

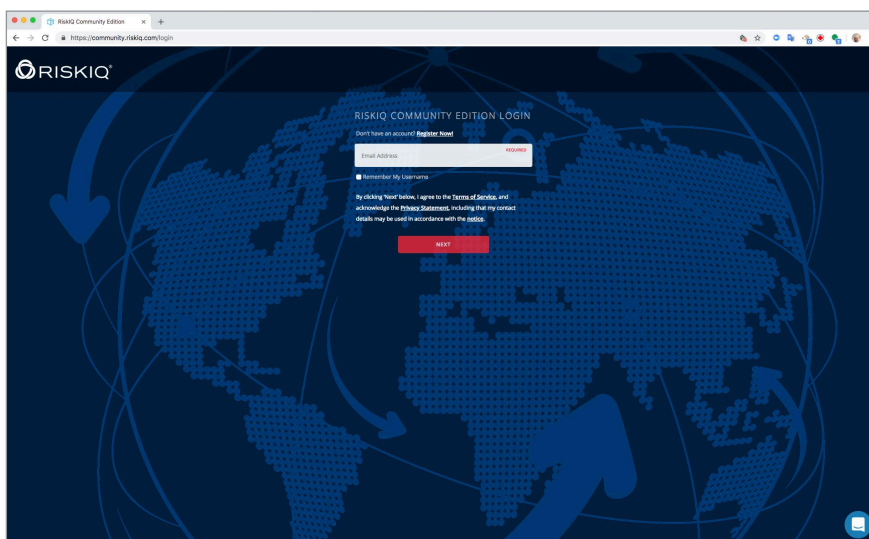
Turla Waterhole Attack Investigation

The Turla Waterhole attack was a malicious reconnaissance campaign that targeted ministry and embassy websites. All of the targeted websites were also located in Washington, D.C. This attack allowed the threat actor to track users that visited the compromised websites without their knowledge. It is believed that the threat actor was using these compromised websites to secretly track dissidents on the internet.

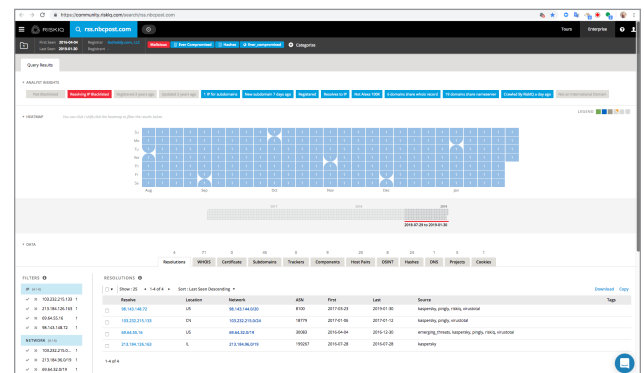
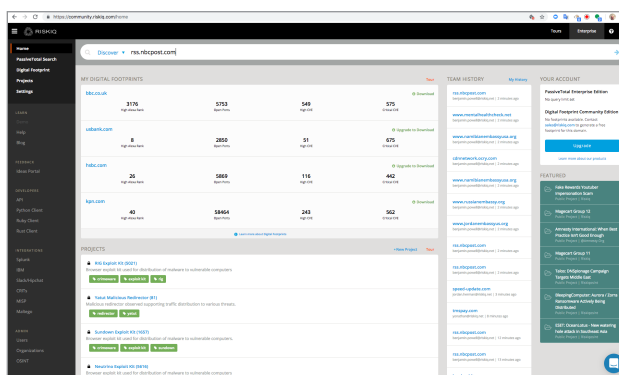
Lets Get Started

STEP 1: Log in to RiskIQ PassiveTotal™. <https://community.riskiq.com/login>

In this exercise, you have been given a compromised device. During your investigation, you have isolated a compromised system communicating to `rss.nbcpost.com`. You are tasked with investigating the domain to gain more information about the threat actor and understand what they are doing.



STEP 2: In the Discover window type: `"rss[.]nbcpost[.]com"` without the quotes or `[]` and hit the Enter key.



STEP 3: Investigate the Host Pair Tab

- What type of domains are listed?
- Are the domains malicious or non-malicious?
- What causes the domains to be associated with rss[.]nbcpost[.]com?
- What does it mean to be a parent domain to rss[.]nbcpost[.]com?

