2nd APNIC Hackathon

ceROVe

(Outsource BGP ROV Feature)

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Sudhatma Karki

Hackathon Group

Aris Cahyadi Risdianto

- Prepare environment
- Combine the Python Codes
- Testing and verification

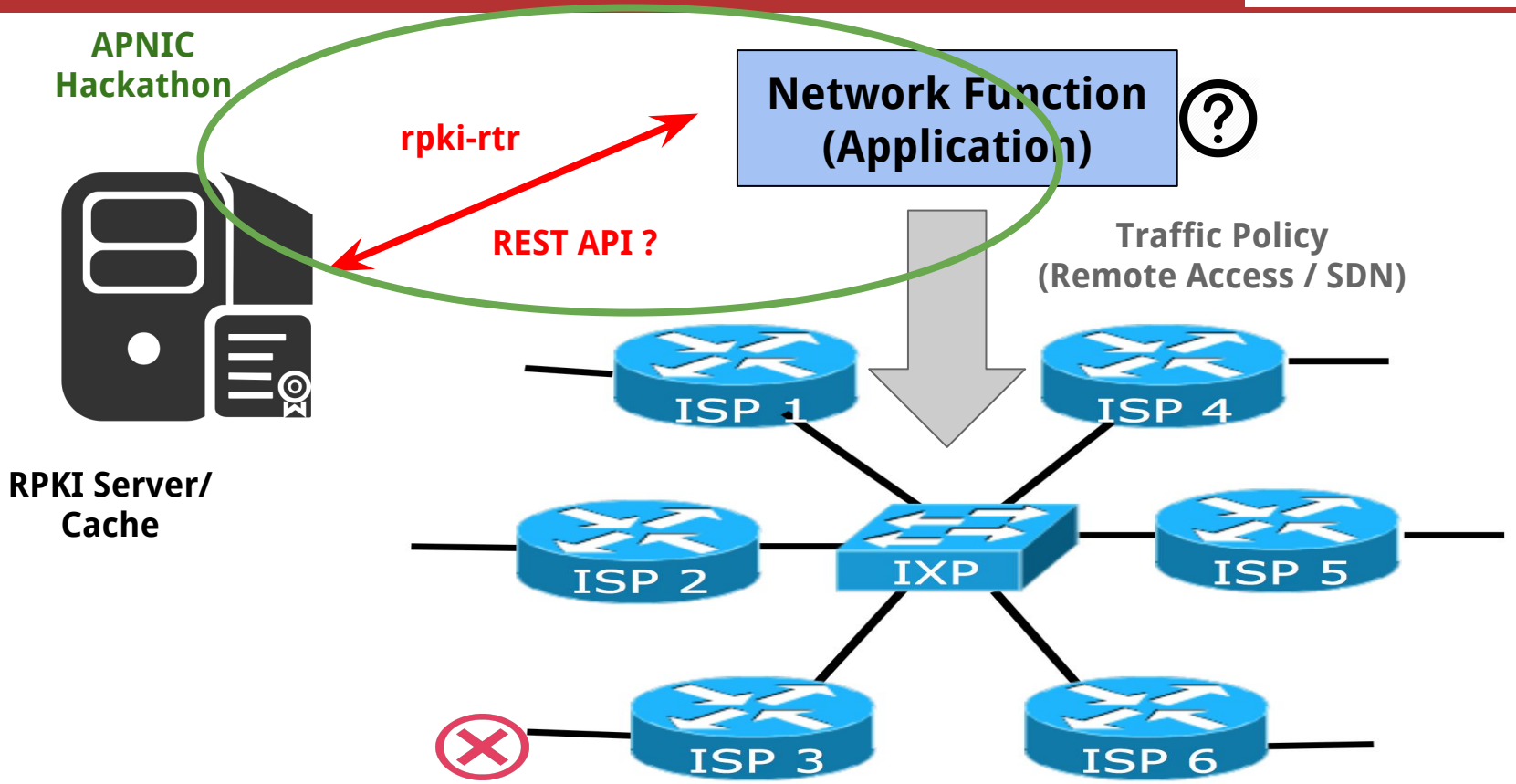
Kensly Joses

- Collecting the ROAs data
- Processing JSON data with Python

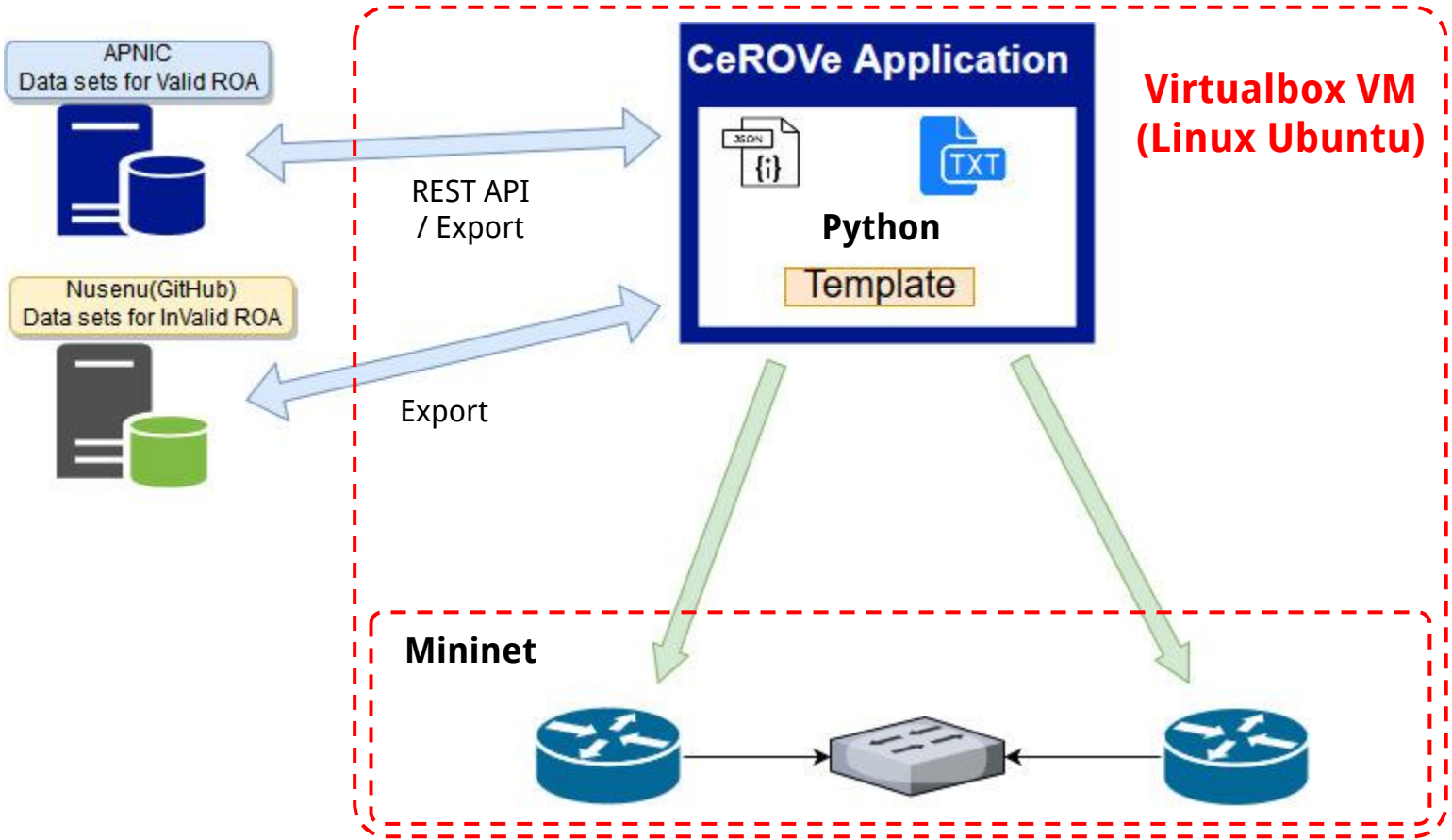
Sudhatma Karki

- Decide the actions for different ROAs
- Managing the hackathon progress work

Outsourced Route Validation



Hackathon Setup



Hackathon Challenges

- Getting data from the API's
  - George help us get ROA datasets from APNIC for the valid ROAs
  - And data sets for invalid ROAs from Nusenu (Github)
- Python coding challenges
  - Do research and sharing ideas on the coding helps get the program running successfully
  - Spaces, characters and alignment cause a big problem
- Virtual Environment
  - It is good, but don't expect about performance
  - Display problem and copy paste issue
  - We can't push the config to the software-based virtual router

Demo

1. Route Origin Validation for Valid ROAs
2. Route Origin Validation for Invalid ROAs
3. Route Origin Validation for Unknown ROAs

Conclusions

- It is possible to make a simple program to outsource the ROV from the router
- With the application it is easier to query to many different Trust Anchor for different ROA's state
- As future work:
  - Use online REST API call (if reliable)
  - Push the config to the HW router/switch

THANK YOU !!!