

You run out of excuses!

It's time to monitor your BGP and RPKI operations

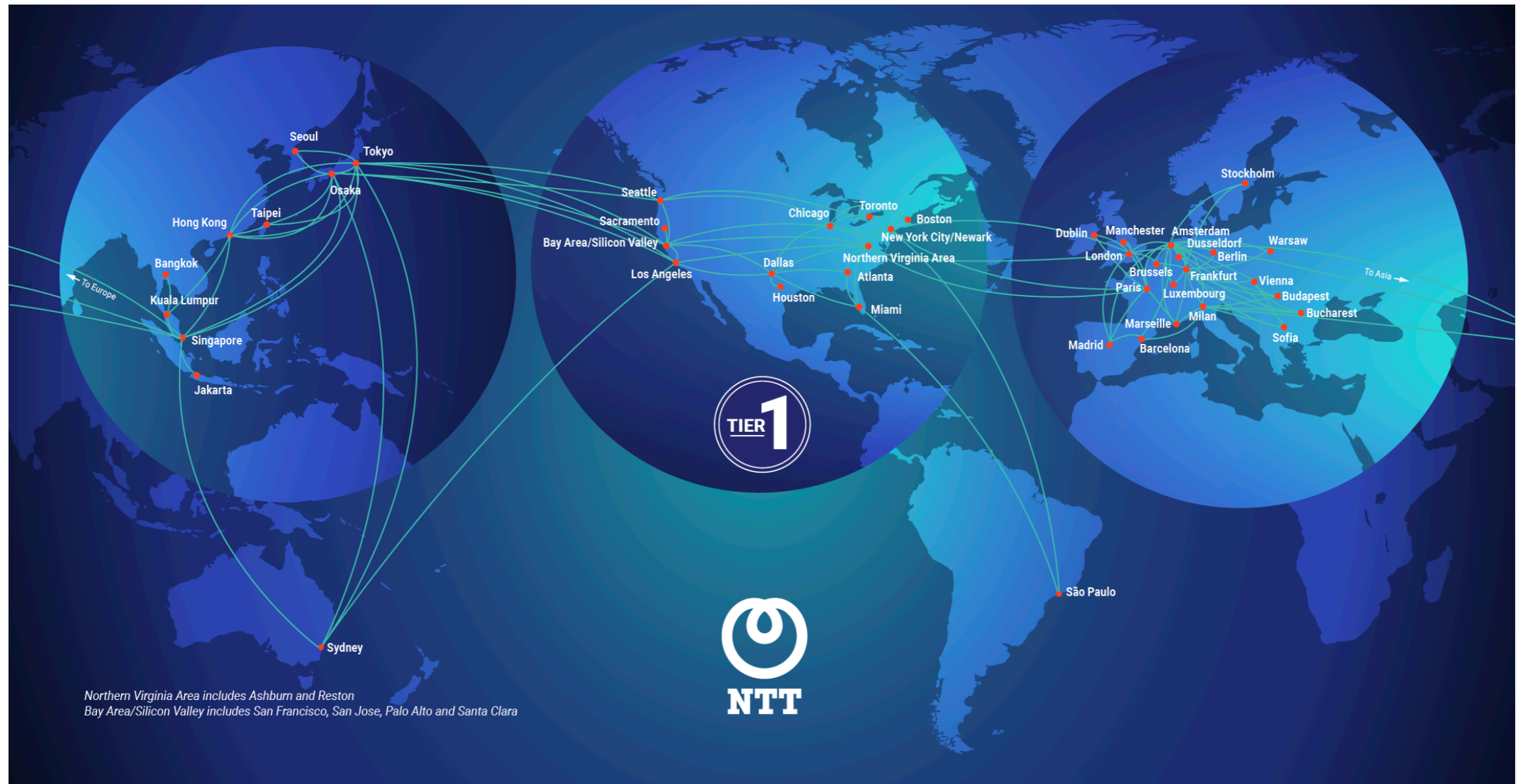
Massimo Candela

massimo@ntt.net

me@massimocandela.com



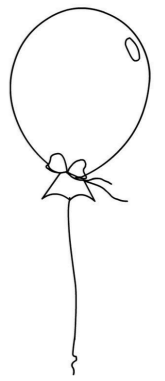
I work at NTT



Large network, it requires a lot of software to control it

BGPalerter (since 2019)