Parent Hostname	Child Hostname	First	Last	Cause	Tags
www.richtel.at	rss.nbcpost.com	2017-10-02	2018-06-24	script:arc	Non Malicious, gov
www.mfa.gov.md	rss.nbcpost.com	2016-04-28	2016-11-06	script:arc	
www.namibianembassy.org	rss.nbcpost.com	2016-07-02	2016-11-06	script:arc	
mfa.uz	rss.nbcpost.com	2016-10-11	2016-11-06	unknown	
www.cooperation.org	rss.nbcpost.com	2016-10-26	2016-11-05	script:arc	
www.zambiaembassy.org	rss.nbcpost.com	2016-07-01	2016-11-05	script:arc	
www.mfa.uz	rss.nbcpost.com	2016-10-11	2016-11-05	unknown	
www.sai.gov.ua	rss.nbcpost.com	2016-10-17	2016-11-03	script:arc	
www.bewusstkaufen.at	rss.nbcpost.com	2016-09-28	2016-11-02	script:arc	
oss.marchin.com	rss.nbcpost.com	2016-10-31	2016-11-02	script:arc	Non Malicious, gov
www.vfwhelliche.at	rss.nbcpost.com	2016-04-26	2016-11-02	script:arc	
connect.facebook.net	rss.nbcpost.com	2016-10-31	2016-11-02	script:arc	
avsa.org	rss.nbcpost.com	2016-04-19	2016-08-03	script:arc	
www.avsa.org	rss.nbcpost.com	2016-04-11	2016-08-03	script:arc	
au.int	rss.nbcpost.com	2016-04-19	2016-06-25	script:arc	
www.au.int	rss.nbcpost.com	2016-04-20	2016-06-20	script:arc	
oss.at	rss.nbcpost.com	2016-06-07	2016-06-07	script:arc	
jordanembassy.org	rss.nbcpost.com	2016-04-13	2016-04-25	script:arc	
www.jordanembassy.org	rss.nbcpost.com	2016-04-23	2016-04-23	script:arc	
www.marng.com	rss.nbcpost.com	2016-04-13	2016-04-13	script:arc	

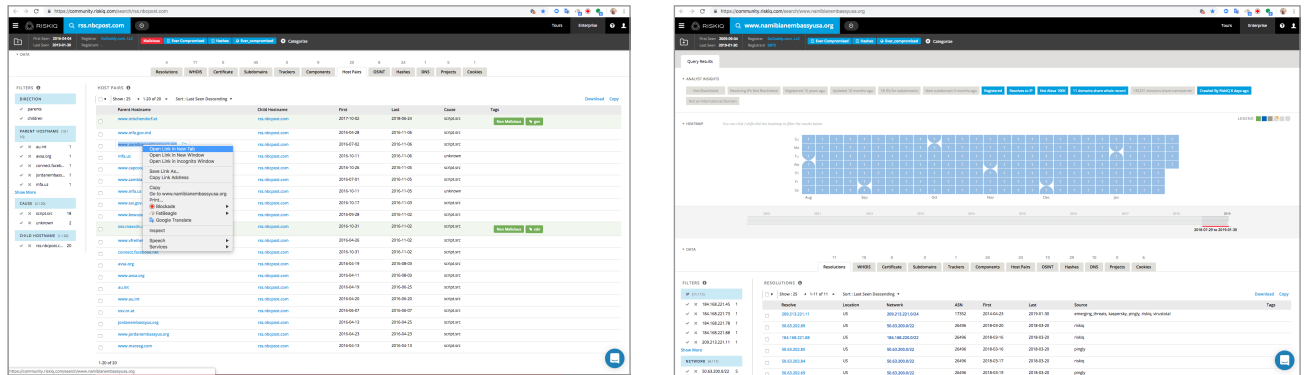
STEP 4: As you investigate each domain click the box next to the domain name and modify the Host Pair Domain.

Classify the Host Pairs as Malicious or Non-Malicious.

You can even add a custom tag to mark the Host Pair domain like embassy, gov, commercial, social-media.

