validity

RPP SENDER SCORE AND SENDERSCORE.ORG

As part of CS Return Path Training

Summer 2020

AGENDA

- What is Sender Score?
- What is measured in Sender Score?
- Why are these things meaningful?
- How do we get this data?
- Where can I find this data (tool walk-through)?
- How to read Sender Score
- Support-specific questions

PRE-WORK

Read the following Help Center Article:

What is Sender Score and how is it calculated?
https://help.returnpath.com/hc/en-us/articles/220569187-What-is-Sender-Score-and-how-is-it-calculated-

Peruse (not deep read) the Sender Score Benchmark Report from 2019:
https://help.returnpath.com/hc/en-us/articles/360028370791-2019-Sender-Score-Benchmark-Report-PDF-

PRE-WORK QUIZ

Sender Score measures which of the following:

A. Deliverability
B. Reputation
C. Brand Potential

Why should a marketer care about their IP's low reputation?

A. Their subscribers won't like them if they have a low reputation.
B. MBPs might block them or put them in the junk folder.
C. They might be fined by the government.

Name 2 measures that go into Sender Score?

- Complaints
- Sender Rejected
- Unknown User
- Messages Filtered
- Spam Traps
- Infrastructure issues
- Volume fluctuations

WHAT IS SENDER SCORE?

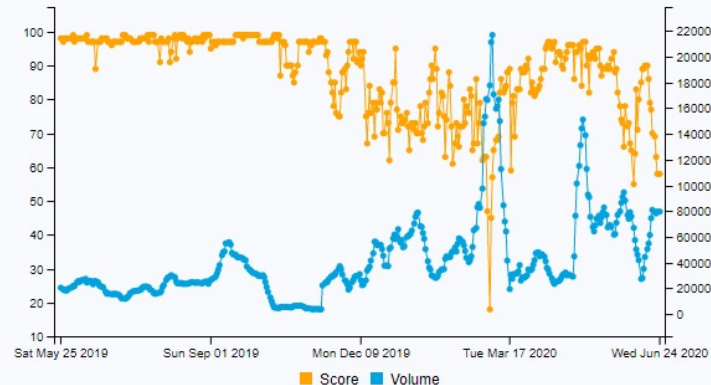Sender Score Metrics for **216.235.195.30**

58 Sender Score

Metrics	
Hostname	mta-poolnonydk.cluster2.convio.net
Volume Sender Class ⓘ	VERY HIGH
Return Path Certified ⓘ	✕
Return Path Safe ⓘ	✕
Whois Lookup	

- It's like a credit score for a sending IP (not a computer's IP, the IP that an ESP sends email from).

- It goes from 0-100. 100 is the best, 0 is REAL bad!

- It updates everyday based on the data we get from our partners.

- Many of our partners will make filtering decisions based on your Sender Score (i.e. Comcast).

WHAT IS SENDER SCORE?

What Does My Sender Score Mean?

Whether you are on the high or low end of the Sender Score spectrum, there's always room for improvement.

0-70

70-80

80+

If your Sender Score is below 70, you need to repair your sender reputation. Download the Fundamentals of Email Marketing to understand the criteria mailbox providers use to determine which senders reach the inbox and how to improve your performance.

Continue following industry best practices and optimizing your email program. Download the Secrets of Best in Class Senders to learn how to build and run an effective email program.

You have a great sender reputation, and you may qualify for our Certification program, providing you preferential treatment at major mailbox providers. Learn more about the Return Path Certification program.

WHAT IS SENDER SCORE?

AVERAGE SENDER SCORE AND INBOX PLACEMENT RATE BY INDUSTRY — Return Path

INDUSTRY	2018 AVERAGE INBOX PLACEMENT RATE	2018 AVERAGE SENDER SCORE	2017 AVERAGE SENDER SCORE	DIFFERENCE
APPAREL & ACCESSORIES	87%	95	95	0
AUTOMOTIVE	86%	94	94	0
BANKING & FINANCE	91%	93	92	1
BUSINESS & MARKETING	82%	95	93	2
COMPUTERS & ELECTRONICS	89%	94	94	0
DEALS & REWARDS	86%	96	94	2
DISTRIBUTION & MANUFACTURING	89%	92	90	2
EDUCATION/NONPROFIT/GOVERNMENT	81%	93	93	0
FLOWERS & GIFTS	83%	95	95	0
FOOD & DRUG	88%	95	94	1
GENERAL MERCHANDISE	91%	95	93	2
HEALTH & BEAUTY	81%	88	90	-2
HOUSEHOLD & HOME IMPROVEMENT	87%	95	94	1
INSURANCE	91%	96	94	2

- Both clients and non-clients are impacted by their Sender Score.

- We put clients into 'buckets' based on their volume.

- Then we establish an ideal for each bucket and compare each IP in that bucket to the ideal.

- The score and the point deductions are determined by how close you are to the ideal.

WHAT IS MEASURED IN SENDER SCORE?

Reputation Measures

Measure	Impact on this score
✅ Blacklists	LOW
✅ Complaints	LOW
✅ Infrastructure	LOW
➖ ISP Bulk Rate	Contact us for details
✅ Message Filtered	LOW
❌ Sender Rejected	HIGH
✅ Spam Traps	0
✅ Unknown Users	LOW

- We have 7 main metrics that we display in RPP.

- We have a several other 'hidden metrics' we measure as well (but we don't show them in RPP).

- We compare the metrics of the IP to the metrics of the ideal IP in the same bucket.

- If clients are doing poorly in any of the categories, we will take points off their Sender Score.

- The more difference from the ideal, the more points they loose.

WHAT IS MEASURED IN SENDER SCORE?

