

M<sup>3</sup>AAWG 56<sup>th</sup> General Meeting | Brooklyn, NY | October 2022



# Passive (Aggressive) DNS

APRIL LORENZEN

M3AAWG SR TECHNICAL

ADVISOR



# M<sup>3</sup>AAWG is a Trusted Environment

## What happens in M<sup>3</sup>AAWG stays in M<sup>3</sup>AAWG

- What occurs here cannot be shared outside the membership without the written permission of the Executive Director, unless we state the specific session is open to the press and social media.
- See the M<sup>3</sup>AAWG Meeting Policy at [www.m3aawg.org/MeetingPolicy](http://www.m3aawg.org/MeetingPolicy)

## Treat Everyone with Respect

- Treat all attendees respectfully in and out of sessions. No less will be tolerated.
- See the M<sup>3</sup>AAWG Conduct Policy at <https://www.m3aawg.org/conduct-policy>

You agreed to these policies when you registered for the meeting.

For questions, please contact Amy Cadagin at [amy@m3aawg.org](mailto:amy@m3aawg.org)

## Contribute to a Productive Meeting

- Please silence all electronic devices; be courteous to those listening to the presentations
- **DO NOT LEAVE YOUR BELONGINGS UNATTENDED.** Be aware and cautious at all times



# Reminders for Our Worldwide Friends

*All meeting content is confidential: No photos, no video, no recording.*

*Reach out to room monitor staff with questions.*



L'ensemble du contenu de la réunion est confidentiel : les photos, vidéos et enregistrements sont interdits. Pour toute question, demandez conseil au personnel.



Todo el contenido de la reunión es confidencial: No está permitido sacar fotografías ni grabar vídeo o audio. Consulte con el personal si tiene alguna pregunta.



Der gesamte Inhalt des Meetings ist vertraulich: Keine Fotos, kein Video, keine Tonaufzeichnung. Bei Fragen wenden Sie sich an die Mitarbeiter.



会議の内容はすべて機密扱いです。写真やビデオの撮影、録音は禁止されています。質問がある方は、スタッフまでご連絡ください。



所有会议内容均为保密信息：禁止拍照、录像、录音。如有疑问，请咨询职员。



회의에서 다루는 모든 내용은 기밀입니다. 사진 및 동영상 촬영과 녹음은 금지됩니다. 질문이 있으시면 직원에게 문의해 주십시오.



Все содержимое собрания является конфиденциальным: нет фотографий, нет видео, нет записи. Смотрите сотрудников с вопросами.



# Code of Conduct

**M<sup>3</sup>AAWG is dedicated to making our meetings and business open to all members and guests and to making it a safe place for all. We do not tolerate harassment of any kind.**

**We insist that all participants, attendees and meeting staff adhere to a civil demeanor at all times. This includes refraining from inappropriate language, comments and behavior, in person or by electronic communications and/or public or semi-public social media. In accordance with applicable law, M<sup>3</sup>AAWG prohibits sexual harassment and harassment because of race, color, gender, age, religion, disability, sexual orientation or any other basis protected by federal, state or local law.**

**Participants, attendees and meeting staff who are being harassed, intimidated, or are dealing with otherwise improper behavior are encouraged to report it immediately to the Executive Director or a Board member without fear of repercussion.**

**Alternate methods of reporting issues include: contacts listed on the back of your badge, email to the Executive Director, [amy@m3aawg.org](mailto:amy@m3aawg.org), or if needed, calling the local police department.**

Anyone who is found to be in violation of this policy may be handled in any one or more of these methods, depending on the offense: Warning, Expulsion, Contacting of employer, or Contacting the police or other legal authorities. Actions stronger than a warning will be taken at the discretion of the M<sup>3</sup>AAWG Board of Directors.

**M<sup>3</sup>AAWG reserves the right to remove any participant or attendee at any time for any reason.**

**The policy also extends outside of the meeting rooms to include all areas of the meeting hotel and social gatherings sponsored by M<sup>3</sup>AAWG or M<sup>3</sup>AAWG member organizations.**

Note: You can download this file at <https://www.m3aawg.org/conduct-policy>



# Conduct Violations - Reporting

**If You Feel Unsafe:** Touching or physical contact of any kind that is unwanted or Physical or verbal threats of any kind

1. Contact **Local Law Enforcement:** In **Brooklyn** call **911**
2. Once you are safe, contact M<sup>3</sup>AAWG Executive Director or designated Board Officer
3. During the night out, go to the designated Staff table for immediate assistance
4. From the **Upcoming Meetings** page you can find **Safety Information** page:  
<https://www.m3aawg.org/safety-security> with further information
5. **Safety Card** available at Registration Desk

**If you are not in danger then call or text Executive Director or designated Board Officer (24/7)**

Amy Cadagin (+1-618-741-3071) ; Email (amy@m3aawg.org)

Janet Jones (+1-206-498-0495)

Severin Walker (+1-856-496-9862)

**Any violations should be reported as soon as possible!**

**When there is any doubt about the action that should be taken call or text someone on the back of the badge.**



# Health and Wellness

## General Reminders for attendees:

- Face mask to be worn at ALL times
- Wash hands frequently with soap and water for at least 20 seconds.
- If soap and water are not readily available, use an alcohol-based hand sanitizer with at least 60% alcohol. M3AAWG is providing hand sanitizer near the door of each meeting room.
- Avoid touching eyes, nose, and mouth with unwashed hands.
- Avoid close contact with people who are sick.
- Stay home when sick.
- Cover a cough or sneeze with a tissue, then throw the tissue in the trash.
- Clean and disinfect frequently touched objects and surfaces using a regular household cleaning spray or wipe
- We encourage everyone to follow the guidance of the [Centers for Disease Control and Prevention \(CDC\)](#) for everyday preventative actions to help prevent the spread of respiratory viruses.