Parent Hostname	Child Hostname	First	Last	Cause	Tags
www.richtel.at	rss.nbcpost.com	2017-10-02	2018-06-24	script:arc	Non Malicious, gov
www.mfa.gov.md	rss.nbcpost.com	2016-04-28	2016-11-06	script:arc	
www.namibianembassy.org	rss.nbcpost.com	2016-07-02	2016-11-06	script:arc	
mfa.uz	rss.nbcpost.com	2016-10-11	2016-11-06	unknown	
www.cooperation.org	rss.nbcpost.com	2016-10-26	2016-11-05	script:arc	
www.zambiaembassy.org	rss.nbcpost.com	2016-07-01	2016-11-05	script:arc	
www.mfa.uz	rss.nbcpost.com	2016-10-11	2016-11-05	unknown	
www.sai.gov.ua	rss.nbcpost.com	2016-10-17	2016-11-03	script:arc	
www.bewusstkaufen.at	rss.nbcpost.com	2016-09-28	2016-11-02	script:arc	
oss.marchin.com	rss.nbcpost.com	2016-10-31	2016-11-02	script:arc	Non Malicious, gov
www.vfwhelliche.at	rss.nbcpost.com	2016-04-26	2016-11-02	script:arc	
connect.facebook.net	rss.nbcpost.com	2016-10-31	2016-11-02	script:arc	
avsa.org	rss.nbcpost.com	2016-04-19	2016-08-03	script:arc	
www.avsa.org	rss.nbcpost.com	2016-04-11	2016-08-03	script:arc	
au.int	rss.nbcpost.com	2016-04-19	2016-06-25	script:arc	
www.au.int	rss.nbcpost.com	2016-04-20	2016-06-20	script:arc	
oss.at	rss.nbcpost.com	2016-06-07	2016-06-07	script:arc	
jordanembassy.org	rss.nbcpost.com	2016-04-13	2016-04-25	script:arc	
www.jordanembassy.org	rss.nbcpost.com	2016-04-23	2016-04-23	script:arc	
www.marng.com	rss.nbcpost.com	2016-04-13	2016-04-13	script:arc	

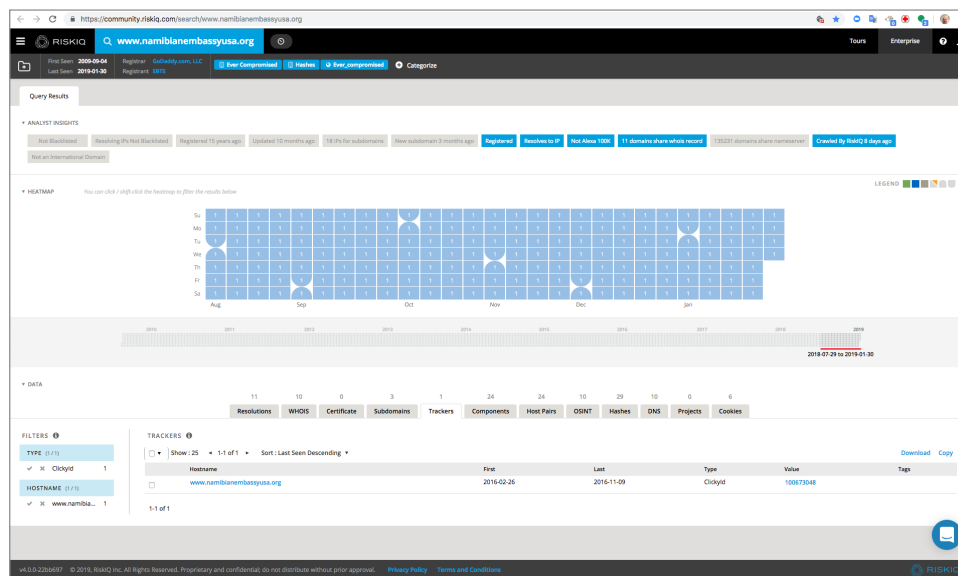
STEP 5: Right click on [www\[.\]namibianembassyusa\[.\]org](http://www.namibianembassyusa.org) and open link in a new tab



STEP 6: Clicking on the PassiveTotal Tab showing [www\[.\]namibianembassyusa\[.\]org](http://www.namibianembassyusa.org)

Click on the Tracker tab

Investigate clickyld 10673048 by right clicking on the value and open the link in a new tab.



