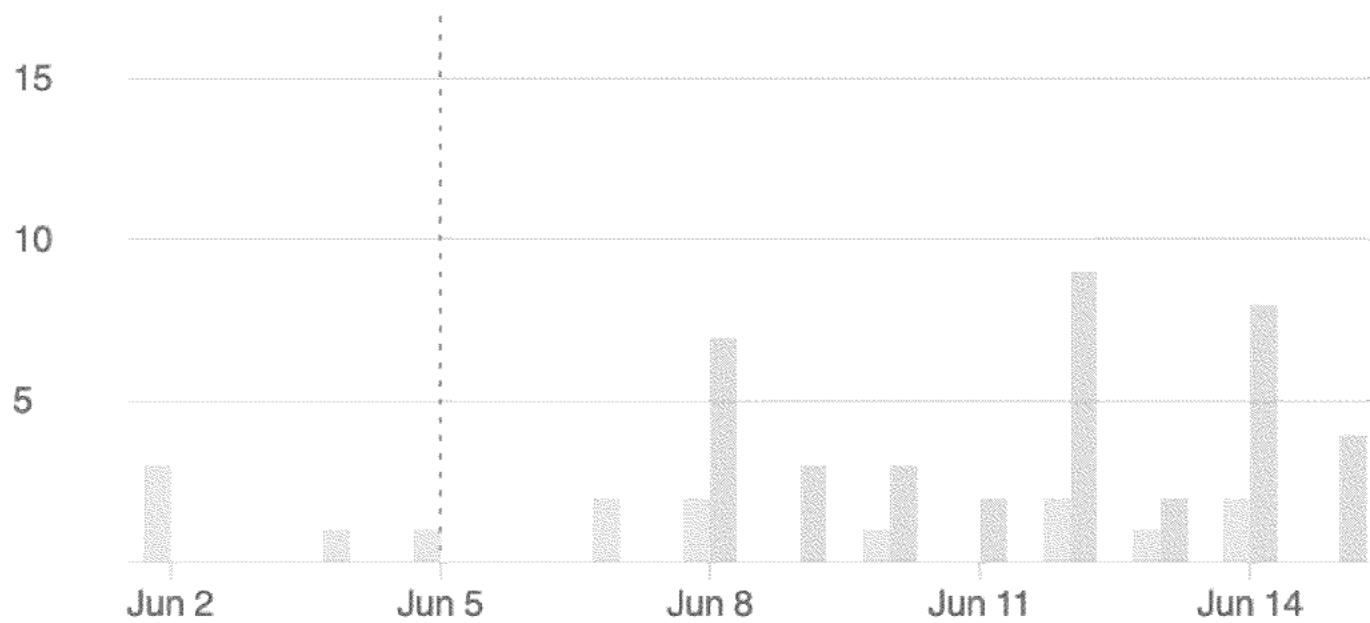




	<u>Runs started</u>	<u>Unique users</u>
Totals for timeframe	2,276 → 1,482	1,608 -

Please note: test results

Naughty Words (Score ->  Percentile)



	<u>Runs started</u>	<u>Unique users</u>
Totals for timeframe	50 → 113	41 → 44

Please note: test results

Proposed Changes

Change Rules

1. Percentile scoring for any rule that has a Sift score threshold
2. Number of users with *similar* email -> Number of users with *same* email

Eliminated Rules

1. Unique BINs
2. Unique Last 4
3. High Order Velocity #1
4. High Order Velocity #2
5. High Order Velocity #3

Reasoning

First and foremost, we will replace all Sift Score thresholds with the equivalent (slightly more lenient) RiskWatch thresholds, for all the reasons listed above.

We will eliminate the High Order Velocity rules entirely, which are capturing *only* false positives. We will miss out on some proactive outreach opportunities, but are reallocating that time to helping donors who definitely need assistance in Zendesk.

We want to eliminate Unique BINs and Unique Last 4 rules, as these are capturing primarily false positives, particularly those being overscored by Sift's scoring issues.

We will replace the *similar* email rule with the *same* email rule. Historically, fraudsters on our platform have used the same IP address, email, or credit card, rather than *similar* ones.

Impact

- 9123 less accepts (False Positives)
- 85 more rejections (according to this data, we will actually reject *more* fraud)

Commented [2]: My main concern with this switch is that it could be interpreted as "increasing our risk tolerance / taking fraud less seriously." If we wait a week or two to implement this change (until after we have a chance to discuss more in-depth) would we still see noticeable relief in the Sift queue?

Commented [3]: If we're going to do that, would we benefit from making at least one change from similar to the same emails?

Commented [4]: Any others that can be implemented without switching to the percentile approach?

Commented [5]: I hadn't realized you were only referring to the percentile change so we're on the same page.

1 total reaction
[redacted] reacted with [redacted] at 2024-07-03 08:12 AM

Commented [6]: All three of these seem like logical choices and I'm onboard.

Commented [7]: Agreed

Commented [8]: Do you have a sense for why this would be the case? How do these changes mean we'll catch more if we review fewer?

Extra Resources

Click here to read Sift's own write-up on Percentile Scoring (RiskWatch):

<https://community.sift.com/score-calculation-66/riskwatch-175?tid=175&fid=66>

EXHIBIT 3

ActBlue Memorandum, 2024 Q2 – Sift Rule Change Proposal

2024 Q2 - Sift Rule Change Proposal

Overview

The info queue is two weeks behind on donor tickets and it will be another month or so before we have reinforcements in place. One aspect of the Donor Support work that keeps taking time away from the queue and other critical work is the high volume of Sift reviews that have been consistent since October. Prior minimal rule adjustments haven't had the desired effect of reducing the need for manual reviews and our system for managing overflow is meant to be applied in rare instances. We've been applying it multiple times a week. It involves DSMs, specialists, and associates spending unplanned time in Sift and is fairly disruptive.

██████ has spoken with Sift about the spike in review volume multiple times. There are a few signals in particular that Sift has failed to provide an explanation for. While they continue to evaluate what may be going on with those, they did provide a number of recommendations for changes they perceived as risk-neutral. These recommendations are the basis of the proposal outlined below. The proposal outlined below has been reviewed and approved by ██████ and ██████

Rule Metrics

This is a list of rules that the changes in the next section refer to. You can see their contribution to our overall review volume, their false decline rates, and their percentage of true fraud.

- Rule 14: IP/Billing Country mismatch
 - % Sent to Manual Review (2113): 0.09%
 - % Eventually Approved (2104): 99.57%
 - % Eventually Blocked (9): 0.43%
- Rule 15: Multiple Users/Same Device
 - % Sent to Manual Review (2205): 0.09%
 - % Eventually Approved (2160): 97.95%
 - % Eventually Blocked (13): 0.59%

- Rule 16: Similar emails: Score threshold
 - % Sent to Manual Review (1474): 0.06%
 - % Eventually Approved (1457): 98.85%
 - % Eventually Blocked (6): 0.41%
- Rule 18: ISP Cloud Provider
 - % Sent to Manual Review (407): 0.02%
 - % Eventually Approved (407): 100%
 - % Eventually Blocked (0): 0%
- Rule 19: Unique CC Bins in past day
 - % Sent to Manual Review (688): 0.03%
 - % Eventually Approved (687): 99.85%
 - % Eventually Blocked (0): 0%
- Rule 23: [REDACTED] Txns in Last Day + Dollar Amount
 - % Sent to Manual Review (548): 0.02%
 - % Eventually Approved (537): 97.99%
 - % Eventually Blocked (6): 1.09%
- Rule 24: [REDACTED] Txns in Last Day
 - % Sent to Manual Review (1289): 0.05%
 - % Eventually Approved (1261): 97.82%
 - % Eventually Blocked (0): 0%
- Rule 26: High Sift Score (c3/c4)
 - % Sent to Manual Review (742): 0.03%
 - % Eventually Approved (720): 97.0%
 - % Eventually Blocked (17): 2.3%
- Rule 27: High Sift Score (political)
 - % Sent to Manual Review (10,129): 0.41%
 - % Eventually Approved (10,043): 99.2%
 - % Eventually Blocked (35): 0.3%

Changes and Projected Impact

Proposed Rule Changes

We can adjust the score thresholds on these rules. In the parenthesis, you'll find how many reviews we would save based on March's volume, and conversely, how many rejections we would have missed.

- Rule 14: IP/Billing Country mismatch: Score threshold 89 → 88 (should save us ~940 and miss ~1-2 rejections)
- Rule 15: Multiple Users/Same Device: Score threshold 89 - 88 (should save us ~776 and miss ~1-2 rejections)
- Rule 16: Similar emails: Score threshold 89 - 88 (should save us ~620 and miss ~1-2 rejections)
- Rule 18: ISP Cloud Provider: Score threshold 89 - 88 (should save us ~181)
- Rule 19: Unique CC Bins in past day: Score threshold 89 - 88 (should save us ~352)
- Rule 23: Txns in Last Day + Dollar Amount: Score threshold 89 - 88 (should save ~308 and miss ~1-2)
- Rule 24: Txns in Last Day: Score threshold 89 - 88 (should save us ~1085)
- Rule 26: High Sift Score (c3/c4): Score threshold 89 - 88 (should save ~647 and miss ~5-10)
- Rule 27: High Sift Score (political): Score threshold 89 - 88 (should save ~8625 and miss ~5-10)

Projected Impact Totals over 1 month period

Reviews saved: ~13,534 (about 65% of total review volume and 75 work hours assuming 20 seconds per review)

Rejections missed: ~14-28 (around 3.2% - 6.4% of total rejection volume)

Note

We would be likely to let those rejections get through (assuming they are not caught later). I don't have any indication to think these were part of a large attack, but I also haven't been able to look at all of the donations that were rejected last month (but happy to do so if needed). I can't say with certainty that the number of missed rejections couldn't be higher than 28 (even significantly) because hypothetically if someone could coordinate a big attack where each individual donation fell below the threshold, they would go through. However, that is true today too (if the threshold is 89 instead of 90, something with a score of 88 gets through anyway).

Proposed Change Plan

April 2nd

- Rule 24: [REDACTED] Txns in Last Day: Score threshold [REDACTED] - [REDACTED]
- Rule 26: High Sift Score (c3/c4): Score threshold [REDACTED] - [REDACTED]
- Rule 27: High Sift Score (political): Score threshold [REDACTED] → [REDACTED]

Reviews saved if these had been the thresholds for March 2024: **10,357**

April 4th

- Rule 14: IP/Billing Country mismatch: Score threshold [REDACTED] - [REDACTED]
- Rule 15: Multiple Users/Same Device: Score threshold [REDACTED] - [REDACTED]
- Rule 16: Similar emails: Score threshold [REDACTED] - [REDACTED]
- Rule 18: ISP Cloud Provider: Score threshold [REDACTED] → [REDACTED]
- Rule 19: Unique CC Bins in past day: Score threshold [REDACTED] - [REDACTED]
- Rule 23: [REDACTED] Txns in Last Day + Dollar Amount: Score threshold [REDACTED] - [REDACTED]

Reviews saved if these had been the thresholds for March 2024: **3,177**

Conclusion

Without guidance from ELT/Finance/etc. on what our fraud tolerance is, we need to do that ourselves. It is very difficult for us to track what success looks like, because for the most part industry standard is chargebacks and false declines. Some companies manually review like, 25-40% of orders, but that is because they sell physical goods or similar.

At the end of the day, we should prioritize customers having a good experience and manually reviewing the amount we are just isn't achieving that. Our chargeback rate is so low and our instances of fraud so rare, I think it is worth making drastic changes to our reviews. We also have added layers of protection against "bad" contributions in the sense that the card issuer, payment processor, and entity itself should be doing due diligence (might need Compliance and Payments to weigh in).

We need better metrics for assessing success. The data team can help us create a dashboard where we look at things like false declines, chargebacks, and customer insult

rates. Until then, we should prioritize lowering our review volume by implementing the above recommendations.

EXHIBIT 4

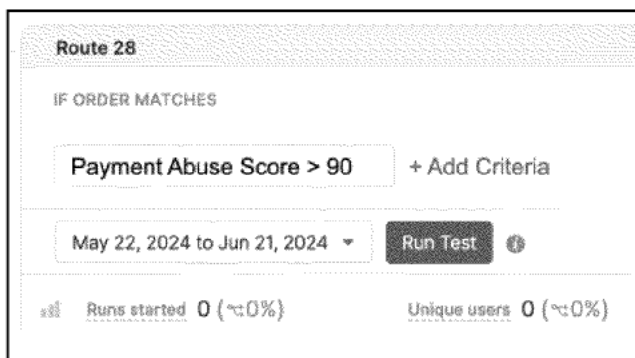
ActBlue Memorandum, Sift – RiskWatch (Percentile
Scoring Proposal)

Sift - RiskWatch (Percentile Scoring) Proposal

Introduction

When creating rules for our Sift workflow, we can set the thresholds for review based on Payment Abuse Score (also referred to as Sift Score). Recently, Sift introduced the ability to set that threshold based on a percentile score.

Percentile scoring is an incredibly powerful tool, as it allows us to normalize our review volume across time and set our review volume according to our capacity, which is more in line with how we execute our fraud prevention strategy.



Route 28

IF ORDER MATCHES

Payment Abuse Score > 90 + Add Criteria

May 22, 2024 to Jun 21, 2024 Run Test ⓘ

Runs started 0 (~0%) Unique users 0 (~0%)

VS



Route 28

IF ORDER MATCHES

Payment Abuse RiskWatch Percentile (7D) > 98.5 +

May 22, 2024 to Jun 21, 2024 Run Test ⓘ

Runs started 0 (~0%) Unique users 0 (~0%)

RiskWatch automatically adjusts to changing market conditions and fraud activity. This minimizes the pressure on us to continuously adjust score thresholds as Sift will calculate and adjust the thresholds accordingly.

We have seen issues over the last ~year where scores tend to shift and drift with volume and manual decisioning changes, this can cause problems when you set a threshold at 90 (for example) which at the time may impact 2% of traffic, but as scores shift the volume of traffic at that threshold of 90 changes, it may be more like 1% or 5%. With RiskWatch, we will be targeting a percentage instead of a score. If we choose to block 2% of traffic, then we will block 2% regardless of if that falls at a score of 95 or 70 on a given day.

Backtesting

In these charts, you can see volume with our current rule (in green) and what the last month would look like with the proposed RiskWatch change (in purple). Ignore opacity differences.

Unique users = Count of DONORS

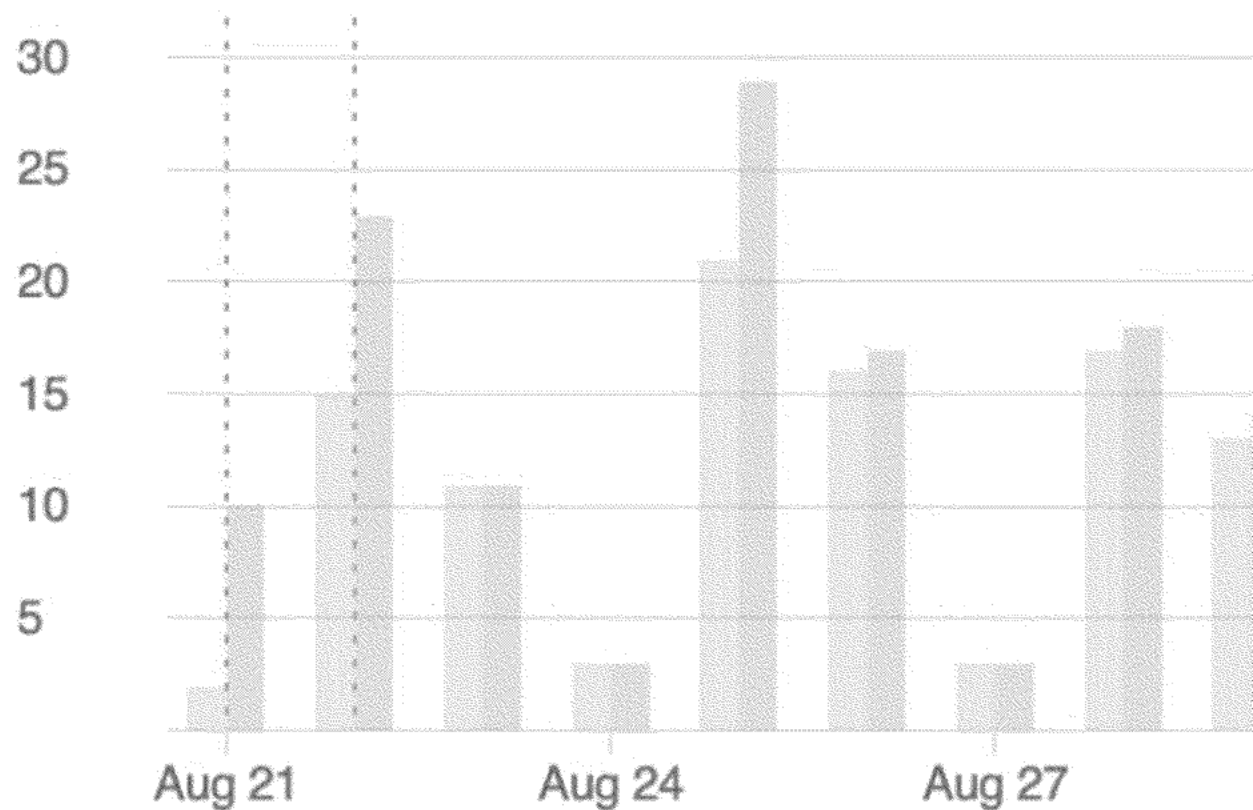
Unique orders = Count of DONATIONS (note: runs started can be a different number, as some donations may run through Sift more than once due to technical reasons, but they represent the same thing and unique orders is more accurate)

Manually overturned = Count of DONATIONS where the initial decision was later changed (e.g. an agent rejected a donation but I thought it was okay so I change it to accept)

Riskiest Donations Automatic Rejection (Score of  ->  Percentile)

Daily Volume of Workflow Runs

Showing test results from Aug 21, 2024 3:00 am to Sep 18, 2024



Runs started

Totals for timeframe

364 → 377

Naughty Words (Score of [REDACTED] -> [REDACTED] Percentile)

NEED TO SKIP, SIFT INVESTIGATING BUG FOR BACKTESTING

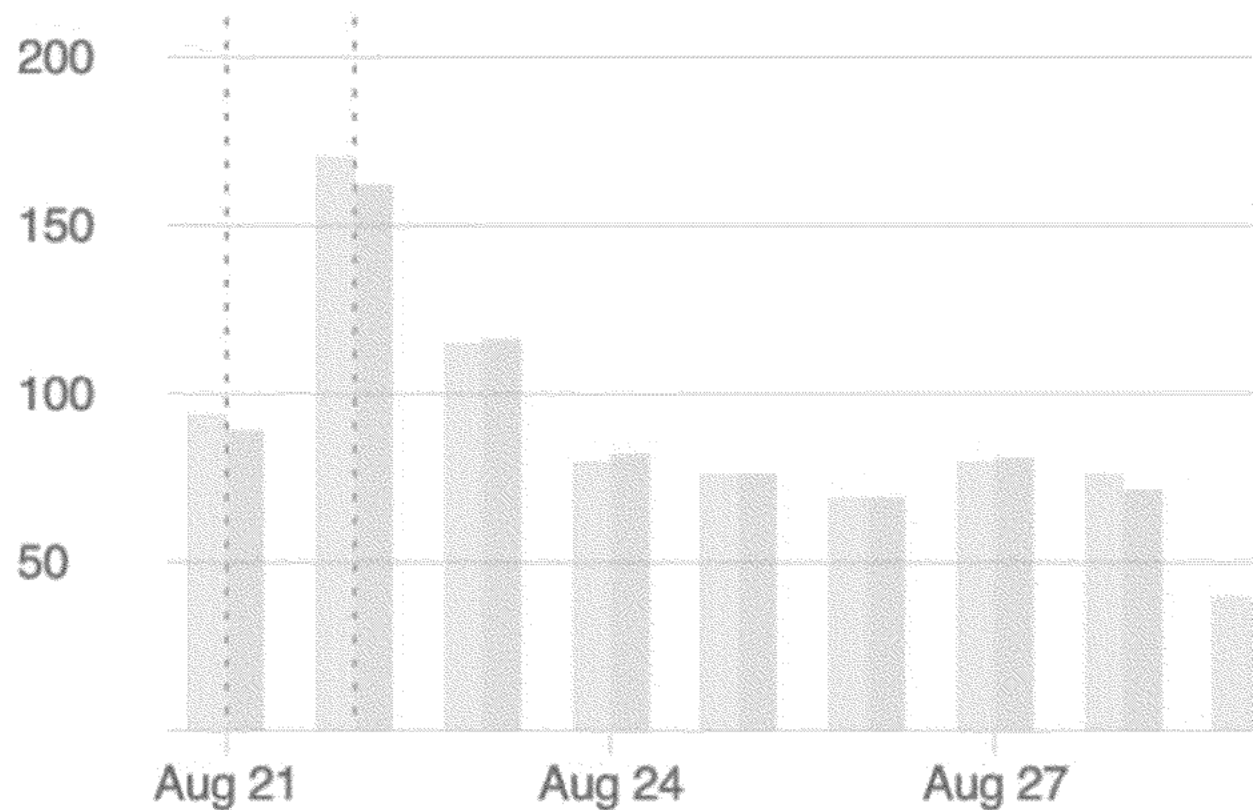
Multiple Users, Same Payment Fingerprint + Score

JUST INSTITUTED THIS RULE. WANT TO SEE MORE DATA BEFORE SWITCHING TO RISKWATCH

IP/Billing Country Mismatch (Score of [REDACTED] -> [REDACTED] Percentile)

Daily Volume of Workflow Runs

Showing test results from Aug 21, 2024 3:00 am to Sep 18, 2024



Runs started

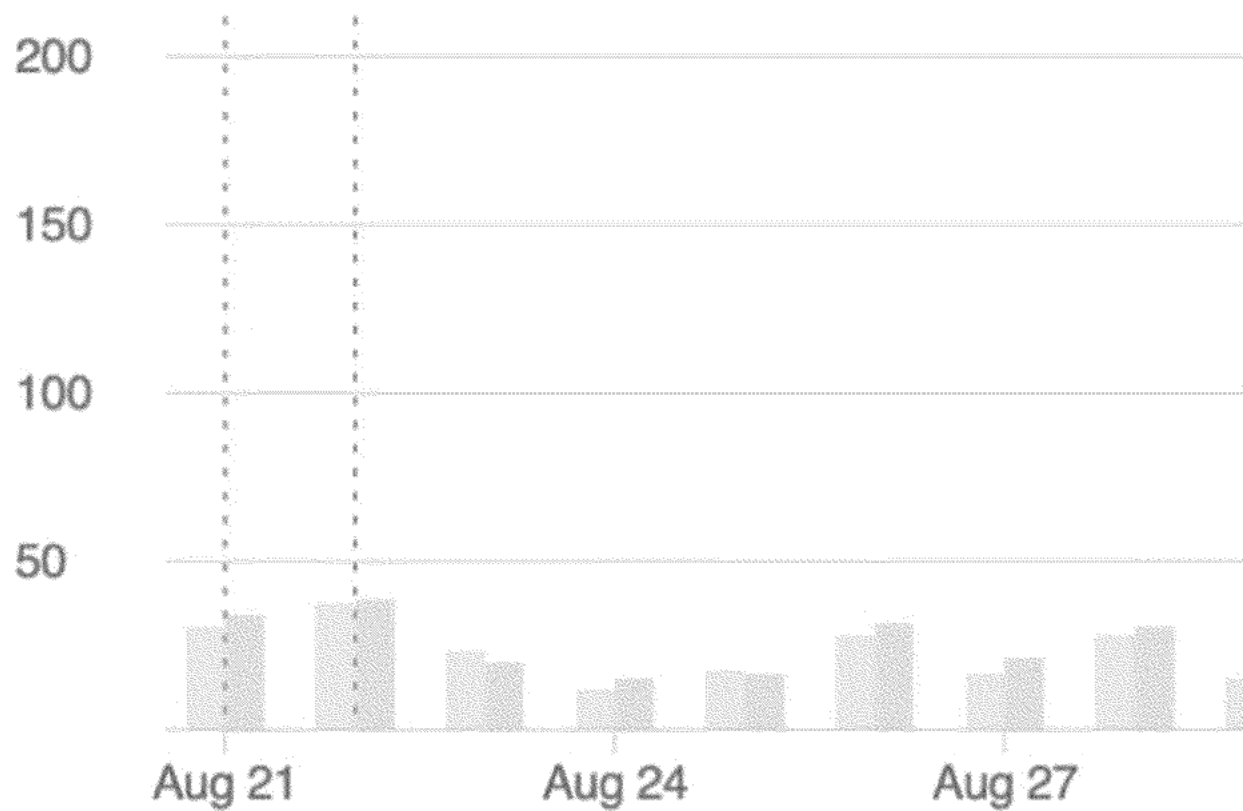
Totals for timeframe

2,501 → 2,459

Same Device (Score of [REDACTED] -> [REDACTED] Percentile)

Daily Volume of Workflow Runs

Showing test results from Aug 21, 2024 3:00 am to Sep 18, 2024



Runs started

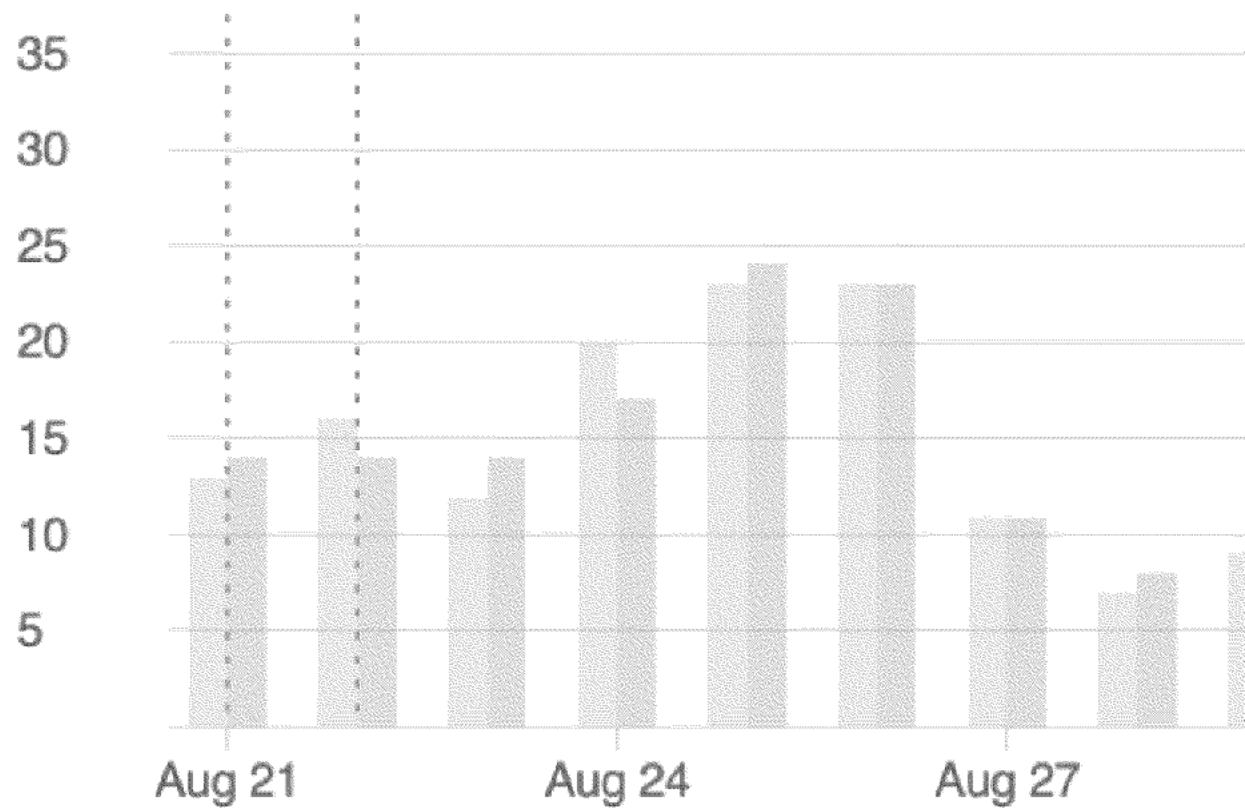
Totals for timeframe

862 → 850

Same Email (Score of [REDACTED] -> [REDACTED] Percentile)

Daily Volume of Workflow Runs

Showing test results from Aug 21, 2024 3:00 am to Sep 18, 2024



Runs started

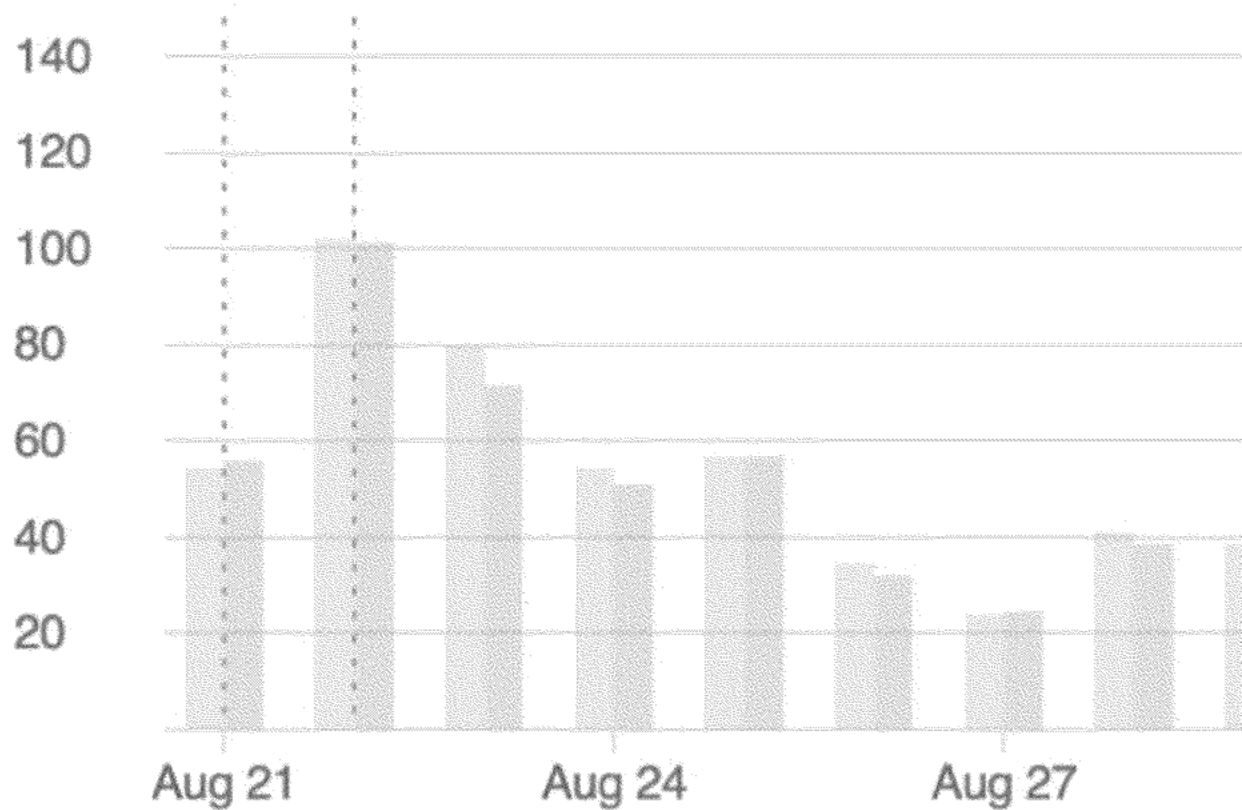
Totals for timeframe

376 → 364

Disposable Email (Score of [REDACTED] -> [REDACTED])

Daily Volume of Workflow Runs

Showing test results from Aug 21, 2024 3:00 am to Sep 18, 2024



Runs started

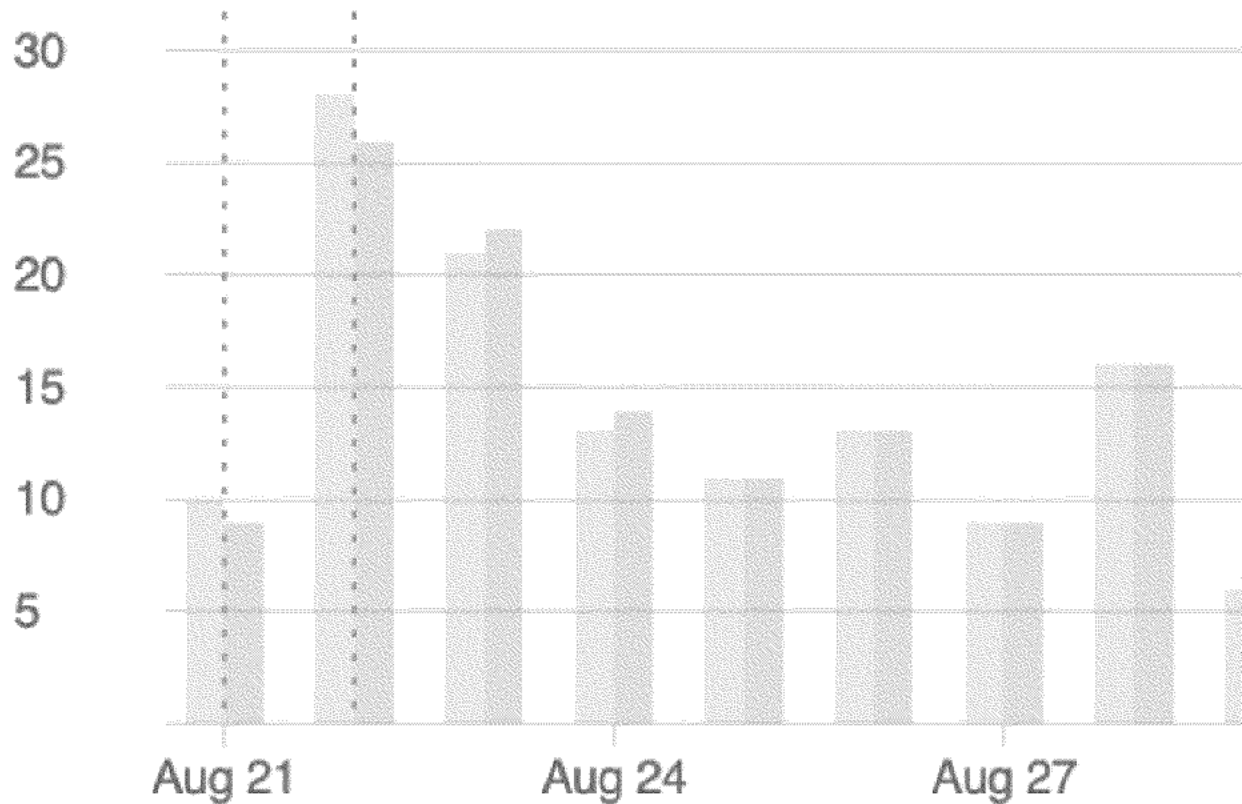
Totals for timeframe

1,220 → 1,276

ISP is a Cloud Provider (Score of ->)

Daily Volume of Workflow Runs

Showing test results from Aug 21, 2024 3:00 am to Sep 18, 2024



Runs started

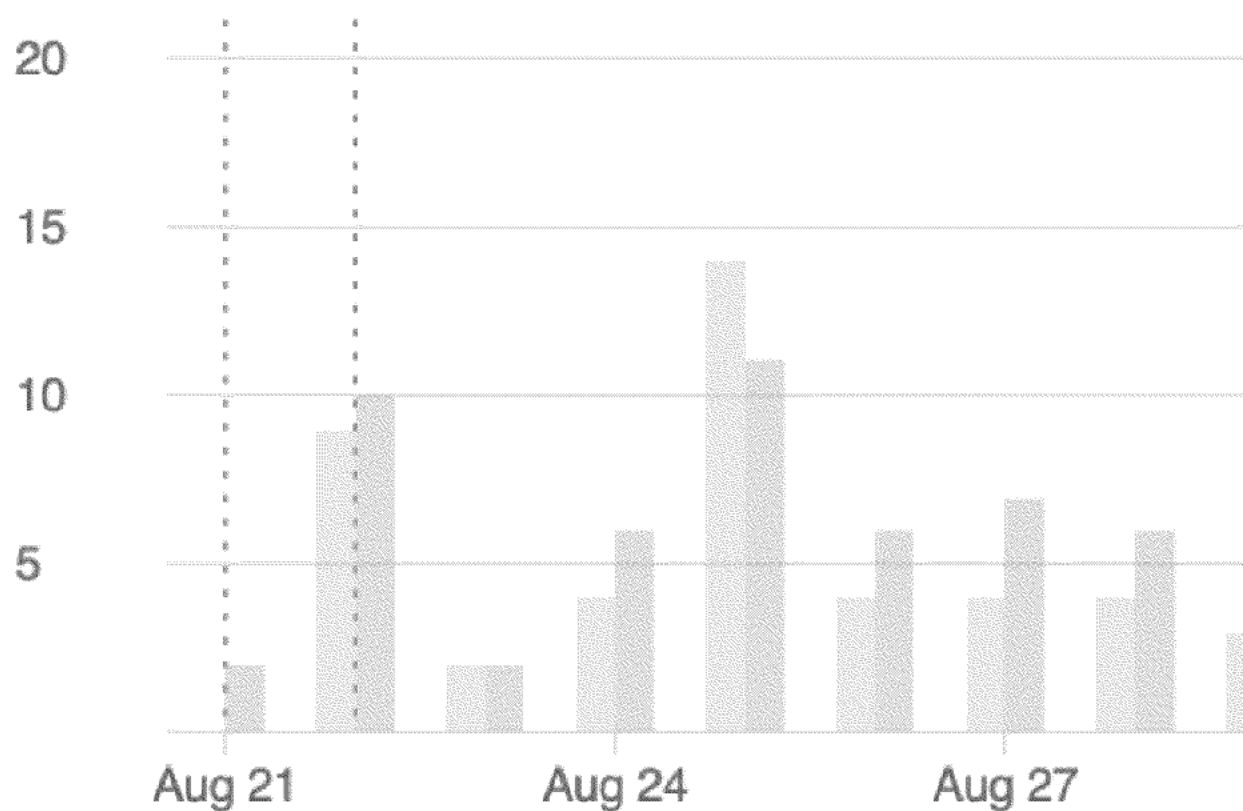
Totals for timeframe

376 → 379

High Score (c3/c4) (Score of [REDACTED] -> [REDACTED])

Daily Volume of Workflow Runs

Showing test results from Aug 21, 2024 3:00 am to Sep 18, 2024



Runs started

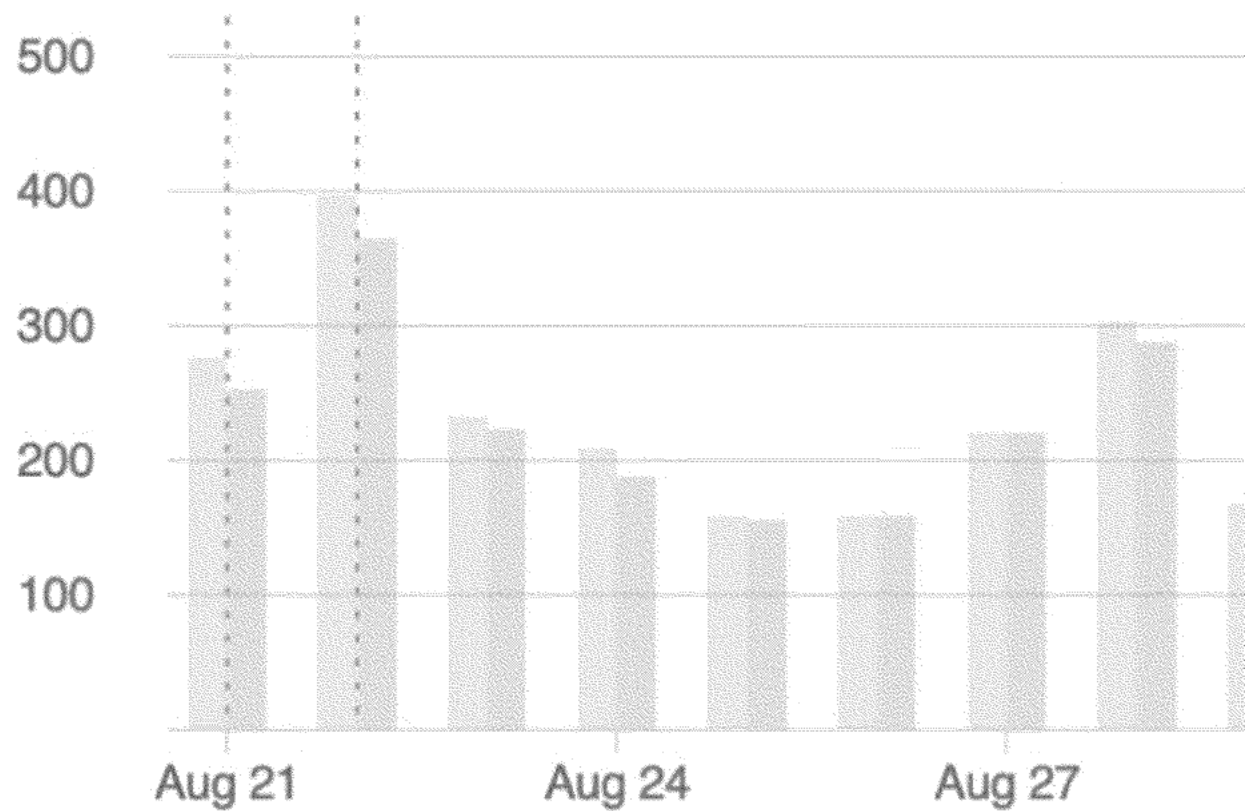
Totals for timeframe

154 → 194

High Score (Political) (Score of [REDACTED] -> [REDACTED])

Daily Volume of Workflow Runs

Showing test results from Aug 21, 2024 3:00 am to Sep 18, 2024



Runs started

Totals for timeframe

5,714 → 5,247

Impact

The idea of RiskWatch scores is that it will lock in performance as it stands today, and help keep block rates and review rates stable despite changes in score distributions.

During a fraud attack, the block rates may temporarily increase as the system adjusts to the new risk levels. But as the temporary fraud attack subsides, the block rate should go back to its expected rate.

There is no indication that we would miss any additional fraudulent contributions by making the switch to RiskWatch. As you can see in the charts above, there will even be some days where we review *more* donations than we are currently, but on average, we will review X less donations over a 90 day period.

Extra Resources

Click here to read Sift's own write-up on Percentile Scoring (RiskWatch):

<https://community.sift.com/score-calculation-66/riskwatch-175?tid=175&fid=66>

Notes

RiskWatch change went live 9/18/2024, along with a reordering of routes.

EXHIBIT 5

ActBlue Meeting Agenda and Notes, Sift Percentile
Change (July 8, 2024)

Jul 8, 2024 | Sift percentile change

Attendees: [REDACTED]

Agenda/Notes

- Thought experiment: If we make this change, how would we defend an assertion that we're increasing our risk tolerance / willing to accept more fraud?
 - The changes we've made of the last year have *already* meant we're "accepting" more fraud.
- They're based on a 7-day average and updated every 10 minutes
 - In the event of a fraud attack, will increase percentage.
- This is Sift's "product" going forward. So they may not get rid of "Sift score" entirely, but their perspective is that this is what the product should've always been.
- Would mean only looking at top riskiest cases each day, which is essentially what we're already doing by reverse engineering it
- Example: If we set the percentile at 2%, and all 2% are fraud "and then some," what happens to the "and then some"?
- We can still have signal-specific rules. Can still set rules that flag cases outside of the percentile.

Action items

-

EXHIBIT 6

ActBlue Product Brief, Broader CVV Support
Product Brief and Development Checklist

Broader CVV Support Product Brief & Development Checklist

Product Brief

Development Checklist

Roles

- PM: Product Manager
- DL: Design Lead
- EM: Engineering Manager
- FL: Feature Lead

Phases

Status	
PM	
Designer	
Eng Lead	
Eng Lead	
Partner	
T-Shirt Estimate	Small
Jira Epic	
Slack Channel	
Design File	N/A
Analysis Files	
Release Checklist	
Insights	Datadog DX Dashboard - We can track contribution count/amount to see if we have a drop in either as a relation to the feature. There are also the "Count Vs" and "Amount Vs" that we can use to track the deviation over different periods of time.

Discovery

Overview/Goal

We're expanding our support of CVV collection in donor dashboard. In instances when people use a new credit card payment method during a live transaction, we'll prompt them to enter CVV.

Relevant Data & Insights

N/A, this is a legal/compliance-driven feature.

Success Metrics

Monitor drop in conversion rate on the donate modal for donations using a new CC.

Design Thoughts/Considerations

Express vs Non-Express Experience

Express only, is Donor Dashboard.

Mobile

Make sure it looks good on mobile.

Development Thoughts/Considerations

From : Confirming once again that, per PCI standards, CVV/CVC cannot under any circumstances be stored and re-sent in future transactions, but that it can be passed as part of a) the first authorization in a series of recurring payments b) verified at time of enrollment

Design

N/A

Tech Deep Dive

Technical Approach & Dependencies

We have decided to follow the "Manually prompt by forcing the flag in DHQ [small/med]" option. This will allow us to always show the CVV field for any new payment method that a user tries to provide. This will also be wrapped in a feature flag so that we can toggle the feature based on engagement and user feedback.

Notable Design Considerations/Updates

Definition

Insights Monitoring

- Monitoring will remain the same as it was prior to implementation. The change of CVV display does not necessarily dictate a change in metric handling, but we will want to keep an eye on the contribution amounts and engagement so that we can address any dips that may be related to the additional field.
- We can monitor conversion rate for existing vs new card to see if they are widely varying

Specifications/Requirements

User story	ACs	Notes
If a donor opts to enter a new credit card as the payment method on the donate modal in donor dashboard, we prompt for CVV.	Donate modal (entered from Donate again and Search)	
	TipJar Donate modal	
	For all entity types	
	<ul style="list-style-type: none">If the user enters in an improperly formatted CVV, they'll see live feedback letting them know.	

	<ul style="list-style-type: none"> • If the CVV determined to be wrong during processing, the user will be returned to the screen in the donate flow where we let them know their cc was declined and let them correct the issue or select another payment source. 	
We do not prompt for CVV when donors update payment method out of the context of a live transaction.	<p>We do not prompt for CVV when donors:</p> <ul style="list-style-type: none"> • update their payment method for a recurring contribution in Donor dashboard • update their payment method for a recurring contribution on the web receipt • add a new payment method to their account 	
Backend processing specifications	<p>Per PCI standards, CVV/CVC cannot under any circumstances be stored and re-sent in future transactions, but that it can be passed as part of a) the first authorization in a series of recurring payments b) verified at time of enrollment</p> <p>Per PCI-DSS, CVV can never be stored. It can be passed at the time of authorization (in the case of a purchase) or confirmed at the time of enrollment (recurring). (Source: PCI DSS P.38 - https://www.cuny.edu/wp-content/uploads/sites/4/page-assets/about/administration/off[...]/e/services/payment-card-industry-</p>	

[compliance/PCI_DSS_v3-2-1.pdf](#))

Nothing will change around
CVV validation with regard to
subsequent recurrences of
recurring contributions

Test on mobile as well.

Rollout Strategy

Likely roll out at 100% since we don't have the same concerns to conversion based on pre-fill behavior. And check out if conversion is different between new cc vs existing cc.

Notes & Notable Exclusions

Development

Decision Log/Notable Changes Log Execution Plan

Jira Epic and Children

EXHIBIT 7

Email from ActBlue Product Manager to ActBlue
Staff (Jan. 2, 2024)

Release digest - Tues. 1/2/23 [2 mins]

1 message

via <@actblue.com>
Reply-To: <@actbluetech.com>
To: <@actblue.com>

Tue, Jan 2, 2024 at 12:00 PM

Hi everyone,

Happy New Year! Here's where things are starting off for our donors and entity users in 2024:

For entity users, the graduated rollout of **Direct Deposit** as an option resumes next week on Monday 1/8 for 501 c 3, 501 c 4, and non-exempt entities. Select superusers (plus ActBlue staff) are now seeing **QR codes** for their contribution forms ahead of a full release for all users next week.

Contribution forms for first-time donors (a.k.a the multi-step experience) and returning donors (where we have saved/cookied personal info but not payment info) will begin collecting CVV this Thursday 1/4 ('Entry Mode' remains exempt).

This week we're adding tipping capability to the donate modal (or, pop-up) that donors see in Donor HQ, excluding PayPal for now due to technical complexity. Separately our Payment Options Layout Test for first-time donors continues to run and a new test is experimenting with new copy and visual updates to our default recurring upsells.

As always, please get in touch here or via Slack if you have any questions.



Major releases for donors and entity users

In the next 2-4 weeks (subject to change)

Entity users

Direct Deposit - Rollout Group 2

- Direct Deposit (via the Financial Settings dashboard page) is now available to all entities accepting donations in MA as well as federal, MN, and HI candidate entities. Rollout Group 2 will add the option for 501c3, 501c4, and non-exempt entities.
- Campaigns and organizations in jurisdictions where ActBlue operates as a conduit (most of our users!) currently receive funds via wire transfer or ground mailed paper checks. Adding ACH payments as another way for us to disburse funds will allow campaigns and organizations to get their money faster and spend it more quickly to make a difference.

Minor releases for donors and entity users

In the past 2 weeks

Entity Users

Stripe Embedded Onboarding

- For entities that require a merchant account, this work introduces 1) a prompt now shown to entities on their dashboard as well as their list of entities that encourages them to do merchant account set-up and 2) the Stripe onboarding is now embedded within ActBlue.

Phase 1 - Know Your Recurring

- Improving the 'Fundraising Performance' module that entity users see on their overview dashboard page with actionable information about where their funds are coming from by including mobile and ActBlue Express user percentages for their selected time period. Phase 2 will launch in January 2024 and include more information about one-time vs. recurring donations.

BETA - [Amount Highlight](#)

- Entities have requested the ability to add animations to amount buttons. They have provided an example from WinRed which is not a particularly great user experience as it could lead to confusion as to which buttons are selected. However, we hear their request to highlight contribution amounts and feel that we can solve it in a user friendly way.

BETA - [Recurring Opt-in on Form Copy Test](#)

- This beta for some entity users introduces a test of different variations of the recurring opt-in copy on the contribution form to understand how we can most effectively speak to donors when asking for a recurring contribution. Our goal is to learn and understand what type of communication is most effective on the opt-in.

Donors

Live Test - [Copy/Visual Test on Recurring Upsells](#)

- A/B test updated copy and visuals of the recurring upsell to help it stand out more to donors as they go through multiple steps and ensure that the upsell speaks to the value of a recurring contribution.

Live Test - [Payment Options CTA Layout Test](#)

- Currently, on step 1 of the multi-step form, users are asked to make three decisions: 1) Selecting an amount 2) Recurring vs. not recurring and 3) Selecting a payment method. The payment methods are weighted equally, with credit card appearing as the last option. This step of the form has the highest drop-off rate of each step of multi-step. In the 2024 cycle, we are testing changes that attempt to reduce this drop-off and get users past Step 1.

BETA - [Recurring Opt-in on Form Copy Test](#)

- Test two alternative styles in an A/B/C test of recurring opt-in that draws users attention to the opt-in and prompts them to consider whether or not a recurring donation makes sense for them. Give the user additional copy to help them see the value of recurring.

In the next 2-4 weeks (subject to change)

Entity users

[QR Codes](#)

- Enabled for ActBlue staff and select superusers already, full release for all entity users on Monday 1/8.
- Entity users can download a .png file of a QR code for each of their contribution forms via the 'Contribution Forms' dashboard page or while editing contribution forms. By launching QR codes, ActBlue hopes to reach more donors than we otherwise might, by making it easier than ever to donate through in-person, non-email pathways.

Phase 2 - [Know Your Recurring](#)

- Phase 2 will launch in January 2024 and includes more information about one-time vs. recurring donations in the 'Fundraising Performance' module graph.
- Improving the 'Fundraising Performance' module that entity users see on their overview dashboard page with actionable information about where their funds are coming from by including mobile and ActBlue Express user percentages for their selected time period.

Blocked - [Tandem data on the Contribution Forms page](#)

- Currently the Contribution Forms page is confusing when an entity user creates a contribution form that only benefits one or more other entities because these forms display \$0 raised on the page. The forms are raising money, they're just raising money for other entities. We can make it easier for tandem form creators to track the success of their fundraising by showing the total amount raised for other entities in the table.

Blocked - [Tandem Fundraising page includes data for your entity](#)

- The Tandem Fundraising dashboard page is currently limited to showing entity users data about how much money they're raising for other entities on the contribution forms they manage. It does not show tandem form recipients the amount of money being raised for their entity and by whom. This change makes it much easier for tandem form recipients to quickly understand where their money is coming from by adding tandem recipient data to this table.

Donors

[Collecting CVV for First-Time and Returning Donors](#)

- Contribution forms for first-time donors (a.k.a the multi-step experience) and returning donors (where we have saved/cookie'd personal info but not payment

info) will begin collecting CVV this Thursday 1/4 ('Entry Mode' remains exempt).

This does not impact ActBlue Express users who have already saved payment information under their ActBlue Express accounts.

- The majority of ActBlue payment flows haven't previously required users to input CVV when entering credit card information, which boosts donor confidence and doesn't negatively impact conversion rates. We tested adding CVV to credit card entry on forms to understand if this change would have negative impacts to conversion. CVV is not required for Entry Mode.

Donor Dashboard - [In-Line Tipping in Donor HQ](#)

- Right now donors can't add a tip when giving via the Donor Dashboard. Soon we'll add tipping capability to the donate modal (or, pop-up) that donors see here. This change will exclude PayPal for now due to technical complexity.

As a reminder, this email only covers donor and entity (campaign or organization) user facing features and A/B tests that we've released in the past two weeks with links to internal product documentation where applicable. It also includes donor and entity user facing features and A/B tests that are on track to be released within the next two to four weeks with links to product briefs where applicable, though timing is subject to change given product development. You can find archival editions of this email in [here](#). For more details and [a timeline view](#) check out the [Release Dashboard](#). Please reach out to [here](#) with any questions and your feedback!

EXHIBIT 8

ActBlue Memorandum, Capture CVV AB Test – Q4
2023



Capture CVV AB Test - Q4 2023

This doc pertains only to the F&F work, for details on the larger initiative (including DHQ + AAA work) see [here](#).

