## **APNIC Information Services**

TWNOG 3.0 Taipei, Taiwan George Kuo



## The "NIC" in APNIC

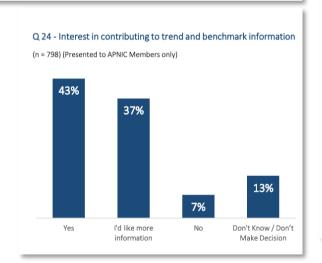
 Provide the APNIC community with highly accessible and useable data for Internet number resources

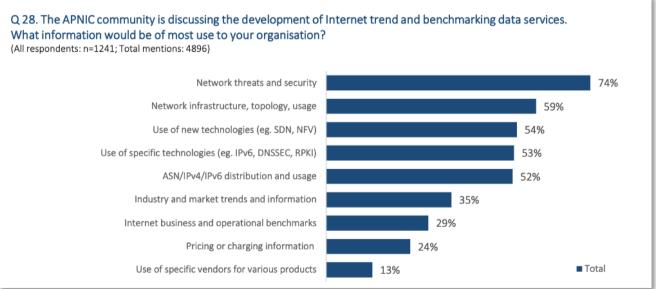
#### Collecting regional industry data

It was suggested during focus group discussions that, as an independent source of regional information, APNIC is in a position to facilitate information collection and sharing.

Another 37% indicated they wanted more information before deciding. Only 7% of respondents were not interested in contributing, while 13% either didn't know or did not make the decision.

Comments suggest that privacy concerns are the main reason for those who wanted more information, and

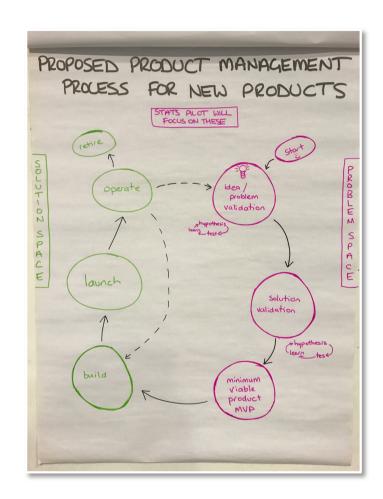






## How?

- A new product management approach to developing APNIC systems and services
  - Registry, information and Membership services
- We use the product management as a process to continually iterate, maintain and add value into APNIC services





## **Overview**

- Internet directory
- Dashboard for autonomous system health (DASH)
- Network operators ToolbOX (NetOX)



## What is the Internet directory?

- APNIC Internet resource allocations and assignments
  - Daily summary reports
  - ftp://ftp.apnic.net/public/stats/apnic/
- Visual representation updated daily

· Provide researchers and anyone interested on the use and

distribution of Internet resources

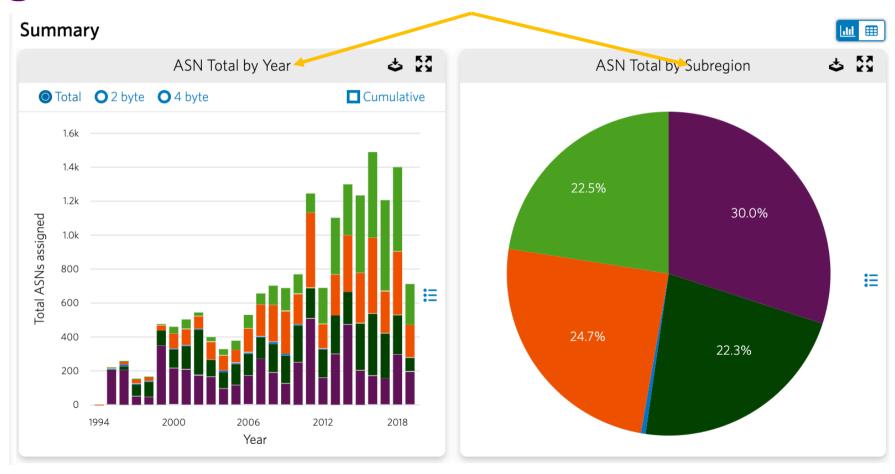


## **Highlights**

- Quick access to reports for resource distribution by types, sub regions, economies and more...
- Download data in various formats (CSV, JSON, image and embed tag)
- Search and compare data
- VizAS integration for ASN
- IPv6 deployment charts (coming soon!)
- More info available with a login credential