STEP 9: Investigate Trackers www[.]russianembassy[.]org

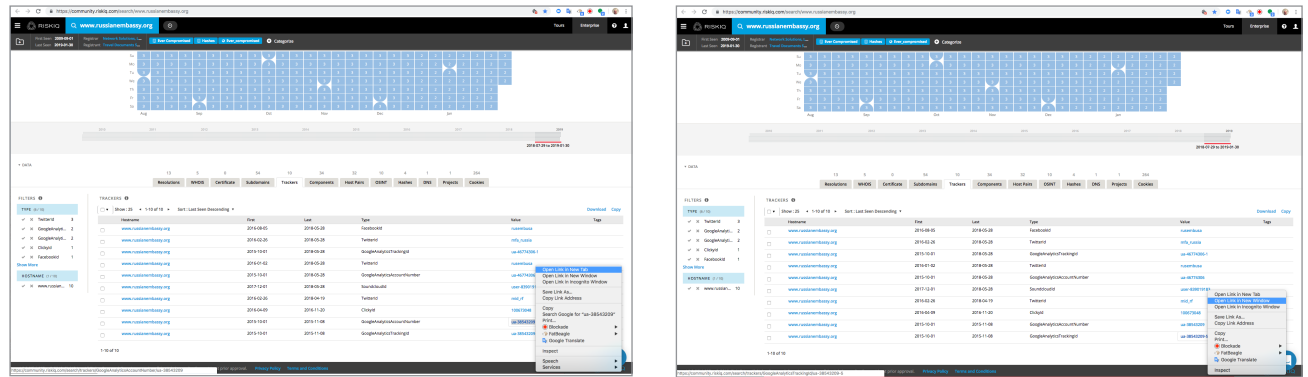
Google Analytics Account Number ua-38543209

And

Google Analytics Tracking Id ua-98543209-5

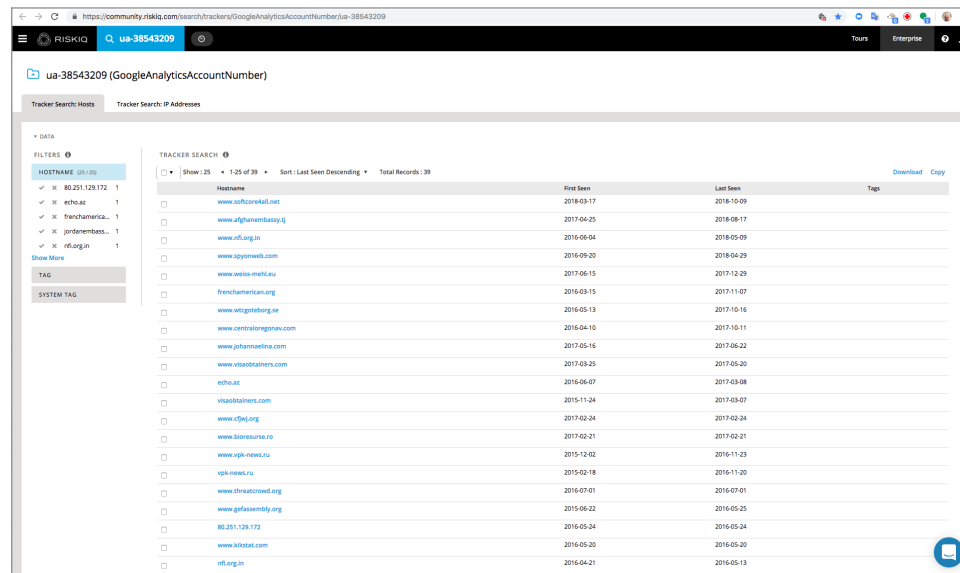
right clicking on each tracker and open the link in a new tab.

Trackers show a relationship between these trackers and



STEP 10: Examine the results for Google Analytics Account Number ua-38543209

All of the websites are associated with this same tracker and are part of the threat actors campaign.



STEP 11: Examine the results for Google Analytics Tracking Id ua-98543209-5

All of the websites are associated with this same tracker and are part of the threat actors campaign.

Tracker Search: Hosts

Tracker Search: IP Addresses

DATA

FILTERS

HOSTNAME (31/26)