Background + Objectives

Background

We would like to add CVV to payment flows to ensure that we are processing payments in a way that adds donor confidence in payment flows. We know that donor confidence increases conversion and builds lasting trust.

Goal

AB test adding CVV to credit card entry on forms to understand if this change will have negative impacts to conversion.

Success metrics

Primary success metric

- Contribution conversion rate

Secondary metrics

- Step 3 (payment) drop-off rate
- Decline rates

Feature Details

Scope & Requirement

In scope:

- 50/50 split AB test
- Show CVV to users in treatment

Not in scope:

- Changes to how payments are processed

Requirements

- Users in control are not shown a CVV entry (with the exception of NM)
- Users in test treatment see CVV entry any time they are entering a new card
- Users in treatment are required to enter a CVV for the card to process
- CVV entry is not required for any existing cards
- Users in treatment see an error if CVV not entered
- CVV input appears in multi-step forms and if user is entering a new card in express room flow
- Entry mode is left out of the test so that entities can enter mail-in donations without CVV

Better Future for New Mexico

We appreciate your donation to Better Future for New Mexico. All donations are subject to disclosure rules. Please let us know if you have any questions.

✓ Amount (\$100)

✓ Details

3) Payment

Complete your \$100 contribution:

Have a saved payment method?

[Sign in to ActBlue Express](#)

VISA

MARSHALLS

DISCOVER

[Change payment method](#)

CVV

10 - Oct

2023

Donate

Launch Plan

AB Test Details

Primary Success Metric	Contribution conversion rate
Baseline performance	6% (multi-step only)
User group	All donors who land on forms and enter a CC
Metric Goal	No change
Sample size required	2.5M
Time to run	10 - 12 days
Dates live	11/8 -
Test name	

Results & Next Steps

TDLR

No significant change in overall conversion. A deeper dive shows:

- Bigger drop in express room than multi-step (likely a red herring)
- Mobile has a slight drop, desktop is unchanged. This friction would probably be solved by Stripe.
- Payment completion rate is down for multi-step, but since so few users get there overall conversion is unchanged. Again, this friction may be solved by Stripe.

We are adding a bit of friction and we see that in the data, but overall revenue will likely not be impacted by rolling out CVV.

General performance

We have reached the sample size for a 1% relative change in conversion and did not detect a change. There is a slight decrease (.5% relative) in overall conversion, but it is not significant. ([source](#))

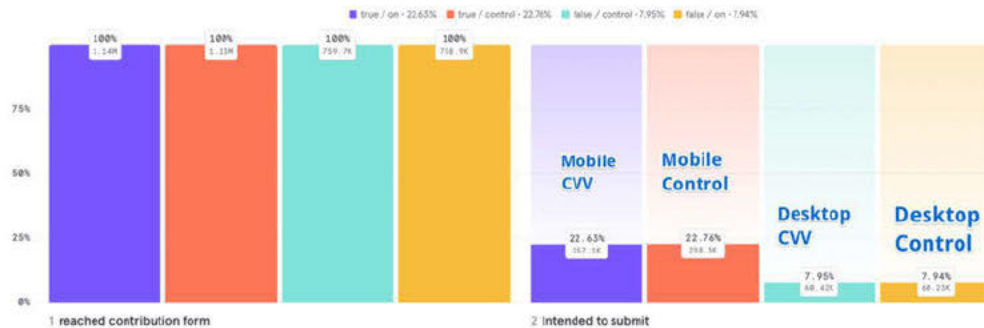
Treatment	Conversion rate
Control	17.07%

CVV enabled	16.99%
% Change	No significant change

Deeper dive

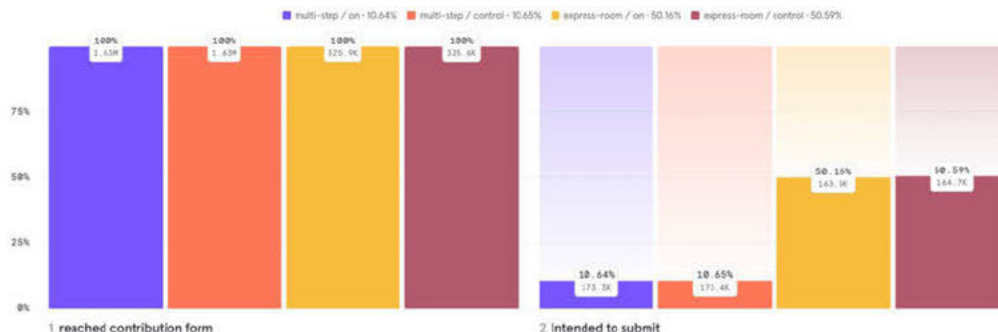
It's important to note that when slicing the data, we lose the sample size required to call the following metrics significant.

Slicing by device shows that there is slightly more friction with CVV for mobile than for desktop. This is something we could iterate on from a usability perspective, but will likely be solved by implementing Stripe elements.



Looking at express room vs. multi-step can help us understand if the slight decrease is something we need to be concerned about. All multi-step users need to enter the CVV since they are unknown donors, whereas only a portion of express room donors are required to.

Most of the drop in conversion seems to come from express room. Multi-step is essentially flat. A portion of express room users will have their card information pre-filled, so the slight difference in conversion may be a red herring.



However looking more closely at multi-step, we do see a drop-off from the payment step (step 3) to contribution. Because so few users (~5%) see the payments screen, this is not impacting the overall conversion metric.



Conclusion

It appears that general conversion is relatively unchanged, though we may be adding some friction and conversion resistance for some users. This friction may be addressable with improved UI through Stripe Elements. Overall, this change does not seem that it would impact overall revenue in a meaningful way.

Recommended next steps

- Move forward with the CVV change given the positive impacts it has for donor trust and low/no impact to conversion.
- Keep an eye on metrics to ensure that conversion metrics continue to stay reasonably consistent.
- Add a mixpanel event to track when users try to proceed without CVV to better understand if this is adding friction for users.
- Implement Stripe Elements as the long term usability win for CC entry

EXHIBIT 9

ActBlue Memorandum, CVV Rollout Communications Plan

CVV Rollout Communications Plan

Timeframe for implementation:

- Phased rollout
- Turn on for net new cards (one time donations) - this is good for messaging bc it makes it seem less urgent/serious/security related bc its slow and gradual / NOT necessarily helpful if we get to a congressional hearings/legal place
 - Time: 2 months 6-8 weeks of work from the time you begin
 - This is an estimate
 - News dump
- Next: as cards are updates they are renewed/expire
 - No rough timeline
 - Express vs recurring does not matter
 - Recurring might not be captured even if a new card
- New Mexico
 - CVV is never stored, we legally cannot
- Comms questions:
 - Recurring is NOT getting rolled out
 - HOW OBVIOUS WILL NOT BE THAT IT IS NOT AVAILABLE FOR EVERYONE
- Card networks are always threatened that they will require it (Canada) now is a good time pre-election to get ahead of visa/mastercard rules
 - Potential to lower are decline rates from people mistyping / many people
 - Some issuers will accept mistyped CVV rates
 - ACH, improved UX on donor dashboard, account roles and perms are all good bullets to add here
 - Are we making th
 - [REDACTED] suggestion: talk about form changes and not explicitly mention CVV
- Use cases :
 -

Goal: Protect AB's brand reputation by minimizing the opportunities the GOP has to highlight this story in the political press; keep any editorialized coverage to right wing media and any mainstream coverage to be fact-based reporting only.

Strategy: Frame the implementation of CVV as a neutral and standard action. Keep as much distance between CVV and the concept of "security" as possible. Acknowledge the rollout but quietly (we are not hiding it but did not see a need to loudly announce it either).

Process:

- No more than 1 week before or 1 week after the implementation takes place, post a blog/support site article that goes over "recent updates" to ActBlue and include CVV as a

passing mention in that article. Do not include any other security focused updates in the blog post.

- Do not proactively flag for the press or media.
- Have two pre approved press-facing products written for use only if ask by legitimate outlets (or a right wing outlet if we feel it can improve their biased coverage):
 - A background use one pager:
 - Why this attack is political/biased
 - Why CVV is not about security
 - Why we implemented CVV now (routine business update OR part of vision of new CEO)
 - A short on the record statement (dismissing as a political attack)

Content/Products:

- Blog Post
- Background one pager
- On the record statement

Initial Testing

Initial test started before retreat, turned off for direct mail CVV

Test going back on on wednesday

After test will start rolling out

Test is in process: “we’re already started rolling this out”, don’t roll out to everyone, very slow and careful in implementation / no timeline commitment,

- Will take time for full implementation, card expiration date
-

CVV Test Customer Service Messaging

Available [here](#)

Letter Draft

Sender is Darrin

CVV -

Tone: firm but cooperative

Foreign and fraudulent donation pushback

- Banks verify charges before it comes to us

- We collect passport numbers / work in progress (tighten up the validation)
- Infosec more generally
- SIFT

Risk:

- donor/visa gift cards (what is the
- Gift card volume is 1% transaction
 - Relies on the banks that issue the gift cards (perform address AVS checks on these)
 - Reasonable level of protection
 - There is room to advocate for the upstream vendors / the US financial systems
- Money laundering
- **Walk through at a high level the overall process of verification**
- Straw donors - there is no way for us to verify these claims
 - We can verify that we can make a donation
 - Straw donors can be inferred but not added in directly
- CVV
 - Is only used to prevent fraud for physical goods and protect the seller for too many chargebacks
 - Stolen cards
 - Intermittently testing it, for donor preference
 - Do we roll out the fact that we are implementing CVV here:
- **DEFINITELY:** frame up our rollout of CVV “increasing coverage of CVV with a goal of eventually rolling it out completely”
 - Do not commit to a timeframe (complex, will take a long time)
 - We’re in the process, will be fully implemented
 - We get a discount on rates
 - PCI compliance -
 - Regina
 - Better conversation
 - Responsive to donors “improve donor experience”
 - “Card holder preference”
 - autofill
 - “Roadmap, took priority”
 - WE REPORT SO MUCH WE ARE SO TRANSPARENT
 - Expenses - WinRed
- Political:
 - Not political
 - Cooperative but firm
 -

And a rapid response plan for the 14th and the rollout (internal and external)

Notes for [REDACTED]

address and AVS - separate from SIFT

how does AVS feed into SIFT? payments

address provided by donor is checked against the address for the card on file (zip code only)

SIFT for addresses - we look at IP and physical address mismatch / BIN (bank identification number)

IP/billing mismatch - so must get a high enough sift score

google for [REDACTED] to see if you can figure out what is baked into the score /

what do we want to keep out

rapid contributions is a factor in sift that elevate for further review.


AVS and prepaid card transactions.

why dont we reject prepaid card - unbanked people use prepaid cards. / small dollars

EXHIBIT 10

ActBlue Customer Service Inquiry (Sept. 11, 2024)

Help! Trying to donate \$50 via gift card but cant

Submitted	Received via	Requester
September 11, 2024 at 6:22 PM	Web Form	

Status	Type	Priority	Group	Assignee
Closed	-	Normal	Donor Support Donation Processing	

Error Message Text

Credit card was declined. I just bought this Amex gift card today. I called Amex the card is fine but your system set it up for recurring payments. It's a \$50 card and I'm giving \$50.

Last Name	First Name	Web Form Email	Donor Inquiry Type
			Donation Processing-WF::Declined Donations

Requester Type	Error Message URL	Contact Us Form?	Time spent last update (sec)
I am a donor	Harris Victory fund	Yes	568

Total time spent (sec)
1002

 September 11, 2024 at 6:22 PM

Credit card was declined. I just bought this Amex gift card today. I called Amex the card is fine but your system set it up for recurring payments. It's a \$50 card and I'm giving \$50. Help me to give the money. It shouldn't be this hard!

 September 11, 2024 at 8:29 PM

Internal note

Is there another organization that I can donate to other than Actblue? I've tried about 10 times to give \$50. I gave \$25 last week and had no issues.



 September 12, 2024 at 2:33 PM



Internal note

Choose the reason for sending to Donation Processing below and delete the rest (reference the [Donation Processing Issue Guide](#) if needed). If none apply, do a general escalation instead.

If donor's:

- Attempted donations are declining

Have you reviewed the Contribution Details Page in Indigo for the Change History, Payment Info, and Payment Authorizations? Please specify what you have done or N/A:

Hey  I checked in with  about this one since the donor references they are using a giftcard. He said it looks like a better fit for donation processing WF since it is declining with the code "do not honor".

He noted that we wouldn't want to comment on the gift cards and instead just refer them to their bank

 September 12, 2024 at 6:35 PM

Internal note

I'm still waiting to hear from someone. I'm trying to donate with an AMEX gift card. I called AMEX and they say the problem is on your side. I'm waiting to donate for a second time. Please help!



September 14, 2024 at 7:21AM

I am still having trouble using my Amex gift card to donate an additional \$50 to Kamala campaign. My card is constantly rejected. I called Amex and they say it is due to an issue on your site trying to do recurring payments. This is a \$50 gift card. It can't keep donating more than it's value. Inquiry [REDACTED] has been opened but nobody has responded. Please help!

[REDACTED]

September 18, 2024 at 9:03 PM

Hi [REDACTED]

Thanks for reaching out, and I'm sorry to hear about the declined contributions!

I can confirm the declined contributions were one-time and not set up to recur. The consistent decline code we received from the card issuer was "Do Not Honor."

You may want to contact the card issuer and inform them that all attempted contributions were one-time, and not set up to recur. Since it's a gift card, you may also want to try donating a lesser value than the \$50 on the card, since that can improve the success rate of a charge at times.

Best,

[REDACTED]

Support Software by **Zendesk**

EXHIBIT 11

ActBlue Customer Service Inquiry (Oct. 25, 2024)

Having problems making a donation with a gift card (and I've done it before)

Submitted October 25, 2024 at 7:31 PM **Received via** Web Form **Requester** [REDACTED]

Status Closed **Type** - **Priority** Normal **Group** Donor Support **Assignee** [REDACTED]

Donor Contact Form Subject Other **Last Name** [REDACTED] **First Name** [REDACTED] **Web Form Email** [REDACTED]

Donor Inquiry Type Donation Processing::Declined Donations **Requester Type** I am a donor **Contact Us Form?** Yes

Time spent last update (sec) 52 **Total time spent (sec)** 217

[REDACTED] October 25, 2024 at 7:31 PM

I've made donations using gift cards to both the Harris/Walz campaign and the Colin Allred campaign. I'm trying to make a \$25 donation to the Debbie Murcasel-Powell campaign and when I do it online I get caught up in an endless loop of "almost there...", "working on it...", etc. Can you help me make this donation?

[REDACTED] October 27, 2024 at 8:55AM

Internal note

I am escalating this ticket because (select one):

- Other (explain): Seems to be related to the gift card change!

[REDACTED] October 28, 2024 at 10:38AM

Hi [REDACTED]

Thanks for reaching out and I'm sorry to hear about your declined donation.

We recommend getting in touch with your financial institution for further information about why the contribution is not being processed.

Please let me know if you have any other questions!

Best,

[REDACTED]

Support Software by **Zendesk**

EXHIBIT 12

ActBlue Meeting Notes, Things to Go Over With
Associates About How We Can Be Better About
Catching Fraud

Things to go over with associates about how we can be better about catching fraud

- Start by saying you are all doing a great job, keep up the hard work
 - May 1st - May 25th - 7,540 reviews, 200 rejections (2.65% rejection rate)
 - Increase the score threshold for High Sift Score queue to queue less false positives
 - I continue to have talks with Alyssa and the managers about ways we can make adjustments to this workflow in a way that allows people to become more skilled and experienced while still being equitable.
 - In the meantime, you all have an opportunity to practice a skill that others associates don't currently have access to.
 - Take it as an opportunity to practice your deductive reasoning and sleuthing capabilities and don't view it as just a queue to clear like the blocked queue was
 - This work is extremely important for protecting our donors and our company, as these fraud situations could cost thousands of dollars
 - Wanted to have this session to go over some fraud situations so you know what to look out for and also to provide some constructive feedback, as we potentially missed catching these early in their life cycle
 - If you have any questions, please ask them here or DM me
-
- In both instances, these entities should not have been set up. That is on the teams that set them up.
 - But, transaction monitoring falls squarely on us, and we need to catch fraud when it does pass through our hands
 - ALLAN CMEP First entity
 - 1 - Name/Email mismatch, High amount, random entity, IP/billing mismatch
 - 2 - New email address that does not match the donor name, huge amount

- 3 - Name/email mismatch, high amount, IP/billing mismatch, Georgia zip code and city name but selected California state code
- Other contributions to this entity had the right name/email and/or billing/IP address matches, but were still all for alarming amounts to a brand new entity, so they could possibly have been escalated to investigate further
- Orbis Second entity
- 1 - IP/Billing Mismatch, name/email mismatch (Use IP search)
- 2 - IP/Billing Mismatch, very concerning email
- All the other contributions with suspicious emails (Use entity search)
- This donor should have been escalated or rejected because they used the name “Donor Jill Donor”, their fake email address, and their alarming IP and billing addresses
- We also have some contributions that were rejected that could have possibly been accepted
- Example - Weirdness of Sift inflating their score
- Remember that we want to look for reasons to accept contributions
- I know this is a bit antithetical to what I said earlier about what made those contributions highly suspicious, but you all have enough experience that you can be confident in your decision making
- Do not outright reject contributions for a single suspicious characteristic. Look for the forest and not the trees.
- I encourage you to escalate things if you aren't 100% sure

EXHIBIT 13

[ActBlue Fraud Specialist] 2024 Goals

2024 Goals

Professional

Cost to Serve

Lowering overall cost to serve by completing the following, related roadmap items:

- a. Complete a Fraud Prevention rule analysis to ensure risk-neutral approach through cross-departmental collaboration. Assess how rules are minimizing the cost of fraud but also maximizing our fundraising numbers through smooth donation flow.
- b. Thereafter, optimize our Sift rules to result in a 50% reduction in false positive volume while not allowing more than 10% additional missed fraud. This should save an estimated 50 additional hours of review monthly.
- c. Launch Fraud Prevention Model Governance Committee to discuss rule changes and fraud prevention tools, particularly discussions around our primary service provider Sift.
- d. Submit a Product Change Request to ATS for Amount Field Formatting updates for contributions. These are high-impact inadvertent donations, on an order of magnitude much greater than other refund requests that have a high likelihood to result in chargebacks. If accepted, this change should result in at least 100 fewer donor inquiries requesting these types of refunds in 2024.

Workflow Quality and Efficiency

Increase service quality for donors and increase efficiency by completing the related roadmap items.

- a. Complete a suspicious ticket escalation process to increase efficiency by leveraging one-touch ticket resolution for tickets that have the new reset your passwords macro/snippet. We can expect to use this new macro 2,000 times this year, saving roughly 5 escalations per week. This will be tracked with TextExpander uses.
- b. Overhaul the Fraud Prevention proactive outreach processes to work cross-departmentally and ensure our outreach is legally compliant. We will prioritize reducing ineffective proactive outreach by 50 tickets per week

and minimize donor friction by decreasing false positives in Sift review by 25% in rules that catch proactive outreach.

Workflow QA

Strengthen DS's quality of service by providing QA on our Social Media Workflow and Spicy Donor Workflow (entirely new processes in 2024).

1. For Social Media, create GAPS document and provide trainings, provide 1:1 coaching for associates with below 90% QA threshold, complete monthly share outs, ensure a team-wide score of >90%, and maintain a first reply time under 5 hours
2. For Spicy Donor, create GAPS document and provide trainings, provide 1:1 coaching for associates with below 90% QA threshold, complete monthly share outs, ensure a team-wide score of >90%
3. For Fraud Prevention, continue providing monthly QA in Google Sheets, and begin considerations for how the process may be improved next year

Team Culture

Nurture positive team culture through our busiest season by completing the related roadmap items

1. Host Meet & Greet for First New Hire Cohort during onboarding
2. Partner with subteam manager and attend meetings
3. Support subteam by answering questions
4. Act as a bridge between P&R team and Team Ops
5. Escalate subteam needs to assistant directors

Development

ERG Work

Focus on DEI work through growing the ActBlue ERG community by being a member of the newly relaunched Pride ERG Leadership team, learning from other ERGs, and working together to host tandem events.

1. Host monthly Pride ERG meetings
2. Relaunch Pride Month programming
3. Attend at least one event hosted by every other ERG
4. Collaborate with other ERGs on at least one event

Attend a key industry event

Attend the MRC conference in Las Vegas. As a key event for industry professionals working in payments and fraud, this will be a huge opportunity for me to learn more about the work I am doing and network with important people for my time at ActBlue and beyond.

1. Learn about existing and potential vendor tools
2. Attend 3 roundtables
3. Attend 10 lectures
4. Attend 3 networking events
5. Make meaningful LinkedIn connections with 3 people at my job grade and 3 people above my job grade
6. Discuss what is working and what could be improved with representatives of our current tools (ex. Sift, Stripe, etc.)

EXHIBIT 14

ActBlue Memorandum, Known Instances of Fraud
[Associates]

Known Instances of Fraud [Associates]

Known Instances of Fraud [Associates]

Active

Brazilian CfAPAF Attack

Look out for these donations:

- Giving to Center for American Progress Action Fund
- Mostly from Brazilian donors (unlikely to give to this organization)
- Donors are often each using several different cards

CO, no-space address Attack

Look out for these donations:

- Donations all have Colombian credit cards
- Write their address in the style "727u St Nw" (no space between the first number and letter) and a Miami billing city

NAACP

Be on the lookout for suspicious donations targeting NAACP. These donations can have widely varied characteristics, but often are for \$1.00 and have foreign markers (credit card country, IP address, etc.)

Erin Joyce

Be on the lookout for suspicious donations targeting Erin Joyce. These donations can have widely varied characteristics, but often are for \$1.00 and have foreign markers (credit card country, IP address, etc.)

The Ocean Agency

Most donations tend to have foreign characteristics (IP, etc.) and donation amounts for \$1.00 or something ridiculous like \$500,000.00. It is completely unclear to me why this organization is the target of so many fraudulent contributions.

Inactive

\$1 Foreign Multi-user Attack

Look out for these donations:

- All are for \$1
- Most are targeting Midwest entities (for example, the Democratic Party of Wisconsin)
- IP/Billing Country are Mismatched
- IP is often in Myanmar, Iraq, Jordan, Philippines, and Saudi Arabia
- Email nomenclature is FirstnameCapitalizedrandomletters (example: [REDACTED]@gmail.com). You can only see what letters are capitalized in Indigo, so if the previous 4 characteristics match, open the donation in Indigo and see if this one matches too

Global Zero

Look out for these donations:

- All for tens of thousands of dollars.
- Fake/suspicious email domains.
- The billing name and address are extreme, for example, including special characters.
- IP/Billing mismatches.
- Some contributions are connected via fingerprints

ChildFund International

Be on the lookout for suspicious donations targeting ChildFund International

Courage California

Look out for these donations:

- There are very little connecting signals, so the fraudster has the ability to change their characteristics significantly on each attempt.
- Nearly all the contributions include characteristics that make them obviously fake, such as a difference in the name in the billing field and the email address, fake addresses, and/or different billing and IP addresses.

Laura Kelly

Look out for these donations:

- Many thousand dollar or more donations
- IP address [REDACTED]
- CC token [REDACTED]
- Generic names/emails

Early June 2022 c3 Attack

Look out for these donations:

- From many different donors, whose only similarities appeared to be that they gave very small (\$1.00) or very large (>\$1000) donations and that their characteristics are very obviously fraudulent.

Steven Horsford

Look out for these donations:

- Most have a bad NY address
- Foreign or VPN IP address

[name] [REDACTED]@gmail.com

Look out for these donations:

- Originating in India with
- Name looks like fghjgjfj jrtrjh

- Variations of the email above
- All to Vote Common Good

Bug Bounty Hunters

Look out for these donations:

- Contributions are made with Express profiles that created their own fundraising forms
- Emails [REDACTED]@gmail.com and [REDACTED]@gmail.com

Card Test Example

Look out for these donations:

- Email is [REDACTED]@gmail.com
- Sift score of 100 and other suspicious characteristics
- Donations for \$1.00

Targeted Victory/Golden Taquila

Look out for these donations:

- \$1.00 and from the IP address [REDACTED]
- All but one of the donations came from an [REDACTED].
- An email that is a random set of five letters and the email domain was @goldentaquila.com (misspelled), which is not a real site.

Discover Test

Look out for these donations:

- The name "Discover Test"
- Variations of an email "firstlast@discovermarketingsupport.com"
- Typically for a dollar
- Billing address used is that of Discover Card HQ.
- IP address is in Orlando, FL.
- At least one card used was Ecuadorian.

Nightengale Attack

Look out for these donations:

- \$2.00 donations
- To the DNC
- Using the same IP addresses:
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
- Have the last name Nightengale.

Kendra Hicks

Look out for these donations:

- From the same IP addresses:
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
- Odd dollar amounts
- All from IL despite the campaign being in MA

National Bail Out

Look out for these donations:

IP Addresses:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

Audrey Denney

Look out for these donations:

- Share a browser/cookies fingerprint.
- The naming and email conventions of the contributions were also extremely similar, ex: [REDACTED] - [REDACTED]@gmail.com, [REDACTED] - [REDACTED]@gmail.com, etc.

- IP Addresses:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

- [REDACTED]

Democratic Committee of Morris Plains (NJ)

It is completely unclear to me why this organization is the target of so many fraudulent contributions.

EXHIBIT 15

ActBlue Memorandum, Boeing VP Fraud Situation

Boeing VP Fraud Situation

Timeline

- [REDACTED] writes in to support email on Friday (1/26) for the first time [https://actblue.zendesk.com/agent/tickets/\[REDACTED\]](https://actblue.zendesk.com/agent/tickets/[REDACTED])
- [REDACTED] refunds their first contribution and replies to the email on Friday (1/26)
- [REDACTED] follows up asking for the name of the person who made the donations so that they can file a police report (1/26)
- [REDACTED] escalates to the DS Managers (1/26)
- [REDACTED] uses Credible Allegations of Fraud macro to escalate to the Compliance team (1/27)
- [REDACTED] writes in again over the following days, all tickets are merged.
- [REDACTED] reaches out to [REDACTED] on 1/30 for additional information on the situation (see below)
- [REDACTED] refunds all donations on (1/31)

Details about the Situation

- First donation was made without being signed in to Express profile: [https://secure.actblue.com/contribute/tools/AB\[REDACTED\]](https://secure.actblue.com/contribute/tools/AB[REDACTED])
- Refcode is "nh?"
- Sift score is 79. Does not trigger any rules and is automatically accepted in Sift.
- Billing address is in Seattle (presumably [REDACTED] address), IP is in Chicago
- Prepaid credit card used
- Recent Express profile history is limited to 10 most recent events
- All Express profile activity is geolocated to Mesa, AZ

- Some time between 1/26 and 1/27 the Express profile with the email [REDACTED] is created
- The email is confirmed according to recent activity, but is not reflected in the Express profile audit: [https://secure.actblue.com/users/\[REDACTED\]](https://secure.actblue.com/users/[REDACTED])
- All changes in the audit say that they were made by the donor email, with two exceptions, which were Anonymous and added phone numbers
- On 1/28, the name on the Express profile is changed to [REDACTED] (more below)
- 20 minutes later, all the information is changed to "None" or "1111", etc.
- The initial assumption would be that [REDACTED] is the fraudster
- [REDACTED] is "a political liaison at [REDACTED] describes himself as a community activist and organizer for environmental justice, living wages for ride-share drivers, and public safety. He attended [REDACTED] (https://chicagoreader.com/2023-police-district-councils-voter-guide[REDACTED])
- [REDACTED] has been a donor since 2016: [REDACTED]
- "Quick update - there is one edge case where someone can edit personal info while not being logged in. If someone donates, we set a prefill cookie in that browser. If someone comes back to AB, on that same browser, and selects "edit" on the prefill info, then that information is saved to the original account if it exists. So in the use case above it's possible someone donated using [REDACTED] info and logged out. Then on that same device, opened up another donation page, and changed / removed the info." -per [REDACTED]

EXHIBIT 16

ActBlue Meeting Notes, [Fraud Specialist] : [Donor
Support Manager] Work Time (May 17, 2022)

██████████ : ██████████ Work Time

May 17, 2022

Notes

- Our review rate isn't statistically significant to be able to tell
 -
- What is different when review rates are different? What is impacted by the change?
 - Staffing needs/volume
 - Is there a consistent fraud rate, regardless of staffing?
- Factors
 - Rejection rate
 - Coordinated attacks
 - One-off donations
 - Percentages (Number of rejections / number of donations reviewed * 100)
 - If this number increases over time, we are reviewing less false positives...while avoiding selection bias
 - May 2022 (expected) - 5%
 - April 2022 - 4.8%
 - March 2022 - 6.8%
 - February - 5.8%
 - July 2021 - 4.77%
 - May 2021 - 2% (before separating c3 and political contributions...that happened later in the year)
 - Overturned decisions - Decision made either automatically or manually by an associate that ██████████ overturned. He stumbled onto them through connections from other fraud he caught, not from systematic review of accepted transactions.
 - 3 in May 2022
 - 3 in April 2022
 - Score Thresholds
 - Rule Effectiveness
 - Proactive outreach - often refunded and donor asked to donate again
 - Errors like names
 - High volume of failed contributions
 -

EXHIBIT 17

Email From ActBlue Fraud Specialist to Sift
Personnel (July 18, 2024)

From: [REDACTED]
on behalf of [REDACTED]
Sent: 7/18/2024 10:33:48 PM
To: [REDACTED]
CC: [REDACTED]
Subject: Re: Sift / ActBlue: Performance Check-in (7/17/24)

The invite is out for Tuesday the 23rd. See you then [REDACTED]!

Agenda:

- Describe the Chargeback reason code issue
- Discuss workflow optimizations!

And thanks for sharing the examples above. I have these added to our internal ticket for further review!

Best,
[REDACTED]

On Thu, Jul 18, 2024 at 11:02 AM [REDACTED] wrote:
Hi [REDACTED],

Thanks for following up with us!

Next Tuesday at 12:30 PST works perfectly for me to meet about workflow optimizations. Could you please go ahead and send me an invite for that?

I would also appreciate us going over the chargebacks issue you mentioned at the coming meeting. I checked with our payments team and provided the examples, but they did not quite understand what the ask is, and I am unable to elaborate on it to them.

Finally, I just wanted to provide some examples of donations that *feel* like they are not scored well correctly.

1. [REDACTED] - Sure, the donor has a lower case name, but nothing else looks suspicious and it scored 94.
2. [REDACTED] - Similar as above. Score of 93 without a very obvious reason why
3. [REDACTED] - A good example of payment fingerprint being the riskiest signal despite there not being a clear connection to the others that also have that fingerprint. This one also interestingly is connected to a ton of users based on failed transactions from that BIN across your network.
4. [REDACTED] - This has a Sift score of 100, a.k.a. would be an example of a good donation being auto-rejected despite being completely normal and having no red signals at all
5. [REDACTED] - MEANWHILE, this donation has a billing address far from the IP address and a foreign prepaid credit card and only scored a 90. That is the kind of donation we would hope to score very high.
6. [REDACTED] - This is an example of donations from a missed fraud situation that we feel *should* have been caught. The donations all had the same billing address, IP address, credit card (!!), and email domain, and this donation was scored as 69.

Looking forward to discussing this all some more!

Best,

On Thu, Jul 18, 2024 at 10:15 AM [REDACTED] wrote:

Hi [REDACTED],

Thanks for sending over a summary of our meeting and the slide deck. It was great meeting you and [REDACTED]. I'm looking forward to the new model releases Sift has coming up, as well as seeing how they will improve our modeling/scoring.

Here's a link to [ActBlue's blog](#) - it's a great resource for our vendors to learn more about ActBlue, our product, and our goals.

[REDACTED] owns our Sift workflow and processes so I recommend scheduling some time with him to collaborate on workflow optimization - please include myself and [REDACTED] as optional as I don't want to hinder you both from meeting as soon as possible.

Best,
[REDACTED]

On Wed, Jul 17, 2024 at 4:57 PM [REDACTED] wrote:

Hi [REDACTED],

Thank you for the time today. Our time got cut short, so please let me know if you would like to schedule more time to connect.

Here are the action items from our call today:

- I will work on scheduling some time with our Trust & Safety team to discuss your use case and industry best practices!
- Model release or score notifications we will send to [REDACTED] moving forward

Next Steps that we should focus on in the next few weeks:

- **Workflow optimization**
 - Should we work with [REDACTED] on this?
 - I am available for 30 mins on Tuesday, 12:30pm - 2pm PT, does this work for you?
- **Integration Review**
 - Ex: Chargebacks sending but no CB Reason, ensure sending fraud as block label
- **Sift Accuracy Deliverables**
 - Launch Payment Fingerprint 2.0
 - Stop learning on Payment Fingerprint 1.0 (model release ~7/23)
 - New Payment Fingerprint 2.0 available beginning of August
 - Down sampling - Q3 initiative
 - Model Health Performance analysis - Stay tuned, hoping for updates in the next week.

Attached is the deck we went over today.

Please let me know if I missed anything and I will be sure to add to my list.

[REDACTED]



Director, Customer Success Management



[Read the complimentary report](#)



Payments Manager | ActBlue
secure.actblue.com



Senior Workflow Specialist | ActBlue
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Director, Customer Success Management



[Read the complimentary report](#)

EXHIBIT 18

ActBlue Memorandum, Fraud Prevention FAQ

Fraud Prevention FAQ

Reminder: Do **not** share information about Sift or Fraud Prevention with anyone outside of ActBlue

1. What is Sift?

Sift is a fantastic tool which lets us check for fraud in a sophisticated way. It generates a 0-100 Sift score for every contribution based on certain "signals" (such as the difference in the IP and billing address of the donor, the rate of contributions, the similarity of the donor's email address with others, etc.) which can be used to judge whether a contribution is fraudulent or not. These signals and scores are presented to us for contributions which meet certain thresholds, and we can accept the contribution or reject it as fraud. "Riskier" contributions are more likely to be flagged for manual review, but many, non-fraudulent (but "abnormal") contributions can be considered risky and be unnecessarily flagged.

2. Where in the contribution process does Sift review happen?

When a donor makes a contribution, they do so on Indigo, which is the backend of our website and what you see when you search for contributions. The contribution is held there, and the information is sent to Sift for review. Every contribution made on ActBlue (with the exception of contributions made with PayPal) is sent to Sift and runs through a set of rules, over 99% of which pass and are accepted automatically. The small percentage of ones that are not automatically accepted need to be manually reviewed by an associate (accepted or rejected). These decisions (automatic or manual) are sent back to Indigo, and if the contribution was accepted, we send the authorization request to the card issuer through WorldPay/Stripe, who process the contribution or give us an error message (such as Do Not Honor). Thus, we check for fraud with Sift before fully communicating with our payment processor.

3. How does ActBlue use Sift?

At the beginning of 2020, and for several years prior, we were using a flawed tool called MaxMind to check for Fraud, which flagged ~7-8% of contributions for manual review and provided very little information about each one. We had no process for who worked in this queue and when (it was chaos). With the Fraud Prevention workflow, we now have regularly scheduled shifts each day where an associate will work through any pending manual reviews, escalating ones they are not sure about. Trends in fraud are noticed this way, and we work with individuals in other departments to resolve these (such as by reaching out to a campaign, delisting an organization, issuing refunds, etc.) We also do proactive outreach for non-fraud issues like potential chargebacks, for donors who have a high volume of failed contributions, and legit donors using an ineligible name, etc.

4. How might an associate run into Sift, especially if they don't work in that workflow?

Even if you do not work in Sift, you may come across situations in Zendesk where the answer has to do with Sift. The most common issues will be:

- Legitimate donor accidentally rejected
- Stuck pending (particularly for events/merchandise)
- Donor has a contribution blocker that needs to be removed
- Proactive outreach
- Spotting fraud/suspicious entity activity
- Admin-entered contributions
- Weird, unique situations

5. Legitimate donor accidentally rejected

The most likely scenario is that a legitimate contribution is incorrectly rejected in Sift because it appeared to be fraudulent (since we are humans doing manual review, we sometimes make mistakes). As in the picture, you will see under the Payment Authorizations section of a contribution what the decision in Sift was. If it was rejected but the donor wanted their contribution to go through, please share the Zendesk ticket with the Fraud Specialist. We can overturn the decision in Sift, which ensures that the donor themselves is not marked as fraudulent, but this will not rerun the contribution. We will need to apologize to the donor and ask that they contribute again.

you replied **GREAT RATING**

To: [REDACTED]

Hi [REDACTED]

Thanks for reaching out! You have an ActBlue Express Donor Profile and can view your entire contribution history at any time through your ActBlue account!

Start by logging into the ActBlue site: <https://secure.actblue.com/login>. You'll be taken directly to a detailed history of your contributions made through ActBlue. To review your recurring contributions specifically, go to the left side menu titled "Contributions" and click on "Recurring".

I encourage you to take a look at our [support articles](#) for further information and tips on using your ActBlue Express Donor Profile.

If you need help accessing your account for any reason, please let me know and I'd be happy to help!

Best,
[REDACTED]

Customer viewed on Nov 17 @ 6:59 pm

Workflow: Add "Assigned Status" when a conversation is assigned was triggered.

[REDACTED] added a note

Was rejected in Sift and now has a blocker

[REDACTED] started the conversation

Please send me the receipts for my donations. [REDACTED]

This is what a contribution rejected in Sift will look like at the bottom of the contribution page in Indigo:

Payment Authorizations				
Date	Amount	Auth Result	AVS	Resolution
2020-11-17	\$5.00	Cancelled	<nil>	Cancelled
> Fraud Check Score: 98.8834205596564, Fraud Decision: reject, Fraud Vendor: sift, Blocking				
Review externally				
Manual Review: (sift) rejected 2020-11-18 by sift				

6. Stuck pending (particularly for merchandise/events)

Contributions that are marked for manual review in Sift will remain pending until an analyst accepts or rejects them. Typically, someone works in Sift every four hours, and escalations, holidays, high volume, etc. can mean that we fall behind on clearing out pending contributions. In that time, they will appear as "Unpaid" on Indigo. You can confirm whether a contribution is still in Sift or not because it will display as pending in the Fraud Check section of Indigo as you can see in the screenshot below.

There are a few reasons why a donor may write in to us before a donation is accepted or rejected, which can cause the associate helping them in Zendesk to be "stuck". As an example, if a donor writes in asking why they have not yet received a receipt for a contribution they

made a few hours ago or they entered critically incorrect information and they need the contribution refunded. Use the Assign Macro> Fraud Prevention (Sift): Stuck Pending to escalate the contribution to the Fraud Prevention team.

This is what a contribution pending in Sift will look like at the bottom of the contribution page in Indigo:

Payment Authorizations

Date	Amount	Auth Result	AVS	Resolution
2020-12-10	\$10.00	Pending	<nil>	Pending

> **Fraud Check Score: 57.4269976587554, Fraud Decision: review, Fraud Vendor: sift, Blocking**

[Review externally](#)

Manual Review: (sift) pending

Others with this IP [Redacted]

7. Donor has a contribution blocker that needs to be removed

Similar to POA issues, sometimes the best solution to resolving an issue we spot in Sift is to put a contribution blocker on the donor in Indigo. The reason for these blockers (and the way they will be named) varies from the more nefarious "Fraud" to the benign "High Volume of Failed Contributions". There is also a less used "Suspicious Contributions" blocker that we use, but we try to avoid this if something is not clearly fraud. Below is a picture of a contribution search of an email that has a blocker placed on it. The Fraud Prevention team will commit to leaving better notes in Zendesk for why a donor is being blocked in the first place, previous attempts to contact, etc. so associates have a better understanding of why the block exists.

If a donor writes in because they want to donate but aren't doing so successfully, and you see that they have a contribution blocker in place, please flag for the Fraud Specialist to review and potentially remove the blocker. We want to be strict about when we use blockers, as we want people to be able to donate, but misuse of our platform can also not be tolerated. If the donor, who we will give the benefit of the doubt, confirms that they would like to process legitimate donations, we will unblock them.

Contributions Search

Order Number (AB123456789)

[Redacted]

First name Last name

Phone

City Zip

Start Date

End Date

This search has been saved as a contribution blocker named 'High Volume of Failed Contributions'

[Manage Contribution Blockers](#)

← Previous 1 2 3 4 5 6 7 8 9 ... 100 101 Next →

[Redacted] \$0.00 unpaid

14 January, 2021 at 10:15 AM Expand

Prefill state: [Redacted]

[Redacted]

Express User: [Redacted]

[Redacted]

In the screenshot below, you can see that a contribution that has been blocked will say (blocked) in the manual review section rather than (sift).

Payment Authorizations				
Date	Amount	Auth Result	AVS	Resolution
2020-12-05	\$25.00	New	<nil>	PayPal Abandoned
Manual Review: (blocked) rejected 2020-12-05 by [REDACTED]				
Others with this IP: [REDACTED] 6.3.3.59				
Tools				
Attempt to Settle		Attempt to Void		

8. Proactive Outreach

We do not only use Sift to catch fraud. We often catch donors who are making mistakes when donating, because Sift flags many false positives for manual review. When helping a donor in Zendesk, you may come across proactive outreach someone on the Fraud Prevention team may have done with them. You can help these donors with their request without checking with the Fraud Prevention team, but if it is related to Sift (maybe something you see in a note on the donor) or if you just are not sure, you can just flag the ticket for the Fraud Specialist.

9. Spotting fraud

It is possible that you will first notice a fraud trend in Zendesk before we do in Sift. For example, if the fraudster is using stolen credit cards to make donations are sly enough to spoof the information of the donor themselves, their Sift score might not be high enough to be flagged for manual review. It may not be until the real credit card holder notices on their billing statement that they were charged and reaches out to us that we are made aware of the situation.

Similarly, fraudsters may try to reach out to us via email to get information about our systems and processes to defraud us. Please do not share information about Sift with our donors. If you need help with language to explain a situation, such as a contribution being incorrectly rejected, reach out to the Fraud Specialist. If you believe that someone is trying to commit fraud by reaching out to us via email (such as to access someone else's account), always first escalate the situation to our Security team. If you think it may be relevant to Sift as well, you can share it with the Fraud Specialist.

10. Suspicious entity activity

While rare, there have been instances where an organization using our platform will themselves engage in untoward acts, such as running credit cards without a donor's permission. These are extremely serious cases for obvious reasons and need to be escalated immediately.

Please note that not every time a donor writes in saying that fraud was committed against them are they correct. An inadvertent contribution is not fraud. Here are some characteristics that signify that there is a situation going on that you should escalate to the Fraud Specialist: Was the unauthorized charge for large amounts of money (not a regular billing issue)? Is it going to an organization you have never seen before? Does that organization not have many contributions, and maybe the ones they do have are large, when you go to their entity dashboard (screenshot below)? Are there many contributions from various "donors" connected to the same IP address (screenshots below)? This is a screenshot of a Zendesk conversation where a donor raised this type of issue to us, and the organization was ultimately delisted from our platform:

code: [REDACTED]
Amount: Two charges of \$1,047.00.
Message: NEITHER OF THESE CHARGES ARE AUTHORIZED. THIS IS OUTRAGEOUS AND COMPLETELY DESTROYS MY TRUST IN ACT BLUE. CONTACT ME IMMEDIATE
Server agent: [REDACTED]

Entity Manager (<https://secure.actblue.com> [REDACTED]):

Entity Manager

+ Add a new entity

Search by ☒ name ☐ check number

← Previous 1 2 3 4 5 6 7 8 9 ... 3230 3231 Next →

06-PAC

[Go to website](#) [Admin](#)

06th Cong District DEC (NC)

[Go to website](#) [Admin](#)

Contribute

Create contribution form

Go to Contributions Search:

Dashboard — The Hurricane Network

Overview

Contribution Forms

Brandings

TOOLS

Contributions Search

Reporting

Downloads

Refunds

User Activity Audit

Webhook Integrations

Jan 26, 2021 – Feb 1, 2021

Date range

Last 7 days

0
Contributions

\$
\$0
Raised

\$
\$0.00
Avg. Contribut

Few contributions to this organization, all for large amounts of money:

Contribution Date	Name Email	Address	Amount	Recurring	Refund date
2020-11-12	[REDACTED]	[REDACTED]	1,500.00	One-time	2020-11-17
2020-11-12	[REDACTED]	[REDACTED]	1,500.00	One-time	2020-11-16
2020-11-11	[REDACTED]	[REDACTED]	1,500.00	One-time	2020-11-30
2020-11-11	[REDACTED]	[REDACTED]	1,500.00	One-time	2020-11-30
2020-11-11	[REDACTED]	[REDACTED]	1.00	One-time	2020-11-11

At the bottom of most contribution pages, you can click here to search for all contributions made with the same IP address:

Payment Authorizations

Date	Amount	Auth Result	AVS	Resolution
2021-02-01	\$3.00	Pending	<nil>	Pending

> **Fraud Check Score: 89.2848538183635, Fraud Decision: review, Fraud Vendor: sift,**

[Review externally](#)

Manual Review: (sift) pending

Others with this IP: [REDACTED]

Tools

Attempt to Settle

Attempt to Void

Notice these “different” but extremely similar contributions with the same IP address:

[REDACTED]

12 November, 2020 at 02:29 AM

\$1,500.00

Expand

[REDACTED]

No express user

[REDACTED]

[REDACTED]

2020-11-12

The Hurricane Network

\$1,500.00

Refunded

[REDACTED]

12 November, 2020 at 02:24 AM

\$0.00

Expand

[REDACTED]

No express user

[REDACTED]

[REDACTED]

2020-11-12

The Hurricane Network

\$1,600.00

Unpaid

Please feel free to escalate any other issues you may come across that have to do with Sift.

Commitments from the Fraud Prevention team

1. Working through pending contributions in Sift as quickly as possible to prevent donors waiting for contributions to process
2. Tags for Sift in Zendesk when possible to help clarity
3. More robust note-writing on a customer profile when a block is placed (or other action is taken) on their account
4. A response to all inquiries in the form of a resolution to the problem, as well as an explanation of the processes at work
5. Availability to answer any questions about how Sift works, how we prevent Fraud, and how we can work more closely going forward

EXHIBIT 19

ActBlue Memorandum, Proposal for Solution to
ActBlue Express Profiles Compromised During a
Fraud Attack

Proposal for Solution to ActBlue Express Profiles Compromised During a Fraud Attack

There are situations where a donor has had their ActBlue Express profile compromised (to be clear, not because our security was breached but because their credentials were stolen elsewhere) and the fraudster has allegedly changed the email associated with the profile. In those cases, our standard canned support language recommending that the donor reset their password is insufficient, as they are completely unable to access the account, and password reset emails would instead be sent to whatever the new email on the profile is. We have had at least one instance where a donor has reached out via the Donor Support team to question why they are no longer able to access their Express profile, where we believe their account has fallen victim to such fraud.

We do not currently have a people process or a tech process in place to edit the email address of an account that has fallen victim to an account takeover. We are unable to confirm with 100 percent certainty that an account has been taken over by an unauthorized party without exploring big changes to our account setup and verification processes. [REDACTED] suggestion is that in the short term, we disable any accounts where we have detected fraudulent activity being performed on, that CANNOT be self serviced recovered by the original account holder.

Associates should **NOT** follow this process, instead, escalating it to their manager.

The steps for handling ATO accounts used in fraud:

1. Confirm with the Fraud Specialist, via the Security team, that it is more likely than not that an account's credentials are unrecoverable to a donor and was used fraudulently.
2. Remove all saved payment information from the Express profile and log out of all devices.
3. **Delete** the Express Profile
4. Send the donor the following canned language:

Commented [1]: Does this specificity matter? Shouldn't it be "any" ActBlue account?

Commented [2]: this recommendation is due to the lack of ability to programmatically and safely investigate ATOs as well as edit profile information that will allow for remediation of account params being edited.

Commented [3]: Are these steps something we'd only plan on doing if the donor gets in touch? Would we not want to inform them proactively?

It's okay if the answer is "no," I just want to make sure it's an option that was considered.

Commented [4]: I think we should be taking these steps for all accounts that are confirmed to the best of our abilities (by Security) to having been used in fraud and proactively send this wording.

Commented [5]: I am leaning towards what [REDACTED] said above. Since we do not have many flows actively looking to discovered ATOed accounts, we would only use something like this in the event someone reaches out.

however... all that being said.. the specific approach is still one of MANY approaches we as an org can take wrt to ATOs. I still do not think that any call has been made on how we want to systematically deal with ATOs.

Commented [6]: Isn't there some information we'd want to keep for integrity/fraud prevention purposes? For example, the new email address that was added to the account by the bad actor?

"Hi [Donor Name]

I am reaching out to you today from ActBlue Support, as we believe have learned that your ActBlue Express profile was accessed improperly by someone other than yourself and the login credentials were changed. We can confirm that our site's security was not compromised; unfortunately, however, if you used the same login credentials across your ActBlue account and other unaffiliated third party service accounts, it's possible that those credentials were exposed by that third party or through a security breach of their services. your account-specific login credentials were likely part of a data breach by an unaffiliated third party. (For a list of recent security breaches in the US you can search "___" to try to determine where your data may have been compromised.)

Out of an abundance of caution, we have permanently disabled your account profile because of this suspicious unauthorized activity. You will no longer be able to log in or create a new account with this same email address. However, you can create a new Express profile with a different email here. Once you do that, please let me know and we would be happy to attach your past contributions to the new profile's history so that you can see them in one place.

Please note that in order to change an account's a profile's login credentials, an the unauthorized individual would need must have had access to your email account, so we encourage you to change your password for your email account as soon as possible, if you have not already done so.

Thank you for your understanding of the situation, and please do not hesitate to reach out for further assistance.

Best,
[Associate Name]

Commented [7]: "account"?

Commented [8]: its hard to use this as canned response since all ATOs will be different

Commented [9]: Agree. I inserted some softer language but feel free to linker or remove.

Commented [10]: Should we have this? Was a suggestion from [REDACTED]

Commented [11]: I wouldn't include

Commented [12]: "account"?

Commented [13]: Is this true?

EXHIBIT 20

ActBlue Memorandum, Proposal for ActBlue
Express Profile Recovery for Compromised Donors

Proposal for ActBlue Express Profile Recovery for Compromised Donors

Introduction

There are situations where a donor has had their ActBlue Express profile compromised (to be clear, not because our security was breached but because their credentials were stolen elsewhere) and the fraudster has allegedly changed the email associated with the profile. In those cases, our standard canned support language recommending that the donor reset their password is insufficient, as they are completely unable to access the account, and password reset emails would instead be sent to whatever the new email on the profile is. We have had at least one instance where a donor has reached out via the Donor Support team to question why they are no longer able to access their Express profile, where we believe their account has fell victim to such fraud

Proposal

It is in the best interest of ActBlue and our donors that in instances where we can confirm that a donor's Express profile has been compromised and had the email on their account changed, we revert those changes. The benefits are numerous, but the obvious ones are that we would prefer not to have fraudsters in control of Express profiles for future fraud attempts and that restoring profile access to the correct donor is the preferred support flow.

In discussions with AAA, it seems that we are not manually able to change the email on an Express profile as site admins, and would therefore need to make those changes via the console or a custom tool.

Commented [1]: We have to be careful with statements like this, as they should be informed by many teams, not just 1.

Commented [2]: this paragraph also only suggest 1 path.. its just as possible that the "best" approach is that for any accounts we think fell victim to this is permanently logged out and invalidated. and the express user as to recreate their account with a new password, different from the previous one

Commented [3]: the cost of this would have to be balanced against the cost of other potential solutions, and the prevalence of this type of fraud.

Examples

A recent fraud situation resulted in the improper access of several Express profiles, including the change of emails on those profiles. The full list of those profiles can be found below.

[REDACTED]
[REDACTED]
[REDACTED] (it looks like they just deleted the Express profile altogether)
[REDACTED]
[REDACTED] (it looks like they just deleted the Express profile altogether)
[REDACTED]
[REDACTED]
[REDACTED]

Appendix

Initial Thoughts

- We do not currently have a people process or a tech process in place to edit the email address of an account that has fallen victim to an account takeover.
 - Note an account takeover here means both the email and the password for an express account has been changed by an unauthorized party
- It is VERY difficult, maybe even impossible, to confirm with 100 percent certainty that an account has been taken over by an unauthorized party without exploring big changes to our account setup and verification processes.
 - If we go down this path, we will need to set aside a risk budget where we get this determination wrong
- Based on the two assumptions above, I think the best we can do in the short term is disable any accounts where we have detected fraudulent activity being performed on, that CANNOT be self serviced recovered by the original account holder.

EXHIBIT 21

ActBlue Memorandum, Sift Rule Proposal – Same
Payment Fingerprint

Sift Rule Proposal - Same Payment Fingerprint

A possible vector for fraud are people making multiple donations using the same credit card information. We will add a rule that looks for these types of donations, but also make sure we don't review too many false positives, as some donors alter their information slightly between donations.

Limitations

Sift only allows us to create rules based on *payment fingerprinting*, not *credit card numbers*. What that means, is that if two donors have the same BIN and CC Last 4, they technically have the same payment fingerprint as someone who's card has different middle digits. Sift does provide a different version of payment fingerprint, which incorporates zip code, which will help limit the search to the same person using the same card.

Proposal

If order matches:

Number of users with same payment fingerprint (card + zip) [REDACTED]

Create orders in last week [REDACTED]

Payment abuse score [REDACTED]

Impact

Over a one month period, we would review an additional 2,079 contributions. This would account for a 16% increase in overall review volume. It is important to note that while this rule would catch fraud instances we have experienced before, were they happen

again in the same way, the backtesting on this rule suggests that all reviews we would have done in the last 30 days would have been false positives.

Notes

EDIT: Rule change went live 9/16/2024

EXHIBIT 22

ActBlue Memorandum, How Sift is Impacting Our
Work at ActBlue

How Sift is Impacting Our Work at ActBlue

Why do we check for Fraud? Our Mission Statement

As an organization we are always thinking about security and any risks that could arise on or using our platform so we use vendors such as Sift to prevent any potential threats.

Fraud, whether successful or not, can devalue the legitimate contributions made on our site, can open up campaigns and organizations to unintended scrutiny, and subject our company to targeting of baseless conspiracy theories.

This requires a proactive approach, which we achieve through vigilant review, outreach, and data analysis.

Prior to Sift

- We were manually reviewing 7-8% of contributions in an Indigo Unresolved queue
- For perspective, if we had to manually review 7% of contributions on the day RBG passed away, that would be 62,000 contributions, an amount that would be impossible for us to work through.
- There was no set schedule for when this queue would be cleared and who would do it, and this wreaked havoc on our Slack channel. You can see this chaos in the screenshot to the right.
- There was very little information, if any, for why a contribution was considered suspicious. You can see



what we had access to in the screenshot below.

