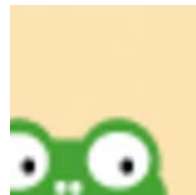


JPNIC roamon project

APRICOT2020, Feb 2020

Taiji Kimura



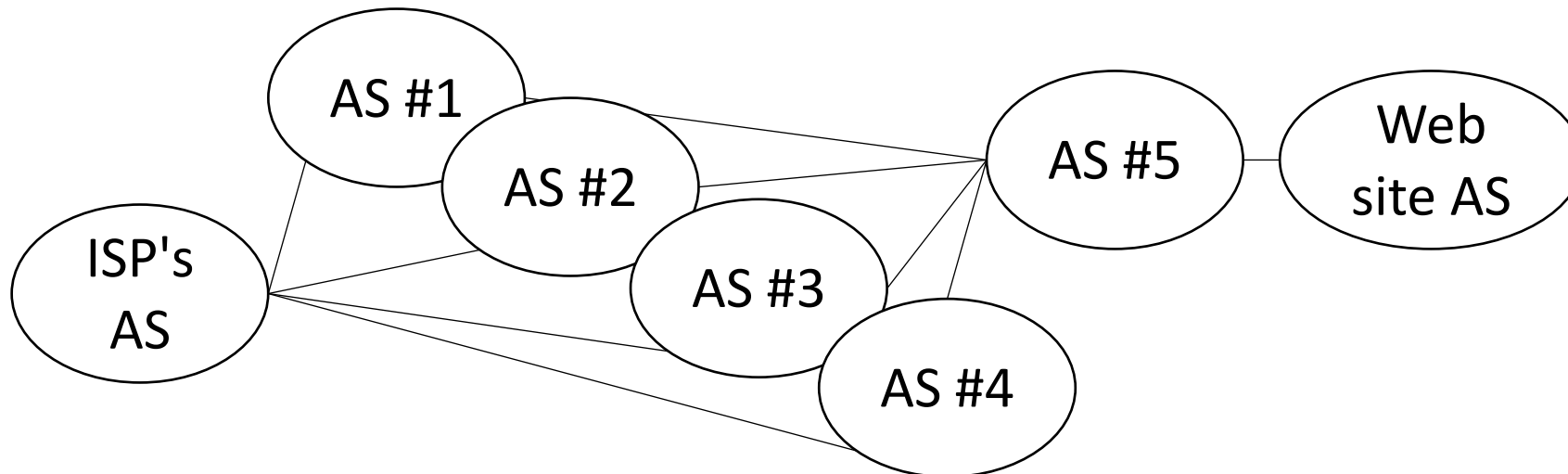
A trouble shooting case in an ISP

- **Customer reported to the ISP**
 - Unreachable for one web site in Europe
 - Using mobile router or IPv6 -> reachable
 - Traceroute -> reachable until AS one front of destination
- **The ISP's response for the customer as**
 - guiding reboot customer's router as usual in help desk
 - asked on the web form for the web site about reachability

They are the reality on the trouble shooting...

The ISP's action

- asking for the AS one front of destination (#5) but no good answer because no relationship with the ISP
- asking AS#1-4 to help asking AS #5 but all they responded as "no action will be taken because no problem found for the prefix"



Finally,

- **The ISP got**
 - a response by e-mail contact found in Peering DB
 - the reason is "invalid prefix length"
- **The cause and fixing**
 - Prefix length has been changed for operational reason after creating ROA for several years!
 - Human/organization cannot remember things over years
 - By fixing maximum prefix length in the ROA, reachability has been recovered.

This is not simple nor just technical issue but will be happen in worldwide when deploying ROV.

What will happen with dropping packets using ROA?

- IP address holder may leave ROA different from actual BGP route.
- End user will experience unreachability without any sign or alert.
- Only BGP operators can know the reason and only IP address holder can fix the problem. Different players need to react to solve the problem.

Why roamon?

Needs monitoring and alerts for who can recover from problems

If resource holder can find modification on BGP routes, ROV 'Invalid' results can be fixed shortly.

Roamon is conceptual simple tools. They are designed for resource holders to monitor status and to alert them when difference found.

roamon

- **roamon-verify**
 - Show ROV results
 - <https://www.github.com/taiji-k/roamon-verify>
- **roamon-alert**
 - Send alert via email or slack when ROV invalid
 - <https://www.github.com/taiji-k/roamon-alert>
- **roamon-web**
 - Configuration UI for roamon-alert
 - <https://www.github.com/taiji-k/roamon-web>

roamon-verify

The specification on roamon may be changed in the future.

Usage

- `./roamon_verify_controller.py get --all`
Download BGP routes data and valid prefixes (as VRP).
- `./roamon_verify_controller.py show <prefix(es...)>`
Show the validation results for <prefix>.

Release plan

- Until March 2020.
- On GitHub.

roamon-alert

The specification on roamon may be changed in the future.

Usage

- **sudo roamon_alert_controller.py add --asn 3333 --type email --dest example3333@example.com**
 - To add a contact when AS 3333 announcing prefix have ROV results invalid

Release plan

- Until March 2020.
- On GitHub.

roamon-web

The screenshot displays the Roamon-web application interface. On the left is a sidebar with navigation items: Welcome, Inspire, show-all-contact-info (highlighted), show-all-ROV-result, and create-new-contact-in... The main content area shows a table with columns for selection, t-id, t-contact_type, and t-contact_information. A 'Single select' toggle is active. The table contains 7 rows of data, with the last row (t-id 31) highlighted. At the bottom right, there is a pagination control showing 'Rows per page: 10' and '1-7 of 7'.

<input type="checkbox"/>	t-id	t-contact_type	t-contact_information
<input type="checkbox"/>	1	email	example1899@example.com
<input type="checkbox"/>	2	email	example137@example.com
<input type="checkbox"/>	3	email	example327687@example.com
<input type="checkbox"/>	4	slack	https://hooks.slack.com/services/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
<input type="checkbox"/>	5	email	example-fromweb@example.com
<input type="checkbox"/>	30	email	brows@example.com
<input type="checkbox"/>	31	email	brow2@example.com

Communication

beyond countries/NOGs

Can we use slack?

- **For communication**
 - beyond countries/NOGs?
 - between BGP operators and resource holders
- **Do you use Slack everyday?**

**RPKI Deployathon and
RPKI Deployment are
supported
by APIX and JPNIC.**

Questions? Discussions?



RPKI Deployment - RPKI Specific survey