✓ 80.251.128.172 1

✓ echo.ac 1

✓ frenchamerica... 1

✓ jordanembass... 1

✓ rft.org.in 1

Show More

TAG

SYSTEM TAG

TRACKER SEARCH

Show 25 • 1-25 of 37 • Sort: Last Seen Descending • Total Records: 37

Hostname	First Seen	Last Seen	Tags
www.soficareall.net	2018-03-17	2018-10-09	
www.afghambassy-qj	2017-04-25	2018-08-17	
www.rft.org.in	2016-06-04	2018-05-09	
www.welip-mehi.eu	2017-06-15	2017-12-29	
frenchamerica.org	2016-03-15	2017-11-07	
www.angoniborg.se	2016-05-13	2017-10-16	
www.johannaonline.com	2017-05-16	2017-06-22	
www.vtasobtimers.com	2017-03-25	2017-09-20	
echo.ac	2016-06-07	2017-03-08	
visabotimers.com	2015-11-24	2017-03-07	
www.cfej.org	2017-02-24	2017-02-24	
www.bloncourse.ro	2017-02-21	2017-02-21	
www.vpk-news.ru	2015-12-02	2016-11-23	
vpk-news.ru	2015-03-18	2016-11-20	
www.threatcrowd.org	2016-07-01	2016-07-01	
www.gfassembly.org	2015-06-22	2016-09-25	
80.251.128.172	2016-05-24	2016-09-24	
www.kikidat.com	2016-05-20	2016-09-20	
rft.org.in	2016-04-21	2016-05-13	
www.frenchamerica.org	2016-02-20	2016-02-28	
www.rouschentech.com	2016-01-27	2016-01-27	

STEP 12: Go back to www[.]namibianembassyusa[.]org and Investigate the following Host Pair Domains:

www[.]mentalhealthcheck[.]net

and

cdnnetwork[.]jocry[.]com

right clicking on each domain and open the link in a new tab.

Filters

HOSTNAME (31/26)

✓ 80.251.128.172 1

✓ echo.ac 1

✓ frenchamerica... 1

✓ jordanembass... 1

✓ rft.org.in 1

Show More

TAG

SYSTEM TAG

TRACKER SEARCH

Show 25 • 1-25 of 37 • Sort: Last Seen Descending • Total Records: 37

Hostname	First Seen	Last Seen	Tags
www.soficareall.net	2018-03-17	2018-10-09	
www.afghambassy-qj	2017-04-25	2018-08-17	
www.rft.org.in	2016-06-04	2018-05-09	
www.welip-mehi.eu	2017-06-15	2017-12-29	
frenchamerica.org	2016-03-15	2017-11-07	
www.angoniborg.se	2016-05-13	2017-10-16	
www.johannaonline.com	2017-05-16	2017-06-22	
www.vtasobtimers.com	2017-03-25	2017-09-20	
echo.ac	2016-06-07	2017-03-08	
visabotimers.com	2015-11-24	2017-03-07	
www.cfej.org	2017-02-24	2017-02-24	
www.bloncourse.ro	2017-02-21	2017-02-21	
www.vpk-news.ru	2015-12-02	2016-11-23	
vpk-news.ru	2015-03-18	2016-11-20	
www.threatcrowd.org	2016-07-01	2016-07-01	
www.gfassembly.org	2015-06-22	2016-09-25	
80.251.128.172	2016-05-24	2016-09-24	
www.kikidat.com	2016-05-20	2016-09-20	
rft.org.in	2016-04-21	2016-05-13	
www.frenchamerica.org	2016-02-20	2016-02-28	
www.rouschentech.com	2016-01-27	2016-01-27	

Filters

HOSTNAME (31/26)