How Sift Works

The screenshot displays the Sift interface for a user profile. The interface is divided into several sections:

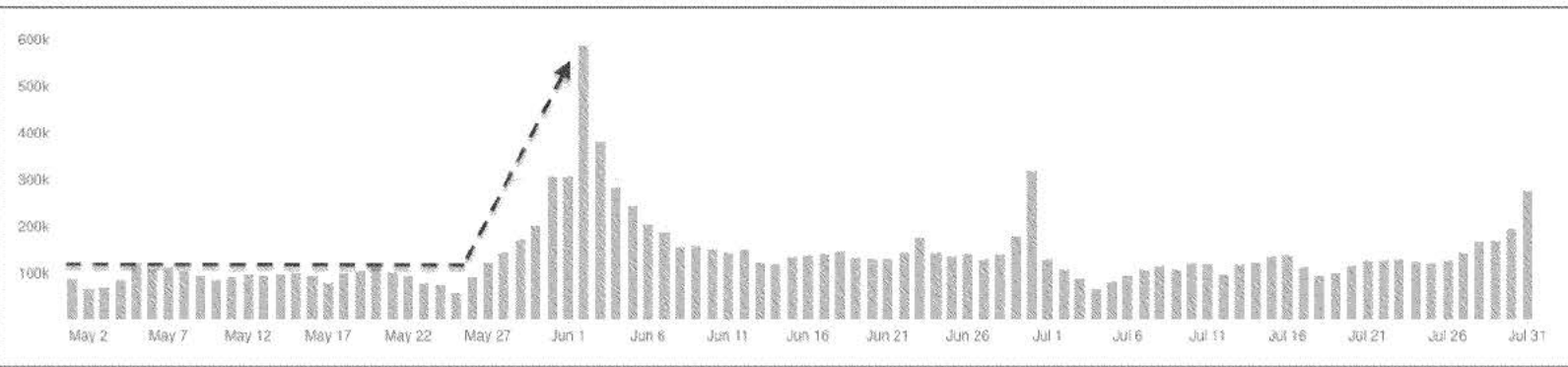
- Left Sidebar:** Contains navigation links such as "Back to Queues", "3 days left", "Reject Contribution", "Accept Contribution", "Escalate", "View User in Explorer", "Claimed By:", "In queue for:", "Create orders in the L...", and "Payment Abuse Score...".
- Header:** Shows a user ID "31" and a profile picture placeholder.
- Overview Tab:** The active tab, showing a summary of risk factors:
 - Identity:** Email: risky age, Account: risky age.
 - Order:** Order: high velocity, Payment method is risky.
 - Devices:** No risky signals.
 - Behavior:** Previously failed orders, Risky browsing behavior.
- Order Details:**
 - Summary:** Order date: Oct 27, 2020 at 10:35am, Amount: \$14.40 USD.
 - Custom Fields:** Email recognized: true, Express registration date: 2020-09-12T17:05-04:00, Express user: [redacted], Is logged in express user: true.
 - Billing:** [redacted]
 - IP:** [redacted]
 - Items:** Category: Federal, Progressive Takeover (\$12.00 x1), ActBlue Federal Tips (\$2.40 x1).
 - History:** [redacted]
- Order History:** A table showing attempted orders with columns for Order, Amount, Items, Payment, CVV / AVS, Billing Name, Tax Status, Failed Time, and Decision.

Order	Amount	Items	Payment	CVV / AVS	Billing Name	Tax Status	Failed Time	Decision
Oct 27, 2020	\$11	Progressive Takeover, ActBlue Federal...	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Oct 27, 2020	\$30	Progressive Takeover, ActBlue Federal...	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Oct 27, 2020	\$14	Progressive Takeover, ActBlue Federal...	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
- Top Payment Protection Signals:** A list of signals including Transaction status (Failure), Create orders in the last hour (43), Failed transactions in the last hour (37), Payment method avs result code (32), Transaction avs result code (32), Failed transactions in the last day (41), Transactions in the last hour (37), Failed transactions in the last week (41), Estimated email address age (2 months), and Age of first transaction (1 month).
- Identity:** A section for user identity information, including a name placeholder.

- Sift displays all the information we need to consider the legitimacy of a contribution in one place
- It lets us know which Signals are stronger indicators of possible Fraud such as a high volume of failed contributions or an IP/Billing address mismatch
- It generates a Sift Score based on all of this information which helps us set up automatic workflows and make decisions about whether to accept or reject contributions
- It allows us to Accept, Reject, or Escalate contributions quickly and efficiently,

without collision

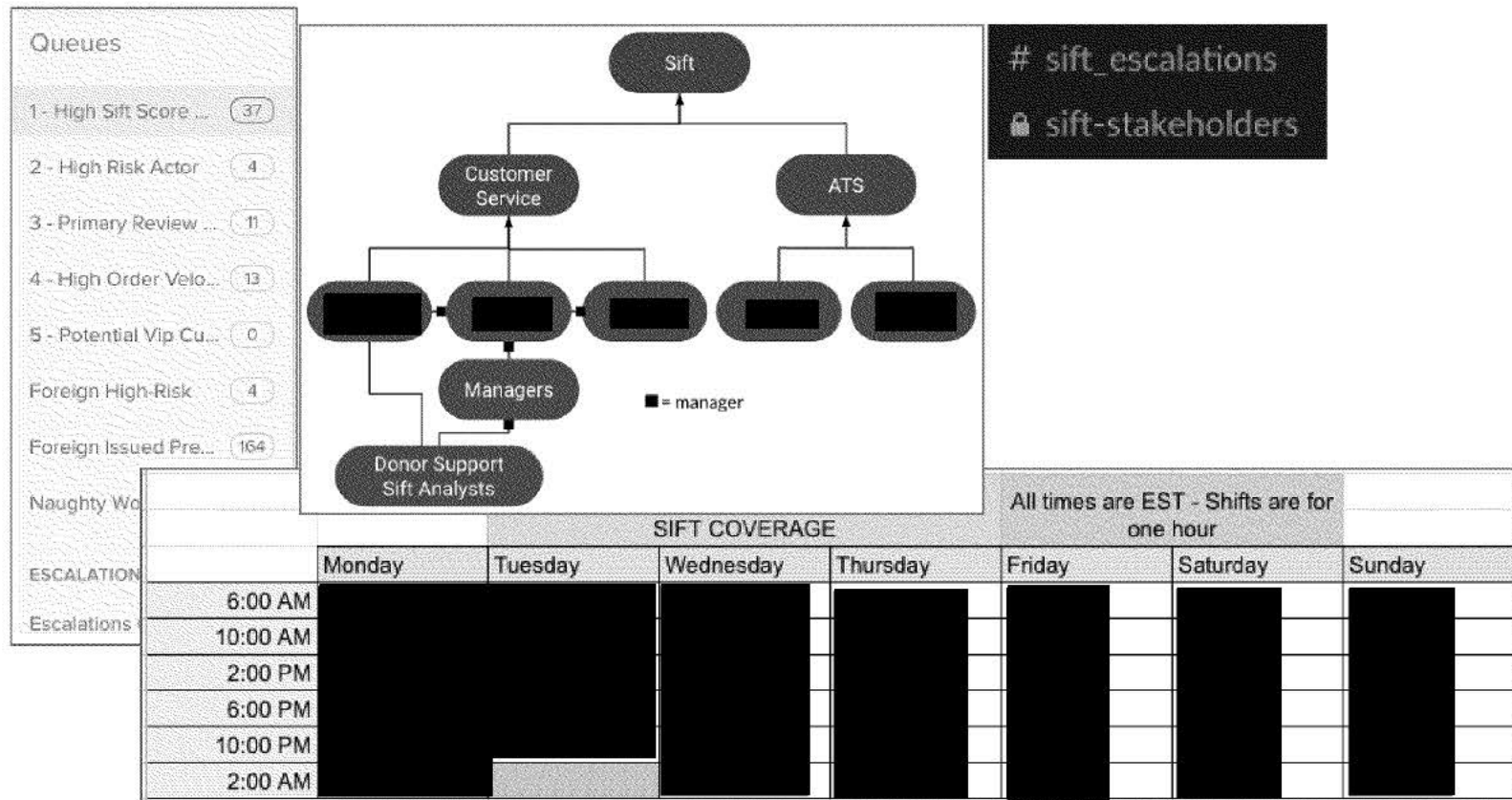
A Catalyst for Making Changes to How We Use Sift: The George Floyd Protests



- There was a massive increase in traffic spurred by contributions to Black Lives Matter and other racial justice organizations from across the globe after the murder of George Floyd on May 25th
- Many contributions had no billing address (charities don't require one), which Sift flagged for manual review
- We had to manually review 42,111 contributions in June, which was greater than the month before and after combined
- 31,138 of the contributions requiring manual review came in just the 12 days between May 30th and June 10th (for perspective, that would be 75% greater than if we had three DNC Conventions in a row this year)
- This led to an all-hands-on-deck situation where team members hopped in and out of Sift and could not be working in HelpScout
- Something needed to be done to better prepare us for these contingencies

Where We Are Now

- 18 members of the Donor Support team work in Sift on a regular basis
- Six, one-hour-long review shifts every four hours, seven days a week (our donors don't stop and neither do we)
- Five stakeholders across two departments with [REDACTED] running day-to-day operations
- Relationships with many different departments, such as Admin Support, Political Operations, ATS, Chargebacks, etc.
- Blocking less than 0.1% of all contributions
- Manually reviewing ~7,000 contributions per week on average
- Revised our practices for rejecting and escalating contributions
- Preparations made for expected Key Dates and contingencies for unexpected events



ActBlue

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EXHIBIT 23

ActBlue Memorandum, Fraud Prevention 101 for
New Associates in the Workflow

Fraud Prevention 101 for New Associates in the Workflow

Workflow Handbook: Fraud Prevention Workflow Handbook

Policies, Procedures, and Expectations: Fraud Prevention Policy, Procedures, and Expectations

Reminder

Do not share information about fraud prevention, including the name of our tools (Sift), with anyone outside of ActBlue. If someone is, in fact, a fraudster, we do not want to provide them with information about our security protocols, as it will open us up to future attacks.

1. Sift walkthrough

1. How it works

- a. Sift is a company that provides our payment protection services.
- b. They use an algorithm to score transactions, in this case our contributions, on a scale of 1-100, where contributions with a Sift score of 100 are more likely to be fraudulent (note: having a Sift score does not mean something definitively is fraud, just that it is

more likely to be).



- c. The payment protection step happens between the pre-authorization step and bank approval step of the transaction process, and all contributions run through the Sift except PayPal contributions.
- d. Our Sift workflow uses a waterfall rules system, which means contributions are checked against a series of if-then rules and various automated actions are taken on them. These rules can include specific signals (what Sift calls the characteristics of a transaction), Sift score thresholds, and a combination of the two. Most contributions (>99%) are automatically accepted and processed. The remaining are flagged for manual review (the work you will do) and some are automatically rejected.

sift

Automate Workflows Decisions Lists

Primary Workflow Published • RUNNING Last edited 5

Runs on Create Order events to make Payment Protection decisions on Orders

Display all metrics from Sep 21, 2:25 PM

Create Order

Metric	Value
Runs started	608,418
Unique users	286,413
Unique orders	607,821
Blocks over	< 0.1%

1 Internal Testing Email Whitelist

IF ORDER MATCHES

Email address contains keywords from "Internal ActBlue testing emails"

Metric	Value
Runs started	0 (0%)
Unique users	0 (0%)
Unique orders	0 (0%)

2 Hi-Risk Countries #1

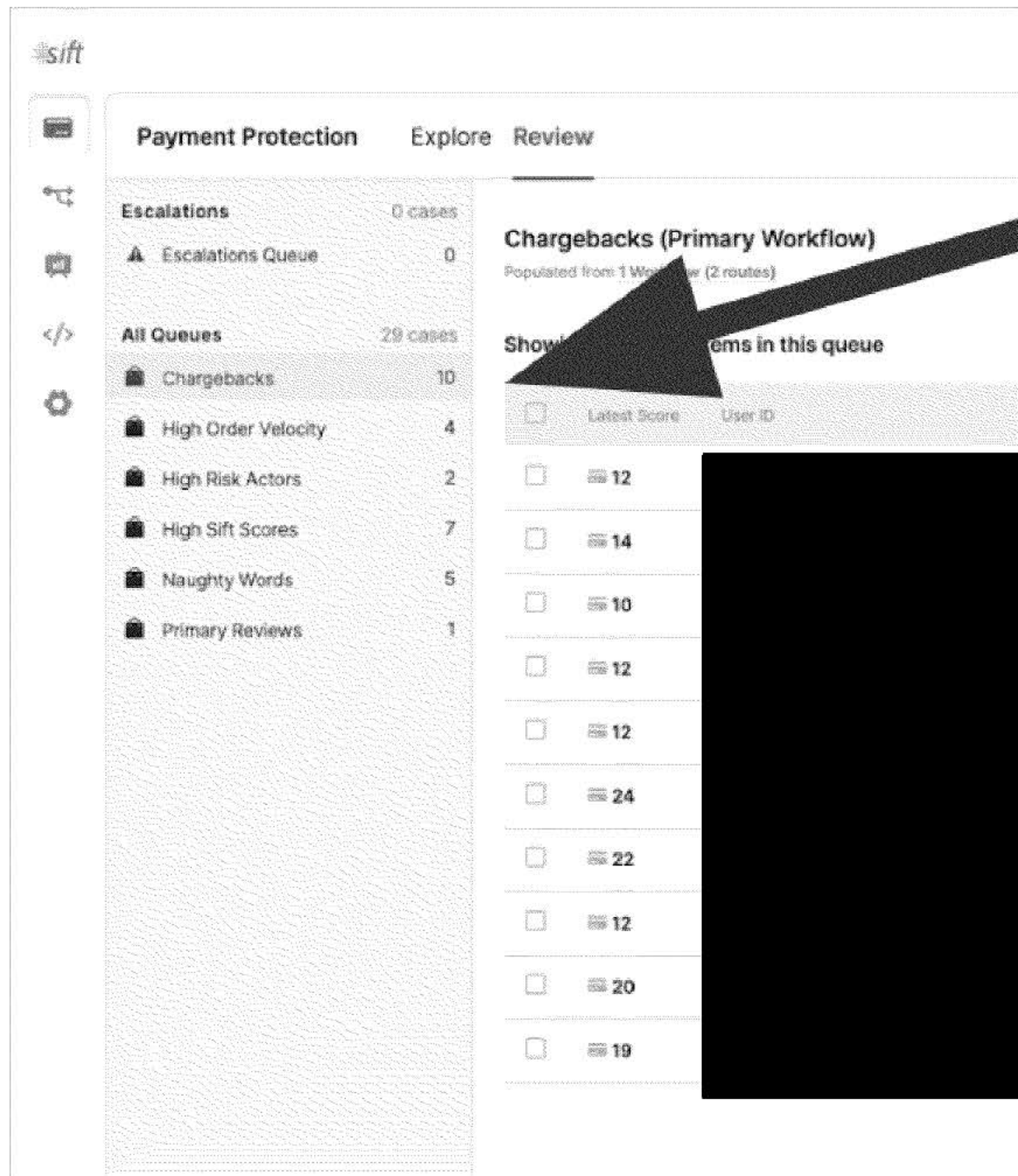
IF ORDER MATCHES

Country is "Cuba", "Iran", "Korea, North", "Syria" or "Ukraine"

Metric	Value
Runs started	2 (<0.1%)
Unique users	2 (<0.1%)
Unique orders	2 (<0.1%)

2. Where things end up (queues)

- When contributions are flagged by a waterfall rule, they get sent to a queue, which you find in the Review tab of Sift.
- There are a few queues that you will work in, which can be changed. There is an additional queue, the Escalations Queue, that you do not work in.
- Queues are named in a way that conveys what type of contributions are being sent there.



3. Understanding the Review Page

- It looks like there is a lot of information on the Sift review page, but in reality, you will quickly learn what is, and isn't, useful for you to do thorough Sift reviews.
- On the left side of the page, you will see the decisions you can apply to a contribution: Accept, Reject, and Escalate

- c. At the top, you will see the Sift Score of the contribution (Closer to 100 = more risky, not necessarily 100% fraud)
- d. You will also see a Network Tab, which visualizes connections to other contributions and the Zendesk Tab, where you will see any tickets we may have for that email address
- e. In the center of the page, you will see the Contribution Information (most of which is the same as what you would find in Indigo)
- f. The right hand side has the section which shows the riskiest characteristics (which Sift calls Signals). The signals at the top, with red dots, are the riskiest. Sometimes, clicking on a signal will show you related contributions (which is more useful for very unique characteristics like IP address than it does for broad characteristics like "is using a VPN")
- g. When you scroll down a bit, in the center of the page you will see the transaction history for the donor. This is a very useful section, both for looking for fraud and for looking for proactive outreach reasons. In this section, you will see [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
- h. On the left hand side, you will also see the specific reason something is in the queue
- i. In the Custom Attributes section, you can see whether a donor is an Express User or not
- j. Finally, on the bottom-right hand side of the page, you will see a Social Media section which will sometimes return results worth looking at, and a Zendesk section (which is the same as the Zendesk Tab at the top of the screen)

Decision Buttons

Payment Protection

Explore

Review

< Back to Queue

3 days left

Reject Contribution

Accept Contribution

Escalate

View User in Explore

Claimed By:

In queue for:

Items - Category contains "c3", "c4"

Payment Abuse Score > 90

Sift Score

91

Network Tab

Overview

Network

Activity

Zendesk

Risk Summary

Identity

Account: risky age

Order

Items are risky

Order Details

Sep 26, 2022 @ 1:08pm

SUMMARY

\$50 USD

CUSTOM FIELDS

Email recognizedFalse

Is logged in express userFalse

IP

ITEMS

Category: c4

Vote Common Good

HISTORY

157

AB-HJC-000435



Payment Protection

Explore

Review



< Back to Queues



3 days left

Reject Contribution

Accept Contribution

Escalate

View User in Explore

Claimed By:

In queue for:

Items - Category contains "c3", "c4"

Payment Abuse Score > 90

91

Credit Card

Order History

Attempted Orders
\$250.00 USD

Order	Amount	Items
Sep 26, 2022 [REDACTED]	\$50	Vote Comm
Sep 20, 2022 [REDACTED]	\$50	Vote Comm
Sep 15, 2022 [REDACTED]	\$50	Vote Comm
Sep 12, 2022 [REDACTED]	\$50	Vote Comm
Sep 10, 2022 [REDACTED]	\$50	Vote Comm



Custom Attributes

Successful transactions in the last week (either \$sale
1Age of first transaction
16 daysCredit Card BIN And Last4
[REDACTED]

Why was it queued?

4. How to review a contribution

- a. This is obviously the most important, most frequently used skill you will use while working regularly in Sift. Getting good at this will take time and practice, but you will get good at this. Here are some helpful tips when doing regular reviews (the sections that come later will outline what to do when things are significantly out of the ordinary).
- b. When you review a contribution, you want to look at the totality of the donation, not just the specifics, meaning, you want to look at the totality of the characteristics and context of a contribution rather than making decisions based on a single signal. We want to give our donors the benefit of the doubt and think about the reasons why a contribution is legitimate.
- c. For example, a VPN may be used by a fraudster to pretend to be in a country they are not to fake a transaction, but it may also be used by a completely normal person to watch foreign versions of Netflix and they just forgot to turn it off when they went to donate. We wouldn't want to use the one signal, in this case: VPN use, to determine whether we should reject something.
- d. Start at the top of the page, and work your eyes and mind down across the aforementioned points-of-interest on the review page. Sift uses a coloring system to mark riskier things, so keep your eye out for red dots as things that you should pause and think about.
- e. Let's look at an example: the contribution below. We'll consider what signals are risky but also why they might be legitimate.
 - i. The contribution has a Sift score of 100, so we should consider this risky and worth taking a second look at, but not outright think it is fraud
 - ii. The donor is using what looks like a fake last name (Xxcx). It is possible that a donor might enter what we would consider an "odd" name, as sometimes cultural naming conventions don't translate to English billing addresses well. These instances are quite rare however, and more often than not, this is indicative of a bad contribution (note: if an otherwise legitimate donor uses a fake name, we would want to accept

their donations and do proactive outreach, which we'll talk about in a later section).

- iii. The donor is using a disposable email address. This can be a red flag for contributions. Again, good donors sometimes use fake emails because they do not like political email spam.
- iv. The donor has a New York billing address, is donating to a local Massachusetts organization, has a Kentucky phone number, and is donating from Pakistan. This stretches the imagination for how a legitimate donor would be in this situation.
- v. This donor is not an Express user
- vi. Adding this all up, we decide to reject the donation. None of these contributions in their own right are worthy of rejecting outright, but their totality makes the donation worth rejecting.

100

Order Details

Nov 30, 2020 @ 6:31am

Highest Possible Sift Score

\$10 USD

CUSTOM FIELDS

Email recognized false

Is logged in express user false

BILLING

Category: massachusetts

Braintree Democratic Town Committee (MA)

HISTORY

NOV 30TH, 2020

Show more

Order History

Attempted Orders

Authorized Amount

Refunds or Voids

\$10.00 USD

Order	Amount	Items	Payment	CVV / AVS	Billing Name	Txn
Nov 30, 2020	\$10	Braintree Democ...				

order 1 of 1

Custom Attributes

Successful transactions in the last week

0

Failed transactions in the last week

0

Country

Number of users with the same billing address

1

Age of first transaction

N/A

Is logged in express user

False

Not an E

recen

Number

1

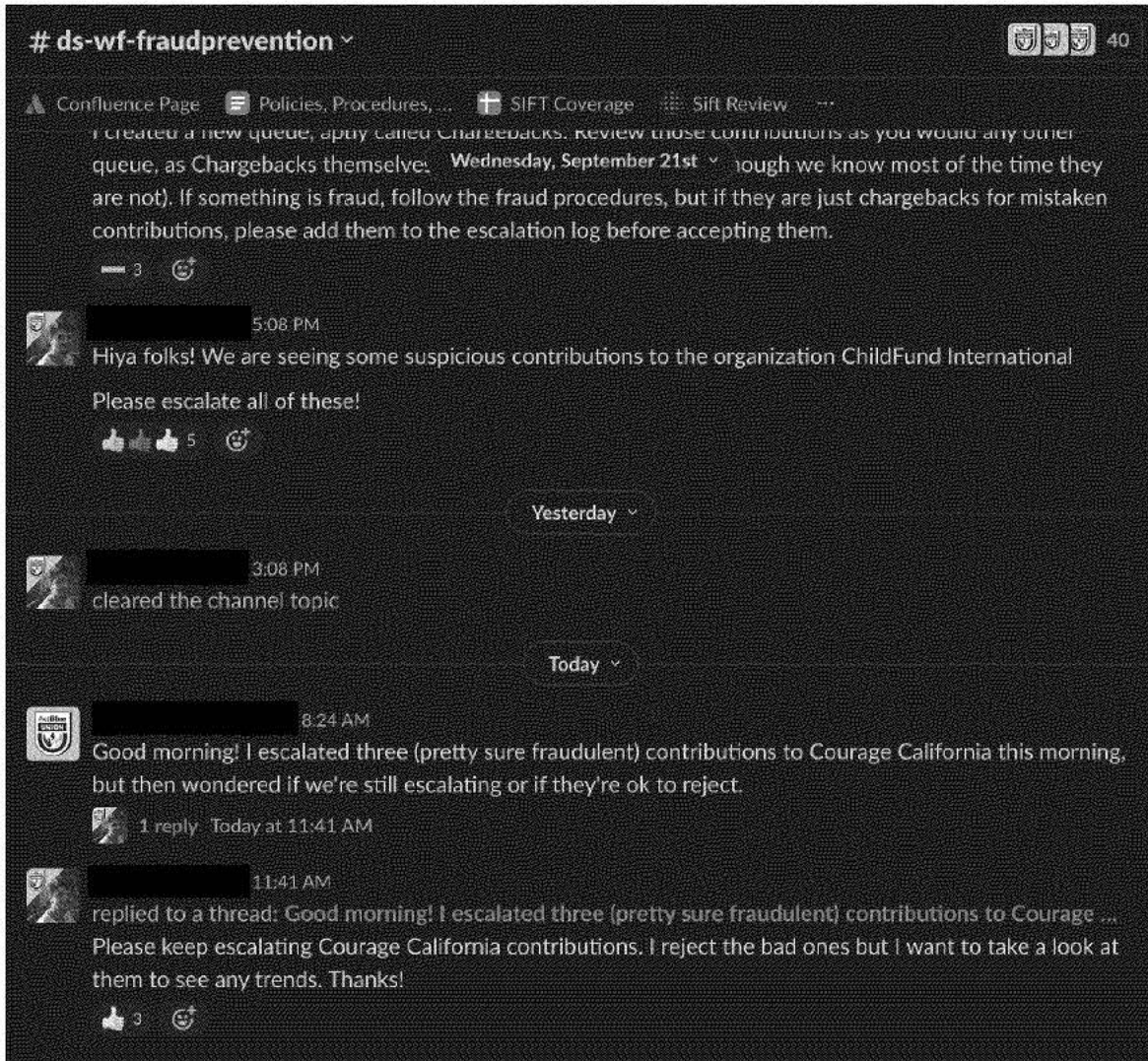
Is expre

N/A

2. Your Regular Routine

1. Slack & Email

- a. Check Slack and Email for updates to the workflow, fraud callouts, etc.
- b. Channel is [REDACTED]



2. Schedule

- a. Schedule lives in UKG Pro
 - i. Your manager should mark you OOO if needed so that we can reassign your scheduled shift

- b. You will work 1-3 shifts per week for up to the scheduled length (mostly 15 minutes, though 30, 45, and 60 minute shifts will sometimes be scheduled)

3. Escalations

- a. Open the Escalation Log and look at any Resolutions I have applied to your escalations
- b. If I notify you that I have added a resolution, you should check off the Resolution Reviewed tab
- c. Open the Escalation Form to use during your reviews

Sift Escalations Log | Data | Automations | Interfaces

Master Log | + Add or import

Views | Master Log | 4 hidden fields | Filter | Group | Sorted by 1 field | Color | Share view

Find a view

- Master Log ✓
- Unresolved
- Resolution Reviewed

Create a view

- Grid +
- Form +
- Calendar +
- Gallery +
- Kanban +
- Timeline +
- Gantt +
- New section +

Create an interface

- Record review +
- Record summary +
- Dashboard +

	Escalation Date	Resolution	Resolution
1	9/26/2022		Escalated to Complex Care. MR
2	9/26/2022		Escalated to Complex Care. MR
3	9/26/2022	however, the donor looks to have tried	Good catch! It looks like this donor actually has a doctor's office at that address, so I accepted! MR
4	9/25/2022		Escalated to Complex Care. MR
5	9/25/2022	ected most of their contributions I recently.	Reaching out to donor. MR

+ Add...

4. Clear Sift

- a. Clear the non-escalation queues and add to the Escalation Log as needed

3. Policies, procedures, and expectations

Please review the Fraud Prevention Policy, Procedures, and Expectations document, which includes useful flowcharts:



4. What to do when things are out of the ordinary

1. Rejections are not uncommon (around 5% of all reviews), and you should reject things as needed
2. You can use the flowchart below to investigate suspicious contributions
3. If there are 3 or more related fraudulent contributions, check the Known Instances of Fraud Document. You should escalate the donations rather than reject them, and add to the Escalation Log and post in Slack (or add to a Slack thread if there is an existing one on the fraud situation)

Associates will follow the following procedure to investigate for fraud (note: sometimes not every step below is necessary, associate should use their discretion):

If something seems suspicious enough to reject or more than one donation has shared characteristics/behavior that is hard to explain, associates should begin investigating

They should check the known fraud activity document/Slack to see if anyone has mentioned a relevant fraud trend in the last three months

Escalate the contributions in Sift and say in the Slack thread that more cases were caught

If there is

If there isn't

Check fraud signals and other co

Check network co

Check Zendesk ta
communica

Check donor social m

Google donor's nam

Check contributions

Check contribution
tok

Known Instances of Fraud ☆ ⓘ ☁

File Edit View Insert Format Tools Extensions Help Last edit was yesterday at 3:16 PM

100% Normal text Montserrat - 22 + B I U A

Sift Escalation Entry

Escalation Date *

mm/dd/yyyy

Issue Type *

Handled By *

Donor Email *

Known Instance

Fraud Prevention

External Fraud Attacks

ChildFund International

WIP

Courage California

WIP

6/8/2022 to 6/14/2022 many thousand dol
campaign from IP address or CC tok

5. Examples

1. Regular Rejection

- In the example below, you can see a donation where a donor has a mismatched Credit Card country, billing country, and IP country. A Google Search returned no results verifying their legitimacy, so we rejected

Queue Item Details - Sift

OktaCalendarEmailSiftDS Product & Res...Fraud DriveSift CoverageSlidesSift DataDogContributionsSift Confluence Pa...EntitiesW

sift

Payment Protection

Explore

Review

< Back to Queues

5 days left

Reject Contribution

Accept Contribution

View User in Explore

Claimed By:

In queue for:

REMOVE (deprecated criteria) is "Esc...

100

SUMMARY

\$50 USD

CUSTOM FIELDS

Email recognizedFalse

Is logged in against user Pajop

BILLING

ITEMS

Category: federal

Senate Majority PAC

HISTORY

Show more

IP

Los Angeles, C

Order History

Attempted Orders

\$100.00 USD

Authorized Amount

Refunds or Voids

Order	Amount	Items	Payment	CVV / AVS	Billing Name	Tim Status
Sen 28 2022	\$50	Senate Majority PAC				
Sen 22 2022	\$50	House Majority PA...				

order 1-2 of 2

Custom Attributes

Successful transactions in the last week (either \$sale o...

0

Chargebacks in the last month

0

Failed transaction

0

Is this a real address

Odd email? Initials & Doct

Google

 All

 Maps

 News

 Images

 Shopping

 More

About 33,900 results (0.66 seconds)

★★★★★ Rating: 1.3 · 14 reviews

3. Fraud Situations





a. Trolling

- i. These should be very easy to catch because of their often vulgar names. Add these to the Escalation Log with a Block request. It is also useful to look for connected contributions so we can block other troll donations

more deductive perspective, such as in the picture to the left, below, where the emails for these donors all follow a similar pattern (a 1 before the gmail domain)

- iii. A recent example of such a situation is to the organization Courage California

Overview

-  Users con
-  IP address
-  Billing addre
-  Billing name

[REDACTED]@gmail.com,
[REDACTED]@gmail.com,
[REDACTED]@gmail.com,
[REDACTED]@gmail.com,
[REDACTED]@gmail.com,
[REDACTED]@gmail.com,
[REDACTED]@gmail.com,
[REDACTED]@gmail.com,
[REDACTED]@gmail.com

Courage California

Orders

where

Item ID is

+ Add Criteria

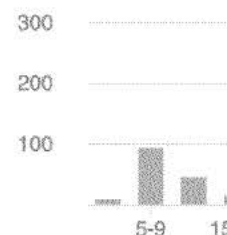
STATS

Average Score **52**
 Average Order Amount 372.69
 Total Order Amount 257903.95

MATCHED ORDERS

Total 692
☒ Blocked Orders 33%
☒ Watched Orders 0%
☒ Accepted Orders 67%
☐ Undecided Orders 0%

SCORE DISTRIBUTION



c. Fake Organization Running Cards for the Admins Gain

- i. Sometimes a fraudulent organization will fall through the cracks and successfully get set up to harvest donations on our platform. These cases are rare, but especially important for us to spot and resolve, because they are especially damaging to our reputation.
- ii. These fraudsters typically do not have a legitimate organization to siphon money from, so they will use a newly registered organization to do this scam
- iii. These tend to be 501(c)(3) charity organizations
- iv. If contributions are suspicious, it is always worth investigating further, but pay particular attention to organizations where their only contributions are the suspicious ones
- v. Suspicious contributions will often be for very high amounts of money (\$1,500.00 per contribution is typical)
- vi. In some cases, when clicking the "Network" tab of the contribution, there are many similar contributions going to the same organization from the same IP, but with various donor information

83

Last activity 17 days ago

Payment OK Label
Nov 13, 2020 2:26 pm

Order Details

Nov 12, 2020 @ 2:38am

Accept Contribution
Nov 12, 2020 10:59 am

SUMMARY

\$500 USD

Auth: Worldpay

1 failed txn

BILLING

IP

ITEMS

Category: c3

The Hurricane Network

\$500.00 x1

CUSTOM FIELDS

Email recognized: false

Is logged in as guest user false

HISTORY

Nov 12, 2020

Show more

High Dollar Contributions to a Newly-Registered 501(c)(3) Entity

Order History

Attempted Orders
\$3,000.00 USD

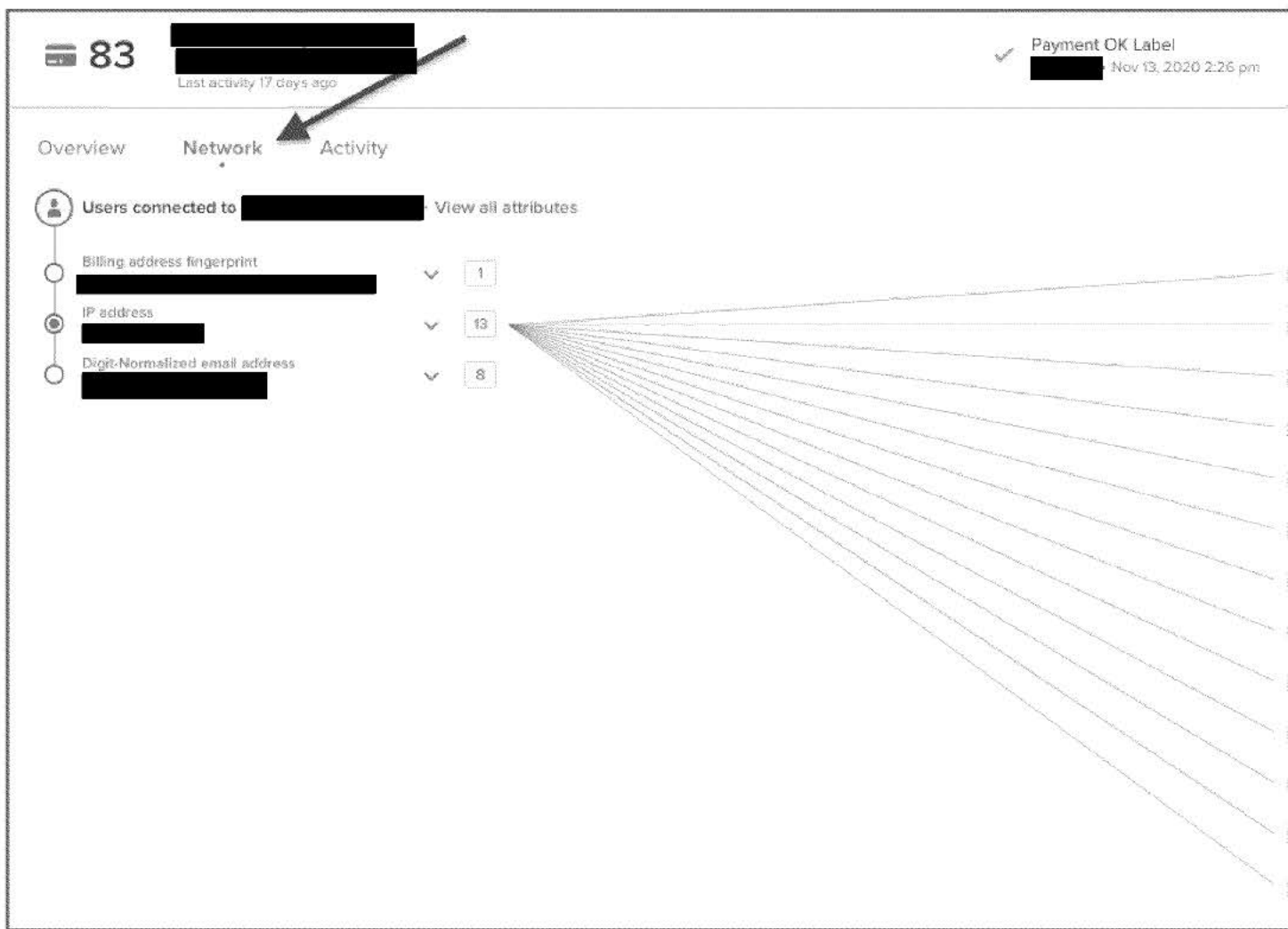
Authorized Amount

Refunds or Voids

Chargebacks Received

Order	Amount	Item	Payment	CVV / AVS	Billing Name	Txn Status	Failed Txns	Decision
Nov 12, 2020	\$500	The Hurricane Netw...				X Auth: Worldpay	1 failure	✓
Nov 12, 2020	\$1,000	The Hurricane Netw...				X Auth: Worldpay	1 failure	✓
Nov 12, 2020	\$1,500	The Hurricane Netw...				X Auth: Worldpay	1 failure	✓

order 1-3 of 3



4. Proactive Outreach/Billing Situations

- a. Always check the Escalation Log to see if a situation has already been escalated before adding a new entry. See the Policy, Procedures, and Expectations document to learn more
- b. Anonymous Name
 - i. Sometimes, a donor will make a legitimate donation but use a name that does not meet our guidelines for contributing, which is that they need to use an identifiable name (not necessarily their legal name or billing name). The organization/campaign receiving a contribution needs to be able to specifically say “this is the one individual donor who is giving this to us”

- ii. Please note that this applies only to political campaigns and organizations compared to charitable organizations (which have much more leniency when it comes to accepting anonymous donations)
- iii. Some examples of anonymized names: "A Bc" (this format is common, for example, [REDACTED]'s name might show up as [REDACTED]), "Anon Anon", "Xxxx XXXX", etc.
- iv. If the contribution to a political campaign or organization, escalate these contributions and add information about them to the Escalations Log so that we can reach out to them to resolve the issue
- v. If the contribution is suspicious enough to consider it fraud (such as a first time donor with a fake email, billing/IP mismatch, etc.), you can go ahead and reject it outright

BILLING

[REDACTED] ← Initials

ITEMS

Category: nonfederal · texas ← To a political entity

Fight for Reform

Beto O'Rourke

ActBlue

c. High Volume of Declined Contributions

- i. Sometimes, you will notice that a single donor has attempted many contributions, all of which are being declined, likely because they closed their card with their bank rather than reaching out to us
- ii. The donor may or may not have had successful contributions in the past

- iii. If the donor has five successive failed contributions, add the information about the donor to the Escalations Log so that we can follow up with the donor

Order History						
Attempted Orders		Authorized Amount		Refunds or Voids		
\$273.00 USD						
Order	Amount	Items	Payment	CVV / AVS	Billing Name	Txn Status
Apr 2, 2021 [REDACTED]	\$7	Democratic National...	[REDACTED]	[REDACTED]	[REDACTED]	✕ Auth Worldpay
Apr 2, 2021 [REDACTED]	\$1	Melanie Stansbury - ...	[REDACTED]	[REDACTED]	[REDACTED]	✕ Auth Worldpay
Apr 2, 2021 [REDACTED]	\$5	Democracy for Ame...	[REDACTED]	[REDACTED]	[REDACTED]	✕ Auth Worldpay
Apr 2, 2021 [REDACTED]	\$4	Win Without War Ed...	[REDACTED]	[REDACTED]	[REDACTED]	✕ Auth Stripe
Apr 2, 2021 [REDACTED]	\$5	Annie Kuster	[REDACTED]	[REDACTED]	[REDACTED]	✕ Auth Worldpay
			order 16-20 of 47			

d. Duplicates

- i. If the donor has given 3 or more of the exact same contribution, escalate the situation and accept the donations

System ab tests:		
Express User: [REDACTED]		
[REDACTED] [REDACTED]		
2022-10-03	John Fetterman	\$6.00

03 October, 2022 at 06:30 PM		
Express User: [REDACTED]		
[REDACTED] [REDACTED]		
2022-10-03	John Fetterman	\$6.00

03 October, 2022 at 06:27 PM		
Express User: [REDACTED]		
[REDACTED] [REDACTED]		
2022-10-03	John Fetterman	\$6.00

e. Inadvertent High Dollar Donation

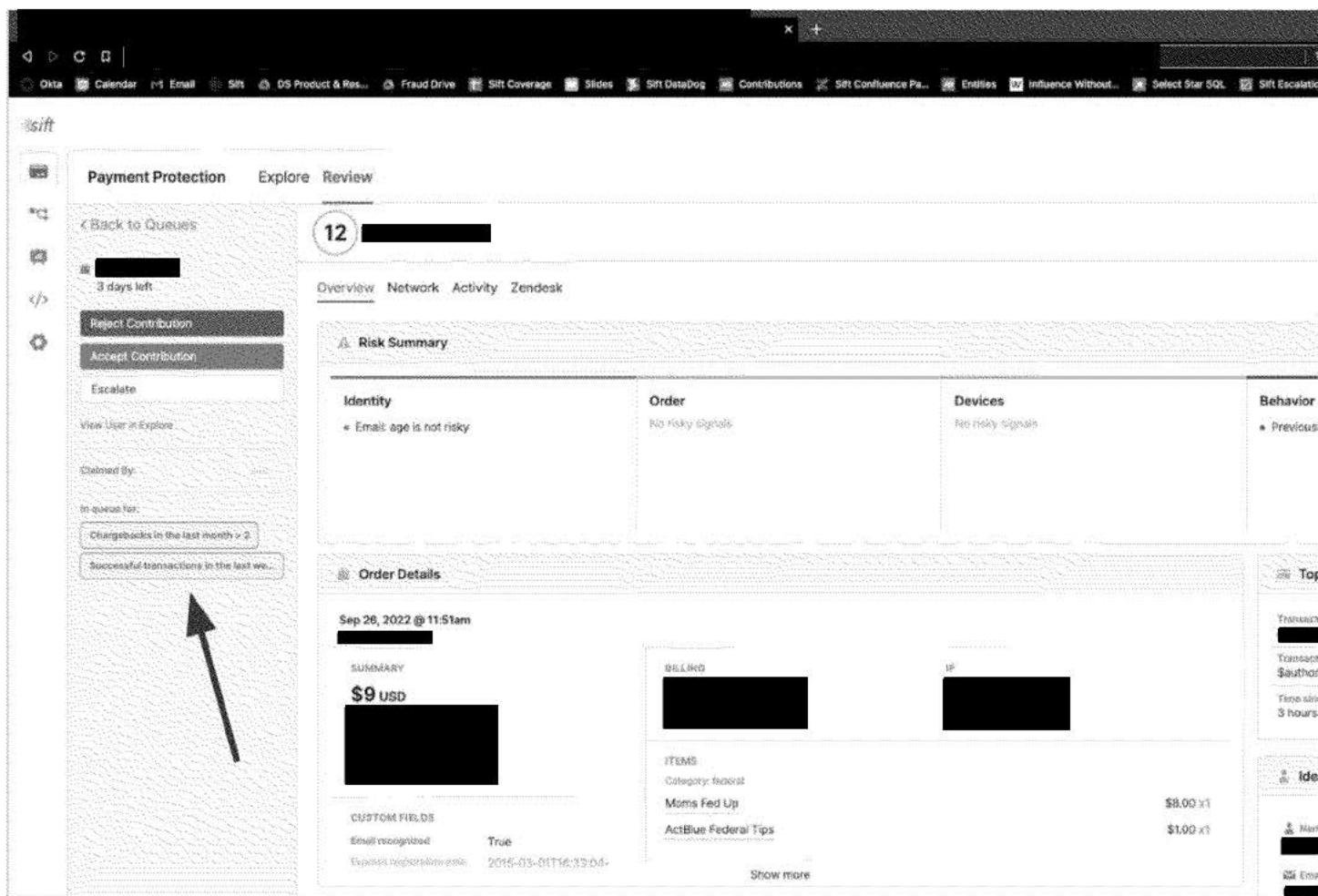
- i. If a donor gives over \$999.99 after never giving over \$100 in the past, escalate it

[REDACTED]		\$0.00
09 October, 2020 at 06:18 AM		Expand
Prefill state: [REDACTED]		
[REDACTED]		
Express User: [REDACTED]		
[REDACTED]		
[REDACTED]		
2020-10-09	Bullock Victory Fund	\$5,000.00

[REDACTED]		\$0.00
19 September, 2020 at 02:53 AM		Expand
[REDACTED]		
Express User: [REDACTED]		
[REDACTED]		
[REDACTED]		
2020-09-19	Gary Peters	\$7.69
2020-09-19	Doug Jones	\$7.69
2020-09-19	Jaime Harrison	\$7.69
2020-09-19	MJ Hegar	\$7.69
2020-09-19	Theresa Greenfield	\$7.69
2020-09-19	Cal Cunningham	\$7.70
2020-09-19	Sara Gideon	\$7.70

f. Chargebacks

- i. If the donor is in the Chargebacks queue (you can also see on the left of a review where it says “in queue for chargebacks”), add it to the escalation log and accept the donations



g. Admin-Entered Contributions

- i. Sometimes Admins enter contributions on behalf of themselves (picture 1) or their donors (picture 2) directly into ActBlue, causing them to show up in Sift pending manual review
- ii. When this occurs, there will inevitably be instances where the contribution gets rejected by an associate because of certain characteristics. This causes a burden for the Admin support team and can put the admin in an awkward position when they need to reach back out to the donor to ask that they reattempt a, often very large, contribution
- iii. While not common, we want to avoid these cases whenever possible. This does not mean that we need to accept any contribution that has the markers included below. There can

still be fraud that matches the markers that we need to watch out for, so maintain a healthy level of skepticism!

- iv. In the first example, the email used on the donation belongs to a campaign/organization that uses our platform.
- v. The billing name is that of a campaign (so-and-so FOR such-and-such). As you can see in the screenshot below, it is Ro for Congress.
- vi. Many campaigns and PACs are registered in DC, so a DC address alone does not confirm that this is an Admin-entered contribution, but can be an indicator.
- vii. Something that Admins do (admittedly annoyingly) is enter a phone number like "0000000000".
- viii. If you do see an Admin-entered contribution which uses bad form (i.e. they use an email like none@none.com or a phone number like 0000000000, rather than their campaign email/phone number or the donor's email/phone number), please flag for me so we can pass that feedback along to the Admin
- ix. Many times emails will have handles like treasurer@____.com or [REDACTED] which are very clear indicators that it is a campaign email. However, there are many consultants and compliance firms that work with campaigns/organizations on ActBlue that may not be that obvious
- x. You can find a list of Admins that you can reference, provided by [REDACTED] on the Confluence page. This list of admin markers is not exhaustive, and please feel free to share any new examples that you come across as you work in the queue!
- xi. This issue is something that is often common with fraudulent contributions, so please don't rely solely on the phone number for determining a contribution's legitimacy

Order Details

Oct 5, 2020 @ 3:41pm

SUMMARY

\$4,000 USD

CUSTOM FIELDS

Email recognized false
Is logged in express user false

BILLING

IP

ITEMS

Category: federal

Ohlone Area United Democratic Campaign

\$4,000.00 x1

HISTORY

OCT 5 2020

Show more

Order History

Attempted Orders

\$8,000.00 USD

Authorized Amount

Refunds or Voids

Chargebacks Received

Order	Amount	Items	Payment	CVV / AVS	Billing Name	Txn Status	Failed Txns	Decision
Oct 5, 2020	\$4,000	Ohlone Area Unit...			Ro for Congress Ro for...			
Oct 5, 2020	\$4,000	Ohlone Area Unit...			Ro for Congress Ro for...	Auth	1 failure	

order 1-2 of 2

Custom Attributes

Successful transactions in the last week
0

Failed transactions in the last week
1

Chargebacks in the last month
N/A

Country
United States

Number of users with the same billing address
10

Number of users with the same device
1

Top Payment

Transaction status

• \$failure

Latest order amount in USD
• \$4,000.00

Account billing phone number
• False

Billing phone number valid
• False

Purchase amount in USD
• \$4,000.00

Account billing phone number
• 000

Billing phone number valid
• 000

Email similarity to billing
• 0.35

Latest amount
• 4,000,000,000

Latest billing address re...

Identity

Names

Emails

Phone Numbers

Account First Seen
19 hours ago


[REDACTED]		\$10.00
25 April, 2022 at 06:34 PM		Expand
[REDACTED]		
<i>No express user</i>		
[REDACTED]		[REDACTED]
2022-04-25	Let America Vote PAC	\$10.00


[REDACTED]		\$10.00
25 April, 2022 at 06:33 PM		Expand
[REDACTED]		
<i>No express user</i>		
[REDACTED]		[REDACTED]
2022-04-25	Let America Vote PAC	\$10.00


[REDACTED]		\$10.00
25 April, 2022 at 06:29 PM		Expand
[REDACTED]		
<i>No express user</i>		
[REDACTED]		[REDACTED]


5. Can Companies/Organizations Donate?

- a. Please escalate donations made by companies or organizations

 Names

 Emails

 Phone Numbers

 Account First Seen

2 months ago

6. Indigo Tips

a. Credit Card Token

- i. Searching by CC token will be very useful for looking connected fraud (its actually good for just generally searching for contributions too!)

Contribution [REDACTED] - Administrative Tools

unpaid

ego heart

\$0.00

10 September, 2022 at 08:22 AM

[Change history](#)

Recipients

Date	Recipient	Amount	Refund(ed)
2022-09-10	Courage California	\$25.00	CANCELLED

Billing Address

[REDACTED]

Contact Info

[REDACTED]

Express User

No express user
> options

Payment Info:

[REDACTED]

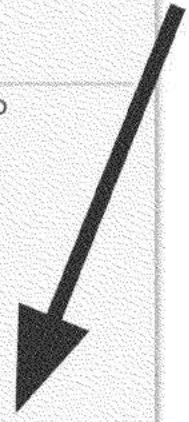
[Q Search Contributions](#)

Contribution Info:

Order Number: [REDACTED]

Unique Key: [REDACTED]

[REDACTED]



Order Number: [Redacted]	[Redacted] \$0.00
Email: [Redacted]	10 September, 2022 at 08:22 AM Expand
First name: [Redacted] Last name: [Redacted]	Prefill state: ("prefilled"=>false, "with_payment_source"=>false)
Phone: [Redacted]	System ab tests:
Address: [Redacted]	Limited submission: pending
City: [Redacted] Zip: [Redacted]	No express user
Start Date: [Redacted]	[Redacted] [Redacted]
End Date: [Redacted]	2022-09-10 Courage California \$25.00
Last <input type="checkbox"/> Actively Recurring	[Redacted] \$0.00
Hide options	06 September, 2022 at 11:49 PM Expand
Amount at least (\$): [Redacted]	Prefill state: ("prefilled"=>false, "with_payment_source"=>false)
PayPal Email: [Redacted]	System ab tests:
Merchant Order Number: [Redacted]	Limited submission: pending
IP Address: [Redacted]	No express user
Refcode: [Redacted]	[Redacted] [Redacted]
Refcode 2: [Redacted]	2022-09-06 Courage California \$10.00
[Redacted]	[Redacted] \$0.00

b. IP Address

- Searching by IP Address will be very useful for looking connected fraud (its actually good for just generally searching for contributions too!)

Event Notifications:

Basic auth event notification for Democratic National

Payment Authorizations

Date	Amount	Auth F
2022-09-14	\$5.00	Cance

Response message: Manual

› **Fraud Check Score: 99.84607790730364, Fra**

Review externally

Manual Review: (sift) rejected 2022-09-16 by sift

Others with this IP:



Tools

Revoke web receipt access

Export chargeback evidence PDF

7. Response Messages

- a. Below are the response messages you will come across on an Indigo donation page at the bottom that relate to Sift
- b. If it says “(sift) pending”, the contribution is in Sift waiting to be accepted or rejected. You can go to Sift and review the contribution if needed
- c. If it says “(sift) approved”, the contribution was accepted in Sift (whether automatic or manual). If the charge failed, the donor will need to be referred to their bank
- d. If it says “(sift) rejected”, the contribution was accepted in Sift (whether automatic or manual). If you believe the contribution should have been accepted, escalate it
- e. If it says “(blocked) rejected”, the contribution was blocked because we placed a contribution blocker in Indigo. Even though it says Sift at the end of the sentence, it was never rejected in Sift. If the donor needs a contribution blocker lifted, escalate it

Manual Review: (sift)

Manual Review: (sift)

Manual Review: (block

This search has been saved as a c

EXHIBIT 24

Email From ActBlue Fraud Specialist to Sift
Personnel (July 2, 2024)

From: [REDACTED]@actblue.com>
Sent: Fri 7/12/2024 9:20:35 PM (UTC)
To: [REDACTED]@siftscience.com>
Cc: [REDACTED]@siftscience.com>, [REDACTED]@actblue.com>
Subject: Re: Model Question

Hi [REDACTED],
I am actually having trouble accessing our Stripe account, so [REDACTED] and I will need to investigate this issue early next week when we have more availability. So sorry for the inconvenience. I hope you have a fantastic weekend!

Best,
[REDACTED]

On Thu, Jul 11, 2024 at 5:01 PM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]!

Apologies for missing the previous email! I will take a look tomorrow and see what I can find and get back to you asap!

Best,
[REDACTED]



[REDACTED]
[REDACTED]
Senior Workflow Specialist | [ActBlue](https://secure.actblue.com)
secure.actblue.com

On Thu, Jul 11, 2024 at 4:30 PM [REDACTED]@siftscience.com> wrote:

Hey [REDACTED] / [REDACTED],

We are preparing for our meeting next week and as part of our plan to improve performance, we are seeking validation of a significant change we are making to our payment fingerprint. We are wondering if you could help us verify the above before our meeting next week. We understand that this is a bit tedious, but the list is short! We would do our own validation but we do not have access to the full PAN, so it is not possible to do from our end.

Thank you!
[REDACTED]

On Mon, Jul 8, 2024 at 9:49 AM [REDACTED]@siftscience.com> wrote:

Hey [REDACTED]

Going back to our email conversation about payment fingerprints... I just spoke with my Payments PM (cc-ed) and he let me know that we are working on making that signal much more precise by adding zipcode to that fingerprint.

We are wondering if you could help us verify that the new payment fingerprint is much more effective. We pulled a short list of examples.

The ask is basically to look at each pair (BIN/LAST4) and tell us on your side (via your Payment Gateway Console) how many unique cards you see starting with each BIN and ending with each last 4. If that count is similar to column D (zip count), that tells us the new fingerprint that includes zip code is more precise.