# Housekeeping

- **Airmeet** – Access to the most up-to-date agenda and networking.
- **SCHED** – Airmeet link, most up-to-date agenda, technical support and staff contact info.
- **Virtual Help Desk** – Please send a direct message to a M<sup>3</sup>AAWG Staff
- **In Person Help Desk** - Please see Registration Desk at Salon DE Foyer
- **Virtual Q&A** – Submit your questions to the Speaker in the Airmeet Q&A box.
- **In Person Q&A** – Submit your questions in the Airmeet Q&A box or ask live (please use the microphone in the main aisle so everyone can hear your question)
- **Chat** – Please keep the chat productive, check there for links and reminders.
- **Available for Viewing** – Presentation decks are available (if approved)



# Social Media Plans & Policy

- **M<sup>3</sup>AAWG comms team will provide live posts** across the org social channels during the meeting
- **Members and their PR/comms teams and colleagues are welcome and encouraged to re-post our content**
- Tag @M3AAWG, link to <https://m3aawg.org>
- General org hashtags: **#m3aawg56 #messaging #malware #cybersecurity #onlineabuse #mobile**
- Due to our confidentiality policies and range of permissions from members/session presenters, members **should not create their own content or originate posts/info from sessions** this week, nor post any info or names/orgs/titles/work product from members and attendees
- If you or your marketing/PR/comms teams want to promote, please have them contact Anne Price, [anne@m3aawg.org](mailto:anne@m3aawg.org)

# OVERVIEW

- PARTICIPATION - safe for introverts too:  
[menti.com](https://www.menti.com) and enter 67 29 15 3
- M3AAWG Leadership on Passive DNS
- Why “Passive DNS”?
- Things you can do with Passive DNS
- Cautionary Tales
- Tips - Tricks - Resources

Go to [www.menti.com](https://www.menti.com) and use the code 67 29 15 3

Mentimeter

# WHEN DID YOU START USING PASSIVE DNS?

0%



More than a year ago

0%



Less than a year ago

0%



Haven't really used it much



# PIONEER: FLORIAN WEIMER



## Passive DNS Replication

Florian Weimer <fw@deneb.enyo.de>

April 2005

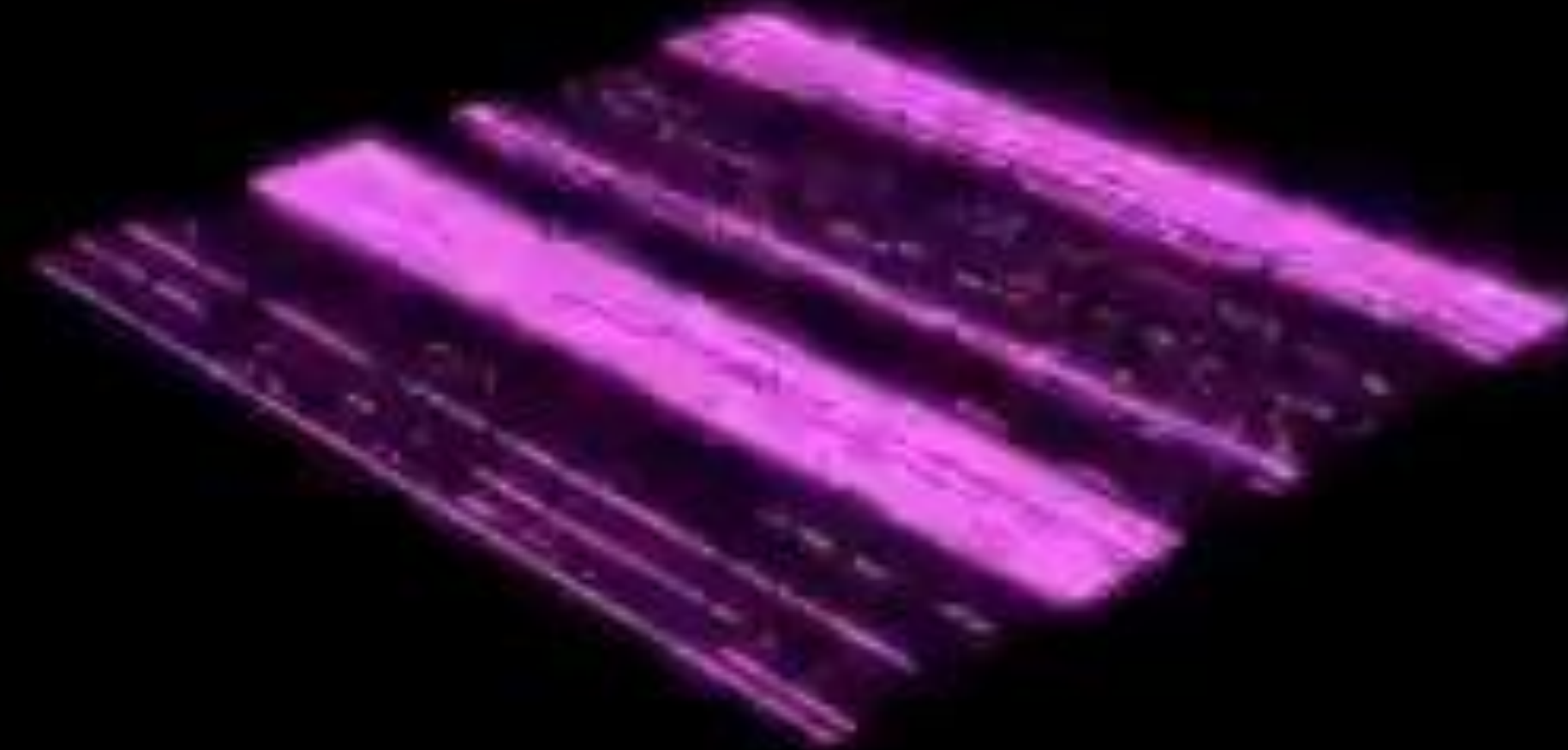
### Overview

The domain name system (abbreviated ‘DNS’) provides a distributed database that maps domain names to record sets (for example, IP addresses). DNS is one of the core protocol suites

# APRIL LORENZEN

2006: First presentation on FastFlux in DNS  
(invited to SF MAAWG by Joe St Sauver)

2007: Credited as Inventor of NS Reputation  
(by MAAWG Sr Technical Advisor David Dagon)



A nighttime photograph of Heidelberg, Germany. The top half of the image shows Heidelberg Castle, a large stone structure with multiple towers and windows, illuminated with warm orange lights. Below the castle, a dense cluster of buildings with dark roofs and some lit windows forms the Old Town. In the foreground, a stone bridge with several arches spans across a river. The bridge and buildings are also illuminated with warm lights. The overall scene is a classic view of Heidelberg at night.