✓ 80.251.128.172 1

✓ echo.ac 1

✓ frenchamerica... 1

✓ jordanembass... 1

✓ rft.org.in 1

Show More

TAG

SYSTEM TAG

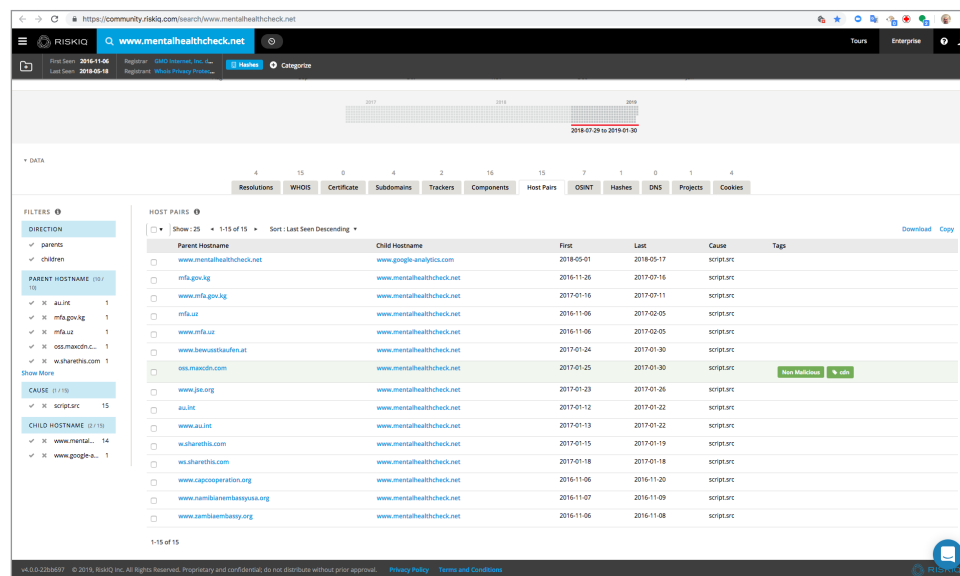
TRACKER SEARCH

Show 25 • 1-25 of 37 • Sort: Last Seen Descending • Total Records: 37

Hostname	First Seen	Last Seen	Tags
www.soficareall.net	2018-03-17	2018-10-09	
www.afghambassy-qj	2017-04-25	2018-08-17	
www.rft.org.in	2016-06-04	2018-05-09	
www.welip-mehi.eu	2017-06-15	2017-12-29	
frenchamerica.org	2016-03-15	2017-11-07	
www.angoniborg.se	2016-05-13	2017-10-16	
www.johannaonline.com	2017-05-16	2017-06-22	
www.vtasobtimers.com	2017-03-25	2017-09-20	
echo.ac	2016-06-07	2017-03-08	
visabotimers.com	2015-11-24	2017-03-07	
www.cfej.org	2017-02-24	2017-02-24	
www.bloncourse.ro	2017-02-21	2017-02-21	
www.vpk-news.ru	2015-12-02	2016-11-23	
vpk-news.ru	2015-03-18	2016-11-20	
www.threatcrowd.org	2016-07-01	2016-07-01	
www.gfassembly.org	2015-06-22	2016-09-25	
80.251.128.172	2016-05-24	2016-09-24	
www.kikidat.com	2016-05-20	2016-09-20	
rft.org.in	2016-04-21	2016-05-13	
www.frenchamerica.org	2016-02-20	2016-02-28	
www.rouschentech.com	2016-01-27	2016-01-27	

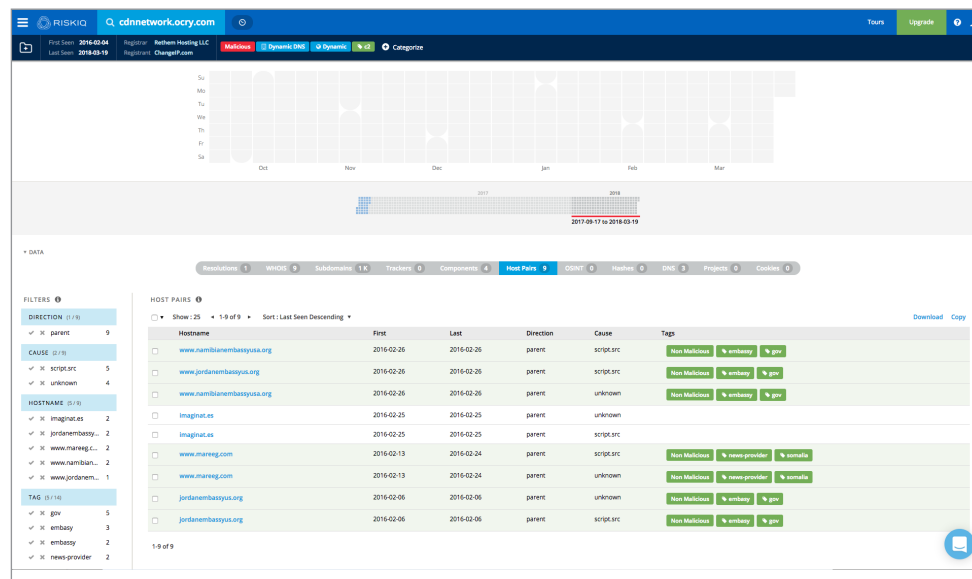
STEP 13: Examine the Host Pairs for www[.]mentalhealthcheck[.]net

Here we see additional websites associated with attack campaign.



STEP 14: Examine the Host Pairs for cdnnetwork[.]ocry[.]com

Here we see associations connecting to the Jordan Embassy.