	Sender Rejected	-22	42.45%	0.43%	Details ▲ Fix ⓘ

42.45%	26.43%	13.82%
7 DAY	15 DAY	30 DAY
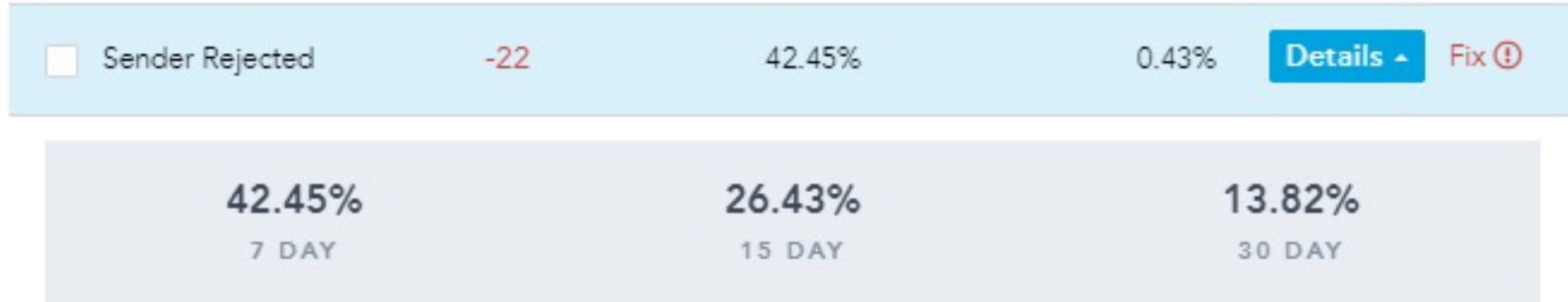
Sender Rejected includes any message blocked during the Simple Mail Transfer Protocol (SMTP) conversation. Mailbox providers primarily reject email based on key reputation drivers, such as complaint rates, spam trap hits, unknown user rates, third-party filtering, and blacklisting status.

Sender Rejected measures emails that were bounced. Here we are talking about (mostly*) hard bounces (rejections). If an IP has a high rate of rejection, they are probably being blocked by one or more mailbox providers! (Might be on a blocklist, etc.)

* Each MBP has a slightly different definition for what a rejection is. Mostly rejection= 500's but not always.

Hard bounce:

550 - [Account not available]	This error results when a message is sent to a Comcast account that is currently not available.

Soft bounce:

452 - [Too many emails sent on this session]	Comcast allows 1000 emails per session. This error results when that limit is exceeded.

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WHAT IS MEASURED IN SENDER SCORE?

Complaints	-5	1.44%	0.13%	Details ▲	Fix ⚠

1.44%	0.94%	1.02%
7 DAY	15 DAY	30 DAY

DOMAIN	SUBJECT LINE	COMPLAINTS
ra.org	Thank you for joining the Rainforest Alliance!	29
childrensaidsociety.org	Thank you for joining the Children's Aid family	12
nleomf.org	Thank you for joining us	6
projecthope.org	Welcome to Project HOPE	4
animalsheltering.org	Open this email to confirm your subscription to The Scoop!	2
thetrustees.org	Thank You	2
popconnect.org	Thank You For Signing Up!	2
earthisland.org	Thanks for subscribing to receive email from Freeing Whales and Dolphins from Captivity	1
sghottawa.com	Thank You For Your Input	1
foodforthepoor.com	Thank you for your very generous gift	1

View all data

Complaints are generated when subscribers mark an email as spam or junk. Complaint rates are calculated as spam complaint messages divided by delivered email. If the complaint rate is higher than what the mailbox provider considers acceptable, different degrees of filtering occur. This includes email being directed to the bulk folder, temporary blocking, and the permanent blocking of email.
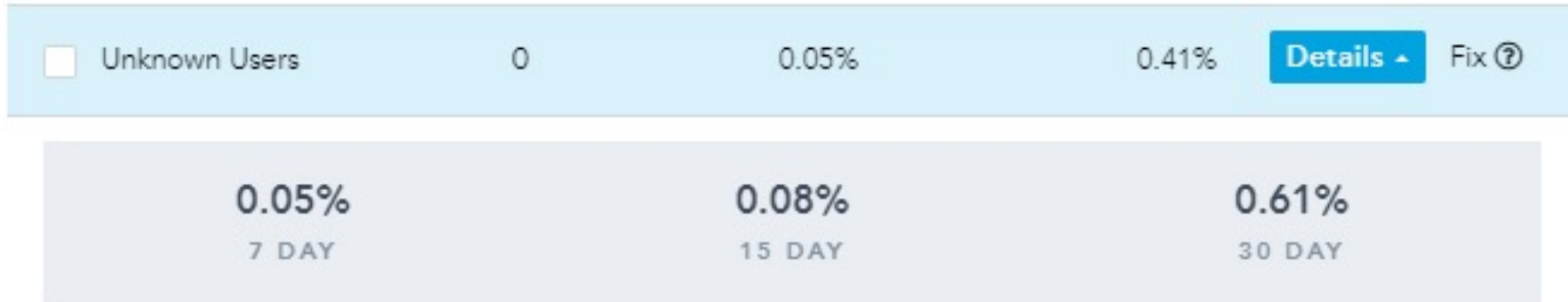
Complaints happen with subscribers move emails to the spam folder. We list emails with complaints in the Sender Score tool so clients can see which emails were complained on.

Most of our Sender Score partners are also part of our Universal Feedback Loop (uFBL) program, so clients can sign up to get emails whenever complaints are made. Best practice is to remove complainers from the subscriber list.

WHAT IS MEASURED IN SENDER SCORE?

☐ Unknown Users	0	0.05%	0.41% **Details ▲** Fix ⑦

0.05%	**0.08%**	**0.61%**
7 DAY	15 DAY	30 DAY

Unknown users are invalid addresses in a sender's database. An example of an unknown user email is: donotreply@rp.com (because the owner of this domain would not have signed up for an email program) or name@yahoo.comm. Most mailbox providers tolerate an unknown user rate up to 10% and view high unknown user rates as a spam-like characteristic.

Unknown users are email addresses that aren't there. There are two main types:

- No longer active. In other words, it was once a real address, but the account was deactivated or abandoned.

- Never existed in the first place. This could be due to a typo during signup. (Another reason to get BriteVerify!)

If they have a high unknown user rate, it might mean they aren't cleaning out their list! They will get a bounce message for these and its best practice to remove them from the subscriber list right away!