**Florian Weimer & April Lorenzen**

**Introduced Passive DNS to MAAWG Members**

**MAAWG 2008 Heidelberg, Germany**

## WORLD-WIDE ADOPTION COMMENCED



- Paul Vixie (BIND, CRON, RPZ)
- Tireless evangelizing by April & Paul
- **Today:**
  - Florian works at RedHat, BFK carries torch
  - Joe St Sauver works at Passive DNS vendor
  - David Dagon (so many Passive DNS projects)
  - David Ulevitch (OpenDNS)
  - Spamhaus / Deteque (M3AAWG Pioneers)
  - NetLab360, many more

**Everybody's doin' it .... but why?**

Go to [www.menti.com](https://www.menti.com) and use the code 67 29 15 3

 Mentimeter

**WHICH PASSIVE DNS SYSTEMS  
DO YOU USE?**



# PASSIVE DNS ENABLES:

- Tracking of botnets over time
- Clustering of malicious domain registrations
- History of IPs this domain has used
- History of domains hosted on this IP
- Statistical models for reputation

# USE CASES

- Fun (search: sunnyjuly.gq)
- Collaborative Hunting
- Network Protection
- Forensic Investigations
- Footprint
  - Self - reputation and pen testing
  - Vetting of customers and vendors

Passive (Aggressive) DNS

**USE CASE:**

**MALICIOUS DOMAIN STUDIES**

# bit.ly/2022zc

The image shows a screenshot of a security tool interface with two panels. The left panel is titled 'DOMAIN DATA' and contains a search input field with 'daasonestaticsxp.com', a 'Search domain data' button, and a checkbox labeled 'is an authoritative NS'. The right panel is titled 'IP ADDRESS DATA' and contains a 'Valid CIDR list' dropdown menu, an input field with '209.58.178.43 / 32', and a 'Search IP data' button. Both panels feature a circular gauge icon on the left and 'CSV' and 'Mal4s' labels at the bottom.

**DOMAIN DATA**

Uncover activity related to:

daasonestaticsxp.com

Search domain data

is an authoritative NS

CSV Mal4s

**IP ADDRESS DATA**

Uncover activity related to:

Valid CIDR list: [dropdown]

209.58.178.43 / 32

Search IP data

CSV Mal4s

Urgent - Please view your recent activity and we'll help you take corrective action #359872

🗑️ 🗑️ ⏪ ⏩ 🖨️ 🚩 ⌵

● **AMEX Online Services .750512** @

Yesterday at 4:14 PM



Urgent - Please view your recent activity and we'll help you take corrective action #359872

To: undisclosed-recipients;

We noticed an Apple Pay™ transaction from an unauthorized unknown device or location on September 11, 2018  
We have included the detailed information in attached document in this email message


Sincerely,  
American Express.

 **AMXCORP11092018LETTER.pdf**



Analyze suspicious files and URLs to detect types of malware,  
automatically share them with the security community.

File URL Search



Choose file



**AMXCORP11092018LETTER.pdf**



0 / 59

## No engines detected this file

SHA-256 ce27031a32ca3cc3936f45d5063d8374038593e689287a34c25e22ab4d470085  
File name AMXCORP11092018LETTER.pdf  
File size 122.32 KB  
Last analysis 2018-09-11 21:01:02 UTC

Detection	Details	Community
Ad-Aware	✓ Clean	AegisLab ✓ Clean
AhnLab-V3	✓ Clean	ALYac ✓ Clean
Antiy-AVL	✓ Clean	Arcabit ✓ Clean
Avast	✓ Clean	Avast Mobile Security ✓ Clean
AVG	✓ Clean	Avira ✓ Clean
AVware	✓ Clean	Babable ✓ Clean
Baidu	✓ Clean	BitDefender ✓ Clean
Bkav	✓ Clean	CAT-QuickHeal ✓ Clean
ClamAV	✓ Clean	CMC ✓ Clean
Comodo	✓ Clean	Cylance ✓ Clean



### No engines detected this file

SHA-256 ce27031a32ca3cc3936f45d5063d8374038593e689287a34c25e22ab4d470085  
 File name AMXCORP11092018LETTER.pdf  
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0 / 59

Detection	Details	Community
Ad-Aware	✓ Clean	AegisLab ✓ Clean
AhnLab-V3	✓ Clean	ALYac ✓ Clean
Antiy-AVL	✓ Clean	Arcabit ✓ Clean
Avast	✓ Clean	Avast Mobile Security ✓ Clean
AVG	✓ Clean	Avira ✓ Clean
AVware	✓ Clean	Babable ✓ Clean
Baidu	✓ Clean	BitDefender ✓ Clean
Bkav	✓ Clean	CAT-QuickHeal ✓ Clean
ClamAV	✓ Clean	CMC ✓ Clean
Comodo	✓ Clean	Cylance ✓ Clean
Cyren	✓ Clean	DrWeb ✓ Clean
Emsisoft	✓ Clean	eScan ✓ Clean

Emsisoft	✓ Clean	eScan	✓ Clean
ESET-NOD32	✓ Clean	F-Prot	✓ Clean
F-Secure	✓ Clean	Fortinet	✓ Clean
GData	✓ Clean	Jiangmin	✓ Clean
K7AntiVirus	✓ Clean	K7GW	✓ Clean
Kaspersky	✓ Clean	Kingsoft	✓ Clean
Malwarebytes	✓ Clean	MAX	✓ Clean
McAfee	✓ Clean	McAfee-GW-Edition	✓ Clean
Microsoft	✓ Clean	NANO-Antivirus	✓ Clean
Panda	✓ Clean	Qihoo-360	✓ Clean
Rising	✓ Clean	SentinelOne	✓ Clean
Sophos AV	✓ Clean	SUPERAntiSpyware	✓ Clean
Symantec	✓ Clean	TACHYON	✓ Clean
Tencent	✓ Clean	TheHacker	✓ Clean
TrendMicro	✓ Clean	TrendMicro-HouseCall	✓ Clean
VBA32	✓ Clean	VIPRE	✓ Clean
ViRobot	✓ Clean	Yandex	✓ Clean
Zillya	✓ Clean	ZoneAlarm	✓ Clean
Zoner	✓ Clean	Alibaba	🔍 Unable to proc
CrowdStrike Falcon	🔍 Unable to process file type	Cybereason	🔍 Unable to proc
eGambit	🔍 Unable to process file type	Endgame	🔍 Unable to proc
Palo Alto Networks	🔍 Unable to process file type	Sophos ML	🔍 Unable to proc
Symantec Mobile Insight	🔍 Unable to process file type	Trustlook	🔍 Unable to proc
Webroot	🔍 Unable to process file type		

```
$ cat AMXCORP11092018LETTER.pdf |xxd|grep -iC3 uri
```

```
00013430: 3532 2034 3633 2e31 3235 3736 2035 3035 52 463.12576 505  
00013440: 2e34 3236 3838 5d0a 2f41 203c 3c2f 5479 .42688]./A <</Ty  
00013450: 7065 202f 4163 7469 6f6e 0a2f 5320 2f55 pe /Action./S /U  
00013460: 5249 0a2f 5552 4920 2868 7474 703a 2f2f RI./URI (http://  
00013470: 676f 326c 2e69 6e6b 2f36 3233 6263 3032 go21.ink/623bc02  
00013480: 6429 3e3e 3e3e 5d0a 2f43 6f6e 7465 6e74 d)>>>>]./Content  
00013490: 7320 3720 3020 520a 2f50 6172 656e 7420 s 7 0 R./Parent
```