If you could help with this, we would appreciate it,

On standby,

On Wed, Jul 3, 2024 at 11:58 AM [REDACTED]@siftscience.com> wrote:

Hey [REDACTED]
So sorry I missed this!

Let's find time early next week to discuss! That chart does not look ideal and I will need to pull in some folks on my end so that we can have a good conversation about this.

Monday 7/8 @ 12pm - 1pm PT, or 2pm PT
Tuesday 7/9 @ 1:30pm PT
Wednesday 7/10 @ 11:30am - 12:30pm PT

Hoping to hear from you soon so we can get this in the books!

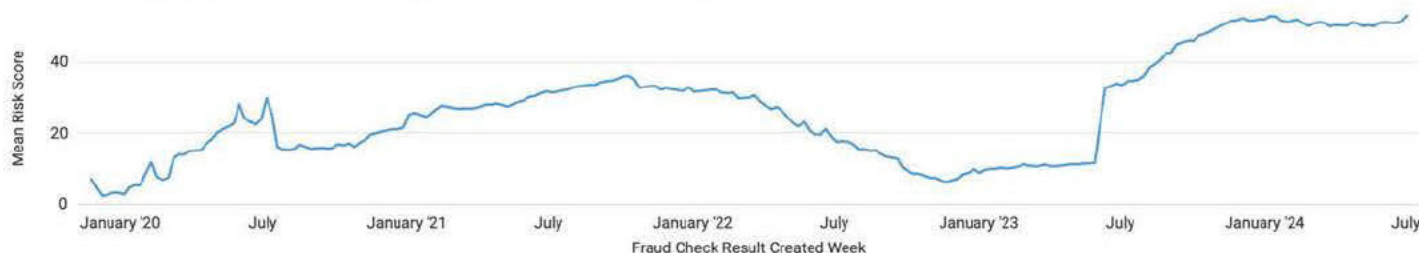
Apologies for missing your email yesterday!

On Tue, Jul 2, 2024 at 2:42 PM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

I'd be grateful if we could take that 7/3 @ 10am time slot. Let me know!

Here is an interesting chart that shows our average Sift score over the last 4 years. As you can see, it is the highest it has ever been and appears to be climbing further.



Hope to meet with you tomorrow.

Best,

[REDACTED]
On Mon, Jul 1, 2024 at 5:58 PM [REDACTED]@siftscience.com> wrote:

Hi [REDACTED]

Here is your STR report that shows all the metrics by score. (attached)

Two additional questions:

1. Should we use RiskWatch percentiles on all of our rules that currently have a Sift score threshold as part of the rule? Or, should we only use RiskWatch as a rule on its own, and then have Sift-score based rules to complement it?
 - Ideally we would move you to use RiskWatch entirely as your main thresholds for performance. We can discuss score backups, but with distributions that move a lot, we do not recommend this approach.
2. Should our catch-all "regardless of your signals, if you have a Sift Score/RiskWatch above this threshold" rule go toward the top or at the very end of our waterfall?
 - Blocking thresholds using Risk/Watch or Score we recommend putting at the top of your Workflow, it can help reduce queue volume this way.

This week is starting to fill up, do you have time at any of the following times to meet, otherwise, we can get something in the books for July 10th:

July 2nd @ 12 pm PT

July 2nd @ 3pm PT

July 3rd @ 10am PT

On standby,
[REDACTED]

On Mon, Jul 1, 2024 at 7:19 AM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

Thanks so much!

Would it be possible to see those numbers for every Sift score? As you can see, the volume on our "Reject anything with a Sift score of 100" rule is pretty low. Most of our volume at the moment is coming from the other rules, which require manual review.

Two additional questions:

1. Should we use RiskWatch percentiles on all of our rules that currently have a Sift score threshold as part of the rule? Or, should we only use RiskWatch as a rule on its own, and then have Sift-score based rules to complement it?
2. Should our catch-all "regardless of your signals, if you have a Sift Score/RiskWatch above this threshold" rule go toward the top or at the very end of our waterfall?

I would love to meet up again this week to go over volume stuff. Could you please send me a calendar invite?

Regarding chargebacks: I don't know the threshold off the top of my head, but we have a Complex Care team that reaches out to donors with a certain number of chargebacks and we will block them if

needed.

Finally, I will ask our engineering team about the create_order situation!

Best,

On Fri, Jun 28, 2024 at 5:55 PM [REDACTED]@siftscience.com> wrote:

Hey [REDACTED]

I did some Workflow Simulation within your account to find a RiskWatch Percentile that will give you similar performance to the score route you use today.

You can add RiskWatch confidently today if you would like and see little impact to performance, but appreciate stability in your thresholding.

	Score	Orders Impacted	Auto Blocks	Manual Blocks	Manual Accepts
Current Score Threshold Performance --->	>99	275	232		43
	Percentile	Orders Impacted	Auto Blocks	Manual Blocks	Manual Accepts
	99.997	75	75	0	0
	99.992	177	170		7
	99.99	214	194		20
Recommendation - Similar but less False Positives	99.989	229	203		26
Recommendation - Similar Performance	99.987	283	223	2	56

I have been digging around in your account today to try and understand why so many 'legitimate users' are scoring high. I am curious if you would be willing to do a working session with me to dig into some specific cases and understand where there might be a gap in Sift's ML for LEGITIMATE traffic. I find that Sift is scoring the bad stuff high, which is good.

For example, some questions I might have are:

- What is your policy around chargebacks? If someone has over X chargebacks, do you want them transacting on your site?
- I see some cases where [REDACTED] is not scored, yet the order turned into a chargeback... curious if you have an understanding as to why?

[REDACTED]

More will come up, but I am truly wanting to understand so we can get more feedback to the team and have greater impact!

Let me know if you are open to meeting early next week or the following (I am in Pacific Timezone).

On standby,

On Thu, Jun 27, 2024 at 3:07 PM [REDACTED]@siftscience.com> wrote:

Hi [REDACTED]

Thanks for the feedback, I recently engaged in a project where I manually reviewed some customer's cases for an analysis, and also found the payment fingerprint quite noisy and after a while, I stopped looking at it entirely. I will send my feedback and yours to our product team (if you already have shared this feedback, thank you!).

Thanks for the heads up on uptick in activity today, I will pass along to the team and be available tonight if anything should arise.

This debate feels quite early this year... not sure if that is true or not, but it caught me by surprise earlier this week!

Best,
[REDACTED]

On Thu, Jun 27, 2024 at 2:23 PM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

Thanks for getting back to me, and truly, no worries at all! Just doing my due diligence in checking.

In theory, payment fingerprints are something that seem like they should be extremely useful, but in practice it feels like the signal is way too "noisy". What I mean, is that we are seeing a ton of otherwise normal users who have high Sift scores, and their only (or riskiest) signal is "number of users with the same payment fingerprint", and it looks like everyone they are connected to is also an otherwise normal donor. I have no reason to believe that person A or the 49 (just a random number, but also one I have seen before) other people with that payment fingerprint are committing fraud, and if they were, then we have a whole other problem!

I also wanted to let you know that we're making all of our vendors aware that we have a critical event coming up tonight around 9pm EDT. The Presidential debate is expected to be an important event for us, with a lot of attention from all parties.

I do not have a good predictor for activity levels. I am already seeing higher than "usual" contribution load and expect it to go up during the event. I don't believe there's any specific action to take at this time, I'm just raising awareness. If we do have any issues, expect that we will have a more urgent desire to solve them as fast as possible.

Thanks!

Best,
[REDACTED]

On Thu, Jun 27, 2024 at 4:14 PM [REDACTED]@siftscience.com> wrote:

Hi [REDACTED]

Sorry for lack of follow up.

First off, the model release went out yesterday for customers who were NOT impacted with score shifts. As was the case for ActBlue. We typically do not message customers about model releases if there is no impact. I do regret not pinging you about the upcoming model release, especially because I mentioned it on our call.

I have the follow up to provide a mapping to RiskWatch scores! I was trying to get this done

yesterday, but when I pulled the report, it had nothing in it. So I had to punt it to solution engineering to help pull for me. I am hoping to have the report today so I can send recommendations to you today or tomorrow depending on when I get the report.

Please stay tuned. I know this is a high priority especially due to the upward pressure you are experiencing.

Thanks for the note on the payment fingerprint. Quick question, do you find this feature useful?

On standby,
[REDACTED]

On Thu, Jun 27, 2024 at 12:26 PM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]
Hope you are well!

You mentioned a model deploy potentially happening this week. Do you know the status there?

Do you know if any model adjustments will alleviate some of the upward pressure in scores that we have seen, particularly around users with the same payment fingerprint?

All the best,
[REDACTED]

--

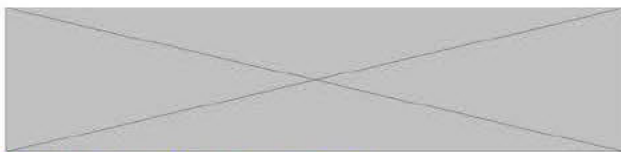


[REDACTED]
[REDACTED]
Senior Workflow Specialist | ActBlue
secure.actblue.com

--



[REDACTED]
Director, Customer Success Management



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[Redacted]

[Redacted]

Senior Workflow Specialist | [ActBlue](#)
[secure.actblue.com](#)

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[Redacted]

Director, Customer Success Management



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[Redacted]

Director, Customer Success Management



[Read the complimentary report](#)

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[Redacted]

[Redacted]

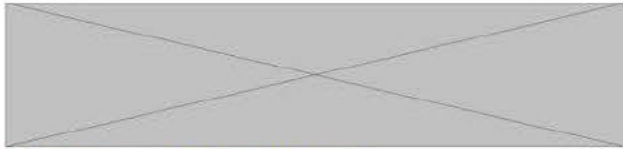
Senior Workflow Specialist | [ActBlue](#)
[secure.actblue.com](#)

--



[Redacted]

Director, Customer Success Management



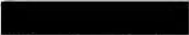
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Director, Customer Success Management



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Director, Customer Success Management

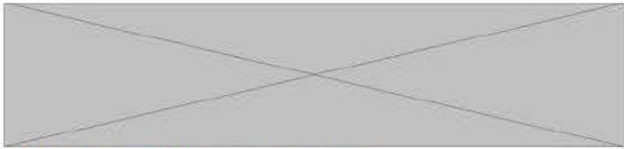


[Read the complimentary report](#)

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Director, Customer Success Management



[Read the complimentary report](#)

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Senior Workflow Specialist | **ActBlue**
secure.actblue.com

EXHIBIT 25

ActBlue Slide Deck, Fraud Prevention Onboarding
for Donor Support

Fraud Prevention Onboarding for Donor Support

Sift-related issues and how to resolve/escalate them!

ActBlue

Purpose of the training
Focused on an associate perspective
HelpScout
Questions come up in Slack

Reach out to associate directly or ping channel?

Reminder

Do not share information about Fraud Prevention with anyone outside of ActBlue

ActBlue

Skills I hope you will learn from this training

- Understand a bit more about the donation process
- Identify whether a ticket is Sift-related (explicitly through tags or through deduction)
- Know the status of a donation (pending, accepted, rejected)
- Search by credit card number and IP address
- Use the entity dashboard
- Reach out to the Sift Escalations team for help

ActBlue

Sift is a fraud prevention middle point

- What gets flagged for manual review?
 - Risky contributions (likely to be fraudulent)
 - High enough Sift Score and/or particular signals
 - Many non-fraudulent but “different” contributions
- When in the contribution process does Sift check contributions?
 - Donor → Indigo → **Sift** → Indigo → Stripe
 - Everything except PayPal contributions get run through Sift

ActBlue

What is Sift?

What are signals? Mismatch between addresses, difference between name and email, and more.

The ways you may experience Sift/Fraud

- Legitimate donor accidentally rejected
- Stuck pending (particularly event/merchandise)
- Donor has a contribution blocker that needs to be removed
- Proactive outreach
- Spotting fraud/suspicious entity activity
- Admin-entered contributions
- Weird, unique situations

ActBlue

Sift and fraud are differentiated because you may come across issues/tickets that are indicative of fraud that may not have even come up in Sift, and you may come across issues/tickets related to Sift that are not indicative of fraud at all

Legitimate donor accidentally rejected

- [REDACTED]
 - Donor reached out about not receiving a receipt
 - [REDACTED] flagged for [REDACTED]
 - Decision changed, donor encouraged to make new donation

Payment Authorizations				
Date	Amount	Auth Result	AVS	Resolution
2020-11-17	\$5.00	Cancelled	<nli>	Cancelled
Fraud Check Score: 98.8834205596564, Fraud Decision: reject, Fraud Vendor: sift, Blocking				
Review externally				
Manual Review: (sift) rejected 2020-11-18 by sift				

ActBlue

Show rejected and accepted language

Point out that on the accepted donation, the donor's bank declined the charge anyways

Leave rejected contribution open to compare to blocked contributions later

Stuck pending (particularly event/merchandise)

- [REDACTED]
 - Donor wrote in about not receiving a receipt
 - [REDACTED] escalated issue via DM in Slack
 - [REDACTED] accepted the donation, and [REDACTED] followed up with the donor

Payment Authorizations				
Date	Amount	Auth Result	AVS	Resolution
2020-12-10	\$10.00	Pending	<nli>	Pending
Fraud Check Score: 57.4269976587554, Fraud Decision: review, Fraud Vendor: sift, Blocking				
Review externally				
Manual Review: (sift) pending				
Others with this IP: 141.155.152.166 — 840				

ActBlue

Really emphasize the importance of this one

Reach out by pinging [REDACTED] in the DS channel

Blocker vs. Rejected

- Example of a donor with a blocker: [REDACTED]@aol.com

Contributions Search

[Redacted]

[Redacted]

First name: [Redacted] Last name: [Redacted]

Phone: [Redacted]

Payment Authorizations

Date	Amount	Auth Result	AVS	Resolution
2020-12-05	\$25.00	New	<nil>	PayPal Abandoned

Manual Review: (blocked) selected 2020-12-05 by kjensen@actblue.com

Others with this IP: 71.105.226.15

Tools

[Attempt to Settle](#) [Attempt to Void](#)

This search has been saved as a contribution blocker named "High Volume of Failed Contributions"

[Manage Contribution Blockers](#)

← Previous 1 2 3 4 5 6 7 8 9 ... 100 101 Next →

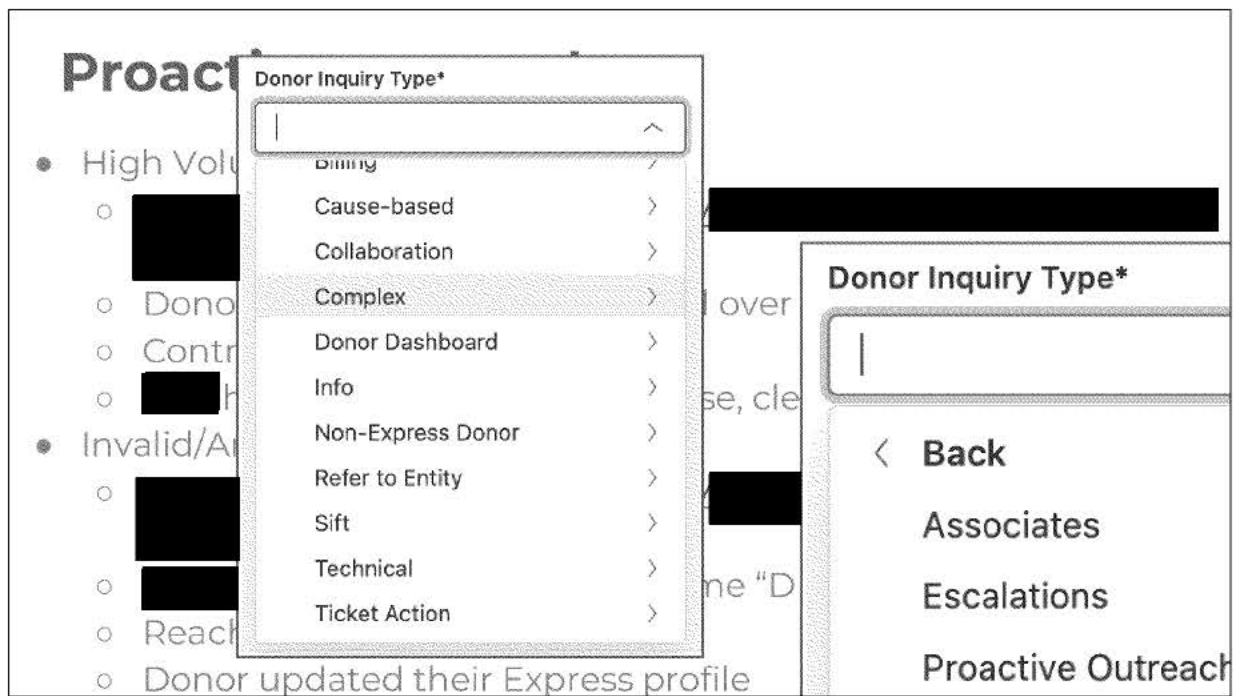
Luiza Cerar \$0.00 [Unpaid](#)

3d inventory 2021 at 10:15 AM [Expand](#)

Express User: [Redacted]

14 de julio 1513 [Redacted]

ActBlue



Show IP address search in first example (CAUTION! CAUTION! CAUTION! CELL NETWORK)
Point out tags

Spotting fraud/suspicious entity activity

- [REDACTED]
 - Donor reached out about charges they didn't make
 - Decision was made by stakeholders to refund all donations/delist the entity

Zip code: [REDACTED]
Amount: Two charges of \$1,047.00.
Message: NEITHER OF THESE CHARGES ARE AUTHORIZED. THIS IS OUTRAGEOUS AND COMPLETELY DESTROYS MY TRUST IN ACT BLUE. CONTACT ME IMMEDIATELY
User agent: [REDACTED]

- [REDACTED]
 - Tons of red flags

ActBlue

Discern the difference between real fraud and fraud used as a buzzword by donors

A collection of coincidences

What gave these fraud situations away?

First example

huge amounts of money

new entity

OH donor but FL address

Second example

Email address style

Phone number of one "donor" was that of the administrator

Admin excuse was not believable

Show entity search

It is not your responsibility to determine whether something is fraud, escalate it if you are suspicious

Admin-entered contribution

- May look like fraud, but is legitimate
- Whether you think something is fraud or not, don't start taking actions before checking with a manager and/or the Sift team
- [REDACTED] shares these with other CS departments to ask admins to enter full information
- Texas Democratic Party

ActBlue

Weird, unique situations

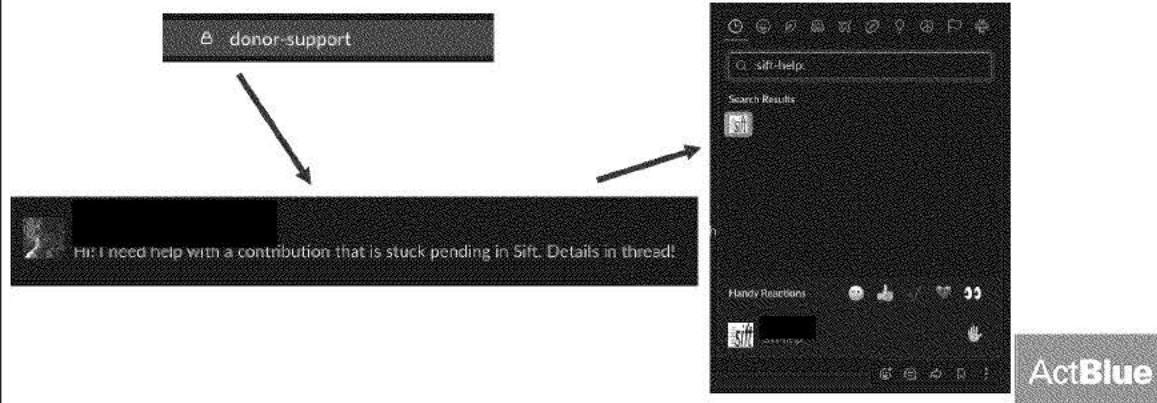
- Social Media, a force for good and a headache
 - TikTok teens reserving tickets for Trump event? Woooohooo!
 - Twitter users donating with Trump's credit card? Uh oh...
 - [REDACTED]

ActBlue

Show CC Search

How to ask for support

- In Donor Support Slack channel, write your message and react to it with the [redacted]



Commitments from the Sift team

- Working through pending contributions in Sift as quickly as possible to prevent donors waiting for contributions to process, particularly event/merchandise
- Tags for Sift in HelpScout to help clarity
- More robust note-writing on a customer profile when a block is placed (or other action is taken) on their account
- A response to all inquiries in the form of a resolution to the problem, as well as an explanation of the processes at work
- Availability to answer any questions about how Sift works, how we prevent Fraud, and how we can work more closely going forward

ActBlue

EXHIBIT 26

ActBlue Meeting Notes, Responsibilities We Need
to Improve

Responsibilities We Need To Improve

Ranked in order of severity from most to least

- 1) Missing a Sift shift entirely
- 2) Working for a full shift if there are still things pending
- 3) Not flagging possible fraud trends
- 4) Not diligently reviewing contributions
- 5) Not escalating at all or not adding things to the escalation log
- 6) Not checking off escalations in the log

How would you like for me to account for things not being done?

- Add to a log (public or private access)
- Reach out 1:1
- Bring up in workflow meetings
- Bring up to your manager
- Bring up during other QA analysis
- Something else?

EXHIBIT 27

ActBlue 2023 Fraud Prevention Roadmap

2023 Fraud Prevention Roadmap

Project List

- Activity Log
 - Backfill events in Google Doc
 - Transfer events to P&R Team Activity Log (likely Airtable)
 - Use Activity Log in real time
- Relationship Building
 - Brainstorm and discuss who is a stakeholder in fraud prevention
 - Reach out to each stakeholder to understand their experiences and desires with the workflow
 - Establish proactive, structured lines of communication between stakeholders
 - Build relationships with others (not stakeholders)
- Sift Status Indicator
 - Analyze the process and success of the Queue Status Indicator
 - Outline and propose Sift Status Indicator
 - Solicit feedback from stakeholders and associates
 - Iterate on Status Indicator and roll out final version
- Algorithmic Bias Study
 - Draft hypothesis that we want to look at that would indicate biased scoring
 - Explore ways to measure these biases
 - Explore, analyze, and visualize this data with tools like Looker and with help from the data team
 - Propose possible anti-bias solutions and implement where possible
- Workflow Rules Adjustments
 - Reassess how our rules are/aren't helping us meet our objective of preventing fraud while minimizing impact on good donors
 - Propose rule changes
 - Implement rule changes one at a time over consistent time periods and track effects
 - Make adjustments to rule changes
- Workflow Resources Optimizations + Shared Formatting
 - Propose optimizations
 - Make optimizations
 - Ensure consistent formatting with other workflows
- Confluence Overhaul
 - Based on Team expectations, update Confluence
- QA/KPIs

Commented [1]: Q2 and Q3

Commented [2]: Moved to 2024

Commented [3]: Moved to 2024

ActBlue

- Type up reports for each associate based on Q4 2022 QA
- Share reports with each associate and provide training as requested
- Establish regular QA/KPI schedule
- Workflow Guides
 - Review what other Workflow Guides look like and what processes already have typed up information
 - Draft Workflow Guides
 - Solicit feedback and make adjustments
 - Publish final Workflow Guides

Q1

- Backfill events in Google Doc (Activity Log)
- Transfer events to P&R Team Activity Log (likely Airtable) (Activity Log)
- Use Activity Log in real time (Activity Log)
- Brainstorm and discuss who is a stakeholder in fraud prevention (Relationship Building)
- Type up reports for each associate based on Q4 2022 QA (QA/KPIs)
- Share reports with each associate and provide training as needed (QA/KPIs)
- Establish regular QA/KPI schedule (QA/KPIs)

Q2

- Reach out to each stakeholder to understand their experiences and desires with the workflow (Relationship Building)
- Establish proactive, structured lines of communication between stakeholders (Relationship Building)
- Build relationships with others (not stakeholders) (Relationship Building)
- Draft hypothesis that we want to look at that would indicate biased scoring (Algorithmic Bias Study)
- Explore ways to measure these biases (Algorithmic Bias Study)
- Explore, analyze, and visualize this data with tools like Looker and with help from the data team (Algorithmic Bias Study)
- Propose possible anti-bias solutions and implement where possible (Algorithmic Bias Study)

Commented [4]: Split between Q2 and Q3

Commented [5]: Moved to 2024

Q3

- Reassess how our rules are/aren't helping us meet our objective of preventing fraud while minimizing impact on good donors (Workflow Rules Adjustments)
- Propose rule changes (Workflow Rules Adjustments)
- Implement rule changes one at a time over consistent time periods and track effects (Workflow Rules Adjustments)

ActBlue

- Make adjustments to rule changes (Workflow Rules Adjustments)
- Review what other Workflow Guides look like and what processes already have typed up information (Workflow Guides)
- Draft Workflow Guides (Workflow Guides)
- Solicit feedback and make adjustments (Workflow Guides)
- Publish final Workflow Guides (Workflow Guides)

Q4

- Consider optimizations (Workflow Resources Overhaul)
- Make optimizations (Workflow Resources Overhaul)
- Ensure consistent formatting with other workflows (Workflow Resources Overhaul)
- Based on Team expectations, update Confluence (Confluence Overhaul)
- Analyze the process and success of the Queue Status Indicator (Sift Status Indicator)
- Outline and propose Sift Status Indicator (Sift Status Indicator)
- Solicit feedback from stakeholders and associates (Sift Status Indicator)
- Iterate on Status Indicator and roll out final version (Sift Status Indicator)

Commented [6]: Moved to 2024

Also to do, when possible:

Workflow Expectations Document

EXHIBIT 28

ActBlue Memorandum, 2023 Sift Workflow Rules Assessment

2023 Sift Workflow Rules Assessment

Introduction

As part of the 2023 Fraud Prevention Roadmap, we will be making some changes to our automation rules in Sift.

We can freely make adjustments to these rules, and any restrictions on the frequency/magnitude of those changes are self-imposed. We have approached making changes to the rules very conservatively, because of the scope of possible repercussions and the inexperience of the team with using Sift.

Going forward, we want to employ a more robust/nimble approach to our rules, updating them with more regularity and specificity. This assessment is the first step in that process.

The overarching goal is to decrease the number of reviews (particularly false positives) that our team is doing while maintaining, and in some cases, being more discerning of risk. Our review volume is up almost 5x as much since Sift adjusted their modeling. We need to bring that number down.

Our overall rejection rate is between 10 and 15% (meaning we have a false positive manual review rate between 85 and 90%), so we will want to decrease our false positive rates where most effective.

In collaboration with other stakeholders, all rules have been accessed for their effectiveness and data-based proposals have been made for adjustments. Those changes will go live in October 2023.

All Current Rules

Rule Number	Rule Name	Components
1	Internal Testing Email Whitelist	[REDACTED]
2	Hi-risk Countries #1	[REDACTED]
3	Hi-risk Countries #2	[REDACTED]
4	Blocked Words List	[REDACTED]
5	Fake Names List	[REDACTED]
6	Fake Addresses List	[REDACTED]
7	High Fraud Score (c3/c4)	[REDACTED]
8	High Fraud Score (Political)	[REDACTED]
9	Hi-risk Countries #2	[REDACTED]
10	Suspicious Countries	[REDACTED]
11	Foreign Issued Prepaid Cards	[REDACTED]
12	IP/Billing Country Mismatch + Score	[REDACTED]
13	Multiple Users, Same Device + High Score	[REDACTED]
14	[REDACTED] w/ Similar Email + Score	[REDACTED]
15	Disposable Email Domain + Score	[REDACTED]
16	ISP is Cloud Provider + Score	[REDACTED]
17	Unique CC BIN in Past Day + Score	[REDACTED]

18	Unique CC Last 4 in Past Day + Score	
19	Chargebacks in Last Month + Successful TXNs	
20	Chargebacks Last Month	
21	TXNS in Last Day + Score	
22	> TXNS in Last Day + Score	
23	High Order Velocity (in Last Hour) + Score	
24	Everything Else	Doesn't match any of the above

Assessments

Overall Volume and Rule Breakdowns

Unique ers cisioned	Automated Decisioned Rate	Decisions From Queue	Manual vs. Automatic Decision Rate	Total Accept Decisions	Automated Accept Decisions	Manual Accept Decisions	Total Block Decisions	Automated Block Decisions	Manual Block Decisions
9,650	> 99.9%	1,806	< 0.1%	2,618,393	2,616,827	1,566	247	7	240
9,373	> 99.9%	2,837	< 0.1%	5,394,182	5,391,569	2,613	233	9	224
0,184	> 99.9%	1,832	< 0.1%	3,663,865	3,662,241	1,624	222	14	208
1,187	99.90%	1,062	0.10%	850,739	849,874	865	205	8	197
1,803	99.90%	1,078	0.10%	891,517	890,656	861	222	5	217
866	99.90%	1,065	0.10%	792,317	791,428	889	185	9	176

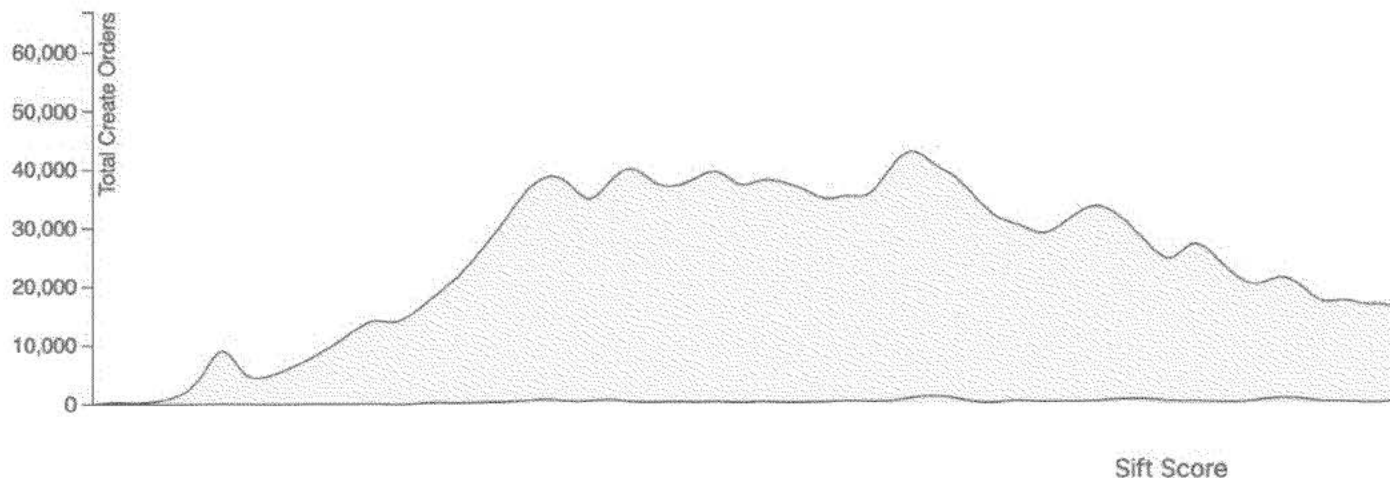
9,389	99.90%	1,250	0.10%	1,067,665	1,066,604	1,061	203	14	189
2,044	99.90%	1,189	0.10%	1,083,082	1,082,002	1,080	110	1	109
1,395	99.90%	1,364	0.10%	1,178,870	1,177,684	1,186	186	8	178
1,389	99.80%	2,595	0.20%	1,324,815	1,322,396	2,419	184	8	176
4,667	99.80%	2,614	0.20%	1,206,440	1,204,061	2,379	238	3	235
7,960	99.70%	3,798	0.30%	1,407,947	1,404,693	3,254	553	9	544
788	99.50%	958	0.30%	282,214	281,355	859	101	2	99

Based on these numbers, our automated decision rate is decreasing, and we are manually reviewing more. We want to trend in the other direction or stay steady.

Our accepts are more automated than our rejects, but none of our automated rejections were overturned, implying we can automate more rejections without impeding on donor experience.

Event Shown:

Create Order ▼



Scores 94 and h**0.05% (1,329) of a****100% (1,329) of th**

Adding to the support that we can automate more of our rejections is the graph above, which estimates that 100% of orders of a Sift score greater than 94 were rejected. However, these are projections, and there are *some* contributions of between 94 and 99 scores that are legitimate. Everything with a Sift score of 100 can be automatically rejected.

Compliance/Legal Adjustments

As part of our organization-wide goals, we are doing significant risk tolerance assessments.

OFAC Country Rules

We have rules that comply with certain US laws (FEC-mandated or finance-wide), about taking contributions from foreign nationals. The Compliance team reviewed those rules and provided instructions on how to adjust them.

Compliance review: [Countries Requiring Additional Review](#)

Adjustments to score thresholds for IP/Billing Mismatch and Foreign Issued Prepaid Card rules

As part of our risk assessment and communications strategy, we want to strengthen our review of these types of donations.

A change of the Sift score threshold from [REDACTED] to [REDACTED] would result in a 7.6% increase in contributions reviewed (from 65 to ~70). This is a manageable increase in review volume.

That same risk assessment has determined that we want to review all contributions with a foreign issued prepaid card, so we will need to delete the score threshold component of that rule.

High Score Rules

We have the following rules that only have a Sift Score component threshold, which we use as a “catch-all” where we trust Sift’s scoring methodology to capture risky donations when no specific signals apply.

We have traditionally adjusted these threshold rules up or down based on our team’s capacity to review additional donations. Our company is in the process of formalizing our risk tolerance. Until we know exactly what that entails, we can maintain a capacity based approach to these rules.

There are currently two rules for this section because we allow for more risky donations to charities on the platform, in part because those donations inherently have higher scores, not necessarily always because the donations *are* more risky (see write up, here: [Proposal to Adjust Sift Workflow 10/18/2021](#)).

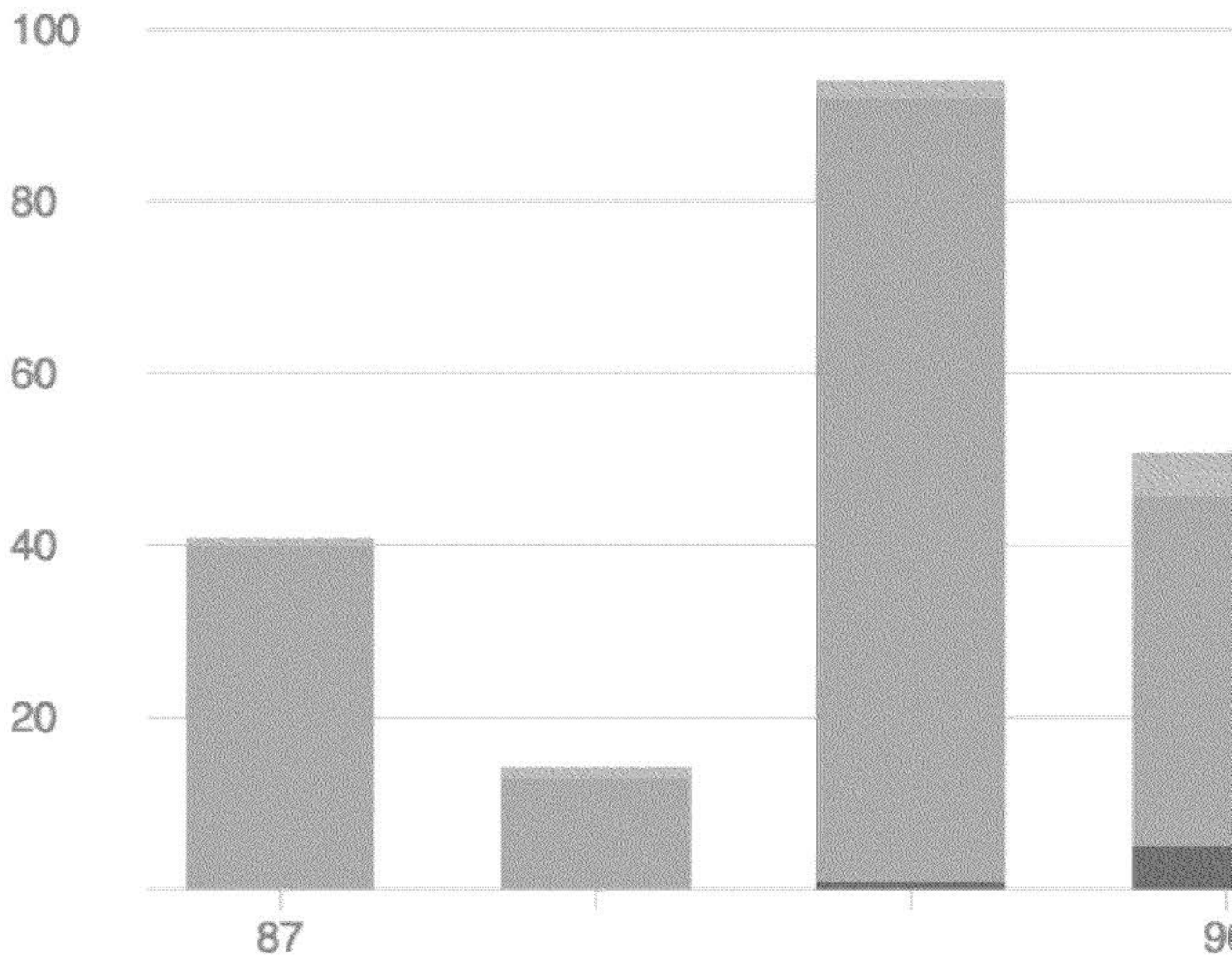
c3/c4 Donations

There are little to no rejections below a Sift score of 90. Because other rules are becoming more broad and will capture more false positives, we should increase the Sift

score component of this rule to [REDACTED] to decrease its contribution to the false positive rate.



Cha

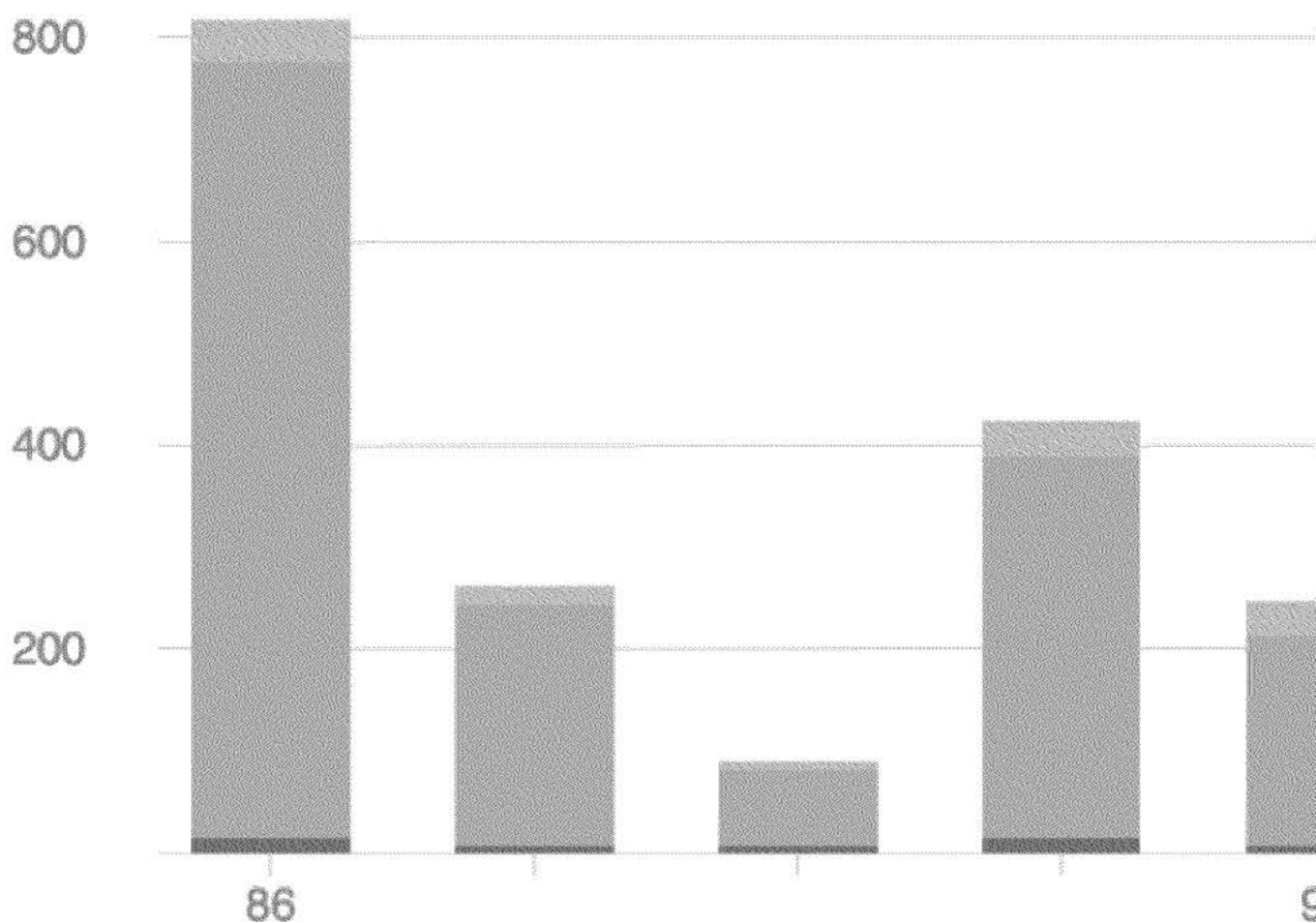


Political Donations

Rejections are consistently distributed across these Sift scores, so adjusting the score component of this rule would not be fruitful for capturing more fraud or reducing false positives.



Cha



Chargebacks

Per discussions with [REDACTED], our chargebacks thresholds work well for proactive outreach thresholds. We do want to flip the rules in the waterfall, in order for the broader rule to catch most of the volume. We will also change the limiting threshold component of the second rule from [REDACTED] transactions in a week to [REDACTED] transactions in a month, which is a better reflection of [REDACTED]'s 25% chargeback rate threshold.

All Accepts

The following rules all have 100% acceptance rates over the last few months. We will keep these rules because of our fraud tolerance/inadvertent donation behavior philosophies for the time being and revisit at a later date. It is difficult to simply increase the score thresholds on these rules because the recent Sift model change "squished" scoring and there is no room between most of these rules and our high score rules.

- Multiple Users, Same Device + High Score
- [REDACTED] w/Similar Email + Score
- Disposable Email Domain + Score
- ISP is Cloud Provider + Score
- Unique CC BIN in Past Day + Score
- Unique CC Last 4 in Past Day + Score
- [REDACTED] TXNS in Last Day + Score + [REDACTED]
- High Order Velocity ([REDACTED] in Last Hour) + Score

No Volume

The following rule had no volume. Similar to above, we will keep this rule because of our fraud tolerance/inadvertent donation behavior philosophies for the time being and revisit at a later date.

- [REDACTED] TXNS in Last Day + Score

Fake Addresses

We want to prevent contributions being made with the White House address, but it is often used with c3/c4 donations so we do not want to reject those donations. Unfortunately, Indigo is unable to have blocked addresses, so we will need to continue to look for this address in Sift.

Minor Algorithmic Bias Analysis

Naughty Words Rule

We want to prevent as much bias against minority groups as possible. In addition to adjusting our c3/c4 rules, we want to take a look at another place our algorithmic bias occurs, which is in the list we use to review “Naughty Words” and “Griefing Words”.

Only 3 words triggered the “Griefing Words” list, all of which were Joe Biden. We should consider “Watch” declining these contributions after setting up the API.

Interestingly, all transactions rejected from the “Naughty Words” list was a variation of “XX” and had a Sift score above [REDACTED]. We can split this rule into two, a list of “XX” variations and a one of “Naughty Words”. We can add a score threshold component to the non-“XX” words rule, below the High Sift Score rules but high enough not to capture previously accepted donors.

Proposed Rule Adjustments

New Rules

Manual Review Countries (IP/Billing/CC Country Matches): [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Block Countries (IP/Billing/CC Country Matches):

Automatically reject contributions with Sift score of (monitor heavily and adjust downwards as needed)

Change Rules

Rename High Risk Country rules

Rename "Chargebacks in Last Month + Successful TXNs" ->

"Chargebacks in Last Month + Successful TXNs in Last Month"

Rename "Chargebacks Last Month" -> "Chargebacks Last Month"

Remove the Sift score component of the Foreign Issued Prepaid Card rule

Lower the Sift score component of the IP/billing mismatch rule by

Increase Sift score component of the c3/c4 rule to

Flip the chargebacks rules in the waterfall and change the "Chargebacks in Last Month + Successful TXNs" from less than successful transactions in a week to less than successful transactions in a month

Split "Naughty Words" list into "XX" names and everything else

Always manually review XX names

Add score threshold of to Naughty Words rule

Move High Sift Score rules to end of waterfall

To Look Into

Add Watch Contribution Declines for Bad Addresses

EXHIBIT 29

Email From ActBlue Fraud Specialist to Sift
Personnel (Date)

From: [REDACTED]@actblue.com>
Sent: Tue 1/23/2024 7:50:18 PM (UTC)
To: [REDACTED]@siftscience.com>
Cc: [REDACTED]@siftscience.com>
Subject: Re: High Review Volume

Hi [REDACTED]

Yes, that would be great!

Best,
[REDACTED]

On Mon, Jan 22, 2024 at 8:06 PM [REDACTED]@siftscience.com> wrote:

Hi [REDACTED]

Just a quick update that our eng team is finalizing their findings and we would like to talk through what we are seeing together later this week. I have added [REDACTED] your dedicated solutions eng to our scheduled sync this Thursday. Does it work to use that time to review our findings and discuss next steps?

[REDACTED]



[REDACTED]
Senior Customer Success Manager

[REDACTED]
sift.com

On Wed, Jan 17, 2024 at 9:53 AM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

Thanks!

Yeah, I believe that rule only looks at the custom "Category" field.

Best,
[REDACTED]

On Wed, Jan 17, 2024 at 12:48 PM [REDACTED]@siftscience.com> wrote:

Hi [REDACTED]

Yes, just any additional key custom fields used in c3/c4 traffic segmentation. If there is nothing you are aware of, no worries, we are currently looking further into some specific workflow routes.

Thank you,

Senior Customer Success Manager

sift.com

On Wed, Jan 17, 2024 at 9:01 AM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

Thanks for getting back to me!

I greatly appreciate the update.

Can you clarify what you mean when you say: *"One thing that would be helpful as we are analyzing review queue traffic - would you be able to confirm if any additional custom fields are being used in this workflow route to segment traffic?"*

I see you highlighted the "c4" in the screenshot you included. Is that what you are referring to?

I hope to have answers for you as quickly as possible!

Best,
[REDACTED]

On Tue, Jan 16, 2024 at 2:30 PM [REDACTED]@siftscience.com> wrote:

Hi [REDACTED]

I apologize for the extended time it is taking to investigate this. I assure you we have multiple team members actively looking into the root cause and we hope to be able to provide an update as soon as possible.

One thing that would be helpful as we are analyzing review queue traffic - would you be able to confirm if any additional custom fields are being used in this workflow route to segment traffic?

26

High Score (c3/c4)

IF ORDER MATCHES

Items - Category contains "c3", "c4" + Payment Abuse Score > 91

THEN:

High Sift Scores

3 Decisions Linked
Escalates to "Escalations Queue"

Runs started 420 (≈<0.1%) Unique users 391 (≈<0.1%) Unique orders 419 (≈<0.1%) Manual or chargeback overturned 1



Senior Customer Success Manager

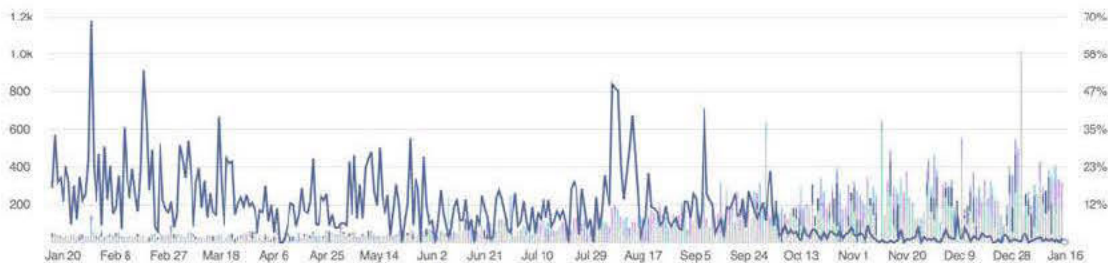
[@sift.com](#)
[sift.com](#)

On Tue, Jan 16, 2024 at 10:41 AM [@actblue.com](#)> wrote:

Hi

I am following up on your previous email to see if there is any update on what is going on with our workflow. As you can see in the screenshot below, something occurred in mid-October that greatly increased our review volume and decreased our block rate. Because it is past 90 days, I can't check to see if I had made a change to our rules on that date, but I am fairly certain that I did not.

Best,



On Thu, Jan 4, 2024 at 11:45 AM [@siftscience.com](#)> wrote:

Hi

Our eng team is running some updated reports this week to evaluate certain segments of traffic and work to uncover the underlying cause for the increase your team is seeing.

We hope to have further updates in the next few days to share with you!



Senior Customer Success Manager

[@sift.com](#)
[sift.com](#)

On Wed, Jan 3, 2024 at 10:47 AM [@actblue.com](#)> wrote:

Hi!

Is there any update on the problem with overscoring contributions?

At one point in December, our manual vs. automatic decision rate was 174% higher than the yearly average, which stretched our holiday coverage very thin.

Best,

[REDACTED]

On Wed, Dec 20, 2023 at 3:28 PM [REDACTED]@siftscience.com> wrote:

Okay, thank you for providing these examples. [REDACTED] is OOO for the rest of the year so I have looped support in to help assist with the larger investigation while she is out.

[REDACTED]



[REDACTED]

Senior Customer Success Manager

[REDACTED]@sift.com
sift.com

On Wed, Dec 20, 2023 at 11:10 AM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

Thanks for getting back to me!

Yes that is a fair assessment to make. They look like otherwise good users.

As an example: [REDACTED] This user is connected to 22 others with the same name, which is *true*, there were others who have used that not-particularly-unique name over the last 3 years, but doesn't seem like the kind of thing that should cause them to score above 90.

I am seeing some possible issues with other signals as well.

The same user as above is connected to 10 others with the "Number of users with the same Payment fingerprint (credit card)" signal. I am seeing that on a lot of other, otherwise good, users.

This user: [REDACTED]@icloud.com, is being said to have used 19 unique devices in the past week, but looks like they always use an iOS 17 device for their transactions.

Some other users with these signals causing their scores to inflate:

[REDACTED]@gmail.com (Same billing name, same payment fingerprint)
[REDACTED]@gmail.com (same billing name, unique devices in the last week)
[REDACTED]@gmail.com (same billing name, same payment fingerprint)

[REDACTED]@yahoo.com (same billing name, unique devices)

This is true for almost every review I am seeing.

Best,

On Wed, Dec 20, 2023 at 1:07 PM [REDACTED]@siftscience.com> wrote:

Hi [REDACTED]

Thank you for sharing this observation with us as we continue to monitor your model over the next few weeks. Would you say the high-scoring users that have this particular signal are not actually bad users?



Senior Customer Success Manager

[REDACTED]
sift.com

On Tue, Dec 19, 2023 at 2:15 PM [REDACTED]@actblue.com> wrote:

Hi!

Just a quick observational anecdote: It looks like a lot of donations that have a high score have the Signal "NUMBER OF USERS WITH THE SAME BILLING NAME". In the past, this wouldn't be a reason for a lot of our reviews.

Best,

On Thu, Dec 14, 2023 at 1:16 PM [REDACTED]@siftscience.com> wrote:

Okay great, thank you for this information!

We will monitor how the new model impacts review queue rates over the next few weeks and then advise on any additional adjustments from there to reach the ideal review rate.



Senior Customer Success Manager

[REDACTED]
sift.com

On Thu, Dec 14, 2023 at 8:26 AM [REDACTED]@actblue.com> wrote:

Hi [REDACTED] and [REDACTED]

Thanks for getting back to me!

Its hard to say with specificity with regard to a target, but somewhere in the range of sub-0.4% review rate or ~200 total daily reviews.

I just bumped up the score thresholds on our rules again on 12/11, but we still reviewed 337 donations yesterday.

Best,

[REDACTED]

On Wed, Dec 13, 2023 at 6:24 PM [REDACTED]@siftscience.com> wrote:

Hi [REDACTED]

I am adding [REDACTED] from our eng team in as we just recently had a change in accounts and she will be stepping in as your new dedicated solutions eng, apologies for the mix-up there.

We have a new model release coming out this week, there are no score thresholds are needed from your team. Our solutions eng team would like to monitor the impact this new model will have on the general volumes and scores to see if helps level out the increase in volume you have been seeing.

Could you please let us know what your ideal manual review volume is?

[REDACTED]



[REDACTED]

Senior Customer Success Manager

[REDACTED]

sift.com

On Mon, Dec 11, 2023 at 11:08 AM [REDACTED]@siftscience.com> wrote:

Hi [REDACTED]

Thank you for flagging that you are still seeing the increase even after we discussed adjusting thresholds. I have looped in your dedicated solution engineer, [REDACTED] so we can look further into your model and determine if there may be another underlying cause contributing to this recent increase.

We will follow up with you on this!



Senior Customer Success Manager



sift.com

On Mon, Dec 11, 2023 at 8:28 AM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

As of late, we have been fairly overwhelmed with the volume we have been needing to manual review. I keep bumping up the score thresholds on our rules, even as recently as 12/6, but our queued rate continues to be high. Is everything working correctly and do you have any suggestions?

Best,



--



Workflow Specialist | [ActBlue](https://actblue.com)
secure.actblue.com

--



Workflow Specialist | [ActBlue](https://actblue.com)
secure.actblue.com

--



[REDACTED]
Workflow Specialist | [ActBlue
secure.actblue.com](https://secure.actblue.com)



[REDACTED]
Workflow Specialist | [ActBlue
secure.actblue.com](https://secure.actblue.com)



[REDACTED]
Senior Workflow Specialist | [ActBlue
secure.actblue.com](https://secure.actblue.com)



[REDACTED]
Senior Workflow Specialist | [ActBlue
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[REDACTED]
Senior Workflow Specialist | [ActBlue
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[REDACTED]
Senior Workflow Specialist | [ActBlue
secure.actblue.com](https://secure.actblue.com)



[REDACTED]

Senior Workflow Specialist | [ActBlue](#)
[secure.actblue.com](#)

EXHIBIT 30

ActBlue Talking Points, Key Themes for Validators

Key themes for validators:

ActBlue is a secure and transparent platform: ActBlue has built a trusted and reliable digital fundraising platform with rigorous donor security protections and maintains strict anti-fraud compliance practices.