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WHAT IS MEASURED IN SENDER SCORE?

| Message Filtered | 0 | 2.24% | 0.27% | Details ▲ | Fix ⑦ |

2.24%	1.22%	0.67%
7 DAY	15 DAY	30 DAY
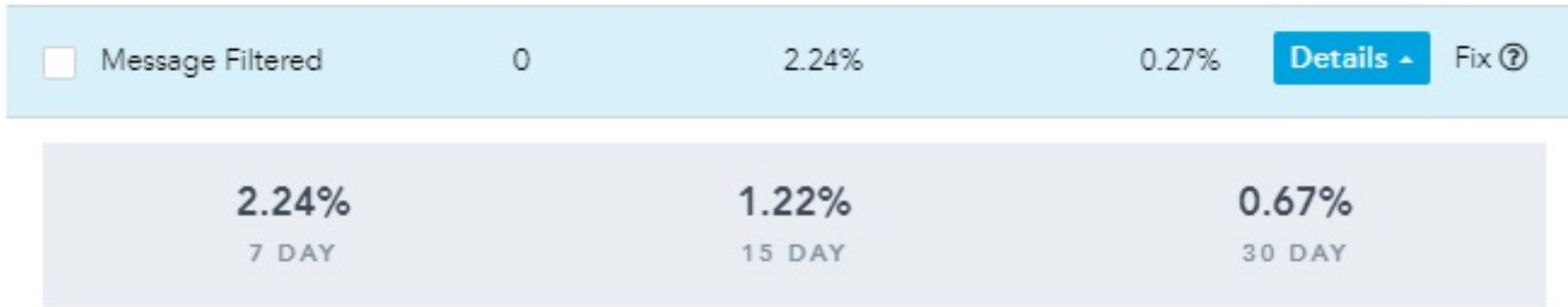
Message Filtered is the percentage of deployed email that was accepted at the gateway by the mailbox provider but was either filtered into the spam folder or was not delivered to the inbox.

Messages filtered is the number of emails sent to the spam or junk folder. There is not done by the subscriber, but by the mailbox provider itself. This means mailbox providers think your mail is spam right off the bat!

WHAT IS MEASURED IN SENDER SCORE?

| Infrastructure | 0 | Pass | Pass | **Details ▲** Fix ⑦ |

Infrastructure refers to the actual hardware used to deploy your emails. The hardware is commonly referred to as your Mailing Transport Agent (MTA). For the Infrastructure reputation measure, we review two key measures: reverse DNS (rDNS) and host type.

Infrastructure is a pass or fail metric. We check 2 main things: reverse DNS (rDNS) and host type.

- DNS: taking the hostname and looking up what IP address it's linked to (think: looking up someone's address in the phone book)

- rDNS (aka pointer record PTR): using the IP address to look up the host name.

Bonus: FCrDNS means forward-confirmed reverse DNS, which just means you do both! Quick way: http://multir bl.valli.org/

Email Server Name (hostname)

IP address

```
michellewhitehead@rpco-mwhit1809:~$ dig mta-c3poolnonydk.cluster3.convio.net +short
216.235.195.157
michellewhitehead@rpco-mwhit1809:~$ dig -x 216.235.195.157 +short
mta-c3poolnonydk.cluster3.convio.net.
```

1st call: DNS
2nd call: rDNS

WHAT IS MEASURED IN SENDER SCORE?

| Infrastructure | 0 | Pass | Pass | Details ▲ Fix ⑦ |

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Infrastructure is a pass or fail metric. We check 2 main things: reverse DNS (rDNS) and host type.

Host type has 2 basic options:

- Dedicated IP: One company uses this IP and no one else!

- Shared IP: Many companies use the same IP.

Some ESPs (like Mailchimp and Blackbaud) have cheaper or free options that use shared IPs for sending email, but using a shared IP, you run the risk of other companies dragging down the reputation of your IP.

Q: How do we tell if the IP is dedicated or shared? It's a secret!
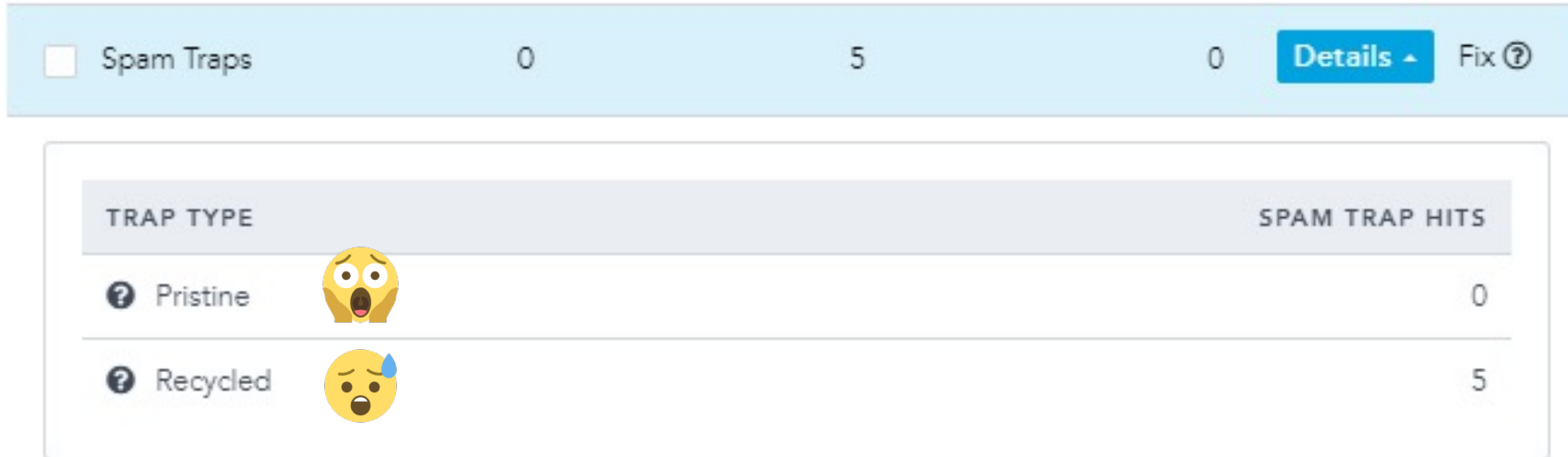
WHAT IS MEASURED IN SENDER SCORE?
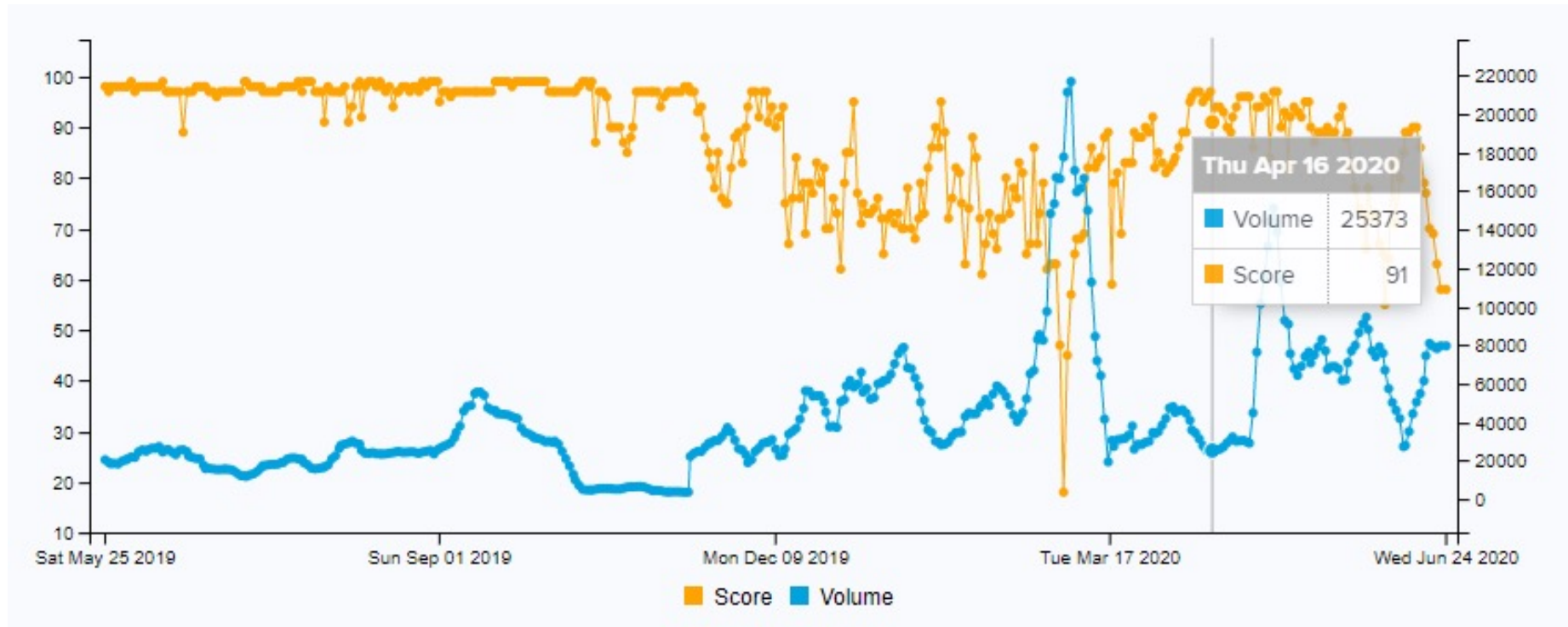
Volume is just the number of emails we see from this IP. However, when we graph the data, we use a 7-day sum. In other words, the bar is the volume from that day + the 6 previous days. We do this to smooth out the graphs.