Developer Tools - American Express | Log in | Credit Cards, Travel & Rewards - [https://daasonestaticsaxp.com/623bc02f/b79f6/?request\\_type=LogonHandler&Face=en\\_US\\_755c615251068813e6d688bc08](https://daasonestaticsaxp.com/623bc02f/b79f6/?request_type=LogonHandler&Face=en_US_755c615251068813e6d688bc08)

Inspector Console Debugger Style Editor Memory Network Storage

Filter URLs | All HTML CSS JS XHR Fonts Images Media WS Other | Persist Logs Disable cache No thr

Status	Method	File	Domain	Cause	Type
302	GET	623bc02d	go2l.ink	document	html
301	GET	623bc02f	daasonestaticsaxp.com	document	html
302	GET	/623bc02f/			
301	GET	b79f6?request_type=LogonHandler&Face=en_US_755c6152510...			
200	GET	/623bc02f/b79f6/?request_type=LogonHandler&Face=en_US_7...			
404	GET	campaign-tracking-2.1.min.jsdisabled			
404	GET	5f021c9958b7a7edc05dbf5319f6b37a.jsdisabled			
404	GET	bfec14c806bc5b13c9df4852a4473225.jsdisabled			
404	GET	878a93c95d199cab6cbadc3d4148154e.jsdisabled			
404	GET	serverComponent.php			
200	GET	dls.min.css			
200	GET	dlsnav.css			
200	GET	clientlibs.min.cf797789f3094bfc9dd6fad0a88ccb97.css			
404	GET	adobedtm-acq			
404	GET	mbox-contents-d2bbb699cac408b50b55f7c9dea4f7c139369c...			
404	GET	Bootstrap.jsdisabled			
404	GET	mmcore.jsdisabled			
404	GET	mmpackage-1.13.jsdisabled			
404	GET	s-code-contents-c2fbc173aecc05d1ddcd99410f1e3e4171f01d...			
200	GET	en-in-hp-mt-image-20171031-Webp.net-compress-image.jpg			
404	GET	dls.min.jsdisabled			
404	GET	dlsnav.jsdisabled			
404	GET	clientlibs.min.19841bee7d7c4cfd1c5335e2776d3a74.jsdisabled			
404	GET	clientlibs.min.783a43e290a89c6906f39ee141d5ef69.jsdisabled			
404	GET	Bootstrap(1).jsdisabled			

**Request URL: http://go2l.ink/623bc02d**  
**Request method: GET**  
**Remote address: 184.168.131.241:80**

**Status code: 302** ? Edit and Resend Raw headers  
**Version: HTTP/1.1**

Filter headers

Response headers (218 B) **Criminal Registered Domain**

- Connection: close
- Content-Type: text/html; charset=utf-8
- Date: Thu, 13 Sep 2018 00:53:40 GMT
- Location: <https://daasonestaticsaxp.com/623bc02f>
- Server: nginx/1.12.2

User ID

PASSWORD

Password

Remember Me

Log In

[Forgot your User ID or Password?](#)

[Register for Online Services](#)

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### Registration Whois Datapoints

Registrar: [GoDaddy.com, LLC](#)

Creation Date: 2018-08-04T13:38:33.000Z

Email: [Select Contact Domain Holder link at https:](#)  
[Select Contact Domain Holder link at https:](#)

Status: clientTransferProhibited

Name Servers: [NS53.DOMAINCONTROL.COM](#)

### Netblock Whois Datapoints

Country: SG

RIR: [APNIC](#)

Creation Date: 2016-09-13

Owner Name: [Leaseweb Asia Pacific pte. ltd.](#)

Status: unknown

ASN: AS59253 (rank)

### Current Live DNS Resolution

### Site Screen Capture

My Account Cards Travel Insurance Rewards Business Contact Us Log In

USER ID

PASSWORD

Remember Me

Forgot your User ID or Password?  
[Register for Online Services](#)

Let your friends pay for what you love!

Refer the American Express® Card to your friends and earn up to Rs.20,000 Cash Credit\*

\*Terms & Conditions apply.

Pay Your Card Bill Download Mobile App Apply for a Supplementary Card

### Zetalytics DNS History

Domain Q	Date Q	IP Q
<a href="#">www.aexp-statics.org</a>	2018-09-12	<a href="#">209.58.178.43</a>
<a href="#">merchant-suppliesamericanexpress...</a>	2018-09-11	<a href="#">209.58.178.43</a>
<a href="#">merchant-suppliesamericanexpress...</a>	2018-09-11	<a href="#">209.58.178.43</a>
<a href="#">www.dietischlerei.net</a>	2018-09-05	<a href="#">209.58.178.43</a>
<a href="#">mail.dietischlerei.net</a>	2018-09-04	<a href="#">209.58.178.43</a>
<a href="#">cpanel.dietischlerei.net</a>	2018-09-04	<a href="#">209.58.178.43</a>
<a href="#">www.daasonestaticsaxp.com</a>	2018-09-01	<a href="#">209.58.178.43</a>
<a href="#">dietischlerei.net</a>	2018-08-31	<a href="#">209.58.178.43</a>
<a href="#">american365express.info</a>	2018-08-30	<a href="#">209.58.178.43</a>
<a href="#">american365express.org</a>	2018-08-29	<a href="#">209.58.178.43</a>
<a href="#">american365express.net</a>	2018-08-29	<a href="#">209.58.178.43</a>
<a href="#">daasonestaticsaxp.com</a>	2018-08-21	<a href="#">209.58.178.43</a>
<a href="#">www.aexp-statics.com</a>	2018-08-11	<a href="#">209.58.178.43</a>
<a href="#">amexamericanexpress.com</a>	2018-08-10	<a href="#">209.58.178.43</a>
<a href="#">ns1.jack404.id</a>	2018-08-08	<a href="#">209.58.178.43</a>
<a href="#">aexp-statics.com</a>	2018-08-08	<a href="#">209.58.178.43</a>

# bit.ly/2022zc

The image shows a screenshot of a security tool interface with two panels. The left panel is titled 'DOMAIN DATA' and features a circular lens icon. Below the lens are the labels 'CSV' and 'Mal4s'. The text 'Uncover activity related to:' is followed by a text input field containing 'daasonestaticsxp.com' and a 'Search domain data' button. Below this is a checkbox labeled 'is an authoritative NS'. The right panel is titled 'IP ADDRESS DATA' and also features a circular lens icon with 'CSV' and 'Mal4s' labels below it. The text 'Uncover activity related to:' is followed by a dropdown menu labeled 'Valid CIDR list:', a text input field containing '209.58.178.43', a slash separator, and a field containing '32'. Below this is a 'Search IP data' button.