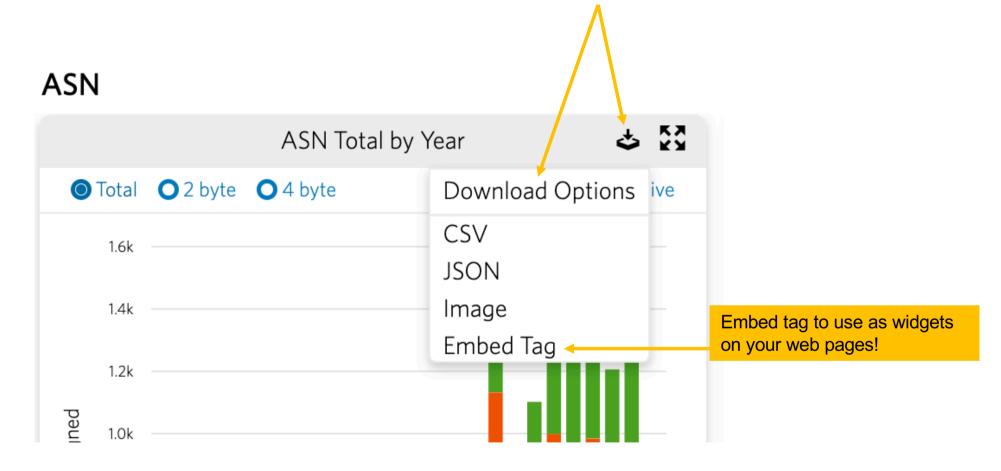


# Resources delegations by types, sub regions and economies



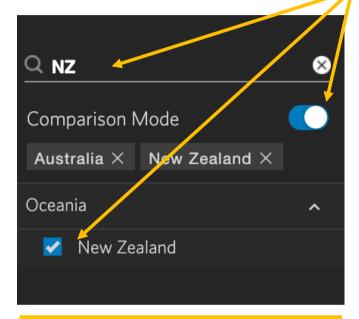


## Downloadable data in various formats

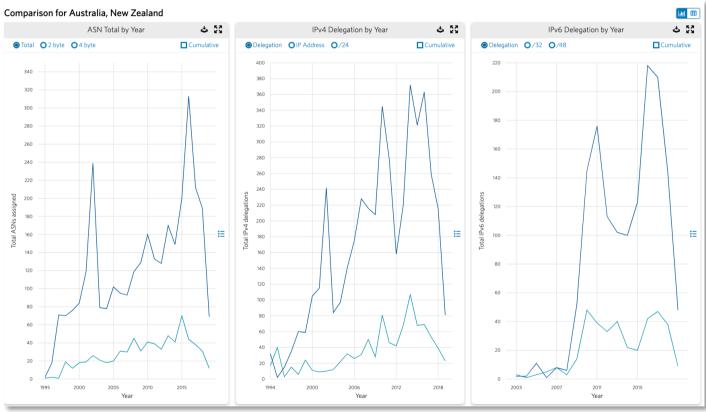




Search and compare

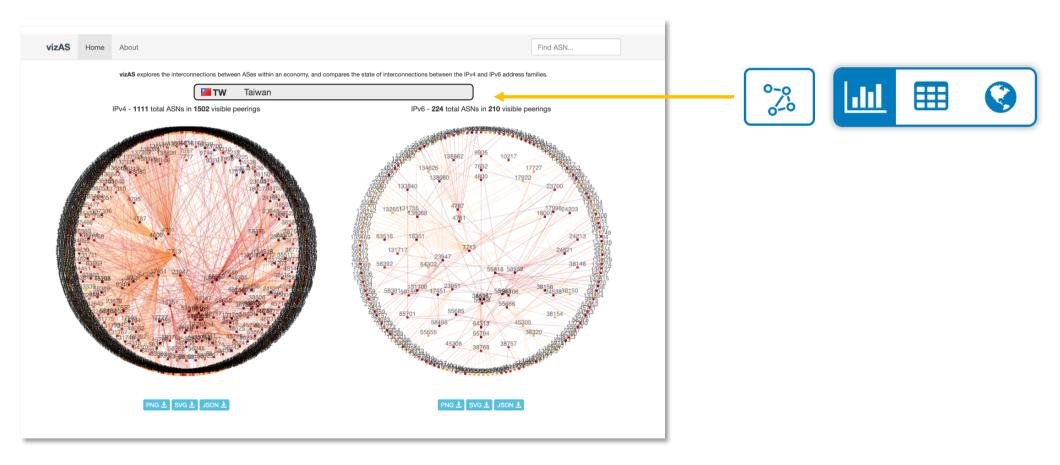


Sub region comparison coming soon!