Consistency is key with volume. If you send out 500 emails a day, that's great. If you send out 500 emails every other day, that's pretty ok, but if you send out 500 emails most days, then 10,000 for a few days, then back to 500, that's suspicious and we might take points off for that.

WHAT IS MEASURED IN SENDER SCORE?

Spam traps are a big deal! These are email addressed purposefully set up to trap bad senders. There are 2 kinds:

- Recycled: There are addresses that used to be real, but the accounts were deactivated or abandoned. MBPs will return Unknown User bounces for some time before turning them into Recycled traps. If someone hits these, it means they aren't paying attention to their bounces.

- Pristine: This are addresses that were set up to trap people. They were never someone's email address and never sign up for email. MBPs will plant these on the backend of websites to catch 'crawlers' and hackers. If you hit these, it looks to MBPs like you buy lists! Very bad!

WHAT IS MEASURED IN SENDER SCORE?

These are the main metrics we use to determine an IP's Sender Score. Each metric is weighted differently and points are taken off based on your bucket and the ideal we compare it to. The Sender Score and point deduction calculations get pretty complicated!
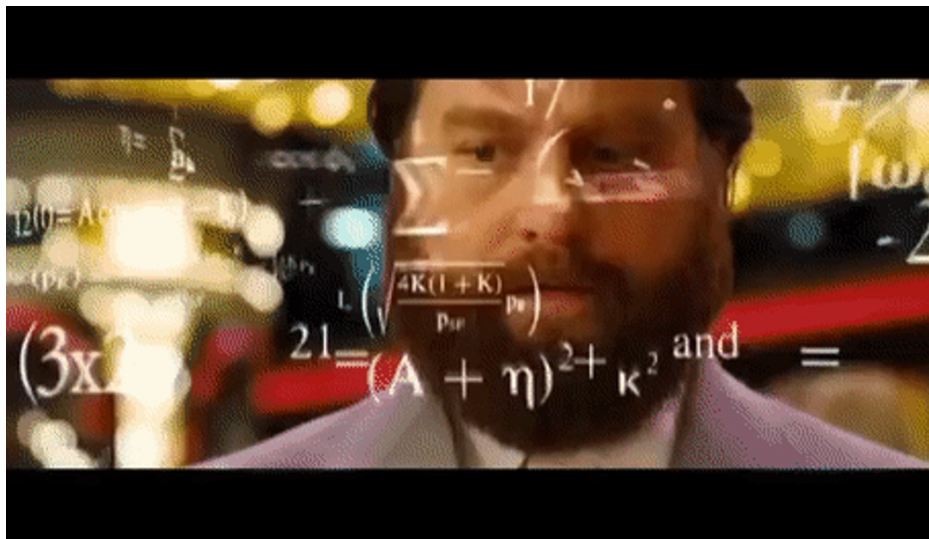
However, the rates themselves aren't as confusing and you can usually find trends to understand where the point deductions came from.
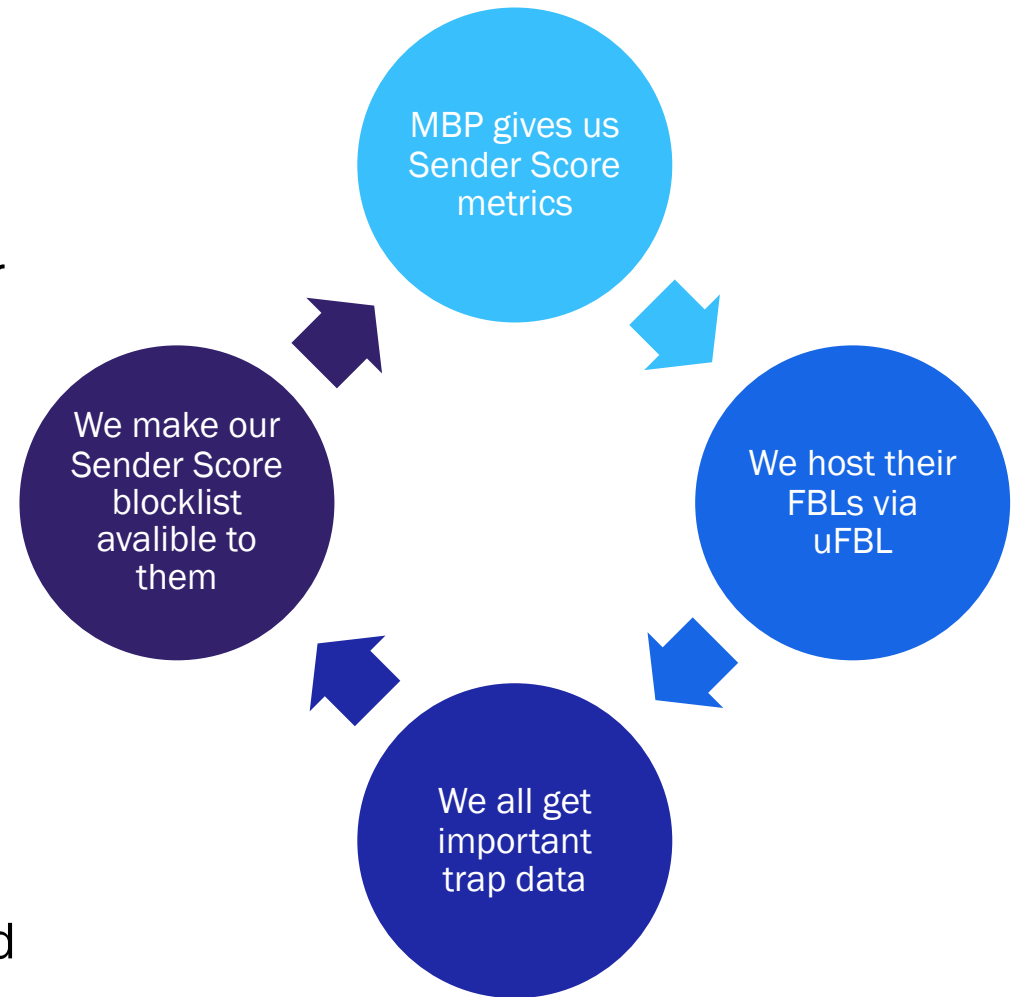
HOW DO WE GET THIS DATA?