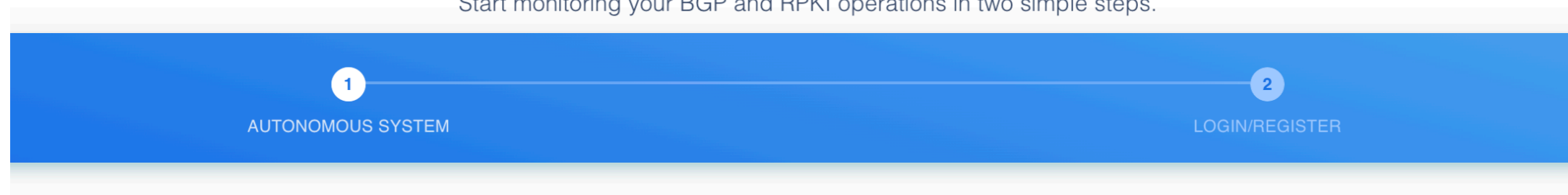
- BGP and RPKI monitoring
 - Download and run
 - Monitor your AS as seen by hundreds of vantage points
 - Send alerts wherever you want
- Developed at NTT to monitor our AS
- Released open source
 - <https://github.com/nttgin/BGPalerter>
 - Used by hundreds of operators worldwide
 - More operators monitoring = more stable Internet
 - ...last year I showed how some operators realize they are announcing RPKI invalids after more than 1 month*



- A BGPAlerter as a service (not an NTT product)

Set up your monitoring

Start monitoring your BGP and RPKI operations in two simple steps.



We just need your Autonomous System number:

Autonomous System number

I agree to Packetvis Terms of use

💡 We will monitor for:

Hijacks

Prefix Visibility

Peer changes

Unexpected prefix announcements

RPKI invalids

ROAs changes

ROAs expiration

PacketVis.com - notifications dashboard

Notifications

NOTIFICATIONS

FILTERS

DENSITY

Search

EXPORT

SEVERITY	SERVI...	TYPE	SUMMARY	WHEN
● critical	bgp	visibility	The prefix 172.71.137.0/24 has been withdrawn. It is no longer visi...	3 minutes ago
● critical	bgp	visibility	The prefix 172.68.30.0/24 has been withdrawn. It is no longer visib...	27 minutes ago
● critical	bgp	visibility	The prefix 141.101.110.0/24 has been withdrawn. It is no longer visibl...	1 hour ago
● critical	bgp	visibility	The prefix 141.101.108.0/24 has been withdrawn. It is no longer vi...	1 hour ago
● critical	bgp	visibility	The prefix 172.69.204.0/22 has been withdrawn. It is no longer visi...	1 hour ago
● critical	bgp	visibility	The prefix 141.101.109.0/24 has been withdrawn. It is no longer vi...	1 hour ago
● low	bgp	roa-diff	Some ROAs covering your resources have changed	2 hours ago

PacketVis.com - view event details

BGP Event - Hijack

A new prefix 164.43.141.0/24 is announced by AS4713. It should be instead 164.43.0.0/16 announced by AS3949.

Details

Severity:

CRITICAL



Monitored prefix:

164.43.0.0/16

Hijacked with prefix:

164.43.141.0/24

Started being hijacked at:

2022-10-01 00:14 UTC

Type:

Hijack

Usually announced by:

AS3949 (NTTA-3946)

Currently announced by:

AS4713 (4713)

Affected at least 3 peers:

193.148.249.191 (Frankfurt am Main, Germany)

194.50.19.4

45.14.68.69 (Victoria, Hong Kong)

Actions

Is AS4713 allowed to announce 164.43.141.0/24?

ALLOWED

By interacting with the actions, you can “confirm” or “mute” the alert. Your monitoring configuration will stay up to date.