In an attempt to sow doubt and confusion around the election, there is a coordinated disinformation campaign against ActBlue based on falsehoods and misrepresentations:

ActBlue has long been a target of extreme right-wing individuals who have promoted unsubstantiated and outright false theories about ActBlue. These false allegations are now being echoed in conservative circles and have culminated in several supposed “investigations” by Republican attorneys general and conservative organizations, as well as House Republicans. These “investigations” also present a glaring lack of evidence and they have been discredited by campaign finance experts. These are not one-off efforts – they are part of a coordinated disinformation campaign against ActBlue.

This is an intentional, politicized effort to attack ActBlue in the context of the election:

The goal of these efforts is clear: mislead the public, intimidate donors, and raise doubts about election integrity ahead of Election Day and following it. We have been seeing right-wing efforts to spread falsehoods about voting to undermine the electoral process and sow distrust – as we have also seen in past elections. Now, we are also seeing false attacks on ActBlue as another way to try to undermine voters’ and donors’ voices.

- *[Question to consider raising if appropriate: It’s worth asking if those subpoenaing and raising misinformed questions about ActBlue are asking questions about the practices of WinRed, which supports Republican candidates and campaigns.]*

Data reported to the Federal Election Commission (FEC) has been misconstrued.

Organizations like ActBlue enable individuals to make secure and legal contributions to candidates, committees, and other organizations through a platform.

Because of this model, contributions made on platforms like ActBlue often show up at least twice in public FEC records, because both ActBlue and the receiving campaign or committee are required to report it.

Additionally, FEC reports often lump multiple donors with the same name together. This can make it difficult to easily identify which contributions should be associated with each individual donor, especially donors with common names.

Campaign finance experts and several media outlets have discredited and criticized these claims against ActBlue:

- [REDACTED] Executive Director of the Campaign Legal Center and former FEC General Counsel, said that widely disseminated claims of Maryland donors making unknowing contributions were “at best, not very careful and at worst deceptive as to the data that’s

produced.” When asked if a video provided evidence of wrongdoing, [REDACTED] said: “Not even remotely.”

- A report by Fast Company, a leading business publication, on recent allegations against ActBlue called the accusations “flimsy,” “misleading,” and “misinformed,” and cited campaign finance experts explaining that such claims are “not serious” and lack merit.
- The Hill recently reported that Texas Attorney General Paxton’s call for the FEC to close “loopholes” was similar to the “broader GOP push towards accusing Democrats, without evidence, of rampant election fraud,” and that AG Paxton has a history of investigating “widely discredited reports” of voter fraud.

EXHIBIT 31

ActBlue Talking Points, ActBlue Executive Tough
Q&A

ActBlue Executive Tough Q&A

Tough Questions About Recent Events

Will you kick Senator Kyrsten Sinema off the platform?

For Press

- We have a longstanding practice of working with Independent incumbents that caucus with Democrats. We will continue to assess the situation if new information should arise.

Addition if Private

- While we are making our evaluation based on Sen. Sinema's actions, we do not want to get ahead of Democratic leadership and will look to the evolving relationship between party leadership and Sen. Sinema in our decision-making process.

Do you intend to create stronger guidelines for candidates like Sinema who fundraise on your platform but are not registered as Democrats?

For Press

- While the vast majority of our users are registered Democrats, there are some edge cases, including many folks at the local level who run in nonpartisan races.
- We aim to evaluate each of those candidates to determine if their work and positions align with Democrats, and make as consistent of decisions as possible.

Addition if Private

- Over the last year we've formalized our process and guidelines for candidates and organizations and will be rolling that out externally in the coming weeks.

In the months and weeks immediately leading up to the 2022 election, ActBlue experienced several tech outages that lasted hours. These outages were not only out of character for the organization but also cost campaigns tens of thousands of dollars. What is your plan to prevent future outages and what was the cause of the outages last cycle?

For Press

- Reliability and security have always been hallmarks of ActBlue's platform and we know it's important we continue investing in them. Our number #1 goal is to ensure that no

matter what happens, whether it's a service we rely on going down or a bug, we are still able to take in contributions.

- Maintaining that level of reliability will be a key focus for us as we head into a busy presidential cycle where we expect to see millions of people participating.

Addition if Private

- ActBlue is built to ensure that even when pieces of our system are experiencing issues, or one of our vendors goes down, we are still able to take in contributions.
- We did experience a few technical incidents during which data was delayed or unavailable, and that is the system working as intended — ensuring above all else that contributions are flowing.
- We did also experience a few incidents in which a portion of contributions were not able to be processed, and that is something that is not acceptable to us, and will be working to ensure doesn't happen going forward.
- We have been working internally to ensure that we're able to communicate out issues and impacts more quickly to high volume users, including rolling out a status page for folks to check to see if there are any live incidents.
- Our teams have also been working internally to address any underlying issues that caused incidents this cycle, to ensure we are ready for the high volume days to come.

In the months and weeks immediately leading up to the 2022 election, several organizations that use your platform complained that you allow so-called "scam PACs" to use your platform and that these PACs siphon funds away from legitimate campaigns. Do you plan to kick scam PACs off the platform?

For Press

- We take fraud seriously and consistently monitor and review the activities of entities using our platform to ensure that they are not engaged in fraud.
- We quickly remove entities from our platform who are engaged in activity that defrauds our donors.

Addition if Private

- Scam PACs are a difficult question - they walk a line between legitimate and potentially fraudulent activity. Over the last year we've formalized our process and guidelines for account use and had these PACs in mind while making these guidelines.

- We feel confident we are removing PACs that are clearly engaging in fraud. What we are not going to do is dictate how groups on our platform spend their money.

Tough Questions About The Organization

One of the most common critiques of ActBlue is around pre-checked recurring contributions. With bills in California, Maryland, and Tennessee going into effect and draft legislation at the federal level to ban the practice, do you think it's ethical to continue to allow pre-checked donations on your platform?

Use For Press

- We are in compliance with California, Maryland and Tennessee law.
- Recurring contribution programs are a key part of a successful digital fundraising strategy: They provide steady, regular funding.
- We know that we can ensure donors have a positive experience while allowing entities to use recurring contribution programs - we can walk and chew gum at the same time.
 - To accomplish this we have a policy that requires groups that want to pre-set recurring forms to explicitly and clearly ask donors for recurring contributions.

For Use With Committees (NOTE: the major party committees want us to get rid of many of limitations we have placed on the use of pre-set forms)

- I understand that you feel hindered by our pre-set policy and I want to have a conversation with you about this - but I need to get up to speed on the issue before I can discuss it in detail.
- The relationship between ActBlue and the federal campaign committees is invaluable. Without you placing their trust in us, we would not be where we are today.

Potential Push: Does it worry you that these legislative pushes are coming from Democrats and progressives?

- No, because we know that it is possible to run effective digital fundraising programs that also ensures donors have a positive experience.

Are you considering changing the 3.95% rate that ActBlue charges campaigns and committees per donation?

For Press

- ActBlue's tools are offered at no cost to users. We pass along a 3.95% processing fee to the campaign or org on every donation. That fee goes directly to covering processing costs – we do not make money off of donations.

Potential Push: If you don't plan to drop rates, how do you plan to retain larger national and statewide campaigns that actually do lose out on massive amounts of money because of that fee?

- We are legally required to pass along processing costs, and that has to be our first consideration when thinking about price.

Potential Push: Are you worried they will go to outside companies like Stripe?

- I am confident that we provide the best platform in the progressive digital fundraising space.
- We have unique features that provide a benefit to our users - like our ActBlue Express Lane - and have a platform that is built to handle the huge influxes in volume that large campaigns see during peak moments.

Addition if Private

- Additionally, we are legally required to charge market rate to campaigns and committees - which is 3.95%. Anything less than market rate could be considered an in-kind contribution.

Last cycle we saw heightened complaints from donors about campaigns spamming people excessively with calls, texts, and emails. Does ActBlue have a role to play to stop spamming?

Use For Press And In Private

- ActBlue has never and will never sell any donor's data.
- ActBlue always wants to ensure donors have a smooth experience, with the goal of making it as easy as possible for grassroots donors to make a secure contribution to their preferred Democratic candidates, campaign, or progressive non-profit organization.

- During my time at ActBlue, I want to take the platform to the next level while ensuring reliability, security, and trust - the hallmarks of the work we do at ActBlue.
- We also want to build to a place that we are helping campaigns raise more money and donors have a really great experience while giving.

Some GOP politicians want to require CVVs on credit card transactions to ensure there is no fraud/foreign interference and increase security. Why does ActBlue not require CVV?

For Press

- This is a republican scare tactic - requiring CVV will not increase security.
- CVV numbers are used to verify that the person making the transaction is holding the card. The CVV number does nothing to prevent someone living outside the U.S. or a non-citizen from donating.
- ActBlue is PCI compliant, which means the organization passed rigorous security tests to ensure that all donor credit cards are fully protected. Security is the top priority at ActBlue, and the organization is required to conduct quarterly security tests and annual external audits.

Addition if Private

- Efforts to require ActBlue to use CVV are partisan and driven by republicans. We have a strategic advantage through our success in digital fundraising and the GOP thinks this could dampen that advantage.
- That is the reality behind these attacks - they are about raw politics, not security.

ActBlue has been criticized in the past for accepting tips, which some have argued takes money away from the campaigns and causes using your platform. Do you plan to continue the practice of accepting tips?

For Press And In Private

- We are a nonprofit and do not make money off donations - so we give donors the option to leave a tip for use on their contributions.
- These tips support our platform and fuel our work.
- Thousands of campaigns and organizations rely on our fundraising tools, which they use for no charge.

Actblue makes the majority of its revenue though the federal campaign committees and the races those committees oversee. However, the relationship between AB and the committees is so strained that they have threatened to leave and use other platforms. What is your plan to fix these relationships? Can ActBlue survive if one or more of the major party committees leave the platform?

Use For Press And In Private

- The relationship between ActBlue and the federal campaign committees is invaluable. Without those organizations placing their trust in us, we would not be where we are today.
- Those relationships will be a focus of mine as I get settled into my new role here.
- We have unique features that provide a benefit to the committees - like our ActBlue Express Lane - and have a platform that is built to handle the huge influxes in volume they see during peak moments.

EXHIBIT 32

ActBlue Slide Deck, Backfill Business Case:
Workflow Specialist Manager

Backfill Business Case: Workflow Specialist Manager

[Link to job description](#)

Current Team	Donor Support	Recent salary	████████
Job Grade	4	Proposed likely salary	████████████████
Min-Mid-Max for Grade 4	████████████████	Peer Salary Data	?

- **Category:** Delivery towards strategy / goals is at risk AND oversight/mgt
- **Overview:**
 - (1) WFS Manager is an important point of escalation for our most challenging cases (e.g., vulnerable donors, bugs)
 - (2) Important redundancy/backup when WFSs take PTO
 - (3) Responsible for overseeing portions of DS's most critical deliverables for 2023 goals
- **Contribution to Strategy:**
 - DS's primary goal in 2023 is to "Drive technological and process efficiencies in order to maintain current service levels and honor capacity constraints as we head into the 2024 election cycle." This include deliverables like (1) configuring Zendesk AnswerBot, (2) researching automations, (3) auditing processes for streamlining, and (4) improving data collection to better advocate for cross-department improvements.
 - This goal is directly tied to org-wide Finance pillar, Initiative 2 to "Improve systems to lower cost to serve, increase efficiency, eliminate redundancy, and scale across the organization."
- **Options Considered:** Redistributing work to DS Asst Director ██████████ does not have capacity to take on 5 new direct reports because in addition to her leadership responsibilities (1) she and the former WFS Manager were already sharing the strategy goal and (2) she still completes individual-contributor level implementations that can't be redistributed. Essentially, she is already operating over capacity since the RIF.
- **Risks:** We would be unable to finish optimizations necessary for further reducing our Associate-level staffing needs before the presidential election.
- **Costs and Potential Return:** We anticipate the efficiencies gained to be equivalent to ~1 Associate headcount, and it would eliminate the high likelihood for burnout for ██████████ and the need to replace her role as well.

Example data from ██████████ promotion business case:

Relevant accomplishments

██████████ was solely responsible for a 5% reduction in suspected fraud false positives, resulting in a 75% decrease in manual fraud prevention workload. [In 2022, DS manually reviewed 40k of AB's 29 million transactions. Down from 2021, which was 105k of 18 million transactions.]

Discovered and prevented 11 significant fraud attacks in 2022, which is notably impressive because reduction in false positives did not increase false negatives).

Question List to Build a Case

What is the ideal number of cohorts that we should have had for 2024?

When would each of them have ideally been brought on?

EXHIBIT 33

Email From ActBlue Vice President of Customer
Service to Sift Personnel (July 30, 2024)

From: [REDACTED]@actblue.com]
on behalf of [REDACTED]@actblue.com> [REDACTED]@actblue.com]
Sent: 8/2/2024 4:28:09 PM
To: [REDACTED]@siftscience.com]
CC: [REDACTED]@siftscience.com]; [REDACTED]@actblue.com]; Alyssa Twomey [REDACTED]@actblue.com]; [REDACTED]@actblue.com];
Subject: Re: Question regarding our model

That's right. The volume of review was so unsustainable before the model change that even when pulling team members from other work to help with reviews, we could not get them cleared. We will look at your recommendations next week, once [REDACTED] is back. Thank you so much for checking on that!

[REDACTED]
([REDACTED]

On Thu, Aug 1, 2024 at 6:35 PM [REDACTED]@siftscience.com> wrote:
Hi ActBlue Team!

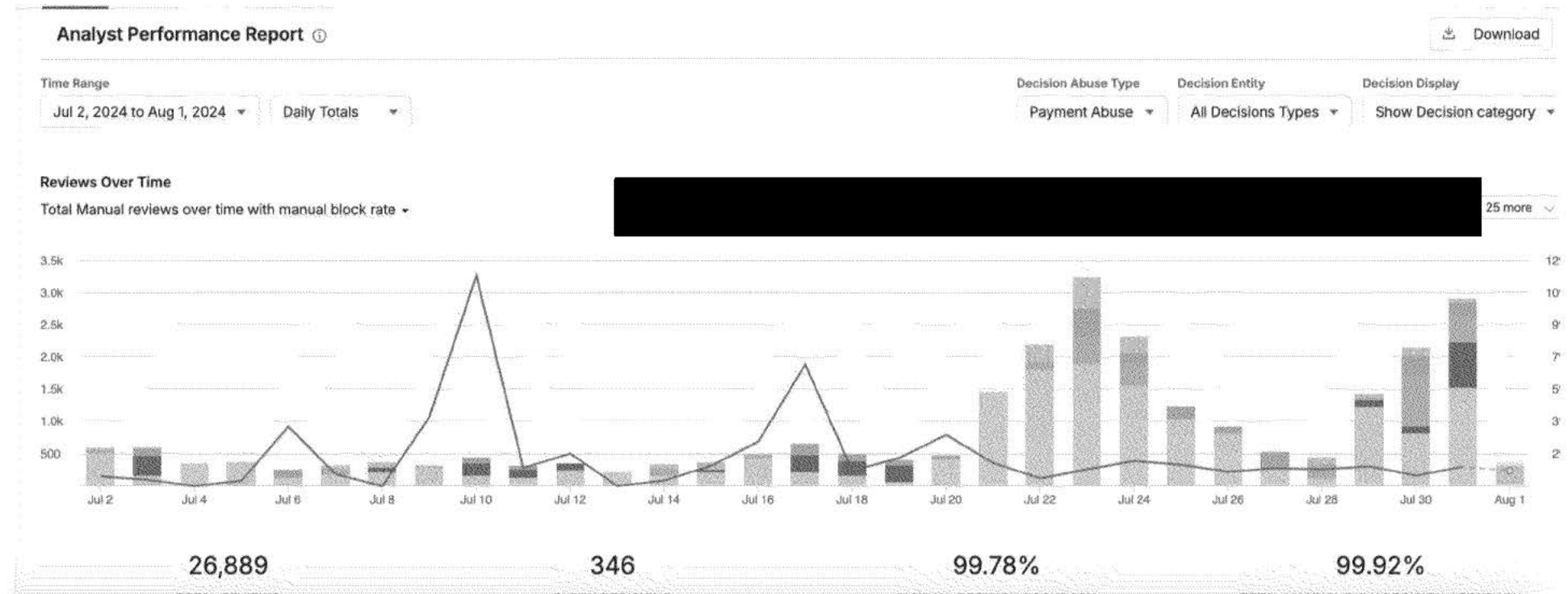
We noticed just now that no scores were updated in your Workflow yesterday. Was this a decision you made to get review down even more, opposed to creating parity with the past model? Our score change recommendations were slight score changes so it is very much possible that [REDACTED] and your team decided to leave as is and let the volume of review drop.

We just want to make sure!

On standby,
[REDACTED]

On Thu, Aug 1, 2024 at 3:21 PM [REDACTED]@siftscience.com> wrote:
Hi [REDACTED] & team,

As we are monitoring volumes on our side I wanted to share that we are seeing things trend in the right direction! Looking at the analyst report in the Sift console we can see a significant drop in the number of reviews made today vs yesterday.



We will continue to keep an eye on this on our side and please let us know if this is in line with what you are experiencing on your end as well.

Thank you,



Senior Customer Success Manager



sift.com

On Wed, Jul 31, 2024 at 10:54 AM [REDACTED]@siftscience.com> wrote:

Hi all,

Our engineering team has just confirmed that these changes are now live. We have moved ActBlue to the July model and traffic is expected to migrate to lower thresholds now.

Looking forward to reviewing changes and answering any questions you may have in our sync at 11:30am PT today!



Senior Customer Success Manager



sift.com

On Wed, Jul 31, 2024 at 9:18 AM [REDACTED]@siftscience.com> wrote:

Hi [REDACTED],

Yes, that is correct these adjustments map to your current volumes. We have provided the full distribution with projected volumes at each threshold so please select the thresholds changes that look best to you!

If the volumes/block rates at your current thresholds looks good then no need to make any changes.



On Wed, Jul 31, 2024 at 7:04 AM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

Just to clarify, those recommended threshold changes would be if we wanted to maintain our current volume/rate, correct? Am I also therefore correct that we would want to hold off on making those changes because we want our review rate to decrease?

Hope to hear from you soon!

Best,

On Tue, Jul 30, 2024 at 6:46 PM [REDACTED]@siftscience.com> wrote:

We are targeting this deployment for 10am PT tomorrow. I will send a note here as soon as the changes are live.

- [REDACTED]



[REDACTED]
Senior Customer Success Manager

[REDACTED]
sift.com

On Tue, Jul 30, 2024 at 2:33 PM [REDACTED]@siftscience.com> wrote:

Hi [REDACTED] & Alyssa,

Great, we will give our team the go-ahead! Please find the recommended threshold changes in this table [here](#). The green table on the right shows what the thresholds should be changed to ie, 43 -> 41.

We will let you know the approximate time we plan to push these changes live tomorrow morning so that you can be ready to deploy the new thresholds. I would recommend inputting these changes to workflow draft mode today so that they are easy to push live tomorrow morning quickly.

Please let me know if you have any questions!



Senior Customer Success Manager

sift.com

On Tue, Jul 30, 2024 at 2:21 PM Alyssa Twomey <[REDACTED]@actblue.com> wrote:
Thank you [REDACTED] & team!



Alyssa Twomey
(she/her/hers)
VP Customer Service | ActBlue
secure.actblue.com

To schedule a meeting with me please reach out to [REDACTED] Executive Associate

On Tue, Jul 30, 2024 at 4:21 PM [REDACTED]@actblue.com> wrote:

Hi [REDACTED],

Yes, please continue with the deploy!

Thank you for the urgency!

Best,
[REDACTED]

On Tue, Jul 30, 2024 at 5:10 PM [REDACTED]@siftscience.com> wrote:

Hi Alyssa / [REDACTED],

Just got off with our engineering team. They completed our analysis of turning off the signals we mentioned above (users with the 'same payment fingerprint' & 'failed transactions per BIN').

We are seeing a positive impact to your score distribution with a meaningful **downward** shift in scores (which is what we want... this would push more traffic into auto-accept zones and alleviate some of your manual review pains).

The team is ready to deploy this new model tomorrow morning. Do we have the go ahead to make that change? If so, we will coordinate with Sift eng to get a time table for you.

[REDACTED] (now that she is back) will follow up with a score threshold report that shows you what score changes you would need to make when this new model goes live.

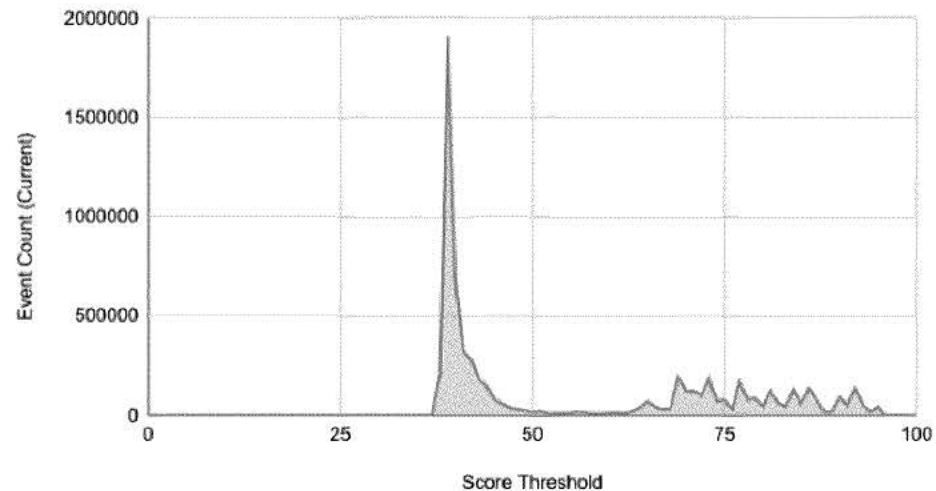
On standby,
[REDACTED]

The screenshot below looks at the June model release (that you are currently on) and the July model release (with the features removed). While the distribution looks similar, the volume at each score is moving down:

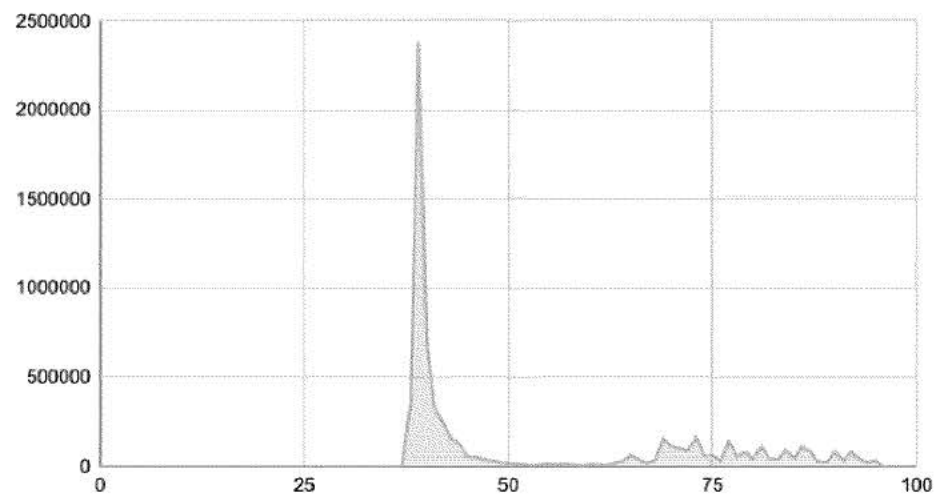
Ex:

- Peak in distribution in June model (current model) is 1.914M
- Peak in distribution in July model (features removed) is 2.387M (this is what we want)

Event Count (Current) vs. Score Threshold



After Model (July 2024) Distribution (Select signals turned off)



On Tue, Jul 30, 2024 at 1:00 PM [REDACTED]@siftscience.com> wrote:
Addressing [REDACTED] note above:

Workflow Optimization would be piggybacking off of our discussion last week where we would optimize your Workflows to auto-accept more traffic.

Based on the urgency we are seeing with Alyssa's note, I am inquiring around timeline to deploy model release sooner than later, and we can do Workflow Optimization thereafter.

Stay tuned,
[REDACTED]

On Tue, Jul 30, 2024 at 12:55 PM [REDACTED]@siftscience.com> wrote:

Hi Alyssa,

Thank you for the note and I can assure you we are prioritizing ActBlue's Sift performance as a #1 priority. I have been speaking with my engineering team on a daily basis to get improvements sent your way. [REDACTED] also just got back from Sabbatical so I apologize for not getting to [REDACTED] original email in a timely manner.

I appreciate that this is an extremely important time for ActBlue and we are doing all that we can to help. Adjusting our models and signals that contribute can have impacts on performance and our team is doing due diligence before pushing changes live to. Additionally, we are trying to give these improvements to you in-between model releases so you can see benefits before our planned August model release.

I am putting the team together internally at Sift to get a solid timeline for deployment and planned improvements.

I will ping again as soon as I have these details (hopefully in 30 mins).
[REDACTED]

On Tue, Jul 30, 2024 at 12:17 PM Alyssa Twomey [REDACTED]@actblue.com> wrote:

Thank you [REDACTED]!

[REDACTED]
I'm not sure if we have met before, but I'm Alyssa Twomey VP of Customer Service here at ActBlue. I have been in conversation with [REDACTED] and team regarding these issues and wanted to reach out directly.

We cannot accept that the model deployment needs to be delayed again. There is far too much on the line for us during this critical moment in our business cycle and for the country broadly.

[REDACTED] flagged scoring issues as early as 12/19 of last year, including the specific signals we saw that were contributing to the situation. At various points, we were told that these issues would be escalated, but ultimately were told over and over again that there was nothing wrong with the model, despite every metric suggesting there was. It wasn't until our meeting two weeks ago that you

acknowledged that there are, in fact, issues with those two signals and they were disabled for other clients' models but not for ours. We have increased the score thresholds on our rules multiple times to account for the disruption, which has to some extent opened us up to risk by missing lower-scored cases that would have been rejections. In this time, we have been exposed to vulnerabilities related to errant scoring situations. This has opened us up to PR and legal scrutiny, something we hope to avoid by using Sift as a service provider.

We have remained patient while Sift has figured out what was going wrong with our model, but we have reached a breaking point where the uptick in Sift manual reviews has led to major disruptions in our other workflows as a result of needing to repeatedly reallocate resources. [REDACTED] has acknowledged that, of course, there are still minor improvements we can make to our rules that will decrease volume, but the larger overarching problem seems to have been created by Sift and has now become our problem.

[REDACTED] and I, or another member of our CS leadership team, are available to discuss these issues over Zoom if you feel it would be beneficial, but our primary need is for the model to be deployed tomorrow at the previously agreed upon time.

Best,
Alyssa



Alyssa Twomey
(she/her/hers)
VP Customer Service | ActBlue
secure.actblue.com

To schedule a meeting with me please reach out to [REDACTED] Executive Associate

On Tue, Jul 30, 2024 at 2:09 PM [REDACTED]@actblue.com> wrote:
Hi [REDACTED]

CCing in my VP and Director for response.

Best,

On Tue, Jul 30, 2024 at 12:49 PM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

Can you clarify what Workflow Optimization entails? Did that go live yesterday or is it still a WIP?

We were expecting the July model release to go live tomorrow. Is that still feasible? We are seriously behind in reviews (currently have 2.2k pending), and that would be incredibly helpful for us.

Best,

On Fri, Jul 26, 2024 at 4:23 PM [REDACTED]@siftscience.com> wrote:

Hey [REDACTED]

Just a quick update after my meeting with Engineering today.

Sift things it would be best for us (ActBlue/Sift) to work on Workflow Optimization at the start of next week. Implement changes as desired, and then we can evaluate performance before and after the July model release. They are hesitant for us to make Workflow changes after the release because it will be hard for us to measure performance gains.

That said, this is the preferred rollout, and I would like your opinion:

- Workflow Optimization Monday (7/29) with plan to deploy by EOW (8/2 at the latest)
- July model release to go live Aug 6 or 7
- August model release to go live ~Aug 20

Does this feel like a reasonable plan? If the July model release feels too rushed, we can leave you on the June model release and then have another few weeks to get Workflows in order before the August model release.

On standby,

On Thu, Jul 25, 2024 at 10:40 AM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

Thanks for the update!

This is amazing news. I greatly appreciate you and the team's continued hard work in ensuring our model is improved. Looking forward to the update next week!

Assuming nothing else comes up between now and then, have a great weekend!

Best,
[REDACTED]

On Thu, Jul 25, 2024 at 1:28 PM [REDACTED]@siftscience.com> wrote:
Hi [REDACTED]

Following up on feature changes to non-learnable. There are a few things in motion (btw, I love the urgency and care the team is taking with ActBlue internally at Sift... a lot of smart people invested in your success)

- We had a model release set for the 24th, but we **held ActBlues model back from the new model release** as we completed our evaluation. So right now, you are still on your June model. The team has said that this is actually a really good thing because your traffic has changed quite a bit and now we have more time to assimilate to a new norm leading up to the election.
- Instead of rushing to make a decision on the non-learnable features today, the engineering team would like to hold back on **deploying your July model release until ~Wednesday of next week**. This allows us 6 more days of evaluation through a process called 'long shadow' so that when we deploy your July release we can give you accurate score threshold recommendations. We are running long shadows for 2 scenarios: features learnable & features non-learnable and will deploy the better performing model next week.
- August Model Release - this release, we expect, even more performance improvement. A few things happening during this release (~8/20)
 - More time evaluating impact of non-learnable features
 - Adaptive Sampling - better handling sampling of accept labels, will go live!
 - We have time to think about your score distribution and discuss improvements

So for now, no model change activity until ~Wednesday of next week. I will be in touch!
[REDACTED]

On Thu, Jul 25, 2024 at 9:00 AM [REDACTED]@actblue.com> wrote:
Hi [REDACTED]

Thanks so much for your thorough reply. It really cleared up a lot of confusion on our part!

I'll be keeping an eye out for an update on the model deploy situation. Just let me know!

Best,

On Wed, Jul 24, 2024 at 7:38 PM [REDACTED]@siftscience.com> wrote:
Hi [REDACTED]

Let me help address these one by one:

Feature analysis:

- Sift Engineers did some deep analysis on ActBlue's model and we found 2 signals that we plan to make non-learnable because they are not strongly associated with fraud. These signals are 'payment fingerprint (BIN/Last4)' and '# failed transactions/BIN'. We are evaluating if we can turn these off safely for the July model release (today/tomorrow), or if we have to wait for the August model release (8/20). I am in constant communication with Engineers right now, so should have a decision by the end of the day.

Questions

1. In addition to that, you mentioned that there may be some further limitations with our model because of some baseline assumptions Sift is making about our traffic without accounting for the unique nature of our business. Is that a correct summary?
 - I do not recall saying this. We did a deep analysis of features and only 2 seemed ill-aligned with fraud, all others are triggering well. Perhaps we can talk through this in more detail. I do not want you to think Sift is not a good fit for ActBlue, as we have a history of strong performance.
2. Am I also correct that you mentioned that Sift engineers would be taking a renewed look at our model?
 - [REDACTED] has had a score investigation open for a few months to investigate accuracy. While [REDACTED] is on sabbatical, I pushed the team to prioritize new ways of looking at the data, and we found some ways to improve performance (non-learnable signals mentioned above), and we also have items in our near term roadmap that will additionally support performance improvement (adaptive sampling for accept labels). Which is good!
3. . Does that mean we will need a new model built from the ground up at some point?
 - No, we do not think we need to build a model from the ground up for ActBlue. You have a model that is identifying fraud well, we are now focused on how to **accept** labels lower. The above will help in this endeavor.
4. Finally, could you clarify when you speak about ActBlue's model, do you mean that all of Sift's clients have an entirely bespoke model (built from the ground up via those aforementioned assumptions) or that all clients start with the same Sift model that is then tuned over time?
 - Oo good question. When customers launch with Sift, they all launch with access to our Global Model (informed by learnings from our global network of customers). As you ramp with Sift and send in block and accept labels, these labels work to train up a

Custom Model (specific to the customer). So right now ActBlue is using 2 models to produce Sift Scores (Global Model and Custom Model) they both influence the score. The good thing about having a Global Model is that when fraud is detected within our network that then comes to ActBlue, we will know that and score it higher. The good thing about a Custom Model is that fraud shows up differently for many businesses, and we can learn about specific fraud for that business to boost performance! This is a very brief explanation, please let me know if you would like a refresher training on this, happy to facilitate!

I hope this is helpful! Happy to set up more time to connect. My main focus right now is on the non-learnable features and communicating timeline!

[REDACTED]

On Wed, Jul 24, 2024 at 1:44 PM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

Hope you're having a great day!

I just wanted to clear up some confusion on our end about what exactly was discussed in last week's meeting with [REDACTED] and [REDACTED]. You mentioned that you would be making two improvements to our model (making some signals unlearnable and changing accept sampling).

1. In addition to that, you mentioned that there may be some further limitations with our model because of some baseline assumptions Sift is making about our traffic without accounting for the unique nature of our business. Is that a correct summary?
2. Am I also correct that you mentioned that Sift engineers would be taking a renewed look at our model?
3. Does that mean we will need a new model built from the ground up at some point?
4. Finally, could you clarify when you speak about ActBlue's model, do you mean that all of Sift's clients have an entirely bespoke model (built from the ground up via those aforementioned assumptions) or that all clients start with the same Sift model that is then tuned over time?

Thanks a bunch for all of your hard work!

Best,

[REDACTED]

--



Senior Workflow Specialist | ActBlue
secure.actblue.com



Director, Customer Success Management



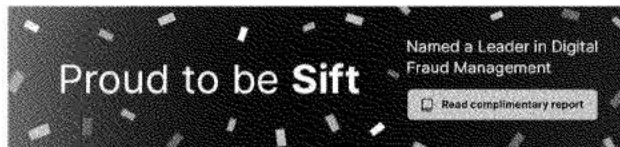
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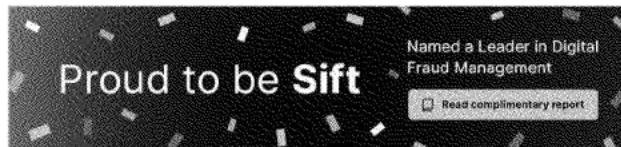
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[REDACTED]
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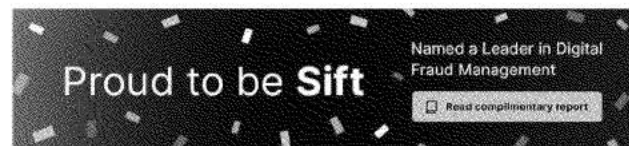


[REDACTED]
Senior Customer Success Manager

[REDACTED]@sift.com
sift.com



[REDACTED]
Director, Customer Success Management



[Read the complimentary report](#)

EXHIBIT 34

Email From ActBlue Fraud Specialist to Sift
Personnel (June 4, 2024)

From: [REDACTED]@siftscience.com]
on behalf of [REDACTED]@siftscience.com> [REDACTED]@siftscience.com]
Sent: 9/16/2024 6:52:58 PM
To: [REDACTED]@actblue.com]
CC: [REDACTED]@siftscience.com]
Subject: Re: Missed transactions

Hi [REDACTED]

That is referring to the card object. The only valid values are: [REDACTED]

[REDACTED]

* This is not required to send as a custom field

[REDACTED]



[REDACTED]
Senior Customer Success Manager

[REDACTED]
sift.com

On Fri, Sep 13, 2024 at 11:50 AM [REDACTED]@actblue.com> wrote:
Hi [REDACTED]

I am working to make sure I have an answer to your question, which led to our product team asking a question of their own. Could you please check for me:

The payment method attribute does allow for a field named [REDACTED] What does this field mean?
Specifically, does that reference this field from
Stripe: [REDACTED]

Thanks as always!

Best,
[REDACTED]

On Thu, Sep 12, 2024 at 6:36 PM [REDACTED]@siftscience.com> wrote:
Hi [REDACTED]

Apologies for the delay in getting back to you on this as we have been primarily focused on the recent model optimizations. One question our team had here was how ActBlue is determining the donations are all made with the same credit card? Since we do not collect the entire pan this is not something we would be able to determine in our system.

Would you be able to share any more details?

Thank you,

[REDACTED]



[REDACTED]
Senior Customer Success Manager

[REDACTED]
sift.com

On Thu, Sep 12, 2024 at 12:23 PM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

I was hoping to close the loop on this issue.

We saw a large number of donations that were made with the exact same credit card, but were not flagged for manual review. For example, the last donation made, [REDACTED] was connected to 127 other users with the same payment fingerprint but only scored 79.

You mentioned Sift having an open investigation. Could you share any findings your team made if possible?

Best,

[REDACTED]

On Tue, Jun 4, 2024 at 8:10 PM [REDACTED]@siftscience.com> wrote:

Hi [REDACTED]

Thank you for sharing these examples. Yes, I have just included these in the open investigation around why we are seeing manual rates increase after the latest model changes were made, and additionally now, why risky users are not scoring high enough.

I am including my manager [REDACTED] on this thread so that she is in the loop and can help with coverage and relaying updates while I am on sabbatical June 17th - July 26th.

We will be in touch with updates shortly!

[REDACTED]



[REDACTED]

Senior Customer Success Manager

[REDACTED]

sift.com



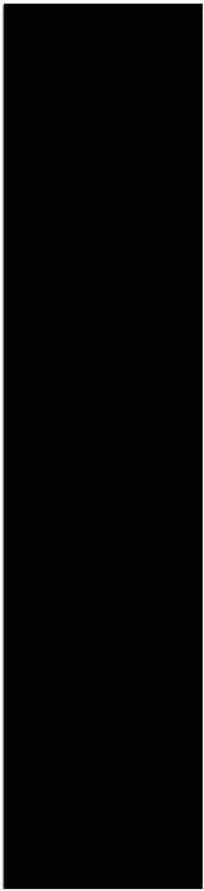
On Tue, Jun 4, 2024 at 3:03 PM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

We discovered some contributions that were not caught by our existing workflow to be manually reviewed when we would have preferred that they were. As you can see, they all have the same credit card number and email domain. Could you please help me understand why these were not scored higher, despite their signals?

List of transactions:

[REDACTED]



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EXHIBIT 35

ActBlue Memorandum, Sift Rule Changes –
Adjustments to Prepaid Cards

Sift Rule Changes - Adjustments to Prepaid Cards

We want to solidify our block on foreign prepaid cards by also restricting the use of US-issued prepaid cards used on foreign IP addresses.

We also want to ensure that all non-reloadable prepaid cards are blocked.

Blocking Foreign IPs from using Domestic Prepaid Cards

Latest credit card level contains [REDACTED]

[REDACTED]

Would have resulted in 237 contributions being rejected by this workflow (though 10 were already rejected by existing rules) in the last 30 days.

Non-reloadable/Reloadable Prepaid Cards

Confirmed the following card types are likely to be non-reloadable, and will be added to our block list:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

Estimated impact: 2,851 contributions over 30 days

Additional Edits

We eliminated the [REDACTED] and [REDACTED] from our Card Level rules because they are redundant when our rules already say [REDACTED] and [REDACTED]

Updates:

10/25/2024 3PM - Blocking Foreign IPs from using Domestic Prepaid Cards rule went live

11/1/2024 5PM - Blocking extra non-reloadable prepaid cards goes live

EXHIBIT 36

ActBlue Memorandum, ActBlue Summary on CVV
Practices

ActBlue Summary on CVV Practices

August 5, 2024

CVV Overview

The card verification value (CVV) on the back of a credit card is a tool that can be used to verify a cardholder and reduce incidents of fraud in online transactions. Merchants are generally **not required by law** to collect CVV when processing credit card transactions, and card networks (e.g., Visa) give most types of merchants discretion to decide whether and when to perform CVV-based verification. There are also industry standards that govern the secure processing of CVV information; for example, while the Payment Card Industry Data Security Standard (PCI DSS) does not mandate the collection of CVV, it establishes technical standards for processing such information for verification purposes.

How ActBlue Uses CVV

In January 2024, ActBlue began requiring consumers to provide a card verification value (“CVV”) when entering a new credit card number on the ActBlue platform. This means that for most new contributions made using a credit card, a CVV-based verification check is performed by ActBlue’s third party payment processor before the card is charged.

There are, however, some specific exceptions where a CVV check cannot be performed. For example, a contribution made using a digital wallet service like Apple Pay would not undergo a CVV check since these services do not (or cannot) provide such information to the merchant of record.

Additionally, ActBlue does not perform CVV verification in cases where doing so would result in PCI DSS non-compliance. For example, the DSS prohibits merchants from storing CVV information for card-on-file billing or recurring transactions.¹ Accordingly, ActBlue cannot use a CVV for recurring contributions where the charge is automatically initiated on an ongoing basis at the consumer’s prior direction.

How ActBlue Helps Address and Prevent Fraud

We’re committed to providing a service that is trustworthy, reliable, and secure. This includes:

- **Self-Serve Tool.** We provide a [self-serve tool](#) for any consumer to confirm whether their credit card was charged for a contribution on the platform.
- **ActBlue Support.** Our easy-to-use [contact form](#) allows consumers to communicate directly with our Support team to ask questions, request refunds, or get other kinds of assistance. Our Support site also provides answers to common billing questions and helpful tips to strengthen the security of your account.
- **Account Security.** We provide a variety of security features to help users protect their accounts, including [Multi-Factor Authentication](#) and other [important tools](#). We also provide regular security tips and technical advice to our users, including [best practices](#) for securing your account.

¹ See

https://www.pcisecuritystandards.org/faq/articles/Frequently_Asked_Question/Can-card-verification-codes-values-be-stored-for-card-on-file-or-recurring-transactions/.

EXHIBIT 37

ActBlue Memorandum, CVV Expanded Roll Out
Language Post 1/2/24 Roll Out

Disclaimer:

The following language regarding CVV codes is approved by the Comms team. If we get any additional questions about the CVV test and future requirements of CVVs, we must run that language by [REDACTED] the Comms team before communicating externally

CVV Expanded Roll Out Language post 1/42/24 Roll Out

Resources:

[CVV A/B Test Documentation](#)

[CVV Rollout Comms Documents](#)

Release Date: Thursday, January 4~~th~~^{2nd}

Triage: When triaging tickets related to the CVV A/B Test, [REDACTED]
[REDACTED]

Escalation: If the entity is upset or has additional questions after Admin Support sends the below language, assign them over to Outreach, who will handle additional follow-ups.

Canned Language::Processing Donations::Running Donor Cards::CVV Requirement::User Doesn't have CVVs for Donor Cards

Status:Closed

Tag: [REDACTED]

Use when an entity is trying to run donor cards but can't because the form requires CVV code

Hi %,

Thanks for reaching out and I apologize for any confusion!

Due to a recent change to our platform, all donors will now be required to enter a CVV number when contributing with a new card to any campaign or organization on ActBlue.

If you're attempting to run multiple donor cards and don't have those CVV numbers available, you can always bypass this requirement by using our Entry Mode feature. Entry Mode helps simplify the collection of donations at live events by temporarily disabling cookies and removing any IP address flags, enabling you and your team to more seamlessly enter multiple, successive contributions on the same device. Because Entry Mode does not require the input of CVV numbers, you can also use it to run donations when that information is unavailable.

For more information and a step-by-step guide on how to enable Entry Mode, check out our support article [here](#).

If you have any additional questions, please let us know!

Canned Language::Processing Donations::Running Donor Cards::CVV Requirement::Explaining CVV Requirement

Status:Closed

Tag: [REDACTED]

Use when an entity is asking why we are now asking for CVV code on their forms

Hi %,

Thanks for reaching out and I apologize for any confusion!

Starting January 4th2nd, all donors will be required to enter a CVV number when contributing with a new card to any campaign or organization on ActBlue.

Currently, CVV numbers are required to complete various transactions on our platform; however, as we've monitored the use of CVV on our platform, we've learned the results of recent, extensive A/B testing have shown that many of our donors would prefer to have this requirement instituted site-wide. There should be Our A/B testing also showed no drop in conversion rates when CVV numbers are required, prompting us to move forward with instituting this change across the board.

If you're attempting to process contributions on behalf of multiple donors and don't have those CVV numbers available, you can always bypass this requirement by using our Entry Mode feature which you can learn more about [here](#).

Please let me know if you have any additional questions!

CVV Test Language - OLD, TO BE REMOVE FROM ZENDESK 1/4/24

Resource: CVV A/B Test Documentation

Release Date: Wednesday, November 8th

Triage: When triaging tickets related to the CVV A/B Test, apply the [REDACTED]

Escalation: If the entity is upset or has additional questions after Admin Support sends the below language, assign them over to Outreach, who will handle additional follow-ups.

Canned Language::Processing Donations::Running Donor Cards::CVV

Requirement::User Doesn't have CVVs for Donor Cards

Status:Closed

Tag: [REDACTED]

Hi %,

Thanks for reaching out and I apologize for any confusion!

To give some additional context here, we're currently running an A/B test which requires donors to enter their card's CVV number when making a contribution on ActBlue.

If you're attempting to run multiple donor cards and don't have those CVV numbers available, you can bypass this requirement by using our Entry Mode feature. Entry Mode helps simplify the collection of multiple donations at live events by temporarily disabling cookies on your contribution form and removing any IP addresses flags so that you and your team can enter successive contributions on the same device. Entry Mode forms do not require CVV codes, so using it should allow you to run these donations without issue.

For more information and a step-by-step guide on how to enable Entry Mode, check out our support article here: [Entry Mode](#)

If you have any additional questions, please let us know!

Canned Language::Processing Donations::Running Donor Cards::CVV

Requirement::Explaining CVV A/B Test

Use when an entity is asking why we are now asking for CVV code on their forms

Status:Closed

Tag: [REDACTED]

Hi %,

Thanks for reaching out and I apologize for any confusion!

To give some additional context here, we're currently running an A/B test which requires donors to enter their card's CVV number when making a contribution on ActBlue. If you're attempting to run multiple donor cards and don't have those CVV numbers available, you can bypass this requirement by using our Entry Mode feature which you can learn more about [here](#).

Looking ahead, it's possible that CVV will be required on certain contribution forms in the coming months - and the results of this A/B test will be one important factor in making that decision. We welcome your feedback on this potential change and are happy to pass along any comments, questions, or concerns you may have about it to our tech team during this process.

Thanks so much!

EXHIBIT 38

ActBlue Performance Review of Fraud Prevention
Employee (Oct. 31, 2024)

Period covering 10/1/24 - 10/31/24

No reviews during this period.

Period covering 9/1/24 - 9/30/24

No reviews during this period.

Period covering 8/1/24 - 8/31/24

No reviews during this period.

Period covering 7/1/24 - 7/31/24

██████ did not have shifts to generate reviews per shift. ██████ had much higher than the average rejection rate (but it was very low team-wide).

No escalations in this time period. Please keep an eye out for proactive outreach opportunities!

Audit:

- "1. AB ██████ - Great accept. Nothing suspicious about this donor and Sift just overscored them
- 2. AB ██████ - Great accept. Donor is using a fake email generator but nothing else

Period covering 6/1/24 - 6/30/24

Just above the average rejection rate, very close.

No escalations in this period. Please keep an eye open for proactive outreach opportunities.

Audit:

- "1. AB ██████ - Great accept. Nothing odd about this donation!
- 2. AB ██████ - Great accept. Their name is formatted a bit odd and they use a PO Box, but nothing worthy of a rejection!
- 3. AB ██████ - I disagree with a rejection here. They seem like a real person. They selected

Period covering 5/15/24 - 5/31/24

No reviews during this period.

Period covering 3/1/24 - 5/14/24

Skipping this review cycle due to being OOO for a significant chunk of it.

Period covering 2/1/24 - 2/31/24

████ did not work in the workflow during this period.

Period covering 1/1/24 - 1/31/24

████ had no assigned shifts, but helped out with reviews. Thank you!

Several times higher than average rejection rate, but rejection rate teamwide is so low that in absolute terms, 3 rejections is not unreasonable!

No escalations in this period! Keep an eye out for proactive outreach opportunities!

Audit:

1. AB █████ - Great accept! Has a foreign IP address but thats certainly not enough to reject it.
2. AB █████ - Great accept! Low risk score, typically domestic IP addresses, and has

Period covering 12/1/23 - 12/31/23

████ had no assigned shifts, but helped out with reviews. Thank you!

Can't calculate reviews per shift. Below the average rejections per review.

Great job escalating an admin-support-related issue!

Audit:

1. AB █████ - Great accept. Foreign IP but no reason to reject!
2. AB █████ - Great accept. Fairly standard donation characteristics
3. AB █████ - I actually would accept this one. The name matches the email. Yes, the donor has foreign CC and IP, but they are donating to a civic organization. Please remember for

Period covering 11/1/23 - 11/30/23

████ did not work in the workflow during this period.

Period covering 10/1/23 - 10/31/23

██████ had no assigned shifts, but helped out with reviews. Thank you!

Close to, and just above the average rejection rate

No escalations in this period! Keep an eye out for proactive outreach opportunities!

Audit:

1. AB ██████ - Great accept! Nothing particularly suspicious about this one!
2. AB ██████ - Great accept! Fairly standard donations. Has a few IPs, but nothing crazy
3. AB ██████ - Great reject! Fake (and offensive depending on their intentions) name.

Period covering 8/1/23 - 9/30/23

██████ had no assigned shifts, but helped out with reviews. Thank you!

██████ had below the average rejections!

Great job escalating proactive outreach opportunities!

Audit:

1. AB ██████ - Great accept! I don't see anything risky here
2. AB ██████ - Great accept! IPs across the country, but nothing outrageous
3. AB ██████ - I am okay with a reject here, but I could go either way. The name/email are an apparent mismatch and there is a IP/billing mismatch, but the donation is to a c4. Please

Period covering 7/1/23 - 7/31/23

██████ had no assigned shifts, but helped out with reviews. Thank you!

██████ had no escalations in this time period. Please keep an eye open for proactive outreach opportunities.

Audit:

1. AB ██████ - Great accept! IP address in Ecuador but everything looks normal!
2. AB ██████ - Great accept! Also has a foreign IP but they look like a legit donor. They have

Period covering 6/1/23 - 6/30/23

██████ did not work in the workflow during this period.

Period covering 4/1/23 - 5/31/23

████ had no shifts without reviews. Great job!

████ did not have much to review, so be cautious drawing any insights from the metrics. █████ had below the average number of reviews per shift, and above the average number of rejections per review.

████ had no escalations.

Audit:

1. AB █████ - Agree with this accept. This person is a frequent flyer but a good donor!
2. AB █████ - Agree with this accept. Simple foreign donation to a c3

Period covering 2/1/23 - 3/31/23

████ only had two shifts but she did both, great job!

It's hard to draw meaningful conclusions from █████'s numbers because volume is so low. █████ was on the below side of reviews/shift and had no rejections (which is below the team average).

AB █████ is an interesting one. I agree with █████ accepting this one, because nothing is overtly fraud. I can't figure out an explanation for their IP addresses though, and couldn't confirm the donor with a Google search.

Period covering 10/9/22 - 1/31/23

████ did not work in the workflow during this period.

EXHIBIT 39

ActBlue Performance Review of Fraud Prevention
Employee (Oct. 31, 2024)

Period covering 10/1/24 - 10/31/24

██████ had no rejections, which is below the median. She only had 68 reviews total, and the team averages about 1 in 100 rejections, so this is kind of expected.

Great job escalating a confirmed fraud situation with ██████████@gmail.com and checking off the resolution review field. Please keep an eye open for proactive outreach escalation opportunities!

Audit:

"1. AB ████████ - Great accept. Donor has a few foreign characteristics (IP, Email domain) but

Period covering 9/1/24 - 9/30/24

No reviews during this period.

Period covering 8/1/24 - 8/31/24

No reviews during this period.

Period covering 7/1/24 - 7/31/24

██████ did not have shifts to generate reviews per shift. She had higher than average rejection rate.

No escalations in this time period. Please keep an eye out for proactive outreach opportunities!

Audit:

"1. AB ████████ - Great accept. Nothing suspicious about this donor

2. AB ████████ - Great accept. Donor is fairly normal, but fails all their donations, so we could

Period covering 6/1/24 - 6/30/24

No reviews during this period.

Period covering 5/15/24 - 5/31/24

No reviews during this period.

Period covering 3/1/24 - 5/14/24

Skipping this review cycle due to being OOO for a significant chunk of it.

Period covering 2/1/24 - 2/29/24

████ did not have any shifts but helped do reviews. Thank you for that!

Had a much higher than average rejection rate, but teamwide rate is so low and the sample size is small so I wouldn't draw any conclusions from that!

She had no escalations.

Audit:

1. AB █████ - Great accept! A few IP addresses in the US, but otherwise completely normal donor
2. AB █████ - Great accept! Extremely normal looking donation behavior and a score of 43

Period covering 1/1/24 - 1/31/24

████ did not work in the workflow during this period.

Period covering 12/1/23 - 12/31/23

████ did not work in the workflow during this period.

Period covering 11/1/23 - 11/30/23

████ did not have any shifts but helped do reviews. Thank you for that!

Higher than average rejects, and the overall team reject rate is very low.

Good job flagging proactive outreach opportunities!

Audit:

1. AB █████ - Great accept! Fairly standard first time donation.
2. AB █████ - Great accept! Donor appears to travel to/from Hawaii/continental US but has legitimate information!
3. AB █████ - I would accept rather than reject this! Besides one foreign IP ping, their

Period covering 10/1/23 - 10/31/23

████ did not work in the workflow during this period.

Period covering 8/1/23 - 9/30/23

████ did not work in the workflow during this period.

Period covering 7/1/23 - 7/31/23

████ did not work in the workflow during this period.

Period covering 6/1/23 - 6/30/23

████ did not work in the workflow during this period.

Period covering 4/1/23 - 5/31/23

████ had no shifts without reviews. Great job!

She did not have much to review, so be cautious drawing any insights from her metrics. She had below the average number of reviews per shift and had no rejections.

She had no escalations.

Audit:

1. AB █████ - Agree with this accept. Everything checks out as legit!
2. AB █████ - Agree with this accept. Donor has multiple IPs and payment methods, but their Zendesk history and multiple social media accounts check out.

Period covering 2/1/23 - 3/31/23

████ worked both her assigned shifts, great job!

It is hard to draw conclusions from low volume, but █████'s numbers look good! She had above the average of reviews/shift and below the average of rejections/review.