We don't pull these metrics out of thin air, but these aren't just publish metrics so where do we get this info?

We partner than 80 mailbox providers and security/filtering providers around the globe. They trade us this info in exchange for us hosting their FBLs and for group spam trap info. Some of them also use Sender Score to make filtering decisions.

We have a wide variety of data sources:

- B2B email hosting servers

- Security companies (like Cloudmark)

- Regional Cable/ISP providers (like Comcast)

- International Mailbox Providers (mostly in Europe and Australia)

MBP gives us Sender Score metrics

We host their FBLs via uFBL

We all get important trap data

We make our Sender Score blocklist avalible to them
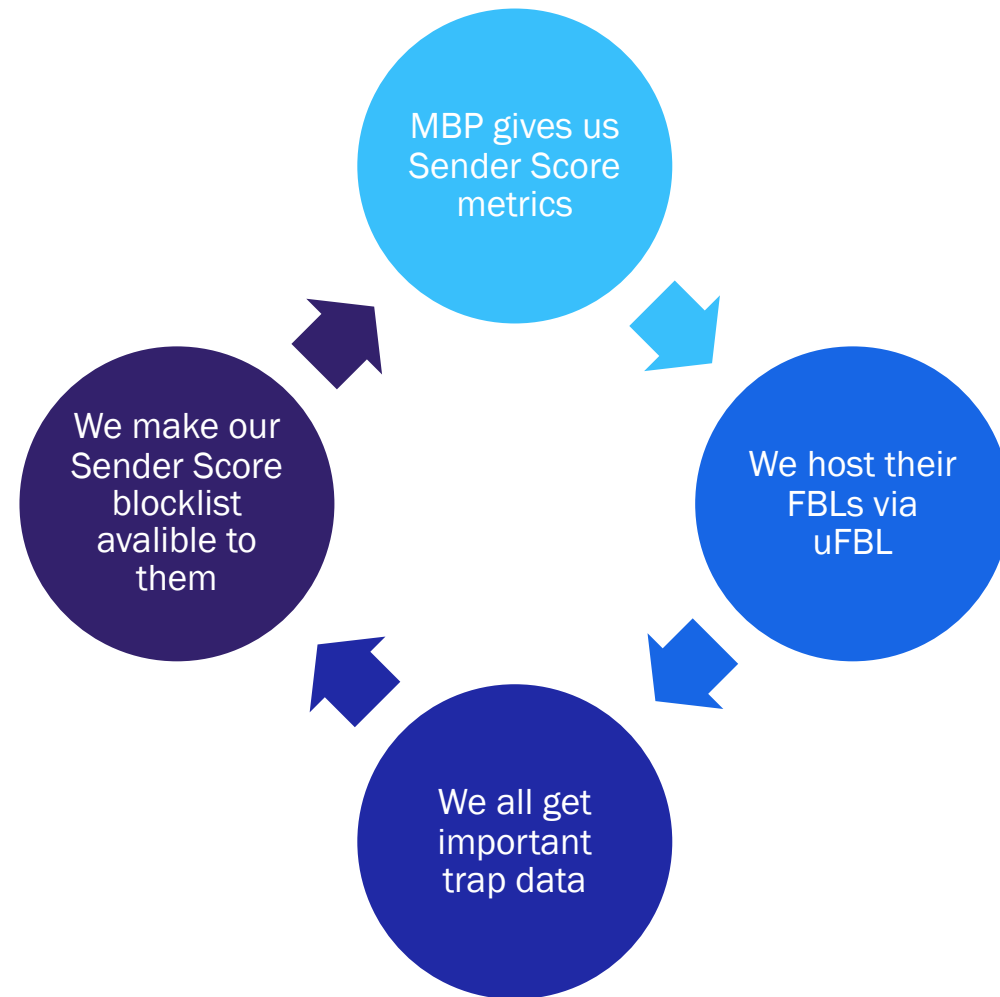
HOW DO WE GET THIS DATA?

Why don't you just give me a list??

We don't publish a list because most of our partners want to remain anonymous. There are some providers who publish their involvement in SenderScore (like Comcast), but mostly we don't disclose who our partners are.

Who <u>doesn't</u> give data to Sender Score?

