

RPKI Week 2022

# MANRS Research

Routing Resiliency Research Roundup

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# Agenda

1. MANRS Research
2. Shutdown and Hijack Measurement and Identification Tool (SHMIT) – Max Stucchi
3. Route Collector - Max Stucchi
4. ROA Historical eXplorer - Amreesh Phokeer
5. PyBGPKIT API – Mingwei Zhang
6. A One-Year Review of RPKI Operations – Massimo Candela

# MANRS Research

## Fellowship program:

- 2 ambassadors
- 2 fellows

## External Project:

- Type-1 Hijack detection



Romain Fontugne  
IIJ



Massimo Candela  
NTT



Ioana Livadariu  
Simula



Zubair Sediqi  
MPI

# 2022 Projects and studies

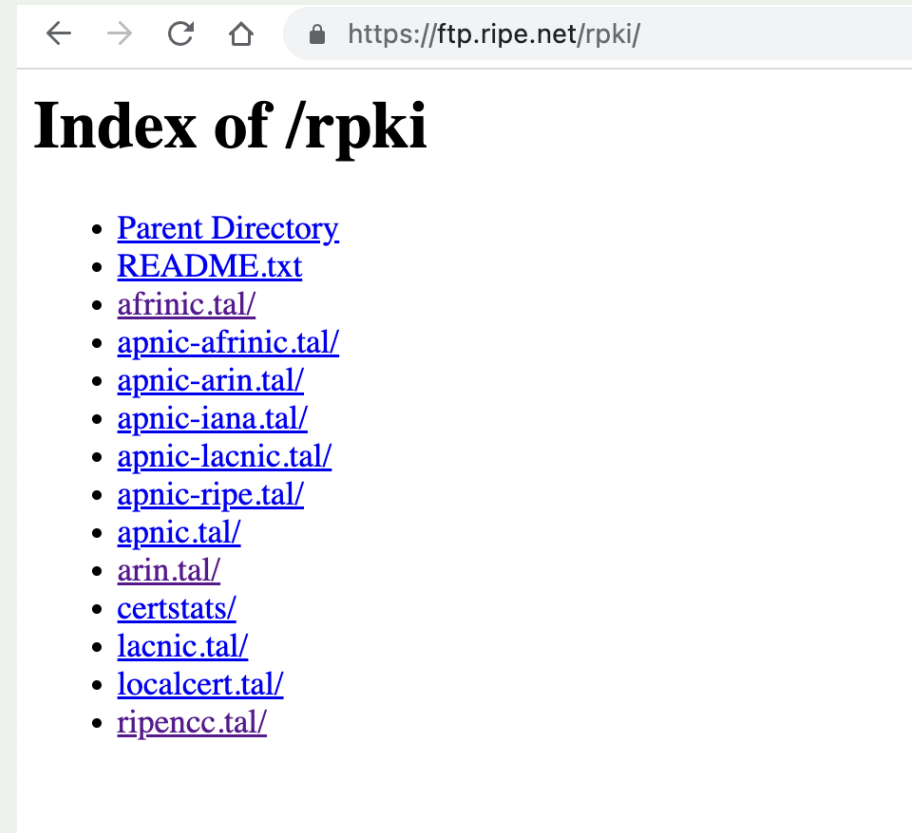
- Tools development
  - SHMIT
  - Route Collector
  - ROA BACK (ROA Historical Explorer)
  - PyBGPKIT
- Research studies
  - ROA Propagation time (Romain Fontugne - IJ Labs)
  - Type-1 Hijack detection (Cristel Pelsser - University of Strasbourg)
  - RTBH (Ioana Livadariu – Simula)

# ROA BACK



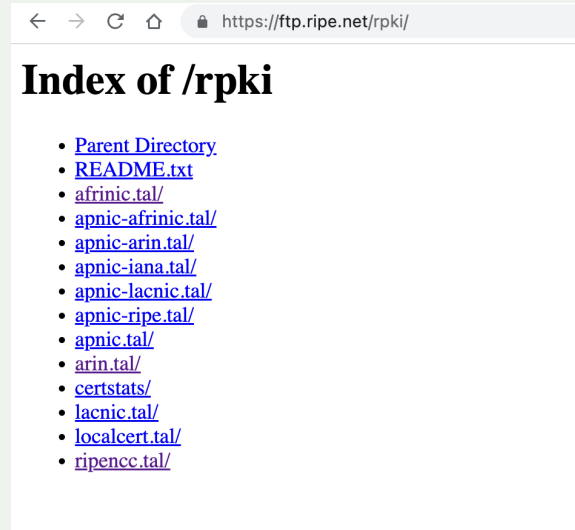
# ROA Historical Explorer

- Data source: RIPE RPKI Archive (<http://ftp.ripe.net/rpki>)
- Try it: <https://tinyurl.com/roaback>
- Retrieves ROAs covering a prefix and/or ASN
- REST API
  - Docs: <http://45.129.227.23:5000/docs>
  - <http://45.129.227.23:5000/search?prefix=199.91.96.0/24>