Accept of donation AB █████ is good! Its odd that all signs point to this person being from Canada but they used a Missouri billing address, but Twitter seems to confirm that they are a real person!

████ had no escalations in the time period, which is normal given the low volume she had to

Period covering 10/9/22 - 1/31/23

There is not a large sample size for [REDACTED] so please take these perspectives with a grain of salt. In January, she was on the below side of average reviews per shift and had above the average for rejections per review (**Please note that these are not judgement metrics. By definition, half the team is below the average number and half above. This is solely to provide perspective to the associate about what the team's experience is looking like. Workflow participants should not seek to increase or decrease their reviews or accept/reject less unless otherwise told**). Do you feel that the number of reviews you are doing and the number of rejections you are making is correct? Do you get through all of the reviews in your allotted shift? If you do, how long do you usually take?

[REDACTED] did not miss any assigned shifts during the time period, which is great.

[REDACTED] forgot to check off resolution reviewed for the contribution she added to the escalation log. Lets review that process.

Through auditing, I was unable to find any reviews where I would have made a different

EXHIBIT 40

ActBlue Performance Review of Fraud Prevention
Employee (Oct. 31, 2024)

Period covering 10/1/24 - 10/31/24

■■■■ had reviews for all her shifts. Great job!

■■■■ had below the median reviews per shift. She also had much lower than the median rejection rate, in the first quartile. We don't need to purposefully reject more or less to hit a target, but I include this to provide perspective on what the rest of the team is seeing.

Great job flagging some proactive outreach opportunities and some cases where the resolution was not obvious. Checked for the resolution reviewed fields.

Audit:

"1. AB■■■■ - Great accept. Donor seems to be a real person (tight IP/billing cluster), but they fail all of their transactions, so they are a good candidate for proactive outreach.

Period covering 9/1/24 - 9/30/24

■■■■ had reviews for all her shifts. Great job!

■■■■ had significantly below the median reviews per shift, in the bottom 25%. I would encourage looking into ways to review more contributions per shift. This can be achieved by doing reviews faster, and should come with time as ■■■■ spends more in the workflow. She had no rejections, which is below the median. We don't want to force rejections, but please keep an eye out for contributions which are illegitimate! You can expect to reject 1 in every 100 reviews.

Great job escalating donations you don't know how to handle. Please select the "Proactive Outreach" type when escalating donations of that kind in the form. Also please remember to check off the resolution reviewed field when I send one!

Audit:

"1. AB■■■■ - Great accept! Very normal looking donor. Tightly clustered IP/billing address, AVS result code Y (which we do not refer to often but is a good legitimizing factor), and we have spoken to them via Zendesk!

Period covering 8/1/24 - 8/31/24

██████ had reviews for all her shifts. Great job!

██████ had much lower than average review rate. She is new in the workflow so she will get faster as she goes. Let me know if any additional training is wanted! She had no rejections, but team-wide rejection rate was low so not much of an outlier.

Great job escalating some donations she was unsure about the resolution for. Please be sure to check off the resolution reviewed checkbox when I send a notification that I have added them, especially as you are just starting out in the workflow!

Audit:

- "1. AB ████████ - Great accept. I think we need to do proactive outreach though because they are a foreign donor (which is allowed) but blending their address with a US one
- 2. AB ████████ - I am good with an accept here. It seems likely that this is a real donor given

Period covering 7/1/24 - 7/31/24

██████ had shifts without reviews in Sift (7/5, 7/13 x2, 7/16, 7/20 x2, 7/26)

██████ had below the average reviews per shift and above the average rejection rate.

██████ flagged some very good escalations. She included some thoughtful evidence when asking how to handle the review. Please be sure to check off the Resolution Reviewed checkbox if I send a resolution notification via email!

Audit:

- "1. AB ████████ - Great accept. Donor had one foreign IP address but everything else looks fairly normal!
- 2. AB ████████ - Great accept. Like above, this donor had a foreign IP address but nothing

Period covering 6/1/24 - 6/30/24

██████ had shifts without reviews in Sift (6/1/, 6/29)

Below the average reviews per shift, which is understandable given that she just started. Above the average rejection rate, but the average rate is so low that small numbers can cause large swings here, so this is also understandable

No escalations in this period. Please keep an eye open for proactive outreach opportunities.

Audit:

- "1. AB ████████ - Great accept. They are a frequent flyer who doesn't have any concerning characteristics

EXHIBIT 41

ActBlue Performance Review of Fraud Prevention
Employee (Oct. 31, 2024)

Period covering 10/1/24 - 10/31/24

No reviews during this period.

Period covering 9/1/24 - 9/30/24

No reviews during this period.

Period covering 8/1/24 - 8/31/24

No reviews during this period.

Period covering 7/1/24 - 7/31/24

████ did not have shifts to generate reviews per shift. He had no rejections.

No escalations in this time period. Please keep an eye out for proactive outreach opportunities!

Audit:

- "1. AB █████ - Great accept. Donor only used their initials, so we would want to do proactive outreach via the escalation log, but they are otherwise completely normal looking
- 2. AB █████ - Great accept. This donor is totally normal looking and I am shocked it got scored at 100

Period covering 6/1/24 - 6/30/24

No reviews during this period.

Period covering 5/15/24 - 5/31/24

No reviews during this period.

Period covering 3/1/24 - 5/14/24

Skipping this review cycle due to being OOO for a significant chunk of it.

Period covering 2/1/24 - 2/29/24

████ did not work in the workflow during this period.

Period covering 1/1/24 - 1/31/24

████ did not work in the workflow during this period.

Period covering 12/1/23 - 12/31/23

████ did not work in the workflow during this period.

Period covering 11/1/23 - 11/30/23

████ did not work in the workflow during this period.

Period covering 10/1/23 - 10/31/23

████ did not work in the workflow during this period.

Period covering 8/1/23 - 9/30/23

████ did not work in the workflow during this period.

Period covering 7/1/23 - 7/31/23

████ did not work in the workflow during this period.

Period covering 6/1/23 - 6/30/23

████ did not work in the workflow during this period.

Period covering 4/1/23 - 5/31/23

████ had no shifts without reviews. Great job!

He did not have much to review, so be cautious drawing any insights from metrics. He had below the average number of reviews per shift and had no rejections.

He had no escalations.

Audit:

1. AB █████ - Agree with this accept. Nothing risky about this donor, but their name matches a word on our bad word list.
2. AB █████ - Agree with this accept. Its not clear why this donor has a score of 100, but

Period covering 2/1/23 - 3/31/23

████ worked both his assigned shifts. Great job!

It is hard to draw conclusions from low volume, but █████'s numbers look good! He had just above the average of reviews/shift and lower than the average of rejections/review.

I agree with rejecting AB █████. It looks so close to being a real donation to a charitable organization that we could accept, but the email, phone, and address are all huge red flags.

Should have rejected AB █████. The name and address are fully fake.

████ had no escalations, which makes sense with the low volume he had to review. Request to all Sifters to investigate more deeply and escalate proactive outreach issues while volume is

Period covering 10/9/22 - 1/31/23

████ did not work in the workflow during this period.

EXHIBIT 42

ActBlue Performance Review of Fraud Prevention
Employee (Oct. 31, 2024)

Period covering 10/1/24 - 10/31/24

No reviews during this period.

Period covering 9/1/24 - 9/30/24

No reviews during this period.

Period covering 8/1/24 - 8/31/24

No reviews during this period.

Period covering 7/1/24 - 7/31/24

██████ did not have shifts to generate reviews per shift. She had much higher than average rejection rate (but it was very low team-wide).

No escalations in this period. Please keep an eye open for proactive outreach opportunities.

Audit:

- "1. AB ██████ - Great accept. Nothing particularly suspicious about this donor
- 2. AB ██████ - Please actually escalate donations made by corporations so I can confirm whether we can accept!

Period covering 6/1/24 - 6/30/24

Had a significantly higher rejection rate than average. Please double check that you are not rejecting contributions which should be accepted (such as proactive outreach opportunities). There were only 5 rejections, so given our low rejection rate, a low number can cause large swings.

No escalations in this period. Please keep an eye open for proactive outreach opportunities.

Audit:

- "1. AB ██████ - Great accept. Very standard donor
- 2. AB ██████ - Great accept. Same as above, not suspicious

Period covering 5/15/24 - 5/31/24

No reviews during this period.

Period covering 3/1/24 - 5/14/24

Skipping this review cycle due to being OOO for a significant chunk of it.

Period covering 2/1/24 - 2/29/24

██████ did not work in the workflow during this period.

Period covering 1/1/24 - 1/31/24

██████ did not work in the workflow during this period.

Period covering 12/1/23 - 12/31/23

██████ did not work in the workflow during this period.

Period covering 11/1/23 - 11/30/23

██████ did not work in the workflow during this period.

Period covering 10/1/23 - 10/31/23

██████ did not work in the workflow during this period.

Period covering 8/1/23 - 9/30/23

██████ did not work in the workflow during this period.

Period covering 7/1/23 - 7/31/23

██████ did not work in the workflow during this period.

Period covering 6/1/23 - 6/30/23

██████ did not work in the workflow during this period.

Period covering 4/1/23 - 5/31/23

██████ did not have any shifts without review. Great job!

She did not have a big volume to review, so be cautious drawing insights from metrics. She had just below the average number of reviews per shift and rejections per review.

Great escalation of AB ██████. Please be sure to check off resolution reviewed (can you confirm whether I sent you an email notification about the review?)

Audit:

1. AB ██████ - Agree with this accept. Nothing about this donation is suspicious!
2. AB ██████ - Agree with this accept. Good candidate to add to the escalation log for

Period covering 2/1/23 - 3/31/23

██████ did not have any missed shifts, great job!

It is hard to draw conclusions from low volume, but ██████'s numbers look good! She had just above the average of reviews/shift and higher than the average of rejections/review.

I am good with the rejection of AB ██████. It has all of the indications of a foreign donation. It is going to a c3, so we could be a bit more lenient, but there are enough red flags, such as a very bad address, that I support a rejection.

██████ had no escalations, which makes sense with the low volume she had to review.

Period covering 10/9/22 - 1/31/23

██████ did not work in the workflow during this period.

EXHIBIT 43

ActBlue Spreadsheet Tracking Internal Tags Applied
to Donations (Dec. 1, 2024)

	Tag Name	Ticket Cour	Tag First Us	Tag Most Recently Used Date
1		2,323,404	5/24/2012	9/7/2024
2		385,496	#####	12/1/2024
3		234,008	6/30/2022	12/1/2024
4		218,328	5/29/2012	9/14/2022
5		213,881	2/20/2024	12/1/2024
6		197,963	8/12/2021	12/1/2024
7		165,438	7/27/2021	12/1/2024
8		148,382	#####	#####
9		138,568	3/23/2023	#####
10		134,724	7/27/2024	12/1/2024
11		133,507	7/27/2024	12/1/2024
12		129,835	11/6/2012	8/26/2021
13		103,659	#####	#####
14		103,249	4/24/2019	12/1/2024
15		101,656	7/26/2021	#####
16		98,657	7/7/2021	12/1/2024
17		95,778	#####	9/7/2024
18		94,722	9/13/2022	12/1/2024
19		91,470	9/13/2022	12/1/2024
20		88,972	#####	8/27/2021
21		88,041	3/23/2023	#####
22		84,614	8/25/2022	12/1/2024
23		84,401	#####	12/1/2024
24		81,697	#####	2/16/2021
25		81,007	#####	#####
26		79,375	1/16/2014	#####
27		73,279	8/28/2021	12/1/2024
28		73,145	2/7/2024	12/1/2024
29		68,113	2/7/2024	12/1/2024
30		67,931	#####	12/1/2024
31		67,483	2/29/2024	12/1/2024
32		65,638	2/28/2024	12/1/2024
33		64,168	12/4/2014	1/19/2021
34		62,506	1/31/2014	8/2/2021
35		60,941	8/22/2022	#####
36		60,299	3/2/2024	12/1/2024
37		58,506	2/23/2024	12/1/2024
38		58,277	11/2/2022	12/1/2024
39		57,996	2/29/2024	12/1/2024
40		57,235	3/1/2024	12/1/2024
41		57,183	3/5/2024	12/1/2024
42		57,024	3/5/2024	12/1/2024
43		55,047	8/26/2021	9/20/2024

44		55,012	6/18/2021	12/1/2024
45		54,362	5/23/2023	12/1/2024
46		54,306	6/18/2021	12/1/2024
47		53,085	8/26/2021	12/1/2024
48		52,968	8/26/2021	12/1/2024
49		52,850	#####	12/1/2024
50		52,542	8/26/2021	12/1/2024
51		52,196	9/16/2024	12/1/2024
52		52,194	#####	12/1/2024
53		52,172	9/16/2024	12/1/2024
54		50,657	2/20/2024	#####
55		45,725	8/22/2022	#####
56		44,556	#####	11/1/2019
57		43,848	2/14/2013	#####
58		42,699	2/7/2024	12/1/2024
59		42,159	#####	12/1/2024
60		41,351	6/23/2021	12/1/2024
61		41,082	6/23/2021	12/1/2024
62		40,147	6/20/2024	12/1/2024
63		39,068	8/27/2021	12/1/2024
64		38,465	5/1/2015	8/26/2021
65		37,502	#####	12/1/2024
66		36,674	5/24/2012	#####
67		34,567	#####	12/1/2024
68		34,367	7/7/2021	12/1/2024
69		34,292	6/30/2022	12/1/2024
70		34,112	8/30/2021	8/30/2024
71		33,883	7/5/2023	12/1/2024
72		33,678	8/12/2021	#####
73		33,585	#####	12/1/2024
74		33,064	9/16/2022	12/1/2024
75		32,762	11/2/2017	8/27/2021
76		32,580	12/1/2012	9/7/2021
77		32,426	3/14/2018	#####
78		31,659	5/25/2012	4/7/2021
79		31,180	2/7/2024	12/1/2024
80		30,751	1/11/2016	8/13/2021
81		29,460	1/29/2018	9/7/2024
82		29,060	#####	12/1/2024
83		29,051	7/21/2021	12/1/2024
84		28,900	2/29/2024	12/1/2024
85		28,509	#####	8/1/2022
86		27,240	1/30/2013	12/4/2016
87		27,214	9/19/2022	#####

88	27,130	7/27/2021	#####
89	27,109	#####	12/1/2024
90	26,619	9/28/2013	8/26/2021
91	26,345	9/30/2021	#####
92	26,051	9/25/2014	#####
93	25,610	8/6/2021	#####
94	25,271	8/26/2021	12/1/2024
95	25,196	#####	12/1/2024
96	25,190	8/26/2021	#####
97	24,830	9/27/2023	#####
98	24,534	7/27/2021	#####
99	23,986	3/26/2013	1/21/2022
100	23,976	2/7/2024	12/1/2024
101	23,715	#####	12/1/2024
102	23,584	3/10/2017	#####
103	23,379	3/22/2024	12/1/2024
104	23,358	#####	12/1/2024
105	23,142	8/26/2021	12/1/2024
106	23,050	#####	#####
107	22,785	7/5/2023	12/1/2024
108	22,632	1/11/2023	12/1/2024
109	22,094	#####	9/8/2021
110	21,759	6/28/2024	12/1/2024
111	21,744	8/3/2021	#####
112	21,717	8/27/2021	#####
113	21,646	#####	12/1/2024
114	21,231	3/1/2017	8/26/2021
115	21,086	9/14/2013	7/29/2021
116	21,045	7/3/2014	8/13/2021
117	20,836	9/28/2013	8/19/2021
118	20,834	9/28/2013	8/19/2021
119	20,815	8/9/2017	12/1/2024
120	20,697	6/13/2013	8/26/2021
121	20,640	8/9/2017	#####
122	20,321	#####	8/13/2021
123	20,236	8/16/2014	5/9/2018
124	19,834	2/2/2018	#####
125	19,732	6/28/2024	12/1/2024
126	19,576	#####	6/4/2021
127	19,447	2/20/2024	#####
128	19,327	8/27/2015	7/31/2021
129	19,103	#####	#####
130	19,058	#####	8/26/2021
131	19,017	#####	12/1/2024

132		18,970	1/5/2015	8/26/2021
133		18,838	5/24/2012	8/26/2021
134		18,801	8/25/2012	8/9/2021
135		18,513	8/25/2022	12/1/2024
136		18,370	#####	12/1/2024
137		18,167	5/23/2014	9/29/2021
138		17,976	5/24/2012	4/6/2021
139		17,623	1/31/2015	12/7/2019
140		17,431	#####	12/1/2024
141		17,397	4/19/2018	8/26/2021
142		17,352	8/25/2022	12/1/2024
143		17,147	#####	9/7/2021
144		16,950	#####	10/5/2020
145		16,915	#####	8/19/2024
146		16,781	8/12/2020	7/23/2021
147		16,396	6/19/2017	8/26/2021
148		16,239	5/25/2012	8/26/2021
149		15,903	9/26/2022	12/1/2024
150		15,523	#####	8/19/2021
151		15,522	#####	#####
152		15,417	#####	12/1/2024
153		15,218	10/8/2021	#####
154		15,213	8/16/2017	#####
155		15,047	6/1/2022	12/1/2024
156		14,972	5/25/2012	8/13/2021
157		14,914	4/9/2020	8/26/2021
158		14,837	7/14/2021	12/1/2024
159		14,553	9/2/2014	8/16/2016
160		14,520	2/20/2018	9/24/2024
161		14,470	#####	12/1/2024
162		14,435	2/1/2017	8/26/2021
163		14,388	6/30/2022	12/1/2024
164		14,381	#####	9/6/2021
165		14,090	6/14/2024	12/1/2024
166		14,058	7/27/2021	12/1/2024
167		14,015	6/28/2024	12/1/2024
168		13,807	4/24/2015	8/26/2021
169		13,601	5/12/2023	12/1/2024
170		13,587	#####	12/1/2024
171		13,496	9/18/2012	12/1/2024
172		13,175	3/8/2018	12/1/2024
173		13,133	3/3/2020	8/27/2021
174		12,912	4/30/2018	8/26/2021
175		12,861	9/6/2024	12/1/2024

176		12,800	#####	#####
177		12,660	10/7/2014	1/18/2019
178		12,440	8/27/2021	#####
179		12,417	#####	#####
180		12,084	#####	8/13/2021
181		12,062	5/12/2023	12/1/2024
182		11,975	#####	8/26/2021
183		11,966	#####	12/1/2024
184		11,831	5/12/2023	12/1/2024
185		11,693	3/3/2020	8/26/2021
186		11,665	8/12/2021	12/1/2024
187		11,459	5/12/2023	12/1/2024
188		11,380	8/25/2020	8/26/2021
189		11,274	5/15/2014	1/7/2021
190		11,097	5/3/2024	12/1/2024
191		11,097	5/3/2024	12/1/2024
192		11,026	#####	12/1/2024
193		10,957	#####	12/1/2024
194		10,942	7/29/2022	8/19/2024
195		10,930	#####	8/21/2015
196		10,821	5/19/2013	7/6/2017
197		10,597	5/27/2019	5/19/2021
198		10,386	8/20/2024	12/1/2024
199		10,187	9/7/2015	#####
200		10,046	#####	12/1/2024
201		10,018	10/9/2021	12/1/2024
202		10,006	#####	12/1/2024
203		9,852	3/9/2018	1/3/2022
204		9,755	#####	8/26/2024
205		9,614	8/27/2021	#####
206		9,495	2/27/2014	7/27/2021
207		9,430	6/28/2019	8/26/2021
208		9,331	9/16/2024	#####
209		9,318	6/28/2024	12/1/2024
210		9,224	2/28/2024	12/1/2024
211		9,208	3/2/2018	9/20/2021
212		9,189	9/18/2020	8/26/2021
213		9,139	2/2/2018	8/11/2021
214		9,076	#####	#####
215		9,062	#####	10/6/2021
216		8,948	#####	5/26/2017
217		8,855	#####	12/1/2024
218		8,772	7/6/2023	#####
219		8,694	#####	12/1/2024

220		8,442	8/26/2021	#####
221		8,308	5/2/2024	12/1/2024
222		8,223	8/27/2021	11/2/2024
223		8,138	8/19/2020	8/26/2021
224		8,105	8/27/2021	#####
225		7,998	#####	#####
226		7,903	8/22/2022	#####
227		7,895	6/4/2020	8/11/2021
228		7,888	12/6/2018	2/18/2020
229		7,825	#####	8/12/2021
230		7,805	#####	#####
231		7,657	8/31/2021	#####
232		7,470	7/29/2019	8/26/2021
233		7,461	#####	12/1/2024
234		7,338	10/3/2022	#####
235		7,336	7/26/2013	1/4/2015
236		7,307	6/25/2024	12/1/2024
237		7,304	2/11/2016	8/26/2021
238		7,232	7/5/2023	#####
239		7,199	#####	#####
240		7,163	2/4/2024	12/1/2024
241		7,136	7/5/2023	#####
242		7,000	8/22/2022	5/10/2024
243		6,934	1/12/2024	12/1/2024
244		6,894	8/27/2021	8/3/2024
245		6,823	3/6/2014	8/5/2021
246		6,797	2/24/2022	12/1/2024
247		6,714	2/1/2019	8/25/2021
248		6,666	#####	12/1/2024
249		6,626	2/18/2020	8/28/2021
250		6,556	2/29/2024	#####
251		6,535	9/7/2021	#####
252		6,494	7/26/2021	9/24/2022
253		6,433	9/12/2022	12/1/2024
254		6,388	#####	12/1/2024
255		6,368	5/31/2012	#####
256		6,326	10/8/2014	6/8/2018
257		6,262	6/18/2024	12/1/2024
258		6,256	2/14/2024	12/1/2024
259		6,248	6/28/2024	12/1/2024
260		6,242	5/16/2024	12/1/2024
261		6,229	#####	#####
262		6,216	3/22/2023	4/18/2024
263		6,202	#####	#####

264		6,141	6/11/2021	6/12/2024
265		6,123	10/7/2021	#####
266		6,118	8/31/2021	#####
267		6,109	8/27/2021	12/1/2024
268		6,080	4/23/2024	#####
269		6,067	#####	12/1/2024
270		6,046	6/13/2012	9/7/2017
271		5,929	#####	12/1/2024
272		5,881	8/27/2021	4/17/2024
273		5,814	9/26/2022	#####
274		5,779	3/11/2018	#####
275		5,779	10/4/2021	#####
276		5,773	6/23/2018	8/26/2021
277		5,773	6/23/2018	8/26/2021
278		5,737	1/17/2018	#####
279		5,703	6/28/2024	12/1/2024
280		5,651	#####	12/1/2024
281		5,525	6/24/2014	6/4/2021
282		5,501	3/29/2020	8/26/2021
283		5,488	7/29/2022	4/24/2024
284		5,441	#####	#####
285		5,422	8/27/2021	#####
286		5,334	3/29/2016	5/9/2019
287		5,318	4/30/2013	2/24/2017
288		5,296	1/6/2024	12/1/2024
289		5,283	5/23/2023	12/1/2024
290		5,275	#####	#####
291		5,241	7/8/2020	3/24/2021
292		5,217	#####	12/1/2024
293		5,201	#####	#####
294		5,153	6/30/2014	8/14/2015
295		5,113	#####	12/1/2024
296		5,110	11/2/2022	#####
297		5,073	8/27/2012	#####
298		5,054	3/23/2024	12/1/2024
299		5,018	6/25/2024	12/1/2024
300		5,012	#####	#####
301		5,010	3/1/2018	#####
302		4,982	6/29/2024	12/1/2024
303		4,972	3/7/2018	#####
304		4,971	2/26/2020	9/27/2021
305		4,948	#####	12/1/2024
306		4,945	8/26/2021	10/8/2024
307		4,840	8/26/2021	12/1/2024

308		4,821	2/2/2024	#####
309		4,796	#####	#####
310		4,772	8/27/2021	8/2/2024
311		4,772	2/1/2024	#####
312		4,760	3/25/2019	8/13/2021
313		4,726	8/27/2021	12/1/2024
314		4,691	1/15/2018	8/1/2022
315		4,663	3/11/2018	#####
316		4,646	9/20/2014	4/25/2019
317		4,612	9/12/2022	12/1/2024
318		4,577	#####	12/1/2024
319		4,547	1/21/2020	#####
320		4,542	1/25/2017	8/26/2021
321		4,525	11/4/2021	#####
322		4,509	#####	12/1/2024
323		4,455	9/29/2020	8/26/2021
324		4,417	12/1/2015	8/26/2016
325		4,410	#####	2/11/2021
326		4,361	8/27/2021	#####
327		4,312	5/25/2012	7/29/2021
328		4,305	1/4/2019	#####
329		4,283	9/19/2016	4/27/2017
330		4,278	9/18/2024	#####
331		4,195	5/11/2022	11/3/2023
332		4,175	7/22/2013	1/30/2015
333		4,156	7/18/2012	1/10/2018
334		4,136	2/3/2020	6/18/2020
335		4,121	#####	12/1/2024
336		4,118	2/9/2022	#####
337		4,048	6/17/2019	8/26/2021
338		4,034	#####	#####
339		3,960	9/9/2019	8/26/2021
340		3,957	9/3/2021	#####
341		3,940	8/27/2021	#####
342		3,936	3/14/2018	12/1/2024
343		3,921	2/16/2023	#####
344		3,918	8/27/2021	#####
345		3,914	#####	#####
346		3,850	8/27/2021	6/12/2024
347		3,836	8/6/2024	12/1/2024
348		3,797	7/11/2023	#####
349		3,785	6/15/2021	#####
350		3,736	8/31/2022	2/4/2024
351		3,734	#####	#####

352		3,731	5/20/2019	8/19/2019
353		3,662	9/1/2015	4/1/2016
354		3,629	7/5/2023	#####
355		3,571	2/20/2024	#####
356		3,534	3/5/2018	12/1/2024
357		3,527	8/27/2021	#####
358		3,527	9/13/2014	8/10/2017
359		3,524	11/8/2021	#####
360		3,512	8/31/2021	10/8/2024
361		3,502	8/4/2020	#####
362		3,501	3/11/2018	#####
363		3,498	9/7/2015	2/24/2016
364		3,491	#####	#####
365		3,474	9/30/2021	#####
366		3,450	8/28/2021	1/10/2023
367		3,438	1/11/2020	8/26/2021
368		3,433	#####	5/13/2016
369		3,429	8/27/2021	11/9/2022
370		3,425	#####	12/1/2024
371		3,412	12/3/2021	5/17/2023
372		3,407	3/12/2018	9/27/2021
373		3,357	8/27/2021	#####
374		3,341	6/28/2015	3/31/2017
375		3,308	1/11/2024	#####
376		3,299	8/22/2022	#####
377		3,279	9/27/2018	4/26/2019
378		3,276	#####	#####
379		3,264	8/27/2021	#####
380		3,224	1/28/2019	9/16/2020
381		3,189	8/29/2017	5/25/2018
382		3,165	9/12/2022	#####
383		3,143	5/29/2018	5/17/2019
384		3,120	9/7/2015	12/1/2015
385		3,117	9/12/2022	12/1/2024
386		3,109	8/27/2021	#####
387		3,102	10/4/2021	#####
388		3,093	#####	#####
389		3,091	8/27/2021	#####
390		3,089	#####	#####
391		3,088	2/27/2024	#####
392		3,084	5/3/2022	6/18/2024
393		3,079	4/23/2016	5/9/2019
394		3,044	#####	1/6/2024
395		3,034	8/9/2017	9/21/2021

396		3,023	#####	#####
397		3,004	7/5/2023	#####
398		3,004	6/16/2020	8/26/2021
399		2,996	8/27/2021	#####
400		2,982	9/19/2022	#####
401		2,922	1/20/2023	12/1/2024
402		2,921	6/29/2024	12/1/2024
403		2,919	8/22/2022	1/25/2024
404		2,899	#####	8/13/2021
405		2,866	#####	#####
406		2,864	9/8/2024	#####
407		2,850	9/12/2022	12/1/2024
408		2,847	#####	#####
409		2,813	1/11/2024	#####
410		2,809	4/5/2024	#####
411		2,805	7/29/2022	#####
412		2,799	3/22/2016	8/26/2021
413		2,785	6/22/2018	8/10/2020
414		2,785	1/30/2014	#####
415		2,761	5/22/2019	#####
416		2,748	#####	#####
417		2,746	#####	3/25/2021
418		2,727	2/26/2018	#####
419		2,724	4/19/2022	#####
420		2,716	9/12/2022	#####
421		2,694	9/12/2022	12/1/2024
422		2,676	8/11/2014	12/9/2014
423		2,675	#####	8/14/2015
424		2,656	6/4/2019	8/2/2019
425		2,656	9/13/2022	#####
426		2,633	8/25/2020	8/26/2021
427		2,627	8/22/2022	7/26/2024
428		2,626	8/27/2021	1/10/2024
429		2,618	#####	#####
430		2,613	#####	#####
431		2,612	9/20/2012	3/31/2013
432		2,595	9/7/2019	1/13/2020
433		2,592	8/25/2022	#####
434		2,583	3/12/2018	#####
435		2,577	3/25/2024	#####
436		2,545	9/6/2024	12/1/2024
437		2,544	9/12/2022	#####
438		2,544	1/11/2019	9/4/2024
439		2,543	#####	3/9/2020

440		2,512	#####	12/1/2024
441		2,483	7/9/2020	#####
442		2,478	#####	8/12/2021
443		2,476	9/26/2018	#####
444		2,468	10/7/2020	8/27/2021
445		2,467	11/2/2017	8/26/2021
446		2,413	4/19/2022	5/24/2024
447		2,413	8/31/2022	8/19/2024
448		2,411	8/27/2021	#####
449		2,406	#####	#####
450		2,405	6/7/2020	5/7/2021
451		2,403	7/29/2024	#####
452		2,399	7/26/2021	#####
453		2,393	3/15/2018	#####
454		2,393	#####	#####
455		2,385	9/15/2021	#####
456		2,364	9/12/2022	12/1/2024
457		2,364	3/27/2018	#####
458		2,353	#####	#####
459		2,348	6/25/2016	5/6/2021
460		2,325	7/10/2020	3/22/2021
461		2,317	8/27/2021	12/1/2024
462		2,315	8/27/2021	#####
463		2,310	5/26/2017	3/9/2018
464		2,307	#####	1/19/2020
465		2,301	8/27/2021	#####
466		2,295	1/30/2018	#####
467		2,283	6/16/2017	3/25/2022
468		2,276	9/12/2022	12/1/2024
469		2,269	7/23/2024	#####
470		2,269	9/30/2018	1/8/2020
471		2,268	6/25/2020	8/1/2022
472		2,257	#####	#####
473		2,251	#####	8/26/2024
474		2,239	5/29/2018	7/31/2018
475		2,237	7/20/2017	#####
476		2,236	8/6/2024	12/1/2024
477		2,232	2/1/2023	#####
478		2,230	12/4/2014	1/19/2021
479		2,226	6/28/2013	12/9/2016
480		2,219	8/27/2021	11/4/2024
481		2,208	#####	#####
482		2,201	#####	#####
483		2,195	12/7/2018	#####

484	2,190	7/29/2024	#####
485	2,188	#####	#####
486	2,177	5/24/2012	1/29/2020
487	2,166	#####	#####
488	2,158	8/27/2021	#####
489	2,153	#####	#####
490	2,135	1/24/2019	5/10/2021
491	2,127	6/13/2014	#####
492	2,125	#####	#####
493	2,107	8/27/2021	#####
494	2,105	5/16/2014	8/15/2014
495	2,096	8/25/2022	#####
496	2,090	8/16/2023	#####
497	2,087	6/5/2018	#####
498	2,075	10/3/2022	#####
499	2,064	9/13/2022	3/27/2024
500	2,057	11/4/2023	12/1/2024
501	2,054	5/17/2013	#####
502	2,052	9/12/2022	12/1/2024
503	2,037	9/20/2016	#####
504	2,029	#####	#####
505	2,026	#####	#####
506	2,023	3/12/2018	#####
507	2,007	12/4/2021	#####
508	2,001	#####	12/1/2024
509	2,000	#####	#####
510	1,991	11/2/2017	7/8/2021
511	1,987	3/5/2018	#####
512	1,980	#####	#####
513	1,979	8/12/2021	#####
514	1,976	6/9/2015	8/14/2015
515	1,965	1/20/2023	#####
516	1,946	9/14/2017	8/21/2020
517	1,913	2/27/2024	#####
518	1,910	8/24/2022	#####
519	1,892	6/28/2024	12/1/2024
520	1,888	#####	12/1/2024
521	1,888	#####	#####
522	1,886	6/29/2024	12/1/2024
523	1,886	9/26/2020	8/26/2021
524	1,884	#####	#####
525	1,884	8/6/2021	12/1/2022
526	1,876	7/27/2023	#####
527	1,875	2/4/2016	8/12/2021

528		1,874	11/4/2023	12/1/2024
529		1,872	#####	#####
530		1,868	4/11/2024	#####
531		1,855	#####	1/19/2024
532		1,853	7/27/2018	3/25/2020
533		1,845	9/12/2022	#####
534		1,844	10/8/2021	1/19/2024
535		1,841	10/6/2023	#####
536		1,836	10/8/2021	#####
537		1,823	8/14/2024	#####
538		1,805	#####	#####
539		1,804	7/24/2024	#####
540		1,786	9/27/2018	4/24/2019
541		1,784	#####	#####
542		1,778	#####	#####
543		1,775	#####	#####
544		1,773	#####	#####
545		1,767	8/27/2021	2/26/2024
546		1,767	8/29/2021	12/1/2024
547		1,747	8/23/2022	#####
548		1,723	2/29/2024	#####
549		1,711	5/27/2016	#####
550		1,707	6/23/2016	8/25/2021
551		1,701	9/30/2021	#####
552		1,700	2/6/2024	#####
553		1,682	9/13/2022	12/1/2024
554		1,680	6/1/2012	5/1/2014
555		1,654	5/7/2024	12/1/2024
556		1,652	#####	#####
557		1,638	5/25/2012	6/12/2020
558		1,628	9/12/2022	#####
559		1,613	9/13/2022	#####
560		1,601	9/15/2016	12/2/2016
561		1,598	8/27/2021	6/11/2024
562		1,575	7/30/2022	3/2/2024
563		1,573	6/29/2024	12/1/2024
564		1,569	1/29/2019	5/22/2019
565		1,562	7/24/2024	12/1/2024
566		1,557	9/5/2024	#####
567		1,549	3/2/2018	#####
568		1,539	9/12/2022	#####
569		1,534	1/5/2024	12/1/2024
570		1,530	2/26/2018	#####
571		1,525	9/12/2022	12/1/2024

572		1,518	3/2/2020	3/19/2021
573		1,516	#####	#####
574		1,506	#####	8/14/2021
575		1,500	4/12/2024	#####
576		1,493	9/19/2022	#####
577		1,481	9/16/2022	#####
578		1,480	#####	8/11/2021
579		1,476	9/1/2014	#####
580		1,472	#####	#####
581		1,468	8/29/2021	#####
582		1,467	8/22/2022	11/4/2024
583		1,458	8/27/2021	#####
584		1,457	6/11/2020	11/4/2021
585		1,455	4/15/2024	#####
586		1,450	11/8/2021	#####
587		1,449	6/27/2017	8/24/2020
588		1,441	9/12/2022	#####
589		1,429	6/5/2024	#####
590		1,427	4/12/2024	#####
591		1,424	#####	#####
592		1,420	#####	#####
593		1,417	9/6/2024	#####
594		1,411	8/28/2021	#####
595		1,410	1/16/2019	8/26/2021
596		1,404	6/1/2017	9/30/2017
597		1,401	#####	#####
598		1,400	8/1/2024	10/6/2024
599		1,387	9/12/2022	#####
600		1,385	3/9/2018	#####
601		1,378	1/7/2019	#####
602		1,373	#####	#####
603		1,365	8/23/2022	6/30/2024
604		1,359	#####	#####
605		1,348	9/22/2016	6/14/2017
606		1,339	#####	#####
607		1,339	7/31/2022	5/1/2024
608		1,328	#####	#####
609		1,328	#####	#####
610		1,322	8/27/2021	12/1/2024
611		1,312	5/16/2016	#####
612		1,308	2/29/2024	12/1/2024
613		1,304	#####	#####
614		1,303	5/29/2023	12/1/2024
615		1,299	9/18/2020	#####

616		1,298	8/25/2022	#####
617		1,296	8/26/2021	#####
618		1,294	1/26/2018	6/1/2018
619		1,290	2/2/2024	#####
620		1,290	3/28/2024	9/15/2024
621		1,289	1/24/2020	5/20/2020
622		1,268	#####	#####
623		1,262	8/27/2021	#####
624		1,250	8/25/2022	#####
625		1,244	3/13/2018	#####
626		1,243	8/28/2021	#####
627		1,240	9/8/2021	#####
628		1,236	#####	#####
629		1,235	8/19/2021	12/1/2024
630		1,233	#####	#####
631		1,228	9/23/2021	3/11/2022
632		1,222	8/11/2020	8/13/2021
633		1,216	9/5/2024	#####
634		1,214	#####	#####
635		1,210	9/28/2018	#####
636		1,207	6/27/2018	5/3/2024
637		1,203	8/21/2020	8/5/2021
638		1,197	8/24/2022	3/12/2024
639		1,197	6/4/2019	8/12/2019
640		1,189	3/10/2018	#####
641		1,184	8/31/2021	9/23/2024
642		1,184	5/24/2016	8/23/2016
643		1,183	9/27/2022	#####
644		1,181	8/28/2021	2/9/2022
645		1,179	1/22/2023	12/1/2024
646		1,175	8/27/2021	#####
647		1,174	9/28/2018	5/1/2019
648		1,170	#####	#####
649		1,164	2/20/2024	#####
650		1,163	3/18/2020	6/13/2020
651		1,143	8/19/2021	#####
652		1,138	#####	#####
653		1,136	#####	#####
654		1,130	#####	#####
655		1,125	9/12/2022	12/1/2024
656		1,125	#####	#####
657		1,121	#####	#####
658		1,119	5/7/2024	#####
659		1,118	#####	#####

660		1,115	#####	#####
661		1,114	#####	#####
662		1,112	8/21/2020	7/12/2021
663		1,111	2/3/2017	5/1/2017
664		1,102	1/14/2022	#####
665		1,102	8/27/2021	#####
666		1,101	9/23/2013	8/12/2016
667		1,099	1/31/2018	#####
668		1,082	2/6/2024	#####
669		1,080	#####	#####
670		1,077	9/12/2022	12/1/2024
671		1,075	3/10/2018	#####
672		1,070	#####	#####
673		1,055	#####	#####
674		1,049	6/2/2012	#####
675		1,049	10/9/2020	8/26/2021
676		1,048	8/27/2021	#####
677		1,046	4/24/2024	8/26/2024
678		1,037	#####	2/4/2020
679		1,034	2/7/2018	#####
680		1,033	3/9/2018	#####
681		1,029	4/15/2020	8/28/2021
682		1,027	#####	12/1/2024
683		1,017	9/5/2024	#####
684		1,015	1/30/2018	5/8/2018
685		1,014	9/5/2024	#####
686		1,006	#####	#####
687		1,003	3/4/2024	#####
688		1,003	8/31/2022	1/13/2024
689		1,003	12/3/2021	#####
690		994	10/4/2021	#####
691		990	9/27/2018	#####
692		987	#####	7/18/2019
693		984	8/27/2021	5/3/2023
694		980	#####	#####
695		979	9/20/2019	8/7/2020
696		978	#####	#####
697		975	9/14/2012	#####
698		972	#####	#####
699		971	4/17/2021	7/19/2021
700		967	8/10/2016	#####
701		964	3/12/2013	1/15/2020
702		957	2/5/2023	#####
703		956	1/15/2018	#####

704		954	#####	12/1/2024
705		952	9/5/2024	#####
706		949	#####	12/1/2024
707		944	6/29/2024	12/1/2024
708		940	1/11/2024	#####
709		923	2/23/2024	12/1/2024
710		923	7/22/2021	#####
711		923	8/27/2021	#####
712		921	1/17/2019	8/26/2021
713		918	9/6/2024	11/1/2024
714		909	#####	#####
715		905	2/5/2020	5/20/2020
716		894	3/7/2018	#####
717		892	5/14/2024	#####
718		892	4/27/2016	7/13/2018
719		888	1/19/2024	#####
720		888	1/15/2020	#####
721		887	3/6/2020	8/6/2021
722		886	8/27/2020	#####
723		880	8/28/2021	#####
724		875	#####	#####
725		872	2/27/2018	7/31/2018
726		872	#####	12/1/2024
727		871	2/19/2024	9/5/2024
728		870	9/6/2024	11/5/2024
729		864	6/2/2017	8/13/2021
730		862	#####	#####
731		862	8/27/2021	#####
732		859	8/27/2021	#####
733		858	7/12/2014	5/2/2018
734		858	4/6/2024	8/23/2024
735		855	#####	12/1/2024
736		851	#####	12/1/2024
737		842	8/27/2021	#####
738		834	9/24/2019	5/27/2020
739		829	4/19/2024	#####
740		820	9/12/2022	12/1/2024
741		818	9/5/2020	#####
742		810	3/1/2017	12/7/2018
743		809	#####	#####
744		809	3/9/2018	#####
745		807	9/29/2022	8/26/2024
746		804	12/9/2021	#####
747		803	1/10/2019	#####

748	799 9/12/2022 #####
749	798 #####
750	797 9/12/2022 #####
751	790 ##### 3/3/2020
752	788 12/2/2023 #####
753	787 #####
754	780 6/16/2021 #####
755	779 9/5/2024 11/8/2024
756	778 #####
757	777 1/20/2021 8/13/2021
758	766 9/3/2021 #####
759	764 #####
760	762 ##### 6/29/2016
761	761 11/6/2023 #####
762	758 7/6/2021 8/26/2021
763	752 7/28/2017 6/27/2021
764	751 #####
765	750 #####
766	749 1/11/2024 #####
767	746 9/26/2022 #####
768	740 #####
769	737 5/17/2024 12/1/2024
770	736 7/26/2024 #####
771	734 12/2/2021 #####
772	734 #####
773	729 4/13/2022 #####
774	726 4/30/2024 12/1/2024
775	723 9/10/2021 #####
776	719 12/2/2021 5/11/2023
777	717 #####
778	714 1/20/2024 #####
779	713 9/13/2022 #####
780	713 2/1/2019 5/10/2019
781	713 9/29/2023 #####
782	710 8/26/2019 #####
783	696 3/8/2024 8/26/2024
784	695 #####
785	694 9/12/2022 #####
786	694 10/4/2023 #####
787	693 9/6/2024 11/8/2024
788	692 9/16/2024 #####
789	691 1/14/2022 7/5/2023
790	689 8/26/2024 #####
791	688 8/25/2022 #####

792		687	4/25/2021	9/8/2021
793		686	10/3/2013	#####
794		682	#####	#####
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796		676	9/19/2017	1/4/2018
797		674	9/19/2022	#####
798		670	#####	#####
799		668	#####	#####
800		668	10/4/2023	#####
801		667	6/30/2017	3/8/2018
802		665	8/31/2021	12/1/2024
803		653	9/10/2020	#####
804		652	8/13/2020	2/4/2021
805		649	8/27/2021	#####
806		649	6/8/2020	7/30/2020
807		645	6/7/2023	5/19/2024
808		645	9/19/2022	#####
809		642	9/12/2022	12/1/2024
810		641	7/5/2023	#####
811		641	8/25/2022	8/28/2024
812		637	#####	#####
813		631	#####	12/1/2024
814		630	9/7/2013	#####
815		627	6/30/2022	#####
816		627	9/3/2021	#####
817		624	#####	#####
818		621	6/28/2024	12/1/2024
819		619	3/1/2024	#####
820		619	9/5/2024	#####
821		618	1/13/2023	#####
822		615	#####	#####
823		614	#####	#####
824		611	1/21/2015	8/25/2020
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827		608	2/21/2024	#####
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829		607	8/27/2021	#####
830		606	8/27/2021	#####
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832		603	9/13/2019	4/15/2020
833		602	2/5/2024	5/16/2024
834		599	#####	#####
835		598	#####	#####

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837		591	#####	#####
838		588	#####	#####
839		587	9/14/2022	#####
840		587	5/7/2024	8/27/2024
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842		586	#####	8/22/2024
843		585	2/7/2019	#####
844		581	5/9/2024	8/21/2024
845		579	9/21/2024	12/1/2024
846		574	#####	#####
847		573	9/12/2022	#####
848		572	#####	#####
849		571	#####	#####
850		566	8/27/2021	#####
851		565	9/21/2020	#####
852		565	1/17/2024	#####
853		562	11/9/2019	9/7/2021
854		559	#####	#####
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856		556	1/13/2020	1/18/2020
857		554	#####	8/11/2021
858		549	#####	12/1/2024
859		549	11/6/2024	#####
860		548	#####	#####
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862		543	#####	#####
863		541	6/4/2024	#####
864		538	1/9/2019	8/17/2021
865		536	8/1/2017	4/2/2019
866		536	2/27/2024	#####
867		533	7/24/2024	#####
868		533	#####	#####
869		532	1/9/2019	#####
870		532	9/14/2021	#####
871		531	#####	#####
872		529	10/4/2022	#####
873		528	#####	#####
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875		520	12/4/2017	1/23/2020
876		520	9/17/2021	#####
877		519	#####	#####
878		516	8/31/2021	#####
879		508	#####	#####

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882	506	12/4/2021	1/13/2023
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884	503	#####	#####
885	500	1/21/2020	8/11/2021
886	499	4/18/2018	7/30/2021
887	499	5/25/2012	9/28/2020
888	499	1/20/2023	#####
889	495	8/28/2021	#####
890	493	9/2/2021	#####
891	493	7/21/2021	#####
892	493	9/26/2019	9/26/2019
893	491	8/31/2021	#####
894	491	1/3/2020	#####
895	490	4/16/2024	#####
896	490	8/11/2024	#####
897	489	#####	#####
898	483	9/2/2021	8/26/2024
899	483	#####	#####
900	482	8/26/2022	#####
901	480	12/1/2023	#####
902	478	9/18/2024	#####
903	476	#####	#####
904	474	8/2/2024	#####
905	474	#####	#####
906	473	8/31/2021	11/1/2024
907	471	8/15/2019	8/11/2021
908	468	#####	#####
909	466	11/6/2023	#####
910	465	#####	#####
911	464	4/28/2016	7/1/2017
912	462	#####	7/10/2024
913	462	#####	12/1/2024
914	462	9/8/2019	2/19/2021
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916	461	6/30/2024	#####
917	459	#####	#####
918	458	9/19/2020	1/5/2021
919	458	#####	#####
920	457	#####	#####
921	457	8/31/2021	#####
922	457	1/21/2020	#####
923	454	1/14/2019	8/12/2021

924	454	4/24/2018	7/14/2021
925	449	8/28/2021	#####
926	448	9/13/2022	#####
927	447	4/26/2024	#####
928	447	9/12/2022	12/1/2024
929	446	9/21/2020	#####
930	446	9/28/2018	6/17/2021
931	445	7/24/2024	11/7/2024
932	445	3/4/2016	4/3/2019
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934	441	11/4/2023	#####
935	439	8/6/2019	8/25/2021
936	439	#####	10/5/2024
937	437	7/31/2022	#####
938	436	3/10/2018	#####
939	435	9/3/2020	8/9/2021
940	431	#####	#####
941	427	9/7/2022	#####
942	426	#####	8/26/2021
943	426	5/3/2017	7/30/2021
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945	426	5/3/2017	7/30/2021
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947	425	1/10/2019	#####
948	423	12/3/2021	1/13/2024
949	422	1/11/2024	12/1/2024
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952	418	12/9/2023	9/9/2024
953	417	#####	5/8/2021
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955	413	3/1/2020	2/15/2021
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957	412	6/30/2024	12/1/2024
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959	410	9/12/2022	#####
960	409	#####	#####
961	409	#####	#####
962	407	11/6/2023	#####
963	407	#####	#####
964	406	#####	#####
965	406	7/22/2019	8/16/2021
966	403	8/12/2021	#####
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969	400	9/2/2021	#####
970	400	11/8/2021	#####
971	399	9/1/2022	#####
972	398	#####	#####
973	396	#####	#####
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976	393	#####	#####
977	391	1/24/2023	9/28/2024
978	389	9/27/2024	11/7/2024
979	388	1/15/2020	#####
980	388	9/19/2024	11/8/2024
981	386	11/4/2023	#####
982	386	8/2/2024	#####
983	386	#####	#####
984	385	7/14/2022	#####
985	385	9/4/2021	#####
986	384	3/14/2022	#####
987	382	8/27/2019	7/2/2021
988	382	9/3/2020	8/9/2021
989	381	1/30/2024	#####
990	380	2/25/2018	11/4/2024
991	380	9/12/2022	#####
992	380	7/8/2019	8/26/2021
993	378	#####	12/1/2024
994	378	9/20/2021	#####
995	378	3/12/2018	#####
996	378	9/13/2022	#####
997	377	#####	#####
998	375	#####	11/7/2024
999	375	11/7/2024	12/1/2024
1000	374	7/22/2019	8/11/2021
1001	374	7/22/2019	8/11/2021
1002	374	9/9/2021	#####
1003	372	#####	11/5/2024
1004	371	5/31/2024	#####
1005	371	1/19/2023	#####
1006	369	11/9/2021	#####
1007	368	3/3/2022	#####
1008	367	#####	#####
1009	366	#####	12/1/2024
1010	362	#####	#####
1011	362	4/9/2019	8/12/2021

1012		361 #####
1013		361 #####
1014		360 #####
1015		360 #####
1016		358 6/6/2024 #####
1017		358 1/22/2020 8/11/2021
1018		358 1/11/2019 11/3/2024
1019		357 #####
1020		357 4/26/2024 #####
1021		353 2/16/2023 7/26/2024
1022		353 9/12/2022 #####
1023		353 9/14/2022 #####
1024		353 4/23/2020 8/9/2021
1025		352 11/4/2023 #####
1026		350 1/18/2024 #####
1027		348 10/9/2018 10/6/2020
1028		347 ##### 11/3/2024
1029		347 2/21/2020 4/16/2020
1030		346 8/30/2021 11/9/2024
1031		343 2/10/2018 8/10/2021
1032		343 ##### 8/16/2024
1033		342 9/13/2022 #####
1034		342 8/30/2021 #####
1035		342 2/3/2019 #####
1036		342 9/26/2024 11/7/2024
1037		339 6/17/2024 #####
1038		338 2/28/2024 11/3/2024
1039		338 9/22/2015 7/25/2021
1040		336 6/22/2023 #####
1041		336 12/6/2021 1/19/2023
1042		335 9/27/2022 #####
1043		335 #####
1044		335 1/8/2024 #####
1045		334 1/20/2020 #####
1046		334 8/1/2024 #####
1047		334 9/23/2024 #####
1048		332 6/28/2024 12/1/2024
1049		331 9/29/2021 #####
1050		331 #####
1051		330 4/15/2024 #####
1052		329 #####
1053		328 2/9/2024 #####
1054		328 9/19/2024 #####
1055		325 8/30/2021 5/2/2023

1056		325 #####
1057		324 8/28/2022 11/8/2024
1058		323 11/8/2017 8/11/2020
1059		322 9/14/2020 #####
1060		320 9/4/2021 #####
1061		320 5/1/2024 8/21/2024
1062		320 7/1/2019 9/29/2021
1063		320 6/26/2024 #####
1064		319 4/1/2020 8/24/2021
1065		319 9/16/2022 #####
1066		316 #####
1067		316 #####
1068		313 9/12/2022 #####
1069		312 9/13/2020 11/5/2020
1070		311 #####
1071		311 ##### 11/1/2024
1072		311 2/21/2024 #####
1073		309 5/8/2013 2/25/2024
1074		308 8/28/2021 #####
1075		307 9/25/2024 #####
1076		306 10/6/2022 #####
1077		305 2/5/2024 #####
1078		305 11/9/2023 #####
1079		305 1/7/2022 #####
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1081		304 #####
1082		302 9/8/2024 11/3/2024
1083		301 8/1/2024 11/4/2024
1084		301 1/9/2020 5/26/2020
1085		301 9/22/2016 11/7/2016
1086		300 1/13/2022 9/4/2022
1087		298 ##### 8/12/2021
1088		297 #####
1089		297 11/6/2023 #####
1090		296 7/2/2024 12/1/2024
1091		295 #####
1092		293 #####
1093		292 5/18/2024 9/26/2024
1094		292 7/25/2024 #####
1095		291 9/13/2022 #####
1096		289 4/12/2024 #####
1097		289 1/4/2020 2/4/2020
1098		289 4/6/2024 9/29/2024
1099		286 6/29/2017 #####

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1101	284 #####
1102	283 #####
1103	282 ##### 1/18/2024
1104	282 9/21/2022 8/22/2024
1105	278 9/23/2022 6/27/2024
1106	277 ##### 8/16/2024
1107	276 5/3/2022 7/14/2022
1108	274 7/23/2019 7/21/2021
1109	274 5/1/2020 10/9/2024
1110	273 2/20/2024 #####
1111	270 8/28/2021 #####
1112	269 #####
1113	268 1/28/2024 #####
1114	268 ##### 8/13/2024
1115	267 #####
1116	266 3/28/2018 7/16/2021
1117	266 7/2/2024 #####
1118	264 8/28/2021 #####
1119	264 2/2/2023 #####
1120	263 ##### 8/18/2024
1121	263 6/10/2024 #####
1122	262 5/6/2024 #####
1123	261 #####
1124	261 9/5/2024 #####
1125	261 8/31/2021 9/6/2022
1126	260 3/14/2018 #####
1127	259 8/31/2021 #####
1128	258 6/20/2024 11/7/2024
1129	258 12/5/2021 7/28/2022
1130	257 ##### 9/21/2024
1131	256 8/16/2019 8/12/2021
1132	255 11/8/2023 #####
1133	255 7/12/2024 #####
1134	254 ##### 6/14/2024
1135	254 9/27/2024 #####
1136	253 #####
1137	251 10/1/2024 #####
1138	247 5/9/2024 7/10/2024
1139	247 5/25/2012 6/10/2012
1140	246 10/2/2018 #####
1141	245 1/29/2024 11/7/2024
1142	244 5/18/2016 5/3/2017
1143	243 8/14/2024 #####