- Gmail

- Microsoft

- Verizon Media Group
  - Yahoo
  - AOL
  - Netscape

- Lots of others

MBP gives us Sender Score metrics

We host their FBLs via uFBL

We all get important trap data

We make our Sender Score blocklist avalible to them

WHERE CAN I FIND THIS DATA (TOOL WALK-THROUGH)?

· · · · · · · · · · · ·

Non-clients can find their score here: https://www.senderscore.org/

SUPPORT SPECIFIC SECTION

We get tickets from both clients and non-clients, so before we hop into common questions, let's talk about how we treat each group:

Clients:
- Double check that the data is correct.
- Highlight issue areas and help isolate where the issue may have occurred.
- Give out help center articles.
- Educate on graphs or general Sender Score concepts.

Non-clients:
- **Offer to put them in touch with our sales team!**
- Double check that data is correct (don't spend more than like 10 min).
- Give 1 or 2 top issues.
- Educate on graphs or general Sender Score concepts.

- That's is. No, really that's it. They need to pay us if they want an in-depth look!

SUPPORT SPECIFIC SECTION

Sender Score tile and senderscore.org:
- It's not showing data for my IP!
- Why is my Sender Score so low?
- When will it go back up?
- I got hacked, can you reset my score?
- I don't have a 40% bounce rate! Why is my Sender Rejected so high?
- The graph doesn't match my daily volume!
- Can you tell me which provider we are having issue with?
- You are blocking my emails!
- Your SenderScore program is causing my emails to be blocked/filtered at <a non-partner MBP>.
- When I enter my domain I don't get a score.
- When I enter my domain, I get all these IPs that aren't mine!

- It's not showing data for my IP!

Sender Score ⊗

IPs   Research

Filter: All issues ▼

🔍 Search by IP or description...

Sort: Score (low to high) ▼

(n/a) **34.255.162.159** (mta1b6-ometria.mta.e.sparkpost.com.)
Updated daily

☁ **Download all data**

Metrics

Hostname   mta1b6-ometria.mta.e.sparkpost.com

Volume Sender Class ⓘ   **INSUFFICIENT**

Return Path Certified ⓘ   ✖

Return Path Safe ⓘ   ✖

⬭ **Whois Lookup**

If you see "n/a" or 'insufficient data', this means their volume (read: volume at our sources) is too low. We don't have any data points to make a decision about this IP. Once they start sending a higher volume (or to a wider variety of sources), we'll automatically calculate a score for their IP. We need to see at least one message from more than one data source or at least 100 messages from one reputation data source to generate a score.

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- Why is my Sender Score so low?

- - Non-client: put the IP in SenderScore.org and highlight top problem(s) and give them best practice article.

Reputation Measures

Measure ⑦	Impact on this score ⑦
✅ Blacklists ⑦	LOW
✅ Complaints ⑦	LOW
✅ Infrastructure ⑦	LOW
⊖ ISP Bulk Rate ⑦	Contact us for details
✅ Message Filtered ⑦	LOW
❌ Sender Rejected ⑦	HIGH
✅ Spam Traps ⑦	0
✅ Unknown Users ⑦	LOW

# - When will it go back up?

Short answers: When you fix the problem!!!

Long answer: We look at a rolling 30 days worth of data, so if they have already corrected the issue, it can take up to 30 days for the score to see an increase. If they haven't fixed the issue, it likely won't improve until they do fix the issue. It's frequently the case that they fix one issue, but still have other issue lingering.

- I got hacked, can you reset my score?
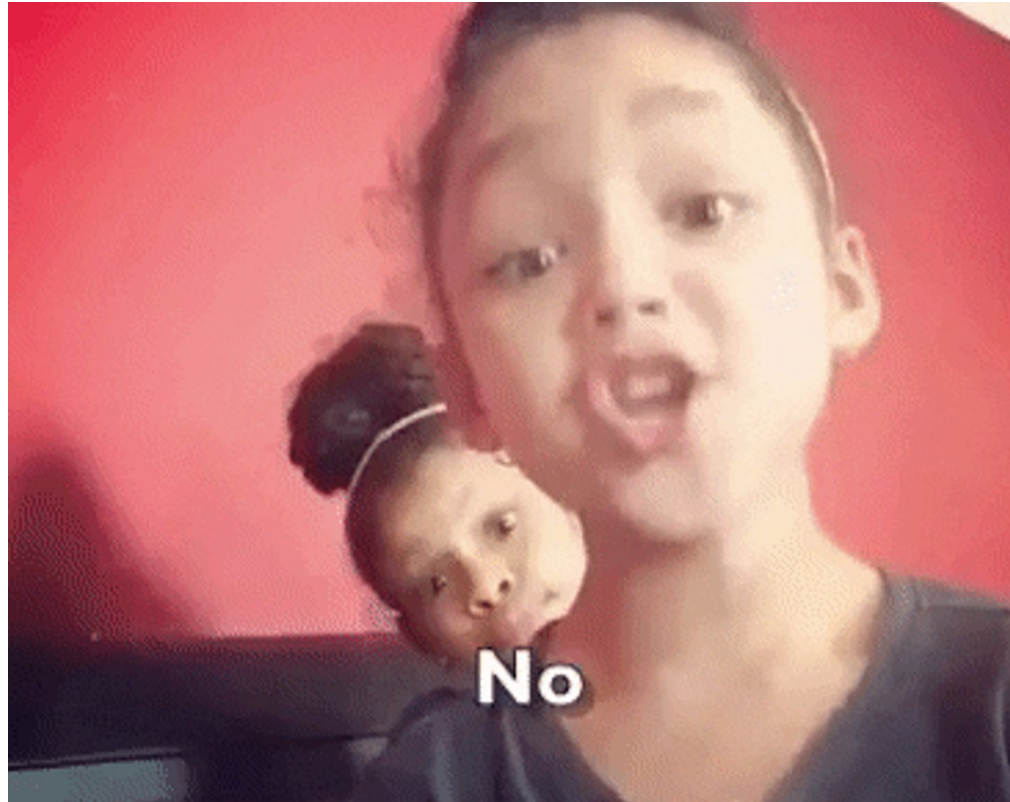
Here's a sample of 'no' sent to a very pushy non-client:

Phishing emails were sent from your IPs and domains. Additionally, there are still active complaints from the hacking incident coming in. Sender Score indicates how much mailbox providers trust your IPs. After this hack, your IPs are no longer trusted. It may take quite some time for any of that trust to be rebuilt.

Please note that we are not blocking your emails as the mailbox providers we partner with use different filtering choices to determine how to filter your emails.