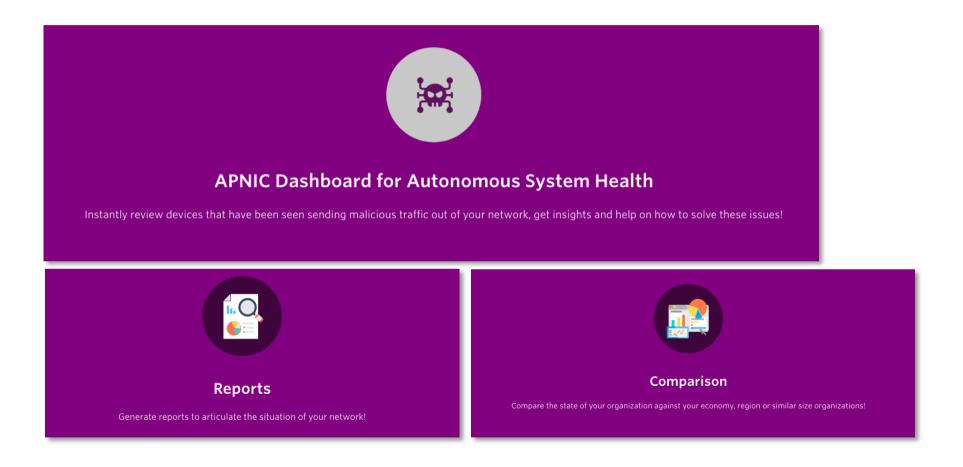


# **VizAS** integration for ASN





## Dashboard for autonomous system health





## What is DASH?

- Monitor prefixes originating malicious traffic and potential infected devices in your network
- Comparing 'hits' coming from your network against your economy or sub region
- Mitigate the impact to your infected network
- Currently only showing ssh attacks
- Initially APNIC members only. Future collaboration with NIRs to expand features for the NIR members



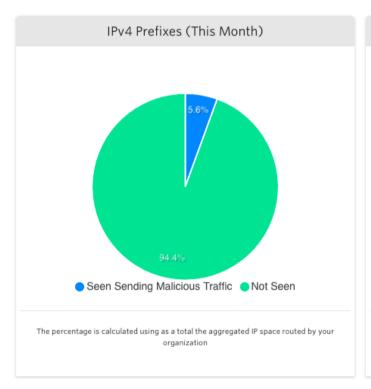
## Monthly view reports

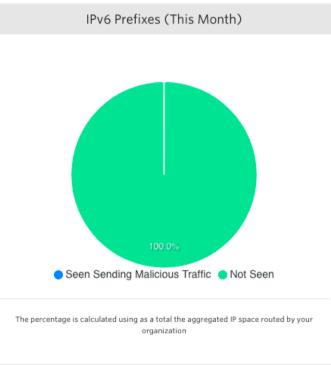




## Your views of "attacks"

#### Overview of your organization





Top 10 offending prefixes (This Month)		
Prefix	Attack	Count
192.0.2.0/20	SSH	288
10.210.112.0/21	SSH	3
10.118.170.0/24	SSH	2
10.118.37.0/24	SSH	2
10.118.72.0/24	SSH	2
10.74.120.0/22	SSH	2
192.0.2.0/24	SSH	2
10.118.112.0/20	SSH	1



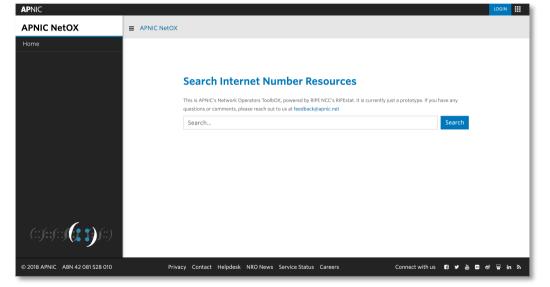


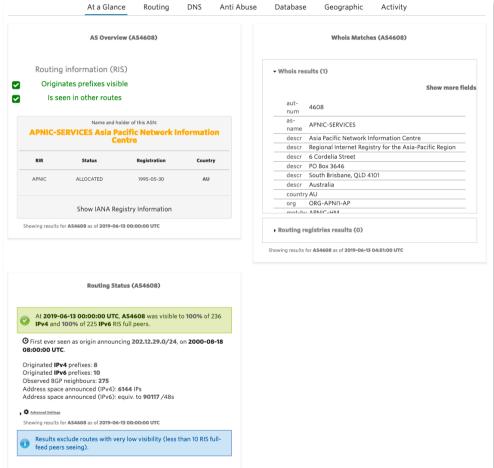
## **More about DASH**

- Data sources
  - APNIC community honeynet project
  - https://www.first.org/resources/papers/noumea2018/Adli\_Wahid\_APN
    IC Community Honeynet Project.pdf
- Full version will include other types of attack
- Current working with a group of members
- Anyone interested please approach me after the talk
- Stay tuned for the released date –APNIC blog post



## **APNIC NetOX**





## **Network Operators ToolbOX (NetOX)**

- Very early stage of development
- In collaboration with RIPE NCC
- Currently only content from RIPEstat
- Improved and faster access



## **Questions?**

 Are you interested in testing and giving feedback during the development phase?