Go to [www.menti.com](http://www.menti.com) and use the code 67 29 15 3

# WHAT ELSE WERE YOU HOPING TO GET OUT OF THIS SESSION?

Mentimeter



Press **ENTER** to pause scroll

Press **s** to hide image



# HANDS-ON WITH HOMOGLYPHS

Fraud Domain <input checked="" type="checkbox"/> has ns	Victim Domain	Q	Timestamp	Link Priority	Rank
liverpoolrnuseums.org.uk	liverpoolmuseums.org.uk	(US)	2018-09-12 04:50	UK	0 118037
childcarre.co.uk	childcare.co.uk	(IE)	2018-09-12 03:29	UK	0 174098
aviva-popett.uk	aviva-popet.uk	(US)	2018-09-12 15:04	UK	0
duuno.co.uk	duno.co.uk	(DE)	2018-09-12 14:53	UK	0
svvannlighting.co.uk	swannlighting.co.uk	(GB)	2018-09-12 12:21	UK	0
popettaviva.co.uk	popetaviva.co.uk	(US)	2018-09-12 06:16	UK	0
gfholdng.co.uk	gfholding.co.uk	(DE)	2018-09-12 04:11	UK	0
alumascvms.co.uk	alumascwms.co.uk	(GB)	2018-09-12 03:57	UK	0
prrospot.co.uk	prospot.co.uk	(GB)	2018-09-12 02:24	UK	0
mmwjones.co.uk	mwjones.co.uk	(DE)	2018-09-11 05:46	UK	0
apllusgroup.co.uk	aplusgroup.co.uk	(GB)	2018-09-11 00:52	UK	0
hcpp.co.uk	hcp.co.uk	(GB)	2018-09-11 00:11	UK	0
classcharts.com	classcharts.com	(US)	2018-09-10 17:03	UK	0 118707
thegrandcaffé.co.uk	thegrandcafe.co.uk	(GB)	2018-09-10 23:08	UK	0
gaadirect.co.uk	gadirect.co.uk	(GB)	2018-09-10 01:01	UK	0
jbbpm.co.uk	jbpm.co.uk	(GB)	2018-09-10 01:00	UK	0
havvk-group.co.uk	hawk-group.co.uk	(US)	2018-09-10 00:30	UK	0
barclayss.com	barclays.com	(US)	2018-09-09 16:53	UK	0 28805
hbbhonline.co.uk	hbhonline.co.uk	(GB)	2018-09-09 21:40	UK	0
accomplsh-group.co.uk	accomplish-group.co.uk	(GB)	2018-09-09 13:06	UK	0
cootb.co.uk	cotb.co.uk	(GB)	2018-09-09 12:02	UK	0

flightplandatabase.com

whois E . V . B (contribute) zc  
2018-07-25 21:23:41 -0400

alt interface

flightplandatabase.com

google (with site:) HQ  
whois E . V . B (contribute) zc

Tags Planner Upload Tools Search... Sign in Join

### Welcome

Welcome to the Flight Plan Database. We are a flight simulation utility for creating, sharing and finding routes and flight plans for use with X-Plane, FSX and other compatible flight simulators. [Join](#) for free to share your uploaded, decoded or generated routes.

Get started with some of our most popular features:

- Planner** Create new flight plans from
- Search** Find flight plans for your favourite route or explore new parts of the world
- Upload** Submit your own flight plans to share with the world


### Quick Plan

Name

Name

Fly!

[Advertisement](#) [Logins page](#)



Potential Fraud Domain

Priority  
0  
Categorize

Potential Victim Domain

51.140.122.226

magairports.com

whois E . V . B (contribute) zc  
2018-07-25 16:03:00 -0400

alt interface

magairports.com

google (with site:) HQ  
whois E . V . B (contribute) zc

MAG companies

MAG ABOUT US OUR EXPERTISE MEDIA CENTRE INVESTOR RELATIONS RESPONSIBLE BUSINESS CAREERS

## WE ARE MAG THE AVIATION PROFESSIONALS

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together with a significant property business.

Confirm

Pass

Potential Fraud Domain Priority  
0  
Categorize

**vvyedean.com** **wyedean.com**

whois E . V . B (contribute) zc google (with site:) HQ  
 2018-07-26 06:24:50 -0400 whois E . V . B (contribute) zc

alt interface

**Police / Military Uniforms**

Potential Fraud Domain Priority  
0  
Categorize

**goodwingruop.com** **goodwingroup.com**

whois E . V . B (contribute) zc google (with site:) HQ  
 2018-07-25 16:54:11 -0400 whois E . V . B (contribute) zc

alt interface

**Easat Radar Systems**

UK

✓ Confirm

✗ Pass

Potential Victim Domain 212.57.250.136

**WYEDEAN**

Manufacturers of uniforms, braid and accoutrements

More than just a **developer**

Passive (Aggressive) DNS

# USE CASE: FOOTPRINTING

**RSAC.COM**

**Reliance Steel and  
Aluminum**

**DOMAIN DATA**

Uncover activity related to:

rsac.com

Search domain data

is an authoritative NS

CSV Mal4s

**IP ADDRESS DATA**

Uncover activity related to:

Valid CIDR list:

- 64.94.109.64/26 / 26
- 64.94.96.0/20
- 64.94.109.64/32
- 64.94.109.64/31
- 64.94.109.64/30
- 64.94.109.64/29
- 64.94.109.64/28
- 64.94.109.64/27
- 64.94.109.64/26
- 64.94.109.0/25
- 64.94.109.0/24
- 64.94.108.0/23
- 64.94.108.0/22
- 64.94.104.0/21
- 64.94.96.0/20
- 64.94.96.0/19
- 64.94.64.0/18
- 64.94.0.0/17
- 64.94.0.0/16

CSV Mal4s

Set domain tagging entity type: tag

conglomerate x producer x aluminum x steel x aerospace x

energy x Type to add tags for ...

+ rsac.com

Set IP tagging entity type:

Type to add tags for ...