I would like to inform you that the information we receive is fed by our partners that power the tool and again, I would like to confirm that we don't provide the ability to reset your score. This is necessary and by design to maintain an objective and consistent metric for you and anyone else that wants to view your Sender Score.

- I don't have a 40% bounce rate! Why is my Sender Rejected so high?

On the graph in RPP, it's easy to think that 46.48% of the volume seen there is rejected, but there is some extra nuance there (and yes, we know it's confusing, we are working on some improved UI explanation for that graph). In reality, not all of our sources give us bounce numbers. So we add up the volume from the sources that give us bounce numbers and use that in the denominator of our calculations. We use the equation on the left, not the one on the right:

$$\frac{\# \ of \ bounces}{volume \ from \ sources \ that \ feed \ us \ bounces} \neq \frac{\# \ of \ bounces}{total \ volume}$$

Here's an example. Let's say we have 5 data sources (we have dozens, but let's keep it to 5 for this example). On the graph and in the downloads you'll see the total volume. Here's how that's calculated:

$$Total \ volume = Volume(A) + Volume(B) + Volume(C) + Volume(D) + Volume(E)$$

Where Volume(A) is the volume from the sources A and so on. While we get volume fron all 5 of our sources, we only get bounce numbers from sources A, B and D. So here is how we calculate rejected rates:

$$\frac{Bounces(A) + Bounces(B) + Bounces(D)}{Volume(A) + Volume(B) + Volume(D)} = Rejected \ rate$$

Let's say you are seeing a major issue with source A, where they are blocking most of your mail (290 bounces out of 300 total emails sent). Let's say you don't have any subscribers at source B and you only have 600 at source D. So filling in the numbers for the above calculation we get:

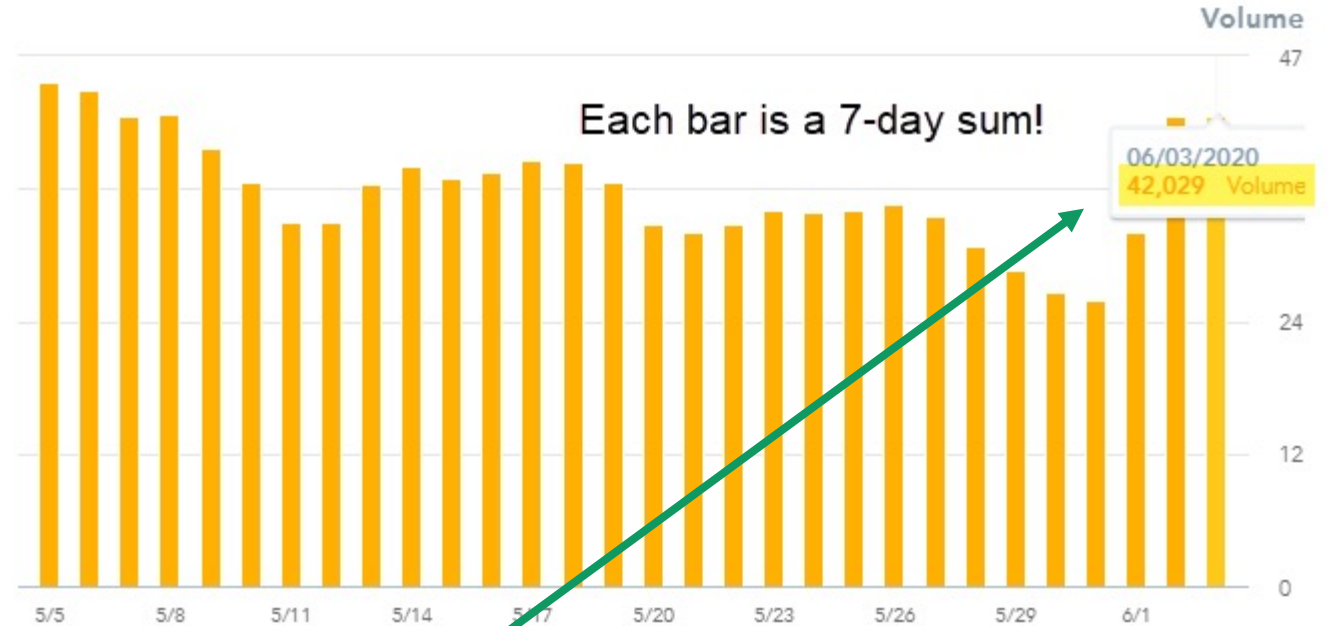$$\frac{290}{300 + 0 + 600} = 32\% \ rejected \ rate$$

If your subscriber list is heavily weighted to sources that don't give us sender rejection rates, but you are seeing a block or partial block at one of the small providers that do give use that bounce, it can exaggerate that rejection rate pretty easily.

- The graph doesn't match my daily volume!

This is expected. Sender Score volume doesn't include Gmail, Outlook or VMG (Yahoo, AOL, etc.). Additionally, the volume shown in the graph is a 7 day sum.

- Can you tell me which provider we are having issue with?