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1146		237	1/13/2020	1/24/2020
1147		237	#####	#####
1148		236	7/9/2019	#####
1149		235	3/7/2024	#####
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1153		234	9/3/2021	#####
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1156		231	4/9/2024	5/14/2024
1157		230	2/10/2022	4/10/2024
1158		229	6/29/2024	12/1/2024
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1160		228	9/9/2021	#####
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1163		226	3/30/2024	7/30/2024
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1165		225	3/1/2024	8/24/2024
1166		224	#####	#####
1167		223	#####	#####
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1172		220	10/4/2023	#####
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1174		219	#####	8/27/2021
1175		218	2/17/2023	8/16/2024
1176		217	8/30/2020	#####
1177		217	2/19/2024	5/23/2024
1178		214	2/12/2020	8/25/2021
1179		214	8/9/2024	#####
1180		214	#####	#####
1181		213	#####	#####
1182		212	1/2/2024	#####
1183		212	8/22/2022	#####
1184		211	#####	#####
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1193		208	2/19/2024	#####
1194		208	#####	#####
1195		208	8/3/2020	7/19/2021
1196		208	8/16/2023	3/28/2024
1197		207	#####	#####
1198		206	9/1/2021	#####
1199		206	9/28/2022	#####
1200		205	9/14/2021	#####
1201		205	9/2/2021	11/1/2024
1202		205	9/8/2021	#####
1203		204	8/30/2021	#####
1204		204	8/14/2024	#####
1205		203	8/30/2021	#####
1206		201	#####	11/3/2024
1207		201	5/11/2022	8/25/2022
1208		199	#####	#####
1209		198	3/18/2019	8/24/2021
1210		197	#####	#####
1211		197	#####	#####
1212		195	5/8/2024	6/14/2024
1213		195	#####	#####
1214		195	6/27/2017	8/23/2021
1215		194	1/13/2020	8/7/2020
1216		194	3/9/2020	3/24/2020
1217		194	#####	#####
1218		194	4/11/2024	#####
1219		194	#####	#####
1220		194	10/2/2024	#####
1221		192	10/4/2024	#####
1222		192	8/28/2021	#####
1223		191	3/24/2024	7/27/2024
1224		191	9/1/2021	#####
1225		191	#####	#####
1226		191	1/12/2023	11/5/2024
1227		191	#####	#####
1228		190	5/30/2024	8/12/2024
1229		189	7/23/2024	10/1/2024
1230		188	5/15/2019	8/13/2021
1231		188	11/7/2024	12/1/2024

1232	187	2/4/2024	5/23/2024
1233	187	5/4/2017	7/15/2021
1234	186	#####	2/5/2024
1235	186	5/9/2017	7/1/2021
1236	186	#####	8/9/2021
1237	185	#####	#####
1238	185	9/7/2022	#####
1239	184	7/24/2024	8/27/2024
1240	183	5/25/2023	#####
1241	183	#####	#####
1242	182	9/27/2024	12/1/2024
1243	182	5/23/2023	#####
1244	182	6/11/2024	#####
1245	181	#####	#####
1246	181	2/22/2022	#####
1247	181	5/7/2024	#####
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1250	179	#####	#####
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1266	170	#####	#####
1267	169	#####	9/18/2024
1268	169	6/5/2024	#####
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1270	167	6/3/2024	#####
1271	167	7/19/2017	6/17/2019
1272	166	3/28/2024	9/18/2024
1273	166	#####	#####
1274	165	8/30/2021	#####
1275	165	9/19/2024	#####

1276		164 #####
1277		164 1/28/2022 #####
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1279		162 #####
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1281		161 4/26/2022 9/29/2022
1282		161 3/22/2017 2/24/2021
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1284		159 #####
1285		159 2/21/2024 4/21/2024
1286		159 8/31/2021 #####
1287		159 2/15/2023 #####
1288		158 9/28/2022 #####
1289		158 10/5/2022 #####
1290		158 6/10/2024 #####
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1292		156 7/24/2018 7/31/2019
1293		156 9/8/2021 #####
1294		156 4/19/2024 #####
1295		155 10/5/2022 #####
1296		154 11/1/2024 #####
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1298		154 1/28/2021 8/26/2021
1299		154 3/11/2020 12/7/2020
1300		153 3/15/2021 11/1/2024
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1302		152 9/14/2020 12/9/2020
1303		152 #####
1304		152 5/23/2023 #####
1305		151 ##### 12/1/2024
1306		151 9/3/2021 #####
1307		149 9/13/2021 #####
1308		149 7/23/2024 8/16/2024
1309		148 9/3/2019 5/26/2021
1310		148 8/27/2021 #####
1311		147 8/5/2020 #####
1312		147 7/22/2024 #####
1313		146 9/19/2024 #####
1314		146 ##### 8/3/2022
1315		146 8/22/2024 #####
1316		145 9/4/2021 12/1/2024
1317		145 ##### 9/4/2020
1318		143 7/24/2024 #####
1319		143 8/28/2021 #####

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1322		141	12/9/2019	8/9/2021
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1324		140	4/17/2024	#####
1325		139	#####	#####
1326		139	1/30/2023	#####
1327		139	2/8/2023	#####
1328		138	1/26/2015	8/18/2020
1329		137	5/21/2020	8/22/2024
1330		137	1/11/2024	#####
1331		137	10/5/2021	#####
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1333		136	#####	#####
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1335		136	#####	#####
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1337		135	2/26/2024	#####
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1339		133	11/4/2019	8/6/2021
1340		133	8/20/2020	5/14/2021
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1343		130	5/25/2024	9/13/2024
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1347		129	#####	11/7/2024
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1354		126	9/20/2020	#####
1355		126	#####	#####
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1363		123	7/24/2024	8/30/2024

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1367		122	9/2/2021	9/18/2024
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1370		121	6/7/2024	9/21/2024
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1372		119	3/3/2022	#####
1373		119	1/13/2024	#####
1374		119	5/23/2020	8/25/2021
1375		118	2/8/2024	7/1/2024
1376		118	8/26/2019	#####
1377		118	7/24/2024	#####
1378		117	8/19/2019	9/30/2019
1379		117	8/27/2021	#####
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1383		116	8/28/2021	9/8/2024
1384		116	7/25/2024	8/5/2024
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1388		114	9/8/2023	8/27/2024
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1392		112	9/18/2019	7/22/2021
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1394		111	2/23/2014	8/6/2021
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1398		110	1/4/2024	#####
1399		110	#####	12/1/2024
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1402		109	1/21/2023	#####
1403		109	8/9/2024	#####
1404		108	9/2/2021	#####
1405		108	3/5/2020	4/6/2020
1406		108	8/28/2021	9/30/2024
1407		107	4/15/2024	#####

1408	107	1/8/2024	#####
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1411	106	3/15/2018	2/19/2021
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1413	105	#####	#####
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1415	105	8/13/2020	8/20/2021
1416	105	9/9/2020	7/21/2021
1417	104	#####	2/2/2024
1418	104	1/21/2023	#####
1419	104	11/4/2021	#####
1420	104	4/3/2024	5/10/2024
1421	104	1/31/2023	#####
1422	103	#####	#####
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1424	103	5/28/2024	#####
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1430	101	#####	11/6/2024
1431	101	#####	#####
1432	101	#####	#####
1433	101	#####	#####
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1435	100	11/2/2024	11/2/2024
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1437	100	7/20/2020	9/8/2020
1438	99	3/4/2019	8/30/2024
1439	98	#####	#####
1440	98	2/12/2020	#####
1441	98	9/2/2021	9/28/2022
1442	98	8/19/2021	#####
1443	97	1/14/2022	#####
1444	96	#####	7/26/2024
1445	96	#####	7/22/2021
1446	96	3/10/2024	3/23/2024
1447	96	9/2/2021	#####
1448	96	#####	11/7/2024
1449	96	8/21/2024	#####
1450	96	3/21/2024	#####
1451	96	1/13/2024	#####

1452	96	10/8/2021	1/19/2024
1453	95	1/15/2024	7/18/2024
1454	95	1/24/2024	#####
1455	95	#####	11/7/2024
1456	95	11/7/2023	#####
1457	93	#####	10/2/2024
1458	93	3/1/2020	8/26/2021
1459	93	5/5/2022	#####
1460	93	#####	7/26/2021
1461	93	9/16/2024	#####
1462	92	#####	#####
1463	92	6/7/2022	#####
1464	92	9/2/2021	#####
1465	92	6/23/2020	7/24/2020
1466	92	5/20/2020	8/9/2020
1467	91	7/18/2018	6/21/2019
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1469	91	1/24/2023	#####
1470	91	1/13/2022	9/24/2024
1471	91	#####	12/1/2024
1472	91	#####	3/10/2024
1473	91	9/4/2021	#####
1474	91	#####	11/7/2024
1475	91	3/21/2024	#####
1476	91	#####	#####
1477	90	#####	#####
1478	90	10/7/2019	2/10/2024
1479	89	9/26/2021	#####
1480	89	9/19/2024	#####
1481	89	4/24/2020	7/12/2021
1482	88	9/15/2021	11/3/2024
1483	88	9/27/2024	11/4/2024
1484	88	6/1/2012	7/28/2012
1485	87	9/1/2021	#####
1486	87	#####	#####
1487	87	2/7/2020	#####
1488	87	#####	#####
1489	86	4/24/2024	6/1/2024
1490	86	1/20/2024	2/5/2024
1491	86	1/15/2024	2/13/2024
1492	85	10/2/2024	#####
1493	85	8/22/2024	#####
1494	85	1/17/2021	1/19/2021
1495	85	4/17/2019	8/22/2024

1496	85	8/28/2021	#####
1497	85	3/24/2019	9/20/2024
1498	84	#####	8/13/2021
1499	84	7/24/2024	9/21/2024
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1501	83	3/2/2024	8/3/2024
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1503	82	11/9/2021	#####
1504	82	10/5/2021	#####
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1507	81	2/2/2020	12/5/2020
1508	81	1/3/2024	#####
1509	81	4/24/2020	10/5/2020
1510	81	#####	#####
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1512	81	#####	#####
1513	81	#####	12/1/2024
1514	80	8/22/2022	11/1/2022
1515	80	#####	12/1/2024
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1517	80	1/12/2023	11/3/2024
1518	80	1/30/2024	#####
1519	79	#####	#####
1520	79	8/29/2021	#####
1521	79	4/8/2024	4/29/2024
1522	79	6/2/2020	7/7/2020
1523	79	#####	#####
1524	79	4/8/2020	4/15/2020
1525	79	8/17/2024	#####
1526	78	2/21/2024	#####
1527	78	3/9/2020	2/12/2021
1528	77	#####	#####
1529	77	3/22/2021	8/26/2021
1530	76	#####	#####
1531	76	1/7/2024	#####
1532	76	#####	7/30/2019
1533	76	2/23/2024	4/16/2024
1534	76	#####	#####
1535	76	8/12/2024	8/24/2024
1536	76	3/23/2024	6/8/2024
1537	75	#####	11/5/2024
1538	75	9/22/2024	#####
1539	75	#####	#####

1540	75	2/20/2024	#####
1541	74	1/9/2024	11/6/2024
1542	74	3/13/2020	4/22/2020
1543	74	#####	#####
1544	74	#####	#####
1545	74	#####	#####
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1547	73	#####	#####
1548	73	#####	#####
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1550	72	#####	#####
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1552	72	12/9/2021	#####
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1554	72	#####	#####
1555	72	7/18/2019	9/9/2019
1556	71	9/16/2024	12/1/2024
1557	71	8/27/2021	#####
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1559	71	8/26/2024	#####
1560	71	#####	7/7/2020
1561	70	2/20/2024	4/20/2024
1562	70	#####	11/5/2024
1563	70	8/31/2021	#####
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1565	70	2/1/2021	8/26/2021
1566	70	8/27/2021	8/20/2024
1567	70	9/17/2020	12/8/2020
1568	70	#####	7/21/2021
1569	69	#####	#####
1570	69	2/24/2021	8/23/2021
1571	69	1/31/2020	3/26/2021
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1573	68	7/24/2024	8/23/2024
1574	68	#####	#####
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1576	68	#####	#####
1577	67	10/4/2024	#####
1578	67	8/15/2024	#####
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1582	67	3/12/2021	8/24/2021
1583	67	2/5/2024	6/24/2024

1584	67	7/19/2021	8/26/2021
1585	67	11/4/2024	#####
1586	66	3/24/2015	2/24/2021
1587	66	6/1/2024	6/17/2024
1588	66	#####	#####
1589	66	8/25/2022	#####
1590	66	11/6/2024	#####
1591	65	9/18/2024	#####
1592	65	2/9/2021	8/10/2021
1593	65	#####	#####
1594	65	1/22/2024	#####
1595	65	2/7/2023	5/2/2024
1596	64	8/31/2022	#####
1597	64	#####	2/12/2024
1598	64	4/14/2020	8/11/2021
1599	64	#####	#####
1600	64	#####	1/5/2022
1601	64	9/30/2024	#####
1602	63	11/5/2019	9/23/2024
1603	63	#####	#####
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1605	63	5/18/2019	6/5/2020
1606	63	8/22/2024	#####
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1608	63	2/7/2024	2/28/2024
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1610	62	4/16/2021	4/29/2021
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1624	60	1/10/2020	8/23/2020
1625	60	9/27/2024	10/2/2024
1626	59	9/21/2024	10/2/2024
1627	59	#####	#####

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1631	58	#####	#####
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1633	58	9/1/2022	#####
1634	57	9/18/2020	12/2/2020
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1641	57	2/15/2023	9/13/2024
1642	57	11/9/2023	8/26/2024
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1644	56	10/3/2024	10/8/2024
1645	56	#####	#####
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1647	55	6/4/2024	#####
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1649	55	9/21/2022	#####
1650	55	#####	#####
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1656	54	8/28/2021	#####
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1667	52	8/8/2024	#####
1668	52	#####	#####
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1670	52	1/4/2024	4/4/2024
1671	52	5/23/2024	#####

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1673		51	9/29/2024	#####
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1675		51	2/26/2019	6/5/2020
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1679		50	8/3/2022	8/29/2024
1680		50	5/10/2019	9/3/2020
1681		50	11/6/2023	11/6/2024
1682		50	8/9/2024	#####
1683		50	6/12/2024	#####
1684		50	9/27/2024	#####
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1689		50	5/20/2020	6/8/2021
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1695		49	7/24/2024	8/9/2024
1696		49	#####	#####
1697		49	9/16/2020	11/5/2020
1698		49	1/5/2024	11/9/2024
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1701		48	7/24/2024	8/4/2024
1702		48	#####	#####
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1722	46 10/4/2024 #####
1723	45 7/22/2020 4/17/2021
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1725	45 10/1/2021 #####
1726	45 ##### 12/1/2024
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1728	45 4/9/2024 9/10/2024
1729	45 3/15/2024 12/1/2024
1730	45 #####
1731	45 1/15/2020 6/24/2024
1732	45 9/21/2021 #####
1733	44 9/11/2024 #####
1734	44 3/3/2022 #####
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1736	44 9/16/2024 #####
1737	44 10/1/2024 #####
1738	44 3/24/2022 11/4/2024
1739	44 8/12/2024 #####
1740	44 3/12/2021 8/25/2021
1741	44 7/31/2020 #####
1742	44 ##### 7/19/2021
1743	43 7/24/2024 11/4/2024
1744	43 8/22/2022 #####
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1747	42 6/12/2020 11/9/2020
1748	42 10/3/2024 #####
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1751	42 2/17/2023 10/9/2024
1752	42 8/15/2023 #####
1753	42 10/6/2022 #####
1754	42 8/9/2024 #####
1755	42 #####
1756	42 4/24/2019 6/3/2020
1757	42 4/22/2019 8/10/2021
1758	42 6/1/2023 8/14/2023
1759	41 3/22/2016 1/13/2022

1760	41	9/12/2023	#####
1761	41	1/21/2021	4/19/2021
1762	41	#####	9/21/2020
1763	41	2/28/2021	4/20/2021
1764	41	#####	#####
1765	41	4/12/2024	5/2/2024
1766	41	10/1/2024	#####
1767	41	2/24/2022	11/4/2024
1768	41	2/23/2021	8/7/2021
1769	41	4/1/2020	9/20/2020
1770	41	8/9/2024	#####
1771	41	3/15/2021	8/25/2021
1772	41	5/20/2020	8/9/2020
1773	40	7/10/2024	8/5/2024
1774	40	#####	#####
1775	40	9/13/2021	9/22/2024
1776	40	3/31/2020	7/28/2020
1777	40	4/19/2016	5/3/2016
1778	40	#####	8/5/2020
1779	39	2/11/2024	2/29/2024
1780	39	5/26/2024	6/15/2024
1781	39	#####	8/13/2020
1782	39	12/4/2023	#####
1783	39	9/17/2024	#####
1784	38	1/29/2021	4/17/2021
1785	38	1/26/2024	3/5/2024
1786	38	3/2/2020	3/25/2020
1787	38	1/11/2024	#####
1788	38	8/12/2024	#####
1789	38	5/6/2019	6/7/2019
1790	38	8/16/2024	#####
1791	38	3/30/2024	3/31/2024
1792	38	6/11/2024	#####
1793	38	1/4/2024	#####
1794	37	1/10/2022	#####
1795	37	3/5/2020	4/9/2020
1796	37	6/7/2024	9/28/2024
1797	36	6/12/2024	#####
1798	36	5/21/2020	9/21/2020
1799	36	5/19/2020	9/21/2020
1800	36	9/15/2021	8/14/2024
1801	36	1/26/2020	5/21/2021
1802	36	4/21/2018	8/5/2020
1803	36	9/24/2024	10/6/2024

1804		36	9/2/2021	#####
1805		35	#####	#####
1806		35	11/4/2024	#####
1807		35	7/1/2017	3/26/2018
1808		35	1/25/2021	8/24/2021
1809		35	8/8/2024	#####
1810		35	6/21/2024	#####
1811		35	8/27/2021	10/1/2024
1812		35	11/2/2024	#####
1813		35	11/8/2021	#####
1814		34	8/28/2021	9/14/2022
1815		34	3/30/2024	5/21/2024
1816		34	9/1/2024	#####
1817		34	9/19/2021	#####
1818		34	1/29/2021	#####
1819		34	8/31/2021	#####
1820		34	8/20/2024	#####
1821		34	7/12/2024	#####
1822		34	6/6/2024	#####
1823		34	5/21/2020	9/21/2020
1824		33	10/2/2024	#####
1825		33	4/29/2020	8/10/2021
1826		33	#####	1/6/2024
1827		33	6/22/2018	7/30/2019
1828		33	7/22/2024	8/1/2024
1829		33	1/13/2020	1/14/2020
1830		33	9/12/2024	#####
1831		33	4/30/2024	5/13/2024
1832		33	9/16/2020	#####
1833		33	12/4/2023	#####
1834		33	6/29/2024	8/4/2024
1835		33	7/28/2017	7/22/2021
1836		33	9/1/2021	9/18/2022
1837		32	#####	12/1/2024
1838		32	8/30/2024	#####
1839		32	5/29/2020	8/13/2020
1840		32	9/16/2024	#####
1841		32	7/24/2018	3/11/2019
1842		32	#####	12/1/2024
1843		32	7/27/2024	8/11/2024
1844		32	2/9/2024	2/22/2024
1845		32	2/23/2021	4/16/2021
1846		32	3/30/2024	3/31/2024
1847		32	4/13/2023	#####

1848	32	5/10/2024	#####
1849	32	6/14/2024	#####
1850	32	7/5/2019	1/23/2020
1851	32	5/4/2015	#####
1852	32	2/8/2020	7/15/2020
1853	31	1/3/2024	#####
1854	31	4/7/2021	8/26/2021
1855	31	#####	#####
1856	31	4/7/2021	8/26/2021
1857	31	4/7/2021	8/26/2021
1858	31	9/19/2024	10/9/2024
1859	31	8/14/2024	8/23/2024
1860	31	2/27/2020	10/1/2020
1861	31	9/2/2021	#####
1862	31	9/17/2020	12/2/2020
1863	31	7/17/2020	9/17/2021
1864	30	9/2/2021	#####
1865	30	4/9/2020	8/3/2020
1866	30	12/6/2021	#####
1867	30	1/19/2017	11/6/2019
1868	30	3/20/2019	5/17/2024
1869	30	5/9/2024	11/5/2024
1870	30	7/3/2024	8/29/2024
1871	30	8/9/2024	#####
1872	30	8/27/2021	11/3/2021
1873	30	#####	11/8/2018
1874	30	9/16/2024	#####
1875	30	10/1/2016	6/27/2020
1876	30	#####	#####
1877	30	10/8/2020	6/28/2021
1878	30	1/3/2024	#####
1879	30	9/3/2024	#####
1880	30	8/26/2024	#####
1881	30	6/7/2020	6/15/2020
1882	29	4/11/2018	2/24/2021
1883	29	8/31/2021	7/26/2022
1884	29	4/7/2024	4/19/2024
1885	29	9/16/2024	#####
1886	29	6/5/2024	#####
1887	29	9/9/2021	12/4/2023
1888	29	5/26/2020	4/2/2021
1889	29	7/6/2020	2/26/2021
1890	29	5/20/2020	3/28/2021
1891	29	1/27/2021	4/15/2021

1892	28	9/18/2024	#####
1893	28	#####	3/29/2024
1894	28	5/21/2020	8/12/2020
1895	28	7/20/2020	4/18/2021
1896	28	1/8/2018	4/20/2018
1897	28	2/10/2023	#####
1898	28	3/10/2024	4/12/2024
1899	28	3/10/2021	8/4/2021
1900	28	#####	#####
1901	28	8/7/2024	#####
1902	28	3/22/2023	10/2/2024
1903	28	9/18/2023	#####
1904	28	#####	#####
1905	27	7/10/2020	7/22/2021
1906	27	#####	#####
1907	27	9/23/2020	#####
1908	27	8/27/2021	#####
1909	27	9/19/2024	#####
1910	27	8/9/2022	11/5/2023
1911	27	6/25/2024	11/7/2024
1912	27	7/17/2020	4/1/2021
1913	27	9/27/2024	9/27/2024
1914	26	9/12/2020	9/17/2020
1915	26	4/3/2020	3/10/2021
1916	26	3/5/2024	7/23/2024
1917	26	12/4/2021	7/24/2022
1918	26	8/21/2024	11/7/2024
1919	26	3/31/2023	2/2/2024
1920	26	8/28/2022	6/20/2023
1921	26	#####	11/7/2024
1922	26	5/9/2022	11/9/2024
1923	26	#####	#####
1924	26	12/6/2020	12/8/2020
1925	26	8/7/2024	#####
1926	26	11/7/2024	#####
1927	25	9/19/2024	#####
1928	25	7/27/2024	8/23/2024
1929	25	10/2/2023	#####
1930	25	9/26/2024	#####
1931	25	9/26/2024	#####
1932	25	6/15/2024	8/28/2024
1933	25	4/12/2024	#####
1934	25	#####	#####
1935	25	10/8/2020	8/12/2021

1936	25	5/20/2022	#####
1937	25	2/23/2024	2/29/2024
1938	25	9/1/2024	#####
1939	25	1/17/2023	12/1/2024
1940	25	#####	9/20/2024
1941	25	5/23/2020	8/3/2021
1942	25	8/8/2024	8/16/2024
1943	24	8/16/2024	11/3/2024
1944	24	7/20/2024	#####
1945	24	#####	#####
1946	24	9/6/2024	9/10/2024
1947	24	8/8/2020	8/16/2020
1948	24	9/16/2024	#####
1949	24	7/31/2024	#####
1950	24	4/25/2022	#####
1951	24	2/27/2024	11/2/2024
1952	24	#####	10/8/2024
1953	24	3/3/2021	8/5/2021
1954	24	8/25/2017	6/5/2020
1955	23	#####	11/8/2024
1956	23	9/4/2024	#####
1957	23	8/14/2024	8/30/2024
1958	23	9/18/2024	#####
1959	23	2/9/2022	#####
1960	23	#####	12/1/2024
1961	23	3/29/2021	7/26/2021
1962	23	5/31/2022	8/28/2024
1963	23	1/26/2022	2/22/2022
1964	23	6/18/2024	#####
1965	23	6/10/2024	9/24/2024
1966	23	6/10/2024	9/24/2024
1967	23	1/9/2024	#####
1968	23	1/11/2024	#####
1969	23	#####	#####
1970	23	8/20/2024	#####
1971	23	9/11/2021	#####
1972	22	8/28/2021	6/4/2022
1973	22	1/12/2024	#####
1974	22	#####	1/5/2024
1975	22	2/14/2024	11/9/2024
1976	22	9/16/2024	#####
1977	22	6/2/2020	7/6/2020
1978	22	1/9/2024	2/14/2024
1979	22	9/10/2021	5/20/2024

1980	22	3/25/2022	#####
1981	22	3/12/2021	8/16/2021
1982	22	1/18/2022	10/4/2024
1983	22	#####	#####
1984	22	3/3/2024	3/24/2024
1985	22	#####	4/19/2024
1986	22	4/18/2020	8/2/2021
1987	22	3/12/2021	8/16/2021
1988	22	#####	#####
1989	21	9/13/2021	8/22/2022
1990	21	8/13/2024	8/16/2024
1991	21	1/19/2022	9/12/2024
1992	21	10/1/2024	#####
1993	21	9/26/2021	8/25/2024
1994	21	7/21/2024	9/19/2024
1995	21	7/28/2020	9/21/2021
1996	21	9/19/2021	8/23/2022
1997	21	1/9/2024	11/5/2024
1998	21	3/30/2024	3/31/2024
1999	21	2/27/2016	7/8/2021
2000	21	9/20/2024	#####
2001	21	#####	#####
2002	21	2/21/2020	#####
2003	21	2/17/2021	8/4/2021
2004	21	2/19/2020	9/3/2020
2005	21	8/4/2020	4/14/2021
2006	21	9/8/2021	9/28/2022
2007	20	#####	1/14/2024
2008	20	9/26/2024	#####
2009	20	#####	#####
2010	20	2/24/2021	7/1/2021
2011	20	5/31/2022	2/13/2023
2012	20	1/11/2024	9/4/2024
2013	20	8/11/2020	#####
2014	20	4/15/2020	7/22/2021
2015	20	9/26/2024	#####
2016	20	8/22/2024	#####
2017	20	#####	11/7/2024
2018	20	#####	6/28/2021
2019	20	#####	11/7/2024
2020	19	7/17/2024	#####
2021	19	8/2/2024	#####
2022	19	5/1/2020	3/3/2021
2023	19	#####	7/12/2021

2024	19 #####
2025	19 ##### 12/1/2024
2026	19 3/15/2022 #####
2027	19 2/29/2020 5/6/2021
2028	19 2/27/2024 5/30/2024
2029	19 1/10/2024 11/9/2024
2030	19 1/10/2024 11/9/2024
2031	19 ##### 4/26/2024
2032	19 8/19/2019 9/30/2019
2033	19 #####
2034	19 ##### 2/12/2021
2035	19 #####
2036	19 12/9/2019 7/29/2021
2037	19 2/19/2020 2/24/2021
2038	19 8/19/2020 8/27/2020
2039	19 8/8/2024 #####
2040	19 9/27/2024 #####
2041	19 3/9/2020 9/3/2020
2042	18 5/10/2019 5/10/2019
2043	18 2/26/2024 #####
2044	18 10/1/2024 #####
2045	18 11/9/2020 8/10/2021
2046	18 6/24/2014 7/3/2014
2047	18 #####
2048	18 4/27/2024 5/27/2024
2049	18 4/16/2021 8/25/2021
2050	18 2/16/2021 8/10/2021
2051	18 7/10/2019 5/9/2021
2052	18 ##### 12/2/2019
2053	18 3/8/2021 8/13/2021
2054	18 #####
2055	18 #####
2056	18 1/4/2021 7/28/2021
2057	18 8/22/2020 8/31/2020
2058	18 7/30/2024 8/15/2024
2059	18 #####
2060	18 8/17/2024 11/5/2024
2061	18 ##### 7/15/2021
2062	18 11/1/2024 11/4/2024
2063	17 ##### 3/16/2024
2064	17 5/7/2024 5/15/2024
2065	17 2/19/2020 2/24/2021
2066	17 5/17/2024 7/15/2024
2067	17 7/20/2024 7/22/2024

2068	17	#####	2/24/2021
2069	17	6/27/2024	7/10/2024
2070	17	#####	11/4/2024
2071	17	10/4/2021	8/20/2024
2072	17	11/4/2024	11/7/2024
2073	17	9/17/2024	#####
2074	17	2/19/2020	3/4/2021
2075	17	4/17/2020	5/15/2020
2076	17	2/19/2020	9/21/2020
2077	17	#####	12/1/2024
2078	17	#####	#####
2079	17	#####	5/22/2021
2080	17	8/24/2022	10/5/2023
2081	16	3/20/2024	11/6/2024
2082	16	7/16/2024	11/4/2024
2083	16	8/31/2020	#####
2084	16	6/11/2020	8/14/2020
2085	16	3/31/2020	2/24/2021
2086	16	1/11/2021	4/2/2021
2087	16	9/24/2024	#####
2088	16	4/25/2021	6/25/2021
2089	16	#####	#####
2090	16	8/14/2024	#####
2091	16	11/2/2024	11/6/2024
2092	16	#####	#####
2093	16	10/4/2024	11/4/2024
2094	15	5/15/2019	5/15/2019
2095	15	#####	7/25/2024
2096	15	2/13/2020	#####
2097	15	8/21/2024	9/18/2024
2098	15	7/28/2024	8/14/2024
2099	15	#####	2/11/2024
2100	15	#####	#####
2101	15	#####	#####
2102	15	9/28/2024	#####
2103	15	#####	8/4/2021
2104	15	2/14/2021	4/5/2021
2105	15	5/18/2019	5/18/2019
2106	15	9/21/2024	#####
2107	15	8/11/2020	8/11/2020
2108	15	5/14/2020	5/17/2020
2109	15	9/3/2024	#####
2110	15	1/16/2024	9/20/2024
2111	15	9/17/2024	#####

2112	14	3/18/2024	11/4/2024
2113	14	9/8/2022	6/14/2023
2114	14	7/5/2024	7/26/2024
2115	14	1/25/2024	2/9/2024
2116	14	1/29/2020	8/18/2020
2117	14	1/12/2024	9/20/2024
2118	14	11/7/2024	11/7/2024
2119	14	8/27/2024	#####
2120	14	1/27/2024	2/8/2024
2121	14	#####	#####
2122	14	3/15/2021	8/23/2021
2123	14	12/5/2019	4/30/2021
2124	14	1/17/2021	2/13/2021
2125	14	2/17/2021	2/17/2022
2126	14	5/1/2024	5/11/2024
2127	14	6/22/2024	7/3/2024
2128	14	3/1/2022	#####
2129	14	11/4/2024	11/8/2024
2130	14	8/6/2024	#####
2131	14	#####	#####
2132	14	1/3/2024	11/6/2024
2133	14	2/14/2022	#####
2134	14	8/26/2021	#####
2135	14	#####	12/1/2024
2136	14	#####	7/14/2021
2137	13	2/1/2021	5/28/2021
2138	13	1/24/2024	2/6/2024
2139	13	11/8/2022	#####
2140	13	5/20/2019	5/20/2019
2141	13	3/5/2020	5/2/2020
2142	13	11/6/2020	4/19/2021
2143	13	5/13/2021	6/3/2021
2144	13	8/23/2024	#####
2145	13	5/22/2019	5/22/2019
2146	13	5/6/2021	7/9/2021
2147	13	7/16/2020	8/15/2020
2148	13	7/27/2024	8/14/2024
2149	13	10/3/2024	10/4/2024
2150	13	2/17/2021	2/17/2022
2151	13	7/31/2020	4/25/2021
2152	13	8/14/2024	#####
2153	13	2/19/2024	2/20/2024
2154	13	8/9/2020	9/28/2020
2155	13	9/18/2022	5/20/2023

2156	13	8/12/2024	8/22/2024
2157	13	8/19/2024	#####
2158	13	#####	#####
2159	13	10/9/2024	#####
2160	13	10/3/2024	10/6/2024
2161	12	8/28/2024	#####
2162	12	8/30/2021	6/3/2022
2163	12	4/17/2019	5/21/2020
2164	12	4/6/2021	8/13/2021
2165	12	2/19/2020	9/3/2020
2166	12	6/15/2023	#####
2167	12	1/25/2024	2/15/2024
2168	12	5/10/2019	5/21/2020
2169	12	5/25/2020	6/9/2020
2170	12	3/22/2018	1/13/2021
2171	12	6/15/2024	#####
2172	12	8/15/2024	8/24/2024
2173	12	#####	5/26/2024
2174	12	3/24/2021	8/11/2021
2175	12	4/9/2024	#####
2176	12	#####	8/7/2020
2177	12	7/3/2024	#####
2178	12	1/24/2024	8/14/2024
2179	12	8/14/2023	#####
2180	12	8/20/2020	7/15/2021
2181	12	10/8/2022	11/2/2024
2182	12	8/13/2024	8/16/2024
2183	12	6/24/2024	11/6/2024
2184	12	1/4/2016	8/9/2020
2185	12	2/3/2020	8/10/2021
2186	12	7/16/2020	8/18/2020
2187	12	4/15/2020	12/3/2020
2188	11	3/31/2024	4/3/2024
2189	11	5/30/2012	2/1/2017
2190	11	8/19/2024	#####
2191	11	8/11/2024	8/16/2024
2192	11	9/17/2024	#####
2193	11	1/1/2023	7/8/2023
2194	11	#####	8/28/2024
2195	11	8/1/2019	8/3/2019
2196	11	4/24/2024	4/24/2024
2197	11	3/25/2019	3/24/2021
2198	11	10/8/2018	6/16/2021
2199	11	8/21/2023	#####

2200	11	#####	#####
2201	11	8/11/2022	7/26/2023
2202	11	#####	#####
2203	11	11/7/2024	#####
2204	11	9/17/2021	3/25/2024
2205	11	2/19/2020	5/21/2020
2206	11	5/10/2022	5/10/2022
2207	11	8/30/2022	5/23/2024
2208	11	#####	2/27/2024
2209	11	9/2/2021	#####
2210	11	4/7/2024	4/11/2024
2211	11	8/21/2023	#####
2212	11	3/2/2021	8/6/2021
2213	11	#####	12/3/2019
2214	10	4/24/2020	4/24/2020
2215	10	3/21/2024	#####
2216	10	5/20/2021	8/11/2021
2217	10	8/9/2019	8/9/2019
2218	10	#####	8/19/2021
2219	10	11/9/2020	3/1/2021
2220	10	#####	8/3/2021
2221	10	#####	11/1/2024
2222	10	1/27/2024	#####
2223	10	4/11/2018	2/24/2021
2224	10	11/5/2021	9/29/2024
2225	10	7/30/2024	8/12/2024
2226	10	3/31/2021	8/19/2021
2227	10	8/25/2017	9/3/2020
2228	10	8/27/2021	8/10/2022
2229	10	5/20/2021	8/11/2021
2230	10	1/16/2020	7/20/2021
2231	10	7/16/2024	#####
2232	10	8/25/2017	9/3/2020
2233	10	2/1/2021	4/18/2021
2234	9	2/14/2022	7/9/2024
2235	9	#####	6/30/2024
2236	9	10/7/2020	10/8/2020
2237	9	9/16/2020	#####
2238	9	9/14/2023	9/29/2023
2239	9	8/25/2024	#####
2240	9	#####	#####
2241	9	9/4/2024	#####
2242	9	2/26/2020	10/1/2020
2243	9	5/15/2016	1/12/2017

2244	9	#####	#####
2245	9	1/24/2024	2/17/2024
2246	9	6/19/2020	6/20/2020
2247	9	8/26/2024	#####
2248	9	8/8/2024	#####
2249	9	8/20/2020	8/21/2020
2250	9	8/14/2024	8/20/2024
2251	9	3/14/2024	3/30/2024
2252	9	4/5/2024	4/12/2024
2253	9	6/30/2024	7/7/2024
2254	9	6/7/2024	6/9/2024
2255	9	8/12/2024	8/13/2024
2256	9	#####	1/19/2024
2257	9	6/21/2019	9/19/2019
2258	9	#####	#####
2259	9	2/24/2021	8/9/2021
2260	9	#####	7/21/2021
2261	9	7/24/2020	8/16/2020
2262	8	8/6/2024	9/19/2024
2263	8	5/2/2024	5/2/2024
2264	8	2/12/2021	4/11/2021
2265	8	9/22/2020	#####
2266	8	1/3/2024	11/1/2024
2267	8	6/3/2020	6/10/2020
2268	8	9/8/2022	#####
2269	8	9/18/2024	#####
2270	8	#####	#####
2271	8	#####	8/18/2023
2272	8	10/6/2021	10/4/2024
2273	8	9/12/2024	#####
2274	8	5/22/2020	5/28/2020
2275	8	#####	#####
2276	8	#####	#####
2277	8	9/8/2012	9/12/2012
2278	8	6/8/2023	11/9/2023
2279	8	#####	5/28/2024
2280	8	9/10/2019	#####
2281	8	#####	4/24/2024
2282	8	1/29/2024	2/19/2024
2283	8	1/3/2024	11/1/2024
2284	8	10/6/2024	10/8/2024
2285	8	1/18/2024	#####
2286	8	9/8/2021	6/10/2024
2287	8	9/21/2024	9/22/2024

2288		7	12/9/2021	8/10/2022
2289		7	6/17/2024	#####
2290		7	8/7/2024	#####
2291		7	8/6/2024	#####
2292		7	2/6/2024	2/29/2024
2293		7	1/30/2022	#####
2294		7	#####	#####
2295		7	3/13/2024	9/30/2024
2296		7	9/15/2020	5/5/2021
2297		7	8/31/2021	8/11/2022
2298		7	3/25/2021	7/15/2021
2299		7	8/7/2024	#####
2300		7	#####	11/8/2020
2301		7	8/19/2019	8/19/2019
2302		7	10/2/2020	8/11/2021
2303		7	8/14/2024	#####
2304		7	6/4/2020	6/5/2020
2305		7	8/12/2024	#####
2306		7	2/10/2022	3/9/2023
2307		7	1/12/2024	#####
2308		7	9/19/2024	#####
2309		7	3/14/2021	4/12/2021
2310		7	11/3/2022	11/4/2022
2311		7	8/23/2020	8/26/2020
2312		7	11/6/2019	#####
2313		7	1/14/2020	1/20/2020
2314		6	#####	11/3/2024
2315		6	7/25/2024	8/14/2024
2316		6	3/24/2021	8/4/2021
2317		6	#####	11/9/2020
2318		6	5/19/2020	6/5/2020
2319		6	9/28/2024	11/3/2024
2320		6	5/29/2019	2/19/2020
2321		6	2/9/2021	4/8/2021
2322		6	9/23/2024	10/8/2024
2323		6	5/1/2023	8/12/2024
2324		6	9/27/2024	9/28/2024
2325		6	7/9/2020	7/25/2021
2326		6	#####	7/23/2024
2327		6	#####	2/17/2024
2328		6	3/7/2021	7/6/2021
2329		6	8/15/2023	#####
2330		6	6/17/2021	6/17/2021
2331		6	#####	2/26/2021

2332	6	8/14/2024	8/15/2024
2333	6	4/24/2017	6/5/2020
2334	6	6/11/2024	#####
2335	6	8/30/2021	4/25/2022
2336	6	#####	#####
2337	6	7/31/2020	8/21/2020
2338	6	#####	1/3/2024
2339	6	#####	#####
2340	6	8/25/2020	8/25/2020
2341	6	6/9/2020	#####
2342	6	9/29/2023	#####
2343	6	5/23/2024	6/7/2024
2344	6	8/6/2024	10/5/2024
2345	6	8/12/2024	#####
2346	6	8/26/2021	10/6/2023
2347	6	6/4/2024	6/4/2024
2348	6	#####	8/15/2022
2349	6	#####	7/23/2024
2350	6	#####	#####
2351	6	9/5/2024	#####
2352	6	11/9/2020	3/15/2021
2353	6	10/7/2024	#####
2354	6	5/10/2021	7/7/2021
2355	6	7/25/2024	9/5/2024
2356	6	9/27/2024	10/1/2024
2357	6	#####	#####
2358	5	3/8/2020	3/9/2020
2359	5	3/7/2024	#####
2360	5	5/10/2020	8/13/2020
2361	5	4/17/2019	6/5/2020
2362	5	3/30/2023	12/2/2023
2363	5	12/7/2021	8/30/2022
2364	5	5/25/2012	5/26/2012
2365	5	#####	#####
2366	5	2/24/2021	7/8/2021
2367	5	4/15/2019	4/15/2019
2368	5	1/3/2024	1/3/2024
2369	5	1/25/2024	2/5/2024
2370	5	8/6/2021	8/6/2021
2371	5	7/16/2024	9/23/2024
2372	5	9/1/2021	3/31/2022
2373	5	2/21/2023	6/6/2024
2374	5	#####	9/29/2024
2375	5	5/23/2022	11/8/2023

2376	5	2/10/2020	2/24/2020
2377	5	10/8/2024	#####
2378	5	3/21/2024	3/22/2024
2379	5	1/24/2024	7/27/2024
2380	5	12/7/2023	10/1/2024
2381	5	2/28/2021	4/12/2021
2382	5	5/15/2019	5/15/2019
2383	5	4/9/2024	6/11/2024
2384	5	10/5/2024	#####
2385	5	6/5/2020	9/21/2020
2386	5	7/1/2021	7/1/2021
2387	5	11/4/2020	#####
2388	5	7/17/2020	8/31/2020
2389	5	2/8/2024	5/28/2024
2390	5	8/7/2024	10/7/2024
2391	5	10/9/2018	#####
2392	5	2/16/2023	2/24/2023
2393	5	9/10/2021	5/24/2024
2394	5	5/13/2024	5/28/2024
2395	5	#####	1/5/2021
2396	5	3/29/2019	3/29/2019
2397	5	#####	#####
2398	5	1/21/2024	1/27/2024
2399	5	3/11/2024	3/22/2024
2400	5	3/6/2020	4/1/2020
2401	5	7/21/2024	7/29/2024
2402	5	5/20/2020	2/24/2021
2403	5	3/22/2022	9/9/2023
2404	5	9/17/2024	#####
2405	5	10/8/2021	5/3/2022
2406	5	5/20/2019	5/20/2019
2407	5	11/6/2019	11/6/2019
2408	4	8/7/2019	8/7/2019
2409	4	3/30/2020	3/30/2020
2410	4	3/27/2024	4/2/2024
2411	4	1/7/2021	2/2/2021
2412	4	2/28/2024	#####
2413	4	8/23/2024	10/4/2024
2414	4	#####	#####
2415	4	5/16/2022	8/22/2022
2416	4	9/3/2020	9/3/2020
2417	4	6/2/2021	8/5/2021
2418	4	3/12/2020	9/23/2020
2419	4	#####	9/9/2024

2420		4	7/29/2017	7/29/2017
2421		4	8/12/2024	#####
2422		4	8/7/2019	8/7/2019
2423		4	5/8/2024	11/2/2024
2424		4	8/20/2024	#####
2425		4	#####	#####
2426		4	9/3/2020	9/3/2020
2427		4	3/21/2019	#####
2428		4	3/18/2021	3/29/2021
2429		4	4/11/2018	4/11/2018
2430		4	3/10/2020	3/10/2020
2431		4	9/15/2020	#####
2432		4	#####	#####
2433		4	5/21/2024	5/21/2024
2434		4	8/23/2024	#####
2435		4	7/26/2018	8/9/2020
2436		4	4/19/2021	8/13/2021
2437		4	1/30/2024	7/23/2024
2438		4	8/24/2020	9/9/2021
2439		4	9/26/2023	5/9/2024
2440		4	#####	6/8/2022
2441		4	3/7/2024	4/23/2024
2442		4	8/13/2024	#####
2443		4	#####	#####
2444		4	9/3/2020	9/3/2020
2445		4	4/17/2019	4/17/2019
2446		4	#####	#####
2447		4	#####	#####
2448		4	#####	11/6/2024
2449		4	11/4/2020	5/3/2021
2450		4	8/16/2023	9/27/2024
2451		4	1/30/2024	2/3/2024
2452		4	1/11/2021	5/12/2021
2453		4	9/3/2024	#####
2454		4	4/17/2019	5/21/2020
2455		4	11/7/2016	6/11/2020
2456		4	9/23/2020	9/24/2020
2457		4	2/28/2024	#####
2458		4	#####	1/17/2021
2459		4	7/14/2022	8/19/2024
2460		4	2/27/2024	2/27/2024
2461		3	8/24/2023	9/26/2023
2462		3	#####	#####
2463		3	4/8/2024	9/6/2024

2464	3	9/24/2020	2/11/2021
2465	3	5/20/2019	5/20/2019
2466	3	2/24/2021	3/25/2021
2467	3	8/15/2024	8/15/2024
2468	3	#####	11/9/2020
2469	3	#####	#####
2470	3	#####	4/4/2021
2471	3	5/6/2017	5/6/2017
2472	3	2/24/2021	2/24/2021
2473	3	4/24/2024	4/24/2024
2474	3	8/12/2024	9/3/2024
2475	3	5/27/2019	5/27/2019
2476	3	8/16/2024	11/2/2024
2477	3	5/17/2023	#####
2478	3	2/20/2021	3/13/2021
2479	3	#####	1/6/2021
2480	3	8/29/2024	11/3/2024
2481	3	6/7/2021	7/27/2021
2482	3	10/8/2019	10/8/2019
2483	3	2/4/2020	2/4/2020
2484	3	#####	#####
2485	3	6/13/2024	8/22/2024
2486	3	2/26/2019	2/26/2019
2487	3	#####	#####
2488	3	4/8/2024	9/6/2024
2489	3	5/6/2017	5/21/2020
2490	3	2/28/2024	9/15/2024
2491	3	11/9/2021	8/18/2023
2492	3	8/7/2019	8/7/2019
2493	3	7/25/2023	8/8/2023
2494	3	5/21/2020	5/21/2020
2495	3	5/26/2022	1/4/2024
2496	3	2/1/2024	10/9/2024
2497	3	#####	#####
2498	3	3/17/2021	3/17/2021
2499	3	5/3/2024	#####
2500	3	8/25/2024	#####
2501	3	8/14/2024	8/26/2024
2502	3	6/17/2020	#####
2503	3	#####	#####
2504	3	5/27/2019	5/27/2019
2505	3	#####	#####
2506	3	7/19/2022	5/5/2024
2507	3	#####	#####

2508	3	11/4/2024	#####
2509	3	9/9/2024	#####
2510	3	3/4/2024	#####
2511	3	1/5/2022	1/6/2022
2512	3	4/6/2021	6/27/2021
2513	3	6/8/2020	6/8/2020
2514	3	8/7/2023	#####
2515	3	4/17/2019	4/17/2019
2516	3	1/25/2021	2/17/2021
2517	3	#####	9/9/2024
2518	3	9/12/2024	#####
2519	3	8/3/2019	2/24/2021
2520	3	7/13/2021	7/21/2021
2521	3	4/10/2021	7/15/2021
2522	3	2/24/2021	2/24/2021
2523	3	8/5/2019	5/21/2020
2524	3	#####	#####
2525	2	5/15/2019	5/15/2019
2526	2	5/21/2020	5/21/2020
2527	2	5/15/2019	5/15/2019
2528	2	5/21/2020	5/21/2020
2529	2	2/19/2020	2/19/2020
2530	2	5/19/2020	5/19/2020
2531	2	5/15/2019	5/15/2019
2532	2	5/21/2020	5/21/2020
2533	2	8/9/2020	8/9/2020
2534	2	8/9/2020	8/9/2020
2535	2	2/24/2021	2/24/2021
2536	2	5/21/2020	5/21/2020
2537	2	9/21/2020	9/21/2020
2538	2	2/28/2020	2/28/2020
2539	2	5/21/2020	5/21/2020
2540	2	2/24/2021	2/24/2021
2541	2	5/18/2019	5/18/2019
2542	2	2/24/2021	2/24/2021
2543	2	2/24/2021	2/24/2021
2544	2	5/21/2020	5/21/2020
2545	2	2/19/2020	2/19/2020
2546	2	8/9/2020	8/9/2020
2547	2	4/17/2019	4/17/2019
2548	2	6/5/2020	6/5/2020
2549	2	8/9/2019	8/9/2019
2550	2	5/21/2020	5/21/2020
2551	2	3/17/2017	3/17/2017

2552	2	5/21/2020	5/21/2020
2553	2	5/21/2020	5/21/2020
2554	2	1/29/2021	#####
2555	2	#####	#####
2556	2	2/24/2021	2/24/2021
2557	2	9/3/2020	9/3/2020
2558	2	2/14/2020	2/14/2020
2559	2	8/9/2020	8/9/2020
2560	2	5/20/2020	5/20/2020
2561	2	8/25/2017	8/25/2017
2562	2	5/21/2020	5/21/2020
2563	2	9/21/2020	9/21/2020
2564	2	5/21/2020	5/21/2020
2565	2	5/9/2019	5/9/2019
2566	2	2/19/2020	2/19/2020
2567	2	4/30/2019	4/30/2019
2568	2	7/6/2021	#####
2569	2	5/21/2020	5/21/2020
2570	2	7/13/2021	7/13/2021
2571	2	2/19/2020	2/19/2020
2572	2	5/21/2020	5/21/2020
2573	2	5/21/2020	5/21/2020
2574	2	3/9/2020	3/9/2020
2575	2	2/19/2020	2/19/2020
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2577	2	7/19/2021	7/19/2021
2578	2	8/9/2019	8/9/2019
2579	2	8/9/2020	8/9/2020
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2582	2	5/21/2020	5/21/2020
2583	2	5/21/2020	5/21/2020
2584	2	8/3/2019	8/3/2019
2585	2	8/9/2019	8/9/2019
2586	2	9/21/2020	9/21/2020
2587	2	8/3/2019	8/3/2019
2588	2	9/3/2020	9/3/2020
2589	2	5/15/2019	5/15/2019
2590	2	5/21/2020	5/21/2020
2591	2	5/24/2020	5/24/2020
2592	2	6/5/2020	6/5/2020
2593	2	8/25/2017	8/25/2017
2594	2	5/21/2020	5/21/2020
2595	2	5/21/2020	5/21/2020

2596	2	8/9/2020	8/9/2020
2597	2	8/9/2019	8/9/2019
2598	2	5/19/2020	5/19/2020
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2600	2	5/21/2020	5/21/2020
2601	2	8/3/2019	8/3/2019
2602	2	6/5/2020	6/5/2020
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2604	2	6/5/2020	6/5/2020
2605	2	3/22/2017	3/22/2017
2606	2	5/21/2020	5/21/2020
2607	2	5/21/2020	5/21/2020
2608	2	9/21/2020	9/21/2020
2609	2	9/12/2019	9/12/2019
2610	2	5/6/2017	5/6/2017
2611	2	6/10/2019	6/10/2019
2612	2	5/6/2017	5/6/2017
2613	2	5/18/2019	5/18/2019
2614	2	2/28/2020	2/28/2020
2615	2	5/6/2017	5/6/2017
2616	2	5/6/2017	5/6/2017
2617	2	8/3/2019	8/3/2019
2618	2	6/5/2020	6/5/2020
2619	2	8/5/2019	8/5/2019
2620	2	1/4/2016	1/4/2016
2621	2	7/24/2018	7/24/2018
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2632	2	7/19/2021	7/19/2021
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2634	2	5/21/2020	5/21/2020
2635	2	1/4/2021	#####
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2644	2	5/21/2020	5/21/2020
2645	2	8/5/2019	8/5/2019
2646	2	8/20/2024	10/9/2024
2647	2	8/5/2019	8/5/2019
2648	2	5/21/2020	5/21/2020
2649	2	3/22/2017	3/22/2017
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2653	2	5/21/2020	5/21/2020
2654	2	9/21/2020	9/21/2020
2655	2	5/20/2019	5/20/2019
2656	2	8/9/2020	8/9/2020
2657	2	5/21/2020	5/21/2020
2658	2	5/6/2017	5/6/2017
2659	2	9/21/2020	9/21/2020
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2661	2	4/17/2019	4/17/2019
2662	2	5/6/2017	5/6/2017
2663	2	3/9/2020	3/9/2020
2664	2	5/6/2017	5/6/2017
2665	2	8/5/2019	8/5/2019
2666	2	5/6/2017	5/6/2017
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2668	2	5/6/2017	5/6/2017
2669	2	2/24/2021	2/24/2021
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2671	2	4/17/2019	4/17/2019
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2674	2	6/11/2020	6/11/2020
2675	2	5/21/2019	5/21/2019
2676	2	5/6/2017	5/6/2017
2677	2	2/28/2020	2/28/2020
2678	2	2/28/2020	2/28/2020
2679	2	5/10/2019	5/10/2019
2680	2	5/21/2020	5/21/2020
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2682	2	5/21/2020	5/21/2020
2683	2	8/3/2019	8/3/2019

2684	2	5/21/2020	5/21/2020
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2687	2	5/21/2020	5/21/2020
2688	2	5/21/2020	5/21/2020
2689	2	5/21/2020	5/21/2020
2690	2	7/26/2018	7/26/2018
2691	2	5/24/2020	5/24/2020
2692	2	5/21/2020	5/21/2020
2693	2	9/18/2022	10/6/2022
2694	2	1/26/2019	1/26/2019
2695	2	2/19/2020	2/19/2020
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4942	2	5/6/2017	5/6/2017
4943	2	5/18/2019	5/18/2019
4944	2	2/28/2020	2/28/2020
4945	2	2/28/2020	2/28/2020
4946	2	5/24/2020	5/24/2020
4947	2	5/21/2020	5/21/2020
4948	2	8/3/2019	8/3/2019
4949	2	5/21/2020	5/21/2020
4950	2	#####	#####
4951	2	9/21/2020	9/21/2020
4952	2	2/28/2020	2/28/2020
4953	2	5/15/2019	5/15/2019
4954	2	8/3/2019	8/3/2019
4955	2	#####	#####
4956	2	5/15/2019	5/15/2019
4957	2	9/3/2020	9/3/2020
4958	2	9/3/2020	9/3/2020
4959	2	5/21/2020	5/21/2020
4960	2	5/24/2020	5/24/2020
4961	2	2/24/2021	2/24/2021
4962	2	9/3/2020	9/3/2020
4963	2	2/24/2021	2/24/2021
4964	2	9/3/2020	9/3/2020
4965	2	5/6/2017	5/6/2017
4966	2	2/28/2020	2/28/2020
4967	2	9/3/2020	9/3/2020
4968	2	5/15/2019	5/15/2019
4969	2	5/18/2019	5/18/2019
4970	2	5/15/2019	5/15/2019
4971	2	5/6/2017	5/6/2017