+ 64.94.109.64/26

Show	Source	Records	Status
<input checked="" type="checkbox"/> <input type="radio"/>	Zetylytics Hostname History	1984	278 ms
<input checked="" type="checkbox"/> <input type="radio"/>	Malware DNS Activity	0	548 ms
<input checked="" type="checkbox"/> <input type="radio"/>	Registration Whois	1	81 ms
<input type="checkbox"/> <input type="radio"/>	with same email		
<input checked="" type="checkbox"/> <input type="radio"/>	Live DNS	8	405 ms
<input checked="" type="checkbox"/> <input type="radio"/>	NS glue history	0	392 ms
<input checked="" type="checkbox"/> <input type="radio"/>	a-passive	3	194 ms
<input checked="" type="checkbox"/> <input type="radio"/>	Authoritative NS	270	1381 ms
<input checked="" type="checkbox"/> <input type="radio"/>	Site screen capture	0	

Show	Source	Records	Status
<input checked="" type="checkbox"/> <input type="radio"/>	Zetylytics Passive DNS	34	1764 ms
<input checked="" type="checkbox"/> <input type="radio"/>	Malware DNS Activity	0	1319 ms
<input checked="" type="checkbox"/> <input type="radio"/>	Netblock whois	1	16682 ms
<input type="checkbox"/> <input type="radio"/>	with same email		
<input checked="" type="checkbox"/> <input type="radio"/>	Reverse DNS	3	1125 ms
<input checked="" type="checkbox"/> <input type="radio"/>	a-passive	0	1079 ms
<input type="checkbox"/> <input type="radio"/>	cn-passive-ips		Click 2 Run
<input checked="" type="checkbox"/> <input type="radio"/>	Auth NS Glue	0	1061 ms
<input type="checkbox"/> <input type="radio"/>	Tor Exit Nodes	0	540 ms

**Registration Whois Datapoints**

Registrar: Network Solutions, LLC.

Creation Date: 1997-03-08T05:00:00.000Z

Status: clientTransferProhibited

Name Servers: SNOOPY.RSAC.COM

**Netblock Whois Datapoints**

Country: US

RIR: ARIN

Creation Date: 2000-06-05

Owner Name: Reliance Steel & Aluminum Co

Status: reassignment



## Authoritative NS

### Domains Served By Name Server Q

[customfabco.com](#) ↗  
[lbi-metals.com](#) ↗  
[liebovichwisc.com](#) ↗  
[liebovichiowa.com](#) ↗  
[liebovichsteel.com](#) ↗  
[hagertysteel.com](#) ↗  
[goodmetals.com](#) ↗  
[metalsrockford.com](#) ↗  
[liebovich.com](#) ↗  
[smithpipe.com](#) ↗  
[claytonmetals.com](#) ↗  
[precisionflamecuttingandsteel.com](#) ↗  
[precisionflamecutting.com](#) ↗  
[pflame.com](#) ↗  
[rmapmetals.com](#) ↗  
[emjmetals.info](#) ↗  
[www.nsalloys.com](#) ↗  
[altair-co.com](#) ↗  
[trident-metals.com](#) ↗  
[findareliancerewardsmedicalprovider.com](#) ↗  
[centralplainssteel.net](#) ↗  
[jorgensensteel.org](#) ↗  
[cccsteel.net](#) ↗  
[bac1490.com](#) ↗  
[terms-conditions.net](#) ↗  
[emjmedals.com](#) ↗  
[reliancerewardsmedicalprovider.com](#) ↗  
[emjmedals.org](#) ↗  
[reliancesteelunioncity.com](#) ↗  
[reliancerewardsmedicalproviders.com](#) ↗  
[centralplainssteelwichita.com](#) ↗  
[rsacfamily.net](#) ↗

### Registration Whois Datapoints

Registrar: [Network Solutions, LLC.](#)

Creation Date: 1997-03-08T05:00:00.000Z

Status: [clientTransferProhibited](#)

Name Servers: [SNOOPY.RSAC.COM](#)

### Current Live DNS Resolution

<a href="#">rsac.com</a>	A	<a href="#">198.72.80.37</a>
<a href="#">snoopy.rsac.com</a>	A	<a href="#">209.10.101.67</a>
<a href="#">snoopy.rsac.com</a>	A	<a href="#">64.94.109.67</a>
<a href="#">mx1.rsac.iphmx.com</a>	A	<a href="#">68.232.131.81</a>
<a href="#">mx1.rsac.iphmx.com</a>	A	<a href="#">68.232.137.96</a>
<a href="#">mx1.rsac.iphmx.com</a>	A	<a href="#">68.232.142.172</a>
<a href="#">mx1.rsac.iphmx.com</a>	A	<a href="#">68.232.148.75</a>
<a href="#">woodstock.rsac.com</a>	A	<a href="#">72.44.207.193</a>
<a href="#">rsac.com</a>	MX	<a href="#">mx1.rsac.iphmx.com</a>
<a href="#">rsac.com</a>	MX	<a href="#">mx2.rsac.iphmx.com</a>

[Show More](#)



CSV  Mal4s

Uncover activity related to:

- ✓ Valid CIDR list:  
198.72.80.0/20 / 32
- 198.72.80.0/24**
- 198.72.80.37/32
- 198.72.80.36/31
- 198.72.80.36/30
- 198.72.80.32/29
- 198.72.80.32/28
- 198.72.80.32/27
- 198.72.80.0/26
- 198.72.80.0/25
- 198.72.80.0/24
- 198.72.80.0/23
- 198.72.80.0/22
- 198.72.80.0/21
- 198.72.80.0/20
- 198.72.64.0/19
- 198.72.64.0/18
- 198.72.0.0/17
- 198.72.0.0/16

Set IP tagging ent

Type to add tags for ...

+ 198.72.80.37/32

Show	Source	Records	Status
<input checked="" type="checkbox"/> <input type="radio"/>	<b>Zetalytics Passive DNS</b>	<b>184</b>	<b>1595 ms</b>
<input checked="" type="checkbox"/> <input type="radio"/>	Malware DNS Activity	0	650 ms
<input checked="" type="checkbox"/> <input type="radio"/>	Netblock whois	1	469 ms
<input type="checkbox"/> <input type="radio"/>	with same email		
<input checked="" type="checkbox"/> <input type="radio"/>	Reverse DNS	1	855 ms
<input checked="" type="checkbox"/> <input type="radio"/>	a-passive	0	329 ms
<input type="checkbox"/> <input type="radio"/>	cn-passive-ips		Click 2 Run
<input checked="" type="checkbox"/> <input type="radio"/>	Auth NS Glue	0	386 ms
<input type="checkbox"/> <input type="radio"/>	Tor Exit Nodes	0	470 ms

**Netblock Whois Datapoints**

Country: US

RIR: [ARIN](#)

Creation Date: [2012-08-20](#) [2018-06-23](#)

Owner Name: [Network Redux LLC](#)

Email: [hostmaster@networkredux.com](mailto:hostmaster@networkredux.com) | [abuse@netw...](mailto:abuse@netw...)

