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TLP WHITE

2022-011
23/02/2022



Banana Sulfate infrastructure cluster exposed

OBJECTIVES:
UNKNOWN

INTRUSION SET:
UNKNOWN

Summary

During their day to day threat hunting, SEKOIA.IO analysts have recently discovered an infrastructure cluster composed of 88 domain names dubbed internally "Banana Sulfate". Despite its size and its apparent sophistication, SEKOIA.IO hasn't any ties regarding the attribution to a particular intrusion set.

Infrastructure analysis

The majority of "Banana Sulfate" domains are resolving IP addresses hosted on **Host Sailor Ltd** (AS60117) and **MivoCloud** (AS39798) and the threat actor started to set up his infrastructure almost two years ago to the day and registered its last domain in December, 2021.

Banana Sulfate infrastructure

Details Relationship

TLP **AMBER**

Confidence **1**

Sources **SEKOIA**

Aliases Banana Sulfate Infrastructure

Objective Unknown

Description
SEKOIA.IO discovered a suspect Infrastructure hosted under HostSailor, MivoCloud, M247 and OVH. This infrastructure is characterized by more than 80+ domains containing specific keywords separated by dashes and having self-signed certificates with a validity period of 10 years. This infrastructure have some overlaps with few domains typosquating URL shorteners.

As of today, we don't know which threat actor is behind this Infrastructure but we are quite confident that an organized APT threat actor is behind it.

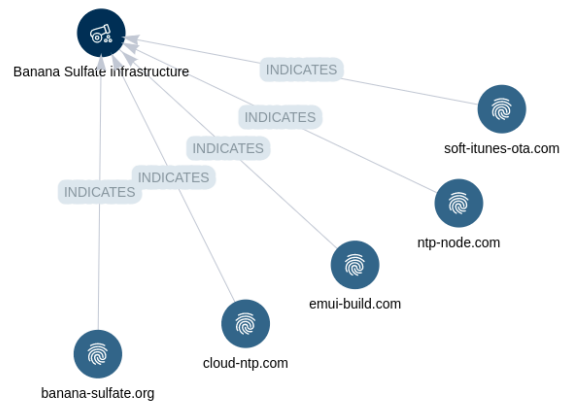


Figure 1. Banana Sulfate related domains in the SEKOIA.IO Intelligence Center

The main cluster of this infrastructure is composed of domains embedding some technical keywords separated by dashes, such as:

build	dev	ctrl
search	mtp	respond
updt	data	repo
socket	control	ssl
pkg	services	layer
symcd	diag	endpoint
itunes	cdnnode	updater
metrics	soft	check
relay	forward	update
sec	serv	ntp
analytics	cloud	geomap
global	verify	routing
provider	online	layers
checksum	send	link
mz	updated	ota
synchro	app	source
asset	requests	smtp
msg	emui	ressources
node	request	tools
trace	package	cts
sources	apt	
diagnostic	sync	

It is interesting to note that one of the keywords is “emui”, which seems to refer to **Huawei EMUI**, the Huawei operating system for smartphones. Some of the VPS seen in that infrastructure are also resolving other domains which mimic **URL shorteners**, such as:

```
t2m[.]ink
cutl[.]gd
snip[.]gd
t2m[.]gd
tinurl[.]ink
budurl[.]li
biturl[.]li
lturl[.]me
```

The size of this infrastructure and the domain patterning seems to indicate that these domains are used by a well resourced APT threat actor, reminding **APT31**, **Cytrox/Candiru** or **NOBELIUM**. Unfortunately we haven't been able to get any URL linked to the fake url shorteners and any malicious code communicating with this infrastructure. Therefore, an attribution to a known intrusion set or activity cluster is impossible.



M1037 Filter Network Traffic - Use network appliances to filter ingress or egress traffic and perform protocol-based filtering. Configure software on endpoints to filter network traffic.

IOCs & Technical Details

Domain names

```
respond-layer[.]com
symcd-itunes[.]com
nserver7-apple[.]com
cutl[.]gd
biturl[.]li
relay-analytics[.]com
cts-socket[.]com
cts-updt[.]com
lturl[.]me
urlme[.]li
tools-cts[.]com
checksum-ctrl[.]com
snip[.]gd
budurl[.]li
emui-build[.]com
pkg-updater[.]com
serv-build[.]com
updated-cloud[.]com
respond-updt[.]com
build-symcd[.]com
send-update[.]com
cloud-ntp[.]com
east-ssl-endpoint[.]com
ntp-verify[.]com
global-pkg[.]com
online-repo[.]com
repo-ssl[.]com
ntp-cts[.]com
control-updt[.]com
node-sec[.]com
```

ntp-node[.]com
ota-ssl[.]com
checksum-mz[.]com
soft-asset[.]com
update-ntp[.]com
app-requests[.]com
relay-apt[.]com
package-ssl[.]com
mz-provider[.]com
synchro-updt[.]com
diag-cts[.]com
link-ota[.]com
ssl-forward[.]com
diagnostic-dev[.]com
mtp-socket[.]com
t2m[.]link
ntp-layers[.]com
cdnnode-smsg[.]com
respond-source[.]com
build-search[.]com
sync-analytics[.]com
tinurl[.]link
mtp-sources[.]com
soft-itunes-ota[.]com
metrics-dev[.]com
routing-layers[.]com
ntp-services[.]com
request-package[.]com
updater-check[.]com
control-mtp[.]com
trace-ota[.]com
data-mtp[.]com
forward-provider[.]com
banana-sulfate[.]org
diagnostic-link[.]com
node-smsg[.]com
checksum-ota[.]com
mz-updt[.]com
source-app02[.]com
synchro-ntp[.]com
smsg-updater[.]com
repo-sec[.]com
smtp-ressources[.]com
asset-updater[.]com
ota-relay[.]com
provider-ota[.]com
check-sync[.]com
respond-layers[.]com
forward-cts[.]com
ntp-checksum[.]com
socket-metrics[.]com
ota-build[.]com
global-provider[.]com
analytics-ntp[.]com
checksum-cts[.]com
ctrl-respond[.]com
t2m[.]gd
geomap-apple[.]com

TTPs (ATT&CK)

Acquire Infrastructure: Domains (T1583.001)

Acquire Infrastructure: Virtual Private Server (T1583.003)

CONFIDENCE

HIGH

REFERENCES

- [\[SEKOIA.IO\] Banana Sulfate on Intelligence Center](#)



SEKOIA.IO

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