PacketVis.com - configure what you want to see

Monitoring features

HIJACK

Monitor for origin hijacks.

MISCONFIGURATION

Get notified when your AS is announcing prefixes not in the current monitored configuration.

VISIBILITY

Get notified when one of your prefixes loses visibility.

RPKI DISAPPEAR

Get notified when a prefix was previously covered by ROAs but no longer is.

RPKI INVALID

Get notified when your AS is announcing RPKI-invalid prefixes.

RPKI UNKNOWN

Get notified when your AS is announcing prefixes not covered by ROAs.

ROA-DIFF

Monitor ROAs for changes affecting your prefixes or ASes.

ROA-EXPIRE

Monitor for ROA expiration

TA-EXPIRE

Monitor for RPKI trust anchors failures involving multiple expiring ROAs.

TA-MALFUNCTION

Monitor for RPKI trust anchors failures involving multiple disappearing ROAs.

NEIGHBORS

Get notified when an unexpected AS appears as upstream/downstream of your AS.

PacketVis.com - configure integrations

Integrations

Edit how the monitoring is integrated with your systems

DASHBOARD

You can always see the alerts in the [notifications page](#).

EMAIL

SLACK

WEBEX

MATTERMOST

OPSGENIE

SYSLOG

API

You can always retrieve the alerts from the API. [See more](#).

TELEGRAM

MICROSOFT TEAMS

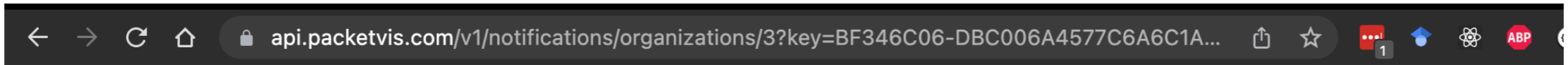
PAGERDUTY

PUSHOVER

ROCKETCHAT

[TEST](#)

PacketVis.com - API



```
{
  "data": {
    "notifications": [
      {
        "service": "bgp",
        "type": "visibility",
        "summary": "The prefix 172.70.150.0/24 has been withdrawn. It is no longer visible from at least 8 peers.",
        "url": "https://packetvis.com/#/bgp/event/f0ffe12ec3a36f9bd0536bb8859e13b3-159f430f-a028-4ebb-9e3e-e8cef191c05d/c",
        "id": "f0ffe12ec3a36f9bd0536bb8859e13b3-159f430f-a028-4ebb-9e3e-e8cef191c05d",
        "dispatched": true,
        "createdAt": "2022-09-21T21:04:50.701Z",
        "severity": 4
      },
      {
        "service": "bgp",
        "type": "rpki-invalid",
        "summary": "The route 103.21.244.0/24 announced by AS13335 is not RPKI valid.",
        "url": "https://packetvis.com/#/bgp/event/07152faa3151eb386dc19d25fe6eeef2-bfb829d5-8970-49ed-aafd-e24946195d05/6",
        "id": "07152faa3151eb386dc19d25fe6eeef2-bfb829d5-8970-49ed-aafd-e24946195d05",
        "dispatched": true,
        "createdAt": "2022-09-21T21:15:15.006Z",
        "severity": 4
      },
      {
        "service": "bgp",
        "type": "rpki-invalid",
        "summary": "The route 68.67.65.0/24 announced by AS13335 is not RPKI valid.",
        "url": "https://packetvis.com/#/bgp/event/980fde6bec5a942c95b835ccd5ab93ca-75ebb3d9-99b1-40f1-b4af-fda00a4d4d10/2",
        "id": "980fde6bec5a942c95b835ccd5ab93ca-75ebb3d9-99b1-40f1-b4af-fda00a4d4d10",
        "dispatched": true,
        "createdAt": "2022-09-21T21:15:20.037Z",
        "severity": 4
      },
      {
        "service": "bgp",
        "type": "neighbors",
```

Questions?

Massimo Candela

massimo@ntt.net

me@massimocandela.com

Twitter: @webrobotics