Status: [allocation](#)

ASN: [AS14744 \(rank\)](#)

PTR: [evs.rsac.com](http://evs.rsac.com)

**Zetalytics DNS History**

Domain Q	Date Q	IP Q
<a href="#">liebovich.com</a>	<a href="#">2018-08-28</a>	<a href="#">198.72.80.37</a>
<a href="#">liebovichsteel.com</a>	<a href="#">2018-08-28</a>	<a href="#">198.72.80.37</a>
<a href="#">liebovichwisc.com</a>	<a href="#">2018-08-28</a>	<a href="#">198.72.80.37</a>
<a href="#">goodmetals.com</a>	<a href="#">2018-08-28</a>	<a href="#">198.72.80.37</a>
<a href="#">hagertysteel.com</a>	<a href="#">2018-08-28</a>	<a href="#">198.72.80.37</a>
<a href="#">liebovichiowa.com</a>	<a href="#">2018-08-28</a>	<a href="#">198.72.80.37</a>
<a href="#">www.smithpipe.com</a>	<a href="#">2018-06-15</a>	<a href="#">198.72.80.37</a>
<a href="#">smithpipe.com</a>	<a href="#">2018-06-07</a>	<a href="#">198.72.80.37</a>
<a href="#">www.trident-metals.com</a>	<a href="#">2018-05-30</a>	<a href="#">198.72.80.37</a>
<a href="#">trident-metals.com</a>	<a href="#">2018-05-29</a>	<a href="#">198.72.80.37</a>
<a href="#">www.foxmetals.com</a>	<a href="#">2018-04-16</a>	<a href="#">198.72.80.37</a>
<a href="#">foxmetals.com</a>	<a href="#">2018-03-03</a>	<a href="#">198.72.80.37</a>
<a href="#">lampros.com</a>	<a href="#">2018-02-14</a>	<a href="#">198.72.80.37</a>
<a href="#">lamprossteel.com</a>	<a href="#">2018-01-27</a>	<a href="#">198.72.80.37</a>
<a href="#">american-steel.com</a>	<a href="#">2018-01-26</a>	<a href="#">198.72.80.37</a>
<a href="#">www.lamprossteel.com</a>	<a href="#">2018-01-26</a>	<a href="#">198.72.80.37</a>
<a href="#">www.american-metals.com</a>	<a href="#">2018-01-26</a>	<a href="#">198.72.80.37</a>
<a href="#">www.american-steel.com</a>	<a href="#">2018-01-26</a>	<a href="#">198.72.80.37</a>
<a href="#">american-metals.com</a>	<a href="#">2018-01-26</a>	<a href="#">198.72.80.37</a>
<a href="#">www.jorgensensteel.com</a>	<a href="#">2017-12-18</a>	<a href="#">198.72.80.37</a>
<a href="#">jorgensensteel.com</a>	<a href="#">2017-12-16</a>	<a href="#">198.72.80.37</a>
<a href="#">wordpress1.rsac.com</a>	<a href="#">2017-11-30</a>	<a href="#">198.72.80.37</a>
<a href="#">ftp.phoenixmetals.com</a>	<a href="#">2017-11-09</a>	<a href="#">198.72.80.37</a>
<a href="#">www.rsac-corp.com</a>	<a href="#">2017-08-01</a>	<a href="#">198.72.80.37</a>
<a href="#">www.faststeel.com</a>	<a href="#">2017-06-15</a>	<a href="#">198.72.80.37</a>

## Zetalytics DNS History

Domain Q	Date Q	IP Q
dr.rsacdev.com	2018-06-08	64.94.109.85
cv2.emjmetals.com	2017-02-13	64.94.109.122
h.18.cofile.net	2016-09-25	64.94.109.125
direct.hillsdale.net	2016-09-14	64.94.109.71
h.04.cofile.net	2016-08-15	64.94.109.119
h.06.cofile.net	2016-08-15	64.94.109.121
s4273x.pbextra.fonality.com	2016-07-22	64.94.109.117
h.13.cofile.net	2016-07-22	64.94.109.115
h.11.cofile.net	2016-07-21	64.94.109.71
g.14.cofile.net	2016-05-16	64.94.109.125
g.02.cofile.net	2016-05-16	64.94.109.125
lsan-gate.rsac.com	2015-11-21	64.94.109.117
www.varsteel.com	2015-10-11	64.94.109.72
exchange.rsac.com	2015-09-27	64.94.109.116
hal.rsac.com	2015-09-26	64.94.109.66
www.rsmetals.com	2015-09-03	64.94.109.72
www.rsac-corp.com	2015-09-03	64.94.109.72
forum.rsac.com	2015-08-30	64.94.109.69
vpn.rsac.com	2015-08-30	64.94.109.123
0a44410413bd770f9ac910c5238b14f...	2015-06-21	64.94.109.87
helpdesk.rsac.com	2015-05-20	64.94.109.69
test.rsac.com	2015-05-04	64.94.109.68
topekadirect.cjonline.com	2015-04-07	64.94.109.71
snoopy.rsac.com	2015-02-25	64.94.109.67
www.15-5.com	2015-01-30	64.94.109.72
15-5.com	2014-09-25	64.94.109.72
rsac-test.com	2014-09-23	64.94.109.72
centralplainssteel.com	2014-09-11	64.94.109.72
rsmetals.com	2014-09-10	64.94.109.72
rsac-corp.com	2014-09-07	64.94.109.72
bralcosw.com	2014-09-02	64.94.109.72
varsteel.com	2014-08-27	64.94.109.72
centralplainssteelco.com	2014-08-25	64.94.109.72

[Show Less](#)



### Reverse DNS Host

Host	IP	Last Seen
reliance-1.lax007.pnap.net	64.94.109.126	2018-09-27
border1.g3-11.reliance-1.lax007.pnap.net	64.94.109.124	2018-09-26
border2.g3-11.reliance-1.lax007.pnap.net	64.94.109.125	2018-09-26

techhelp@rsac.com

Search Period    
 Last Seen Date  First Seen Date   
 Search By    
 Type   prefix  term  \*wildcard\* (slow)