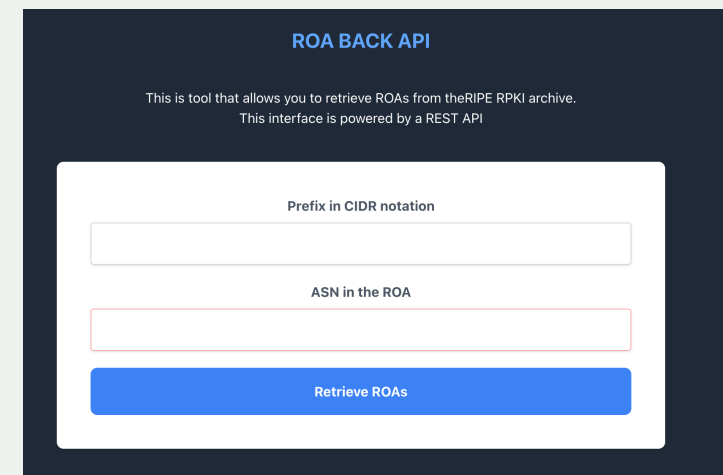
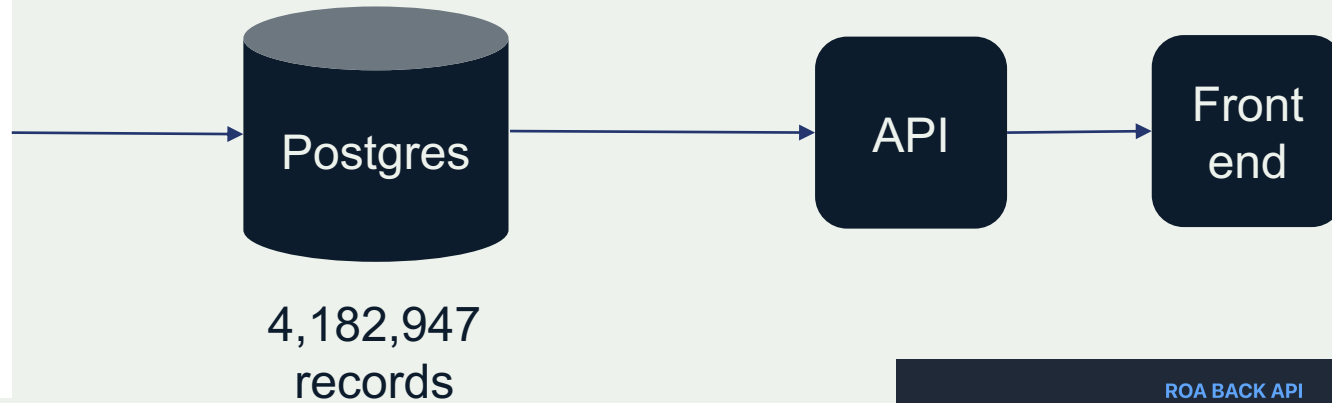


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    },
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      "tal": "arin"
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  "status": 200
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# ROA Historical Explorer



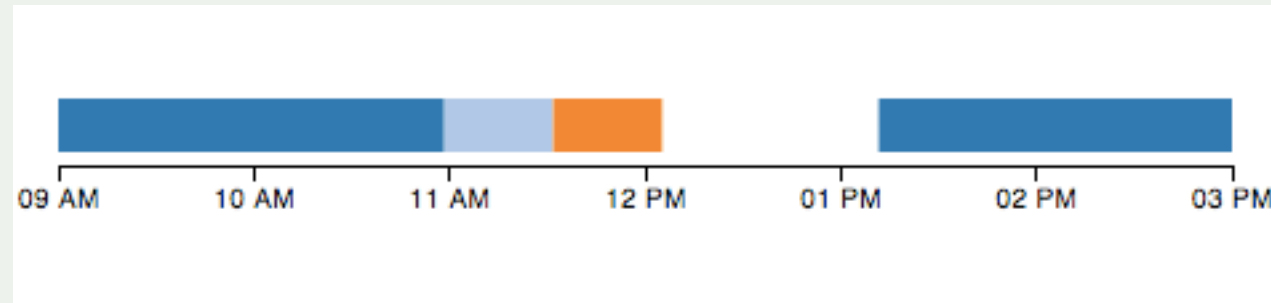
CSV records





# Future developments

- Incorporate all ROAs from day-1
- Extract information about when ROAs are revoked (not in the CSVs)
- Some visualizations



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<https://www.manrs.org>

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# Thank you.

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