STEP 15: Right click on jordanembassyus[.]org that has a Cause from script.src and open link in a new tab

The screenshot shows the RiskIQ community riskiq.com search results for the domain `cdnnetwork.scrpy.com`. The interface includes a calendar view at the top, followed by a table of host pairs. A right-click context menu is open over the entry for `www.jordanembassyus.org`, showing options like 'Copy Link to New Tab', 'Open Link in New Window', 'Open Link in Incognito Window', 'Save Link As...', 'Copy Link Address', 'Copy', 'Go to www.jordanembassyus.org', 'Blockade', 'Fiddler', 'Google Translate', and 'Inspect'.

STEP 16: Examine Trackers for jordanembassyus[.]org

Investigate Google Analytics Account Number ua-24940001

And

Google Analytics Tracking Id ua-24940001-1

right clicking on each tracker and open the link in a new tab.

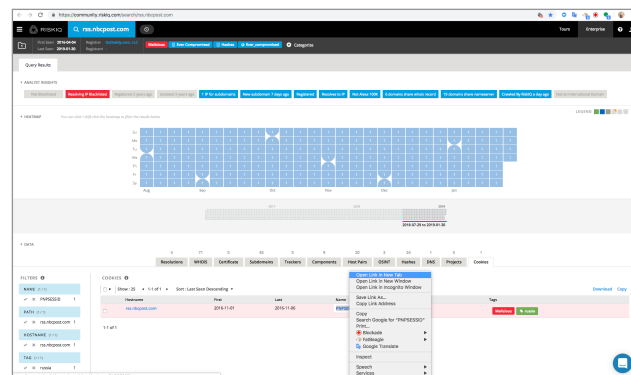
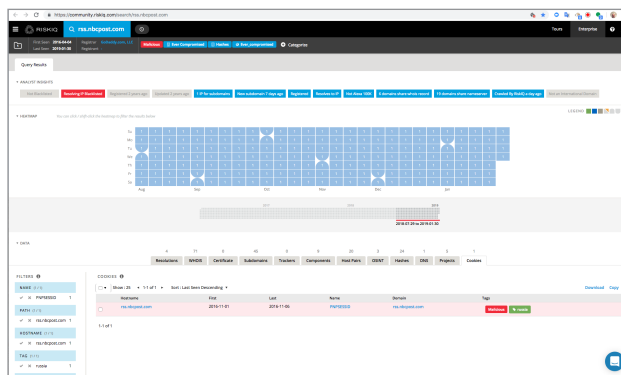
The screenshot shows the RiskIQ community riskiq.com search results for the domain `www.jordanembassyus.org`. The interface includes a calendar view at the top, followed by a table of trackers. A right-click context menu is open over the entry for `ua-24940001-1`, showing options like 'Copy Link to New Tab', 'Open Link in New Window', 'Open Link in Incognito Window', 'Save Link As...', 'Copy Link Address', 'Copy', 'Go to ua-24940001-1', 'Blockade', 'Fiddler', 'Google Translate', and 'Inspect'.

STEP 17: Go back to the tab for rss[.]nbcpost[.]com

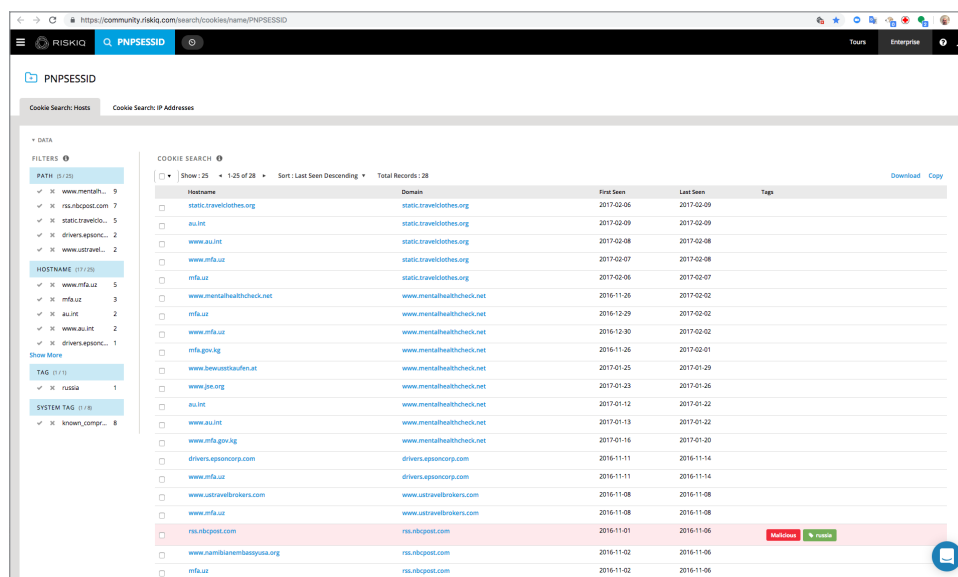
Click on the cookie tab

Investigate cookie named PNPSESSID

right clicking on the cookie name and open the link in a new tab.