Results    
 98 Results Found

Date	Last Seen	Domain	O	R	Emails
2018-08-29	2018-08-29	liebovichsteel.com			techhelp@rsac.com
2018-08-29	2018-08-29	metalsrockford.com			techhelp@rsac.com
2018-08-28	2018-08-28	liebovich.com			techhelp@rsac.com
2018-08-27	2018-08-27	liebovichiowa.com			techhelp@rsac.com
2018-06-13	2018-09-11	smithpipe.com			techhelp@rsac.com
2018-05-08	2018-08-27	claytonmetals.com			techhelp@rsac.com
2018-03-21	2018-09-15	precisionflamecuttingandsteel.com			techhelp@rsac.com
2018-03-14	2018-08-26	precisionflamecutting.com			techhelp@rsac.com
2018-03-07	2018-08-26	pflame.com			techhelp@rsac.com
2018-01-08	2018-08-27	altair-co.com			techhelp@rsac.com
2018-01-05	2018-09-21	trident-metals.com			techhelp@rsac.com
2017-12-14	2018-07-12	rmcl.ca			techhelp@rsac.com
2017-11-25	2018-01-23	bralcometals.com.au			techhelp@rsac.com
2017-10-05	2018-09-07	reliancesteelsaltlakecity.com			techhelp@rsac.com
2017-09-15	2018-09-16	metalcenter.com			techhelp@rsac.com
2017-09-15	2018-09-10	olympicmetalscommercecitycolorado.net			techhelp@rsac.com
2017-08-23	2018-09-09	reliancerewardsmedicalprovider.com			techhelp@rsac.com
2017-08-17	2018-08-24	nationalspeciality.com			techhelp@rsac.com
2017-08-10	2018-08-17	reliancemetalcentersaltlakecity.com			techhelp@rsac.com
2017-08-08	2018-08-06	rmcunioncity.net			techhelp@rsac.com
2017-07-27	2017-09-19	fpstructurals.com			techhelp@rsac.com
2017-07-25	2018-05-27	rmcunioncity.com			techhelp@rsac.com

Data Access and Support

### Registration Whois Datapoints

Registrar: [Network Solutions, LLC.](#)

Creation Date: 1997-03-08T05:00:00.000Z

Status: [clientTransferProhibited](#)

Name Servers: [SNOOPY.RSAC.COM](#)

### Current Live DNS Resolution

<a href="#">rsac.com</a>	A	<a href="#">198.72.80.37</a>
<a href="#">snoopy.rsac.com</a>	A	<a href="#">209.10.101.67</a>
<a href="#">snoopy.rsac.com</a>	A	<a href="#">64.94.109.67</a>
<a href="#">mx1.rsac.iphmx.com</a>	A	<a href="#">68.232.131.81</a>
<a href="#">mx1.rsac.iphmx.com</a>	A	<a href="#">68.232.137.96</a>
<a href="#">mx1.rsac.iphmx.com</a>	A	<a href="#">68.232.142.172</a>
<a href="#">mx1.rsac.iphmx.com</a>	A	<a href="#">68.232.148.75</a>
<a href="#">woodstock.rsac.com</a>	A	<a href="#">72.44.207.193</a>
<a href="#">rsac.com</a>	MX	<a href="#">mx1.rsac.iphmx.com</a>
<a href="#">rsac.com</a>	MX	<a href="#">mx2.rsac.iphmx.com</a>

[Show More](#)

Filter... x

v1

- cname2qname
- domain2aaaa
- domain2cname
- domain2ip
- domain2malwaredns
- domain2malwarehttp
- domain2mx
- domain2ns
- domain2ptr
- domain2txt
- domain2whois
- email\_address
- email\_domain
- email\_user
- hash2malwaredns
- hash2malwarehttp
- hostname
- ip
- ip2malwaredns
- mx2domain**
- ns2domain

## Send a Sample Request

https://zonecruncher.com/api/v1/mx2domain

url

### Parameters

Parameter

q	mx1.rsac.iphmx.com	String
toBaseDomain	toBaseDomain	Boolean
token	PUTYOURTOKENHERE	String
start	start	
end	end	
tsfield	tsfield	String

Send

### Response

x

```
{
  "info": "52 results found.",
  "total": 52,
  "returning": 52,
  "results": [
    {
      "domain": "tomametals.com",
      "qname": "tomametals.com",
      "qtype": "15",
      "date": "2016-04-06",
      "last_seen": "2017-09-29",
      "type": "mx",
      "value": "mx1.rsac.iphmx.com"
    },
    {
      "domain": "nsalloys.com",
      "qname": "www.nsalloys.com",
      "qtype": "15",
      "date": "2018-07-05",
      "last_seen": "2018-07-05",
      "type": "mx",
      "value": "mx1.rsac.iphmx.com"
    },
    {
      "domain": "customfabco.com",
```

# CAUTIONARY TALES

- You are the product
- Who are you signalling?
- What can be forged? (untrusted data)
- Nation State Interests
- Corporate Interests vs Public Interest

# YOU ARE THE PRODUCT

- 1.1.1.1, 8.8.8.8, 9.9.9.9,
- 101.101.101.101,  
114.114.114.114
- Someone is recording your DNS lookups
- Who gains access?
- What countries gain access to your DNS lookups?
- For what purposes?
- Re-sold to marketers?
- Correlation with other tracking mechanisms?

Go to [www.menti.com](http://www.menti.com) and use the code 67 29 15 3

**GO TO** <http://sink.glass/>

Mentimeter

Find your Recursive Resolver IP, copy and paste it here. If you know your usual preferred resolver, you can also paste it here, such as 4.2.2.2:



Press **s** to hide image



# RESOURCES & NEXT STEPS:



- [IANA.org](https://iana.org) DNS Parameters
- What recursive resolver am I using? <http://sink.glass/>
- VPNs that don't route your DNS traffic
- DNS Privacy Efforts
- Free passive DNS accounts to sign up for
- Recommended reading list

**Questions?** April Lorenzen [april@Zetalytics.com](mailto:april@Zetalytics.com)

Go to [www.menti.com](https://www.menti.com) and use the code 67 29 15 3

# HOW DO YOU FEEL ABOUT DNS NOW?

 Mentimeter





April Lorenzen [data@dissectcyber.com](mailto:data@dissectcyber.com)

# Contact

For additional questions, please email:

[training\\_committee-chair@mailman.m3aawg.org](mailto:training_committee-chair@mailman.m3aawg.org)