4972	2 5/21/2020 5/21/2020
4973	2 #####
4974	2 7/26/2018 7/26/2018
4975	2 5/10/2019 5/10/2019
4976	2 5/21/2020 5/21/2020
4977	2 5/10/2019 5/10/2019
4978	2 8/3/2019 8/3/2019
4979	2 5/21/2020 5/21/2020
4980	2 9/3/2020 9/3/2020
4981	2 8/9/2019 8/9/2019
4982	2 2/28/2020 2/28/2020
4983	2 5/15/2019 5/15/2019
4984	2 2/24/2021 2/24/2021
4985	2 8/2/2019 8/2/2019
4986	2 11/6/2020 2/16/2021
4987	2 8/3/2019 8/3/2019
4988	2 5/18/2019 5/18/2019
4989	2 2/24/2021 2/24/2021
4990	2 5/21/2020 5/21/2020
4991	2 5/21/2020 5/21/2020
4992	2 4/12/2019 4/12/2019
4993	2 9/21/2020 9/21/2020
4994	2 8/29/2017 8/29/2017
4995	2 2/19/2020 2/19/2020
4996	2 5/18/2019 5/18/2019
4997	2 2/19/2020 2/19/2020
4998	2 5/6/2017 5/6/2017
4999	2 2/19/2020 2/19/2020
5000	2 2/24/2021 2/24/2021
5001	2 2/28/2020 2/28/2020
5002	2 2/28/2020 2/28/2020
5003	2 8/2/2019 8/2/2019
5004	2 5/21/2020 5/21/2020
5005	2 5/18/2019 5/18/2019
5006	2 4/6/2019 4/6/2019
5007	2 5/21/2020 5/21/2020
5008	2 6/5/2020 6/5/2020
5009	2 5/21/2020 5/21/2020
5010	2 9/21/2020 9/21/2020
5011	2 5/21/2020 5/21/2020
5012	2 5/6/2017 5/6/2017
5013	2 5/21/2020 5/21/2020
5014	2 5/21/2020 5/21/2020
5015	2 5/21/2020 5/21/2020

5016	2	5/15/2019	5/15/2019
5017	2	5/21/2020	5/21/2020
5018	2	5/21/2020	5/21/2020
5019	2	5/21/2020	5/21/2020
5020	2	8/3/2019	8/3/2019
5021	2	5/25/2020	5/25/2020
5022	2	5/21/2020	5/21/2020
5023	2	6/5/2020	6/5/2020
5024	2	5/21/2020	5/21/2020
5025	2	8/9/2020	8/9/2020
5026	2	4/17/2019	4/17/2019
5027	2	2/24/2021	2/24/2021
5028	2	8/3/2019	8/3/2019
5029	2	2/24/2021	2/24/2021
5030	2	5/5/2017	5/5/2017
5031	2	2/24/2021	2/24/2021
5032	2	8/5/2019	8/5/2019
5033	2	5/20/2020	5/20/2020
5034	2	5/21/2020	5/21/2020
5035	2	5/6/2017	5/6/2017
5036	2	5/21/2020	5/21/2020
5037	2	5/21/2020	5/21/2020
5038	2	5/21/2020	5/21/2020
5039	2	8/5/2019	8/5/2019
5040	2	9/21/2020	9/21/2020
5041	2	4/17/2019	4/17/2019
5042	2	5/4/2017	5/4/2017
5043	2	5/10/2019	5/10/2019
5044	2	5/21/2020	5/21/2020
5045	2	5/15/2019	5/15/2019
5046	2	2/22/2021	2/22/2021
5047	2	5/15/2019	5/15/2019
5048	2	8/9/2019	8/9/2019
5049	2	5/18/2019	5/18/2019
5050	2	2/19/2020	2/19/2020
5051	2	5/18/2019	5/18/2019
5052	2	2/28/2020	2/28/2020
5053	2	5/18/2019	5/18/2019
5054	2	2/28/2020	2/28/2020
5055	2	5/18/2019	5/18/2019
5056	2	8/9/2019	8/9/2019
5057	2	6/4/2019	6/4/2019
5058	2	5/20/2020	5/20/2020
5059	2	5/21/2020	5/21/2020

5060	2	5/21/2020	5/21/2020
5061	2	5/21/2020	5/21/2020
5062	2	5/21/2020	5/21/2020
5063	2	2/24/2021	2/24/2021
5064	2	5/21/2020	5/21/2020
5065	2	5/21/2020	5/21/2020
5066	2	5/21/2020	5/21/2020
5067	2	6/10/2019	6/10/2019
5068	2	5/21/2020	5/21/2020
5069	2	6/10/2019	6/10/2019
5070	2	5/21/2020	5/21/2020
5071	2	5/21/2020	5/21/2020
5072	2	5/21/2020	5/21/2020
5073	2	5/6/2017	5/6/2017
5074	2	8/9/2020	8/9/2020
5075	2	8/3/2019	8/3/2019
5076	2	9/21/2020	9/21/2020
5077	2	8/3/2019	8/3/2019
5078	2	2/19/2020	2/19/2020
5079	2	8/3/2019	8/3/2019
5080	2	4/17/2019	4/17/2019
5081	2	8/3/2019	8/3/2019
5082	2	5/6/2017	5/6/2017
5083	2	8/5/2019	8/5/2019
5084	2	2/16/2023	6/6/2023
5085	2	8/5/2019	8/5/2019
5086	2	5/21/2020	5/21/2020
5087	2	8/6/2019	8/6/2019
5088	2	9/21/2020	9/21/2020
5089	2	5/18/2019	5/18/2019
5090	2	5/15/2019	5/15/2019
5091	2	11/2/2024	#####
5092	2	5/15/2019	5/15/2019
5093	2	5/21/2020	5/21/2020
5094	2	7/15/2021	7/15/2021
5095	2	2/28/2020	2/28/2020
5096	2	5/21/2020	5/21/2020
5097	2	5/20/2020	5/20/2020
5098	2	5/20/2020	5/20/2020
5099	2	5/21/2020	5/21/2020
5100	2	5/20/2020	5/20/2020
5101	2	5/21/2020	5/21/2020
5102	2	5/20/2020	5/20/2020
5103	2	5/20/2020	5/20/2020

5104	2	5/21/2020	5/21/2020
5105	2	5/21/2020	5/21/2020
5106	2	5/21/2020	5/21/2020
5107	2	5/21/2020	5/21/2020
5108	2	5/21/2020	5/21/2020
5109	2	5/21/2020	5/21/2020
5110	2	5/21/2020	5/21/2020
5111	2	5/21/2020	5/21/2020
5112	2	5/21/2020	5/21/2020
5113	2	6/5/2020	6/5/2020
5114	2	5/21/2020	5/21/2020
5115	2	3/5/2020	3/5/2020
5116	2	5/21/2020	5/21/2020
5117	2	5/21/2020	5/21/2020
5118	2	6/5/2020	6/5/2020
5119	2	5/21/2020	5/21/2020
5120	2	#####	1/2/2018
5121	2	5/21/2020	5/21/2020
5122	2	8/3/2019	8/3/2019
5123	2	8/8/2020	8/8/2020
5124	2	8/9/2020	8/9/2020
5125	2	8/9/2020	8/9/2020
5126	2	5/15/2019	5/15/2019
5127	2	8/9/2020	8/9/2020
5128	2	8/3/2019	8/3/2019
5129	2	6/5/2020	6/5/2020
5130	2	9/19/2024	11/7/2024
5131	2	5/21/2020	5/21/2020
5132	2	9/21/2020	9/21/2020
5133	2	5/21/2020	5/21/2020
5134	2	2/24/2021	2/24/2021
5135	2	8/9/2020	8/9/2020
5136	2	5/15/2019	5/15/2019
5137	2	9/3/2020	9/3/2020
5138	2	5/15/2019	5/15/2019
5139	2	9/25/2013	9/26/2013
5140	2	12/8/2021	4/25/2022
5141	2	9/21/2020	9/21/2020
5142	2	2/24/2021	2/24/2021
5143	2	8/9/2019	8/9/2019
5144	2	2/28/2020	2/28/2020
5145	2	9/3/2020	9/3/2020
5146	2	#####	6/30/2024
5147	2	5/15/2019	5/15/2019

5148	2	8/9/2019	8/9/2019
5149	2	5/21/2020	5/21/2020
5150	2	3/9/2020	3/9/2020
5151	2	3/30/2020	9/9/2020
5152	2	5/18/2019	5/18/2019
5153	2	8/3/2019	8/3/2019
5154	2	5/21/2020	5/21/2020
5155	2	#####	#####
5156	2	5/15/2019	5/15/2019
5157	2	4/17/2019	4/17/2019
5158	2	5/21/2020	5/21/2020
5159	2	5/15/2019	5/15/2019
5160	2	5/6/2017	5/6/2017
5161	2	5/15/2019	5/15/2019
5162	2	6/5/2020	6/5/2020
5163	2	8/5/2019	8/5/2019
5164	2	5/21/2020	5/21/2020
5165	2	5/18/2019	5/18/2019
5166	2	6/5/2020	6/5/2020
5167	2	6/22/2021	6/22/2021
5168	2	5/15/2019	5/15/2019
5169	2	8/3/2019	8/3/2019
5170	2	9/18/2020	9/18/2020
5171	2	8/5/2019	8/5/2019
5172	2	3/9/2020	3/9/2020
5173	2	8/5/2019	8/5/2019
5174	2	6/5/2020	6/5/2020
5175	2	8/5/2019	8/5/2019
5176	2	5/6/2017	5/6/2017
5177	2	8/5/2019	8/5/2019
5178	2	9/3/2020	9/3/2020
5179	2	8/9/2019	8/9/2019
5180	2	9/3/2020	9/3/2020
5181	2	5/15/2019	5/15/2019
5182	2	4/17/2019	4/17/2019
5183	2	6/14/2019	6/14/2019
5184	2	4/26/2019	4/26/2019
5185	2	7/25/2019	7/25/2019
5186	2	5/10/2019	5/10/2019
5187	2	5/1/2021	5/1/2021
5188	2	5/10/2019	5/10/2019
5189	2	5/21/2020	5/21/2020
5190	2	5/10/2019	5/10/2019
5191	2	2/19/2020	3/9/2020

5192	2	5/15/2019	5/15/2019
5193	2	3/4/2021	3/4/2021
5194	2	5/15/2019	5/15/2019
5195	2	5/6/2017	5/6/2017
5196	2	5/18/2019	5/18/2019
5197	2	5/18/2019	5/18/2019
5198	2	8/3/2019	8/3/2019
5199	2	5/10/2019	5/10/2019
5200	2	8/5/2019	8/5/2019
5201	2	#####	#####
5202	2	8/9/2019	8/9/2019
5203	2	6/1/2015	6/1/2015
5204	2	4/17/2019	4/17/2019
5205	2	5/10/2019	5/10/2019
5206	2	5/10/2019	5/10/2019
5207	2	5/18/2019	5/18/2019
5208	2	5/18/2019	5/18/2019
5209	2	5/18/2019	5/18/2019
5210	2	6/11/2019	6/11/2019
5211	2	5/6/2017	5/6/2017
5212	2	8/3/2019	8/3/2019
5213	2	8/3/2019	8/3/2019
5214	2	8/3/2019	8/3/2019
5215	2	9/21/2020	9/21/2020
5216	2	8/9/2019	8/9/2019
5217	2	8/16/2019	8/16/2019
5218	2	8/2/2024	8/2/2024
5219	2	9/3/2020	2/24/2021
5220	2	5/15/2019	5/15/2019
5221	2	5/18/2019	5/18/2019
5222	2	7/15/2019	7/15/2019
5223	2	8/5/2019	8/5/2019
5224	2	8/5/2019	8/5/2019
5225	2	3/20/2020	4/18/2020
5226	2	5/22/2019	5/22/2019
5227	2	7/31/2019	7/31/2019
5228	2	8/9/2019	8/9/2019
5229	2	8/9/2019	8/9/2019
5230	2	#####	#####

EXHIBIT 44

ActBlue Customer Service Inquiry (June 8, 2020);
see AB-HJC-001958

#2526961 Fraud #2

Submitted: June 08, 2020 at 12:56 AM

Received: api

Requester: [REDACTED]@gmail.com>

Status: closed

Type: -

Priority: normal

Assignee: [REDACTED]

Group: Donor Support

No Additional Information

[REDACTED] June 08, 2020 at 12:56 AM

To Whom It May Concern:

This is to let you know that someone charged \$500.00 using the Act Blue website to make a contribution on my American Express card. The card number listed on your receipt to me was the number of a card stolen from me last December, 2019, in Spain by a pickpocket. I didn't make this charge. The reference number for this transaction is [REDACTED] made on June 7, 2020, at 5:16 (EDT?). I'm just wondering how you could get an expired card number to go through the American Express system. Who made the contribution? Who approved it? The contributions went to Joyce Elliot (AR-02), Jackie Gordon (NY-02), and Off the Sidelines PAC.

I'd also like to make sure you don't have any of my card numbers in your records. Could you please let me know how all this could happen? If you want to call or text, try [REDACTED]

Sincerely,

[REDACTED] June 11, 2020 at 6:16 PM

Hi [REDACTED]

Thanks for reaching out, and I apologize for any confusion regarding your donation! I have issued a refund for \$500, and you should see that post back to your account within 1-2 business days.

Please let me know if there's anything else I can do to help!

Best,

[REDACTED] June 12, 2020 at 7:58 AM

To whom It May Concern:

I recently (June 7th) sent Act Blue a message asking about a \$500.00 contribution made on a credit card on June 7th. Could you please check that email from me and respond?

API User June 12, 2020 at 8:40 AM

[REDACTED] ran the ****Billing**** workflow

API User June 12, 2020 at 8:40 AM

Workflow ****Assign billing tag**** was triggered

API User June 12, 2020 at 8:40 AM

Workflow ****Add "Assigned Status" when a conversation is assigned**** was triggered

API User June 13, 2020 at 11:00 AM

██████████ merged threads from another conversation

██████████ June 13, 2020 at 11:15 AM

Hi ██████████

Thank you for following up! I can confirm that a refund of \$500 was issued to you on 06/11/2020. Generally we find that credits should post back to the original account in 1-2 business days, however we do not have any control over the clearing process.

In addition to the refund receipt you should have received on 06/11/2020, I have also attached a screenshot from our system showing that this refund was processed.

If this amount does not post back to your account by Monday, I would encourage you to speak with your bank directly for further information about general posting times.

If there is anything else I can help you with, please let me know!

Best,

██████████

EXHIBIT 45

ActBlue Performance Review of Fraud Prevention
Employee (Oct. 31, 2024)

Period covering 10/1/24 - 10/31/24

■ had reviews for all assigned shift. Great jobs!

■ had much lower than the median reviews per shift, in the first quartile. I recommend looking for ways to optimize your review process to get through more reviews. He also only had 1 rejection, which was much lower than team median. There is no need to reject contributions to hit a target, but I am providing that comparison to help provide the perspective on what others are seeing.

Great job escalating some donations where you were not 100% sure whether to accept. Checked off resolution reviewed when I replied. Flagged numerous proactive outreach opportunities.

Audit:

- "1. AB ■ - Great accept. Donor is a frequent flyer but definitely good.
- 2. AB ■ - Great accept. Very normal donor.
- 3 .AB ■ - Great reject. Person is trolling."

Period covering 9/1/24 - 9/30/24

████ had reviews for all assigned shift. Great jobs!

████ had below the median reviews per shift, in the lower 25%. I would encourage looking into ways to review more contributions per shift. This can be achieved by doing reviews faster, and should come with time as █████ spends more in the workflow. He had no rejections, which is below the median. We don't want to force rejections, but please keep an eye out for contributions which are illegitimate! You can expect to reject 1 in every 100 reviews.

Great job flagging proactive outreach opportunities. Flagged a contribution from █████@yahoo.com that had a lot of suspicious characteristics that I ended up rejecting for the reasons he escalated. Has started checking off resolution reviewed when I send resolutions.

Audit:

- "1. AB █████ - █████ accepted this donation but it should have been flagged as potentially fraudulent. Donor used multiple different credit cards, had an IP/billing location mismatch and was giving to candidates in cities other than their own, an an extremely suspicious email domain.
2. AB █████ - This was also accepted but should have been flagged for fraud. The person was trying to give several donations of odd, high dollar donations to a c3 organization, which are very often fraud. The email was also suspicious and they had numerous IP/billing mismatches.
3. AB █████ - Great accept. Nothing suspicious about this donor and all of their information is consistent and normal!"

Period covering 8/1/24 - 8/31/24

████ had reviews for all assigned shift. Great jobs!

████ had below the average reviews and had no rejections, but rejection rate was low team-wide

Great job flagging proactive outreach opportunities! Went the extra mile to get the likely names for donors who did not provide them.

Audit:

- "1. AB █████ - Great accept! Donor is normal but fails their transactions so good for proactive outreach!
2. AB █████ - Great accept! Nothing suspicious about this donor!
3. AB █████ - Great accept! Very close IP/billing address and nothing else odd."

Period covering 7/1/24 - 7/31/24

████ had reviews for all assigned shift. Great jobs!

████ had below the average reviews per shift and below the average rejection rate.

Great job escalating unclear donations. Did investigatory work like looking for an online precense for the donor. Please be sure to check off the resolution reviewed box if I send an email about the resolution!

Audit:

"1. AB █████ - Great accept. Nothing suspicious about this donor and Sift is just overscoring them

2. AB █████ - Great accept. Same situation as above

3. AB █████ - Great reject. Donor's address is ""123 Number St"". Please remember to add case comments for rejections"

Period covering 6/1/24 - 6/30/24

████ had a shift without reviews (6/8)

Below the average reviews per shift, which is understandable given he just started. Had no rejections, which isn't unreasonable with our low rejection rate

Great job escalating some proactive outreach opportunities and some more difficult tickets that needs further review. Also, checked off Resolution Reviewed which is great!

Audit:

"1. AB █████ - Great accept. Normal donor behavior (other than the fact that their donations fail, but that is a proactive outreach situation, not a rejection one), plus they have reached out to us on Zendesk.

2. AB █████ - Great accept. Donor fails some of their transactions but this is about as normal as it gets!

3. AB █████ - Great accept. Tightly clustered IP/billing. Very specific donor information (donor gave us their job title). "

EXHIBIT 46

ActBlue Customer Service Inquiry (Sept. 12, 2024)

#5642388 Trouble donating

Submitted September 12, 2024 at 11:44AM **Received via** Web Form **Requester** [REDACTED]@comcast.net>

Status Closed **Type** - **Priority** Normal **Group** Donor Support **Assignee** [REDACTED]

Donor Contact Form Subject Error Message or Technical Issue **Error Message Text** No **Last Name** [REDACTED] **First Name** [REDACTED]
Web Form Email [REDACTED]@comcast.net **Donor Inquiry Type** Donation Processing::Declined Donations **Requester Type** I am a donor
Contact Us Form? Yes **End User Phone Number** [REDACTED] **Time spent last update (sec)** 12 **Total time spent (sec)** 128

[REDACTED] September 12, 2024 at 11:44AM

When I try to donate I have trouble with it going through. It continues to think.

[REDACTED] September 15, 2024 at 11:41AM

Internal note

Choose the reason for sending to Donation Processing below and delete the rest (reference the [Donation Processing Issue Guide](#) if needed). If none apply, do a general escalation instead.

If donor's:

- Attempted donations are declining

Have you reviewed the Contribution Details Page in Indigo for the Change History, Payment Info, and Payment Authorizations? Please specify what you have done or N/A:

Decline message "manual"

[REDACTED] September 18, 2024 at 9:54 PM

Internal note

I am escalating this ticket because (select one):

- There is an issue with the contribution because of Sift (e.g. automatically rejected, but donor seems legitimate)

Rejected due to Domestic Gift Cards

[REDACTED] September 19, 2024 at 2:48 PM

Hi [REDACTED]

Thanks for reaching out and I'm sorry to hear about your declined donation.

We recommend getting in touch with your financial institution for further information about why the contribution is not being processed.

Please let me know if you have any other questions!

Best,

September 19, 2024 at 3:48 PM

This has nothing to do with a financial institution. I purchase gift cards and donate from them. It has always worked until lately. I would love to keep donating but if the bug is not worked out I'm afraid I can't donate. I always get Hang tight, we're working on it! Almost done... Thanks for your patience. (Then nothing happens)

Sent from my iPhone

September 19, 2024 at 5:46 PM

Hi

Thanks for getting back to me!

Your donation attempt failed to process due to the payment method. While we do not accept pre-paid gift cards, you're welcome to use a credit or debit card, ApplePay, PayPal, or Venmo.

I'm sorry for the inconvenience, but we hope you'll continue to support the candidates and causes you care about through one of those alternate payment methods.

Please let me know if you have any other questions!

Best,

Support Software by **Zendesk**

EXHIBIT 47

ActBlue Customer Service Inquiry (Sept. 12, 2024)

#5643182 My donation is not going through.

Submitted September 12, 2024 at 4:32 PM **Received via** Web Form **Requester** [REDACTED]@hotmail.com>

Status Closed **Type** - **Priority** Normal **Group** Donor Support **Assignee** [REDACTED]

Requester Type I am a donor **Donor Inquiry Type** Donation Processing::Declined Donations **Web Form Email** [REDACTED]@hotmail.com **First Name** [REDACTED]

Last Name [REDACTED] **Error Message Text** Just hang tight etc **Total time spent (sec)** 221 **Time spent last update (sec)** 36

End User Phone Number [REDACTED] **Contact Us Form?** Yes **Donor Contact Form Subject** Error Message or Technical Issue

[REDACTED] September 12, 2024 at 4:32 PM

I've donated before. The last three attempts through a text, all my current info credit card etc comes up I push donate it goes to a screen with hang tight we're almost there. Etc. but never completes. I am using Firefox it is current.

[REDACTED] September 15, 2024 at 8:54 AM

Internal note

Requests [REDACTED] were closed and merged into this request.

[REDACTED] September 17, 2024 at 11:35 AM

Internal note

Choose the reason for sending to Donation Processing below and delete the rest (reference the [Donation Processing Issue Guide](#) if needed). If none apply, do a general escalation instead.

If donor's:

- Attempted donations are declining

Have you reviewed the Contribution Details Page in Indigo for the Change History, Payment Info, and Payment Authorizations? Please specify what you have done or N/A:

Declining with "manual"

[REDACTED] September 18, 2024 at 9:42 PM

Internal note

I am escalating this ticket because (select one):

- There is an issue with the contribution because of Sift (e.g. automatically rejected, but donor seems legitimate)

Rejected due to Foreign Issued Prepaid Cards

[REDACTED] September 19, 2024 at 2:48 PM

Thanks for reaching out and I'm sorry to hear about your declined donation.

We recommend getting in touch with your financial institution for further information about why the contribution is not being processed.

Please let me know if you have any other questions!

Best,

[Redacted Signature]

Support Software by **Zendesk**

EXHIBIT 48

Email From ActBlue Fraud Specialist to Sift
Personnel (June 4, 2024)

From: [REDACTED]@siftscience.com]
on behalf of [REDACTED]@siftscience.com> [REDACTED]@siftscience.com]
Sent: 9/12/2024 10:35:40 PM
To: [REDACTED]@actblue.com]
CC: [REDACTED]@siftscience.com]
Subject: Re: Missed transactions

Hi [REDACTED]

Apologies for the delay in getting back to you on this as we have been primarily focused on the recent model optimizations. One question our team had here was how ActBlue is determining the donations are all made with the same credit card? Since we do not collect the entire pan this is not something we would be able to determine in our system.

Would you be able to share any more details?

Thank you,

[REDACTED]



[REDACTED]
Senior Customer Success Manager

[REDACTED]
sift.com

On Thu, Sep 12, 2024 at 12:23 PM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

I was hoping to close the loop on this issue.

We saw a large number of donations that were made with the exact same credit card, but were not flagged for manual review. For example, the last donation made, [REDACTED], was connected to 127 other users with the same payment fingerprint but only scored 79.

You mentioned Sift having an open investigation. Could you share any findings your team made if possible?

Best,

[REDACTED]

On Tue, Jun 4, 2024 at 8:10 PM [REDACTED]@siftscience.com> wrote:

Hi [REDACTED]

Thank you for sharing these examples. Yes, I have just included these in the open investigation around why we are seeing manual rates increase after the latest model changes were made, and additionally now, why risky users are not scoring high enough.

I am including my manager [REDACTED] on this thread so that she is in the loop and can help with coverage and relaying updates while I am on sabbatical June 17th - July 26th.

We will be in touch with updates shortly!

- [REDACTED]



[REDACTED]
Senior Customer Success Manager

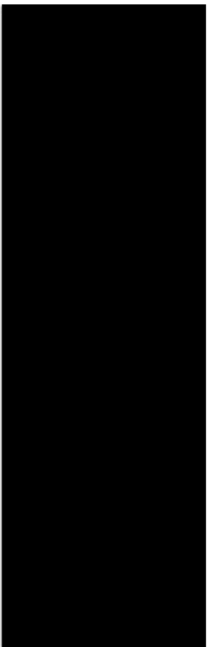
[REDACTED]
sift.com

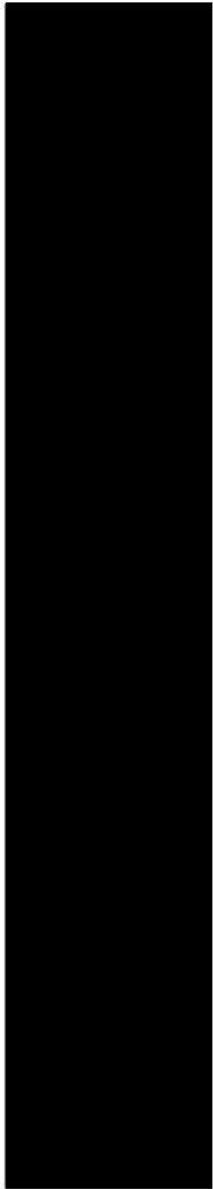
On Tue, Jun 4, 2024 at 3:03 PM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

We discovered some contributions that were not caught by our existing workflow to be manually reviewed when we would have preferred that they were. As you can see, they all have the same credit card number and email domain. Could you please help me understand why these were not scored higher, despite their signals?

List of transactions:





Senior Workflow Specialist | ActBlue
secure.actblue.com



(Redacted)
Senior Workflow Specialist | ActBlue
secure.actblue.com

EXHIBIT 49

Email From ActBlue Fraud Specialist to Sift
Personnel (July 24, 2024)

From: [REDACTED]@actblue.com]
on behalf of [REDACTED]@actblue.com> [REDACTED]@actblue.com]
Sent: 7/25/2024 3:46:56 PM
To: [REDACTED]@actblue.com]
Subject: Fwd: Question regarding our model

We sought clarification because [REDACTED] and I left last week's meeting with different interpretations of what they were saying. Passing along for you to also be aware!

----- Forwarded message -----

From: [REDACTED]@actblue.com>
Date: Thu, Jul 25, 2024 at 11:42 AM
Subject: Fwd: Question regarding our model
To: [REDACTED]@actblue.com>

----- Forwarded message -----

From: [REDACTED]@siftscience.com>
Date: Wed, Jul 24, 2024 at 7:38 PM
Subject: Re: Question regarding our model
To: [REDACTED]@actblue.com>

Hi [REDACTED]

Let me help address these one by one:

Feature analysis:

- Sift Engineers did some deep analysis on ActBlue's model and we found 2 signals that we plan to make non-learnable because they are not strongly associated with fraud. These signals are 'payment fingerprint (BIN/Last4)' and '# failed transactions/BIN'. We are evaluating if we can turn these off safely for the July model release (today/tomorrow), or if we have to wait for the August model release (8/20). I am in constant communication with Engineers right now, so should have a decision by the end of the day.

Questions

1. In addition to that, you mentioned that there may be some further limitations with our model because of some baseline assumptions Sift is making about our traffic without accounting for the unique nature of our business. Is that a correct summary?

○ I do not recall saying this. We did a deep analysis of features and only 2 seemed ill-aligned with fraud, all others are triggering well. Perhaps we can talk through this in more detail. I do not want you to think Sift is not a good fit for ActBlue, as we have a history of strong performance.

2. Am I also correct that you mentioned that Sift engineers would be taking a renewed look at our model?

○ [REDACTED] has had a score investigation open for a few months to investigate accuracy. While [REDACTED] is on sabbatical, I pushed the team to prioritize new ways of looking at the data, and we found some ways to improve performance (non-learnable signals mentioned above), and we also have items in our near term roadmap that will additionally support performance improvement (adaptive sampling for accept labels). Which is good!

3. Does that mean we will need a new model built from the ground up at some point?

○ No, we do not think we need to build a model from the ground up for ActBlue. You have a model that is identifying fraud well, we are now focused on how to **accept** labels lower. The above will help in this endeavor.

4. Finally, could you clarify when you speak about ActBlue's model, do you mean that all of Sift's clients have an entirely bespoke model (built from the ground up via those aforementioned assumptions) or that all clients start with the same Sift model that is then tuned over time?

○ Oo good question. When customers launch with Sift, they all launch with access to our Global Model (informed by learnings from our global network of customers). As you ramp with Sift and send in block and accept labels, these labels work to train up a Custom Model (specific to the customer). So right now ActBlue is using 2 models to produce Sift Scores (Global Model and Custom Model) they both influence the score. The good thing about having a Global Model is that when fraud is detected within our network that then comes to ActBlue, we will know that and score it higher. The good thing about a Custom Model is that fraud shows up differently for many businesses, and we can learn about specific fraud for that business to boost performance! This is a very brief explanation, please let me know if you would like a refresher training on this, happy to facilitate!

I hope this is helpful! Happy to set up more time to connect. My main focus right now is on the non-learnable features and communicating timeline!

On Wed, Jul 24, 2024 at 1:44 PM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

Hope you're having a great day!

I just wanted to clear up some confusion on our end about what exactly was discussed in last week's meeting with [REDACTED] and [REDACTED]. You mentioned that you would be making two improvements to our model (making some signals unlearnable and changing accept sampling).

1. In addition to that, you mentioned that there may be some further limitations with our model because of some baseline assumptions Sift is making about our traffic without accounting for the unique nature of our business. Is that a correct summary?

2. Am I also correct that you mentioned that Sift engineers would be taking a renewed look at our model?

3. Does that mean we will need a new model built from the ground up at some point?

4. Finally, could you clarify when you speak about ActBlue's model, do you mean that all of Sift's clients have an entirely bespoke model (built from the ground up via those aforementioned assumptions) or that all clients start with the same Sift model that is then tuned over time?

Thanks a bunch for all of your hard work!

Best,



--



Senior Workflow Specialist | ActBlue
secure.actblue.com

--



Director, Customer Success Management



[Read the complimentary report](#)

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Senior Workflow Specialist | ActBlue
secure.actblue.com

EXHIBIT 50

Emails Between ActBlue Fraud Specialist and Sift
Personnel (May 3, 2023)

From: [REDACTED]@siftscience.com]
Sent: 5/9/2023 4:02:03 AM
To: [REDACTED]@actblue.com]
CC: [REDACTED]@siftscience.com]; [REDACTED]@siftscience.com]
Subject: Re: Reminder: Possible Card Hopping Users Found

Hi [REDACTED]

This is very specific to each business. In your case, it appears that the 2 users are the anomaly on your platform. Users don't usually use 9 cards to make donations in one month. The fact that most of the donations are small amounts, it potentially could be a card tester to test if the card is valid before the user uses the card someplace else.

On the other hand, maybe the user does have a valid reason why they are using 9 cards to donate. :)
Do let me know if you have any other queries I can address.

Thanks and best regards,

[REDACTED]

The working hours I choose may not always align with your standard business hours, so please don't feel obligated to respond outside of your workday or week.

On Wed, May 3, 2023 at 10:33 PM [REDACTED]@actblue.com> wrote:

Hi [REDACTED]

Thanks for following up with that extra information!

Interestingly, both those users have strong indications that they are real customers. There are plausible explanations for someone using that many cards, correct?

Best,

[REDACTED]

On Wed, May 3, 2023 at 12:28 AM [REDACTED]@siftscience.com> wrote:

Hi [REDACTED]

I looked into your query and realized that we only found one user during the search, hence when you are looking at the specific dates, the user may have passed the date period we are referring to. I managed to pull these 2 users that have more than 9 cards on their account for your review. It would be great to understand if this is normal behaviour for your platform.

Users with more than 9 cards in March

1. [REDACTED]@hotmail.com
2. [REDACTED]@cs.com

Let me know if you have any other questions.

Regards,

The working hours I choose may not always align with your standard business hours, so please don't feel obligated to respond outside of your workday or week.

On Wed, Apr 26, 2023 at 11:29 PM [REDACTED] via [REDACTED]

[REDACTED]@siftscience.com> wrote:

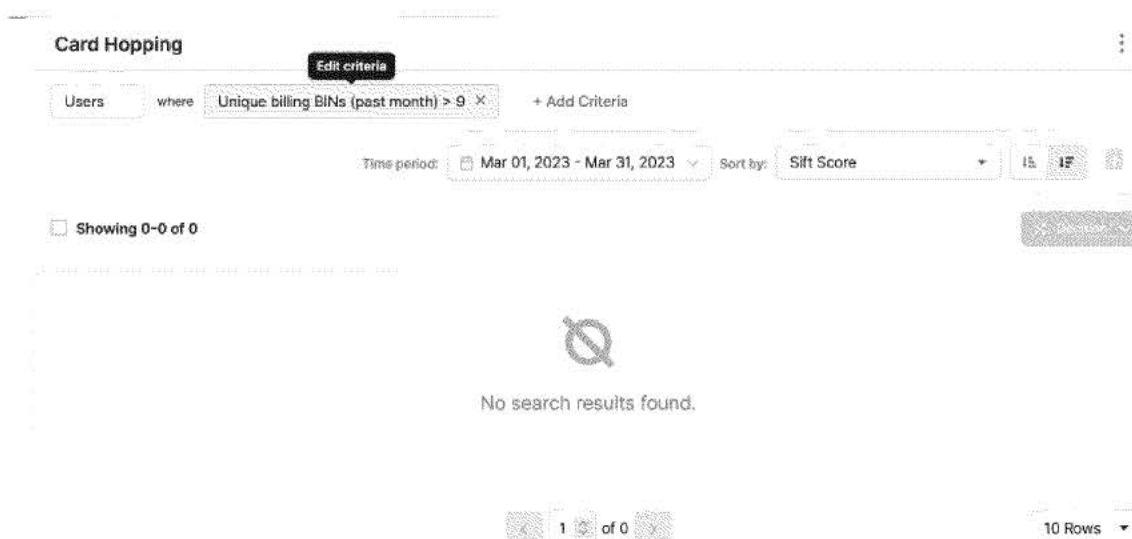
Hi there,

Thanks for following up!

I tried to create an explore with the search criteria you mentioned, but am not seeing any results. Am I doing something wrong?

Best,

[REDACTED]



On Wed, Apr 26, 2023 at 2:53 AM Sift Account Optimization [REDACTED]@sift.com> wrote:

Hi [REDACTED]

Our team emailed you on 13th April regarding some anomalous activity we noticed in your account. Specifically, we found a number of your users on your platform that are displaying a card hopping scenario. This type of activity can be associated with fraud so we wanted to proactively bring it to your attention.

We have not had a reply so wanted to confirm that you received the message.

- Number of users associated with card hopping at [REDACTED]: 1
- Average number of cards per user with card hopping: 12

We recommend taking a closer look at transactions associated with these accounts to see if there may be any malicious activity and then marking them as "good" or "bad" in the Sift Console.

If you'd like to review the users, you can use the explore page and filter the following conditions:

- Unique Billing BINs (past month) > 9

- Filter custom dates from 1st Mar to 31 Mar.

The results may give you a higher number. This is because our calculations are based on transaction events while your query may include other events where the user has multiple cards on file.

In addition, if you'd like us to take a deeper look into your account to do some custom model training via labels and provide some Workflow and Console suggestions to optimize performance, please let us know. There is no additional charge for this review.

What you can expect from an optimization review:

- Sift to help identify both good and bad transactions/fraud rings which will help your company reduce fraud even faster.
- Create Sift Workflow and Console recommendations.
- Flag missing signals and data points that could lead to abuse.
- Summary of any new fraud trends we find impacting your system.

Common benefits of these complimentary one-time account optimization can include:

- Lower chargeback rates.
- Higher acceptance rates.
- Better model performance and score distributions.
- Reduced and/or more efficient manual review for your team.

Take Care,



[Redacted]
Head of Value Engineering

[Redacted]
The working hours I choose may not always align with your standard business hours, so please don't feel obligated to respond outside of your workday or week.



[Access our new customer community](#) to get your fraud questions answered and connect directly with product experts.

ActBlue
Fraud Specialist

--
[REDACTED]
ActBlue
Fraud Specialist

EXHIBIT 51

ActBlue memorandum, *Known Instances of Fraud*
(Dec. 1, 2024)

Known Instances of Fraud

External Fraud Attacks

Brazilian CfAPAF Attack

First discovered on 9/30, there are about a half dozen contributions to the organization Center for American Progress Action Fund from Brazilian donors. These are unlikely donors to this organization, and the donors are each using several different cards on each donation.

CO, no-space address Attack

Discovered in late August. Donations all had Colombian credit cards, and wrote their address in the style "727u St Nw" (no space between the first number and letter). A few dozen instances, but easily caught.

\$1 Foreign Multi-user Attack

All are for \$1

Most are targeting Midwest entities (for example, the Democratic Party of Wisconsin)

IP/Billing Country are Mismatched

IP is often in Myanmar, Iraq, Jordan, Philippines, and Saudi Arabia

Email nomenclature is FirstnameCapitalizedrandomletters (example:

██████████@gmail.com). You can only see what letters are capitalized in Indigo, so if the previous 4 characteristics match, open the donation in Indigo and see if this one matches too

NAACP

The NAACP has been the target of fraudulent contributions for several years. More often than not, the contributions are one-offs, but there have been a few coordinated efforts. It is a bit more understandable why this entity would be the target of "bad" donations

because of its mission and because c3s may be more likely to target for foreign donation attempts for card testing.

Erin Joyce

First discovered at the end of August 2023, there has been an ongoing attack against this campaign. Most of the donations are foreign-origin, typically for low dollar amounts. There does not seem to be a logical explanation for why *this* campaign is the target of the attack.

Global Zero

37 fraudulent contributions from 12/10/22 - 1/9/23. These contributions are all for tens of thousands of dollars. They have fake/suspicious email domains. The billing name and address are extreme, for example, including special characters. IP/Billing mismatches. Some contributions are connected via fingerprints

ChildFund International

First discovered on 9/21/2022. Rejected 17 contributions. Connected to Courage California, and similarly, has little in the way of connected donations, and is more a case where all contributions to the entity are clearly fake.

Courage California

First discovered on 9/6/2022. Around 230 contributions were rejected. There are very little connecting signals, so the fraudster has the ability to change their characteristics significantly on each attempt. However, nearly all the contributions include characteristics that make them obviously fake, such as a difference in the name in the billing field and the email address, fake addresses, and/or different billing and IP addresses. Some contributions also had attempts to ChildFund International, so the attacks are likely connected.

Laura Kelly

6/8/2022 to 6/14/2022 many thousand dollar or more donations to Laura Kelly campaign from IP address [REDACTED] or CC token [REDACTED] and generic names/emails

Early June c3 Attack

During the week of Jun 5 - Jun 11, 2022, there were many (around 50) fraudulent contribution attempts to various c3 organizations, primarily the NAACP. The donations came from many different donors, whose only similarities appeared to be that they gave very small (\$1.00) or very large (>\$1000) donations and that their characteristics were very obviously fraudulent. Most of these were caught and rejected.

Steven Horsford

At least a dozen contributions were made to this campaign in late January, early February 2022. Most had a bad NY address and a foreign or VPN IP address. The Horsford campaign is continuously under attack, even in Q4 of 2023.

[REDACTED]@gmail.com

First noticed 1/31/2022. Over a dozen contributions originating in India with the name fghjgfg jrtrtjh and variations of the email above, all to Vote Common Good.

Bug Bounty Hunters

Flagged by an associate on 1/19/22 at night. Contributions were made with Express profiles that created their own fundraising forms. Emails included [REDACTED]@gmail.com and [REDACTED]@gmail.com. The Security team picked up these behaviors with Bugsnag.

Card Test Example

Discovered on 12/13/21. Sift score of 100 and other suspicious characteristics. Donations for \$1.00. Google search of the email, [REDACTED]@gmail.com, shows a post on a hacking tools forum.

Targeted Victory/Golden Taquila

Escalated by an associate June 16th, 2021. There was a series of contributions, all for \$1.00 and from the IP address [REDACTED]. All but one of the donations came from an "[REDACTED]". The emails used included both "normal" emails like "[REDACTED]@gmail.com" and "[REDACTED]@gmail.com" but most had an email that was a random set of five letters and the email domain was @[REDACTED] (misspelled), which is not a real site. Interestingly, one of the contributions from this IP address was made by "[REDACTED]", who used the email "[REDACTED]". Targeted Victory is a Republican political consultancy, and both a [REDACTED] and an [REDACTED] work there. It is unclear whether the fraudulent donations were made by those Republicans, or whether the fraudster was just using their information.

Discover Test

First flagged on September 28th, 2021, but contributions going back several years. The donor uses the name "Discover Test", with variations of an email "[REDACTED]". The donations are typically for a dollar, and the billing address used is that of Discover Card HQ. However, the IP address is in [REDACTED], FL. At least one card used was Ecuadorian. Even if Discover employees are the ones entering these contributions, they would not be allowed. The more likely explanation is card testing.

Nightengale Attack

First noticed on February 4th, 2021. They spammed us with 500 \$2.00 donations to the DNC from the same IP address and all of the donations had the last name Nightengale. After digging around connected donations, we discovered other donations from the same attacker.

IP Addresses:



Refunds: 8

Kendra Hicks

First noticed on January 9th, 2021. In addition to the contributions being from the same IP addresses, they share other suspicious signals (odd dollar amounts, all from IL despite the campaign being in MA, email style). Spoke with the campaign manager over email and phone.

IP Address:



Refunds: 21

Chargebacks: 2 ()

National Bail Out

First noticed on October 31st, 2020. Same situation as with the contributions to the Audrey Denney campaign (so much so that I am inclined to believe that they are being done by the same individual/group, or at least with the same tools).

IP Address:





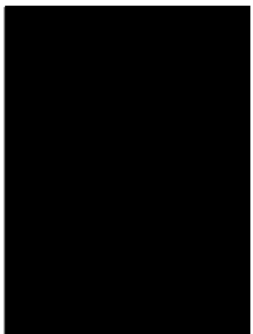
Refunds: 71

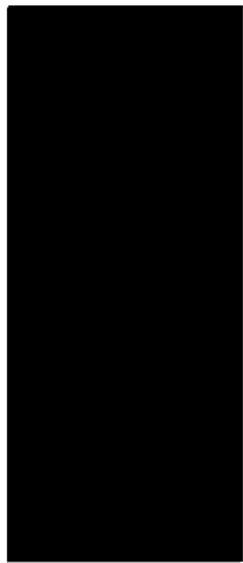
Audrey Denney

Around October 29th, 2020 we started seeing a concerning trend with contributions that were being flagged for manual review in Sift. They shared many characteristics, noted below, and after the consultation with other members of ActBlue and even the campaign itself, it was determined that these were fraudulent contributions. Proactive refunds have been issued where possible, though unfortunately, chargebacks were processed.

In addition to the IP addresses listed below, many of the contributions shared a browser/cookies fingerprint. The naming and email conventions of the contributions were also extremely similar, ex: [REDACTED] - [REDACTED]@gmail.com, [REDACTED] [REDACTED] - [REDACTED]@gmail.com, etc.

IP Address:





Refunds: 159

Chargebacks: 11 (



Delisted Entities

Defund Apartheid Action

Edgerton Volleyball Boosters Inc

Gene Xcelence

First flagged by Account Operations on 10/21/2024. The average risk score on these donations was higher than the average entity. The donation amounts on the contributions were a giant red flag, as new c3s with odd, high dollar donation amounts can be fraudulent. The bank document also looked suspicious.

Culture Society Inc., Asian American Service Association Inc., Onondaga County Music Educators Association Inc., San Jose Parks Foundation, Miss Worthy Foundation Inc.

First flagged by a DS Associate on 9/9/2024 after doing manual reviews in Sift. First donations showed up for Culture Society Inc., and there were several declined donations using different cards. One donation was made using different name/address in different state than others, and the email domain was suspicious. On 9/23/2024, the same associate noticed suspicious donations to AASA with similar characteristics. Account Ops connected all these entities together via the type of bank accounts they were using.

Women Leading Technology

Flagged by Account Ops team 8/13/2024. Two donors had multiple donations and [REDACTED] is the leader of the organization so her testing without refunding method is unconventional. Their website had a misspelling and their contribution form only offered a single donation amount.

Hanaboko (Volusia Young Democrats, Save Our Schools PAC, and Souderton Democrats)

Full writeup here: [Improper Donations to Volusia Young Democrats, Save Our Schools PAC, and Souderton Democrats](#)

Add Adhd Housing Group Inc

Associates discovered several donations of odd amounts to this new 501c3 organization from one particular donor: [REDACTED]. There is no indication that [REDACTED] would be affiliated with the organization, and is in fact not even located in the same state where the organization claims to service. We reached out to Jeff for confirmation but he never responded before we delisted the entity.

Wealthy Life Foundation

With suspicious financial activity and the fact that the provided website was for a for-profit company selling books written by the admin, the EC felt that there was a strong enough possibility of fraud, along with shifting away from its mission, that we should delist.

Amazing Soldiers

Justin Sawyer

Flagged on 11/2/2022 by Account Ops. There are several suspicious aspects of this campaign and the contributions, but oddly, Sift did not score this contributions high, so they were not flagged for manual review. When we adjust rules in the future, this will be a good example to look at for rules that could be created that are not based solely on high Sift scores. 27 contributions were made with the same IP address ([REDACTED]), all with different names, clearly done by the admin. Also, some of the donations are connected to the Express profile of the admin. It is highly unlikely that this many people would give several thousand dollar donations to someone running for Chicago Alderman, especially if they don't live in Chicago themselves. 6 of these contributions were charged back.

EDIT: On 2/14/2023, the chargebacks team flagged a few contributions that screamed fraud. The fraudulent charges that Justin Sawyer made to his own campaign had different first names but the same last name [REDACTED]. The new donations all use the last name [REDACTED]. In fact, the first name [REDACTED] is used in both sets. Furthermore, some of the donations in the new set are to the Barbara Hernandez campaign, and one of the fraudulent charges in the Justin Sawyer list is from [REDACTED] (whether with her consent or not is not clear). All of these most recent contributions are going to other Chicago-based candidates/orgs (Barbara Hernandez, Kane County Dems, and Paul Vallas), which is the city in which Justin Sawyer was running. It seems unlikely that all of these other candidates would be involved in Sawyer's fraud, and an analysis of their contributions bears that out. The email [REDACTED]@aol.com was also used.

Food for the Hungry

Flagged by Account Ops on 10/12/2022, but related to fraud that occurred in mid-2020. Account Ops was looking at active accounts that had outstanding balance owed, of which they had one of the largest. Food for the Hungry seems to be a real organization, but evidence suggests that the admin on our site is not affiliated with the charity. Some tell-tale signs include the fact that the admin's email domain is "[REDACTED]", which is not a real website and not the website associated with the real organization. Additionally, the legal name listed for the entity is "AOIC DIRECT LLC", and although it is not uncommon for charitable organizations to have fiscal sponsors different from their own name, this one seems like a stretch. Contributions were highly suspicious, coming from a wide variety of locations, having mismatched names and email addresses, and being for several hundred dollars but also being for weird amounts (including cents). Nearly every contribution was charged back, which would not have been evidence during a manual review but is certainly posthumous evidence for fraud.

BOND, YOUTH & COMMUNITY FOUNDATION

Spotted 6/29/2022. Around a dozen contributions in Sift set off alarm bells, because of their email/name style, IP address connections, city/state mismatches, and odd amounts (super low or super high). Also, in their urgent request for wire transfers, there were Chinese characters, and one of the donations had a Chinese billing address and .cn email domain. The organization website is not current, and the donation page does not link to ActBlue. We reached out to the email on the website and did not get a response. We delisted the entity from the platform.

EEl, Inc.

Noticed on 3/11/2022 by associates clearing Sift and by the Account Operations team who saw a forged check. Over the course of the following month, several dozens of suspicious contributions were submitted, the admin reached out with bizarre emails, and we saw emails in the Zendesk queue that were nearly identical and highly suspicious. Interestingly, there was not a single moment where we said "gotcha", though the bad check was immediately suspicious. Someone called donors and they said they intended the donations. There was probably a mix of real and fake donations to this organizationally-legally-compliant fraudster.

Red Flags for EEI, Inc:

- The check is fake. The line on which Void is written is broken. There is no way a check printed by a bank would look like that, and a scan wouldn't cause that. The account numbers are much clearer and a different font than the rest of the check, likely added in later. There are artifacts around the Wells Fargo logo because it is photoshopped. It is covering the logo of [REDACTED], the real issuer of this check. You can see the visual similarity on their website [here](#). You can literally see the Copyright for [REDACTED] 2004 at the bottom of the picture because it was likely ripped from their website. The top right says Branch [REDACTED] Wells Fargo does have a branch by that number but in Houston, TX, and the entity is in Georgia
- The donation patterns are similar to a fake organization testing their set up (a couple of low dollar donations) followed by a huge donation so that they can withdraw the funds. A \$10 donation (failed), two \$25 donations, then \$500 (declined) and \$4990
- Donation [REDACTED] name and email do not match
- Donation [REDACTED] the \$5k donation is from an 82 year old in Ohio (why would they donate to a Georgia based c3?) There is a person who lives in this zip code with this name, but the city they live in is [REDACTED] Ohio, whereas the donation says wathonata, OH. Why would a donor enter the wrong city. Wathonata, OH is not even a real city so it's not like they mistakenly entered a different real city. The IP address for this donation is in Latvia. We don't see Latvian donations often, if ever. I don't think an 82 year old would know how to spoof their IP to look like they are in Latvia.
- Two donations were declined but attempted from the same IP address, seemingly with no connection between the donors (a judge and the CEO of an auto parts shop). The email entered for the first donor is [REDACTED]@example.com which is suspicious. These were flagged in Sift as suspicious.
- Maybe I am reading too much into this finding: I googled the admin, [REDACTED] [REDACTED]. There is an article about a person who was supposed to receive an award at a college for doing community service through EEI, Inc. They took away the award when they learned that they had exaggerated how much volunteering they had done. Mr. [REDACTED] had recommended the person for the award, so maybe theres a there there. ([link](#))

ALLAN CMEP

First escalated by an associate on 5/17/21 (the same day the contributions were made) as they caught three suspicious contributions in Sift. Risk factors included variance in name/email, IP/billing address, huge first time donation amounts, and while there were not many contributions using the same IP address, many were using IPs hosted by the same organization in Miami, establishing a connection. The entity was flagged for PolOps who already had the organization on their radar because of a bounced wire. The entity was delisted.

Orbis

In this case, the fraudster spoofed an actual organization (though not one who was fundraising on our platform). For that reason, they were able to process several contributions before we caught them, though there were certainly red flags that we should have caught in the transaction monitoring process. Most of the contributions were made on 5/2/21. Some shared an IP address, but the biggest red flags were the email styles (randomly generated gibberish, [REDACTED]@mail.net, a popular last name with no numbers or variation). The chargebacks team flagged this issue on 5/18/21, after which an investigation was launched, the entity was delisted, and the remaining contributions were refunded.

The Hurricane Network

We first noticed these odd contributions on November 12th, 2020. They all came from the same IP address [REDACTED] and the billing name/emails shared the same convention, ex: [REDACTED] - [REDACTED]@gmail.com, but had billing addresses all over the United States. The amount of these contributions were all very large (\$1,500.00), which is suspicious for a brand new group. We asked PolOps, Admin Support, and Outreach to follow up on this, and at first the admin claimed that they held an in person event where they collected credit card information to enter the contributions later. This is suspicious, especially given the COVID-19 pandemic which makes cross-country events basically an impossibility. Additionally, there are some other red flags: none of the phone numbers used on the donations work, the organization name is The Hurricane Network but their associated website is The Hurricane Corporation, etc.

It was decided that this organization would be delisted and non-disbursed contributions would be refunded.

CIRCULOS DEMOCRATICOS MUNICIPALISTAS, INC

Starting on October 15th, 2020 this organization started receiving many contributions, all of which were for \$750.00+. We received an email from one of those individuals who says that the contributions using his card were not done by him. Most of those contributions were also set as recurring, which is highly uncommon for high-dollar contributions. This organization was delisted.

Safe Hands for Girls

American Marriage Ministries

Other

Targeted Victory

Situation with Targeted Victory

The decision was made not to block the firm.

Interestingly, this firm was in the news in early 2022 for working on behalf of Facebook to besmirch TikTok.

Suspicious Contributions with Outreach

Spotted by associates on 3/31/2022. Someone made many contributions to the Luke Mixon campaign for \$1.00 and a different person made many contributions to the David Canepa and Kevin Mullin campaigns for \$25.00. These donors each used many different credit cards to make these donations. The first donor used 27 different cards. This was highly suspicious and the associate and myself thought it was card testing. However, I escalated these donations to the Outreach Associates for the campaigns, and they reached out to admins at all three campaigns who said they wanted the donations to go through. This does call into question our processes around admin outreach and who has the final say on what gets accepted.

Unknown

Democratic Committee of Morris Plains (NJ)

It is completely unclear to me why this organization is the target of so many fraudulent contributions.

The Ocean Agency

It is completely unclear to me why this organization is the target of so many fraudulent contributions.

EXHIBIT 52

ActBlue Internal Donation Data

Payment Protection

Explore

Review

Saved Searches

Search...

Risky Users

Risky Orders

All Users

Untitled

Risky Users

Risky Users

Orders where Payment Protection Decision Source is "Manual Review" + Payment Protection Decision is "Reject Contribution"

+ Add Criteria

STATS

Average Score94

Average Order Amount6469.23

Total Order Amount517538.12

MATCHED ORDERS

Total80

Blocked Orders100%

Watched Orders0%

Accepted Orders0%

Undecided Orders0%

SIFT SCORE DISTRIBUTION

Score Range	Frequency
5-9	0
15-19	0
25-29	0
35-39	0
45-49	0
55-59	0
65-69	0
75-79	0
85-89	5
95-100	55

Download as CSV

Time period: Last 7 days

Sort by: Payment Protection Score

Showing 1-10 of 80

Decision

478

AB-HJC-002014