First of all, most of you don't have source data to give out. Tier 3 has this info, but it's mostly so we can troubleshoot feeds we suspect are faulty and help CSMs do in-depth troubleshooting for clients.
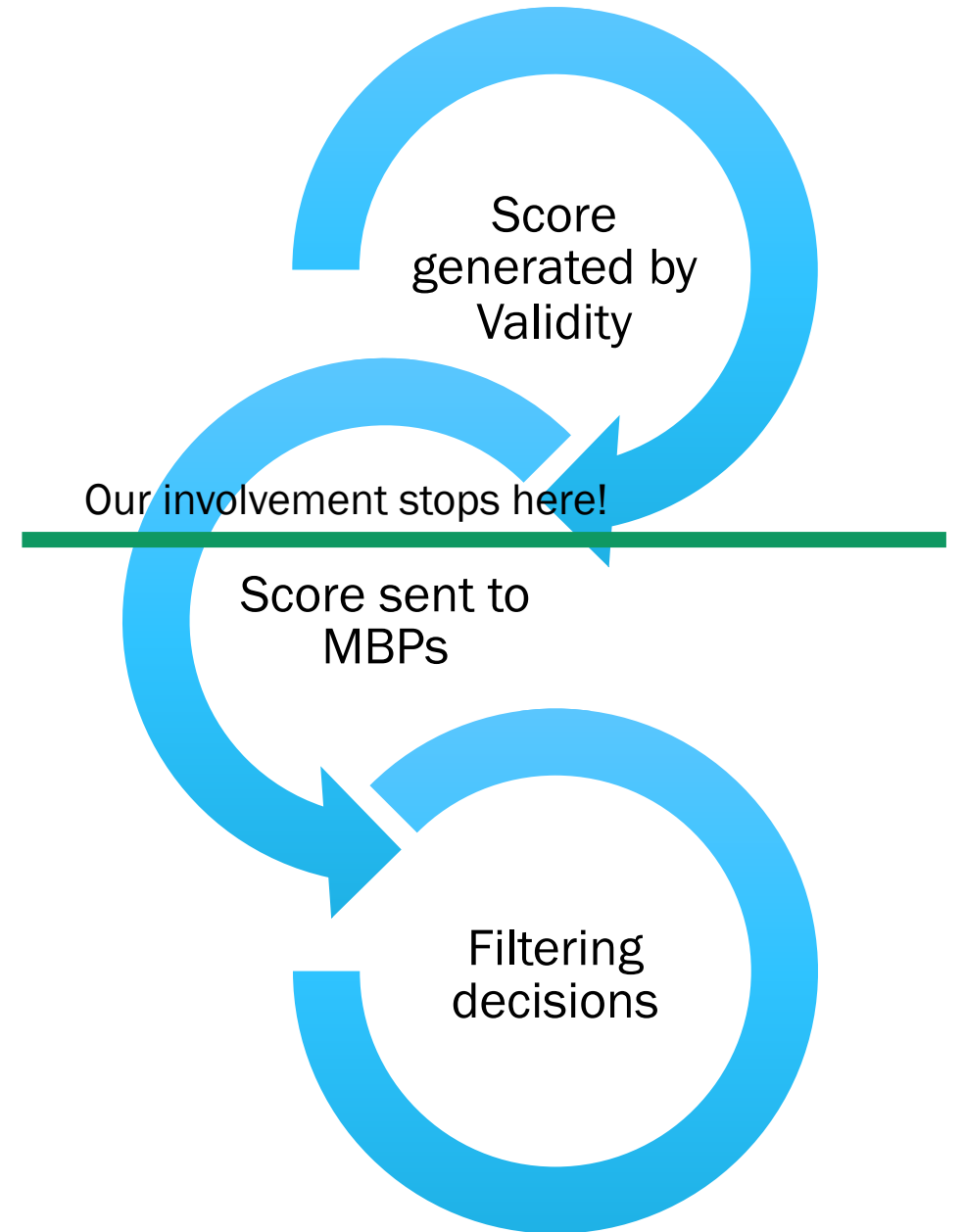
Secondly, our sources are proprietary and it's in our contract with our sources that we don't give out source data.

If the client is having a complaint, rejected or unknown user issue, they can look into their bounces or FBLs to find the provider themselves. If they are having a filtering issue, look at the sends to the seed list.

– You are blocking my emails!

No, WE aren't blocking your email. Comcast might be, but WE aren't. All we do is provide the score to Comcast/other MBPs and they decide what to do with it. If they are upset, they can try improving their Sender Score or reaching out to the MBP directly!

Score generated by Validity

Our involvement stops here!

Score sent to MBPs

Filtering decisions

– Your SenderScore program is causing my emails to be blocked/filtered at <a non-partner MBP>.

See above slide. We don't make filtering decisions for any MBPs. However, some people get confused and think we make filtering decisions for someone like Yahoo. In this case, it's ok to say "We don't partner with Yahoo (Gmail, Outlook, whatever) on our Sender Score product. You will need to reach out to them directly with your concern."

– When I enter my domain I don't get a score.

Sender Score is an IP based program, so we don't generate scores for domains. However, there is still a lot of useful information on SenderScore.org for domains:

- Authentication info (SPF, MX, SSL)
- Who is? lookup
- Sending IPs*

*This is a list of IPs from which we have seen mail associated with the given domain. Sometimes, this is forwarded email, so we aren't saying 'these are your sending IPs', we are saying 'we've seen this from domain on mail from these IPs.'

– When I enter my domain, I get all these IPs that aren't mine!

We get complaint emails in from a wide variety of sources and we report any IP that sent an email with the from domain in question. Sometimes this includes forwarded mail. When we see forwarded mail, it still has the same from address, but could be coming for a different IP. Often B2B address will set up auto forwarding to their personal mail. We also see an infrequently used address (like a Comcast address) auto forwarding to a more commonly used personal address (like Gmail). That's usually where these addresses are coming from. But if they are worried about Spoofing, they should talk to Proofpoint (or buy Everest/VFE 2.0 and get DMARC reporting once that comes out.

Sending IPs

IP Address ⓘ ▲	Hostname	Volume ⓘ	Sender Score ⓘ
1.177.19.146		VERY HIGH	9
1.237.106.143		VERY HIGH	0
102.171.173.231		HIGH	0
103.215.194.172		VERY HIGH	14
103.231.94.151		HIGH	0
103.26.247.14		VERY HIGH	0
105.184.192.92	192-184-105-92.south.dsl.telkomsa.net.	VERY HIGH	94
105.71.24.9	dynggrab-9-24-71-105.inwitelecom.net.	VERY HIGH	0
109.173.148.108	d148-108.icpnet.pl.	VERY HIGH	0
109.252.29.204	109-252-29-204.nat.spd-mgts.ru.	VERY HIGH	0

Additional Resources and Macros

Help Center:
https://help.returnpath.com/hc/en-us/articles/221634867-Sending-Best-Practices-PDF-
https://help.returnpath.com/hc/en-us/articles/220569187-What-is-Sender-Score-and-how-is-it-calculated-
https://help.returnpath.com/hc/en-us/articles/220562627-Which-metrics-impact-Sender-Scores-the-most-

https://help.returnpath.com/hc/en-us/articles/115002719628-Comcast-deliverability-best-practices

Spam Traps: https://help.returnpath.com/hc/en-us/articles/115002415648-Tips-for-removing-pristine-and-recycled-spa
Complaints: https://help.returnpath.com/hc/en-us/articles/220560607-Troubleshooting-sharp-increases-in-complaint-ra
Unknown Users: https://help.returnpath.com/hc/en-us/articles/220337027-Best-practices-for-avoiding-high-unknown-us
Bounces: https://help.returnpath.com/hc/en-us/articles/220567107-What-are-bounce-codes-

Insert canned answer (macro)::Senderscore::Improving Sender Score URL and others

Questions??

validity.com