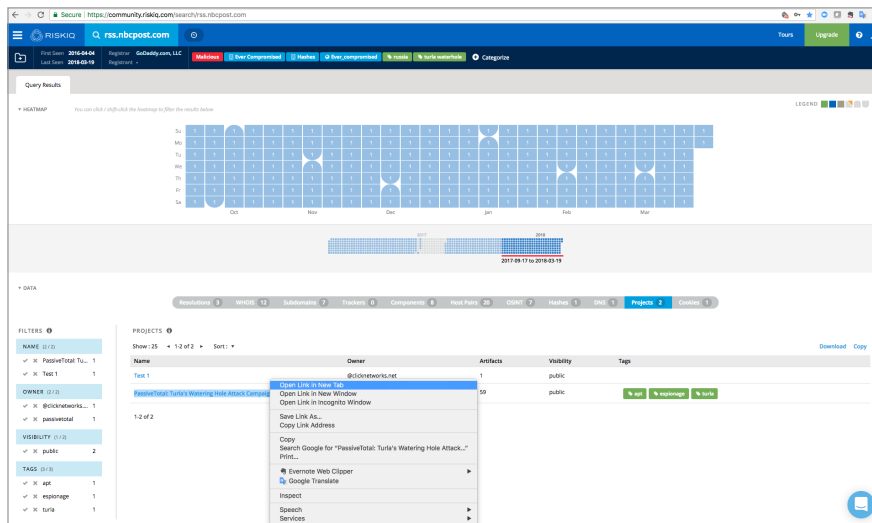
STEP 18: This cookie was used to track users on all of the websites listed.



STEP 19: Go back to the tab for rss[.]nbcpost[.]com

Review the project tab.

Click on the project named “PassiveTotal: Turla’s Watering Hole Attack Campaign”



STEP 20: PassiveTotal: Turla’s Watering Hole Attack Campaign

This project includes the list of compromised websites along with IOCs associated with the Turla actor group. This information is based off of the below reporting and RiskIQ’s follow on analysis of the identified infrastructure.

06.06.2017 - ESET release a blog post Identifying use of social media channels for C&C and ClickyIDs to mask malicious javascript

<https://www.welivesecurity.com/2017/06/06/turlas-watering-hole-campaign-updated-firefox-extension-abusing-instagram/>

02.07.2017 - Forcepoint Releases a blog outlining Turla’s use of compromised embassy websites for conducting reconnaissance on target victims

<https://blogs.forcepoint.com/security-labs/curious-case-reconnaissance-campaign-targeting-ministry-and-embassy-sites>

The screenshot shows the RiskIQ interface for the project "PassiveTotal: Turla's Watering Hole Attack Campaign". The top section displays the project name and a brief description. Below this, there is a table of artifacts. The table has columns for Artifact, Type, Created, Creator, Content, Tags, and Metrics. The first artifact is "aleksandrol.com" with type "Domain" and created on "2017-06-14". The second artifact is "evia.org" with type "Domain" and created on "2017-06-14". The third artifact is "driversappon.com" with type "Domain" and created on "2017-06-14". The fourth artifact is "embassypro.com" with type "Domain" and created on "2017-06-14". The fifth artifact is "frenchamerican.org" with type "Domain" and created on "2017-06-15". The sixth artifact is "imgat.es" with type "Domain" and created on "2017-06-14". The seventh artifact is "imgat.es" with type "Domain" and created on "2017-06-14". The eighth artifact is "imgat.es" with type "Domain" and created on "2017-06-14". The ninth artifact is "imgat.es" with type "Domain" and created on "2017-06-14". The tenth artifact is "imgat.es" with type "Domain" and created on "2017-06-14".

Conclusion

This attack was a reconnaissance campaign that actively targeted visitors to government websites. The tactics and the targeting of this campaign overlaps with those of the Turla group. However, no conclusive evidence is available to confirm a relationship or the motive behind this campaign.

This use case was the reason why RiskIQ released this new **Cookies** data set that was created from crawl data. This new data set helped to uncover how the threat actor operated and tracked users identifying the compromised websites.



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