Configuración y uso de la herramienta de validación de RIPE NCC

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RPKI Validator de RIPE NCC

- Es una herramienta de uso libre, que tiene entre sus características
  - Implementa la validación de repositorios RPKI
  - Implementa el servidor RTR (router-to-router protocol)
    - Alimenta con información validada a los enrutadores
  - Implementa whitelisting / blacklisting
  - Implementa 'BGP Previewing' basado en la información tomada de RIS
    - http://www.ris.ripe.net
  - Bajar de http://www.ripe.net/lir-services/resource-management/certification/tools-and-resources

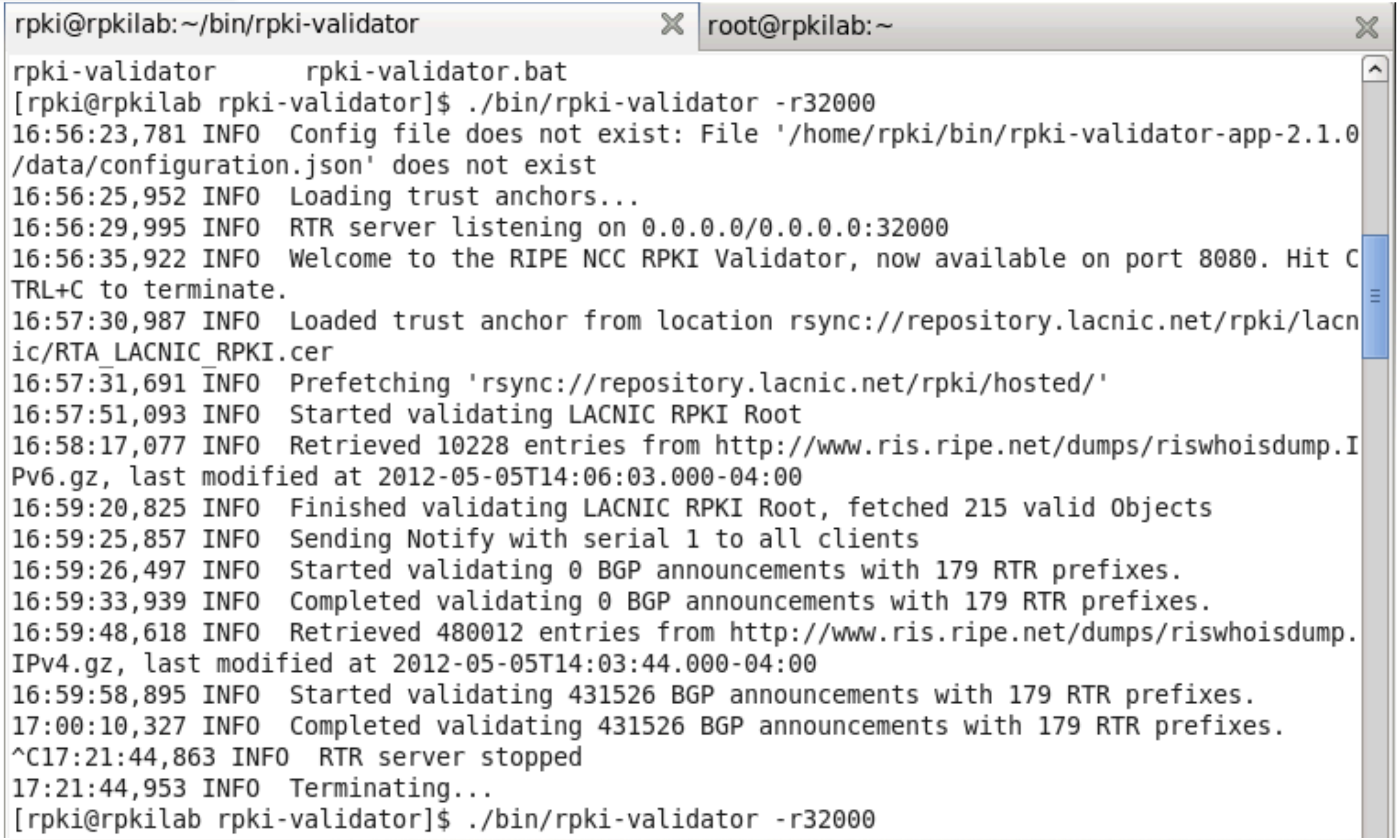
Requisitos para utilizar el validador

- Java
    - Sun JVM o OpenJDK 1.6
- Sistema operativo
    - Linux
    - OSX
    - Windows

Instalación

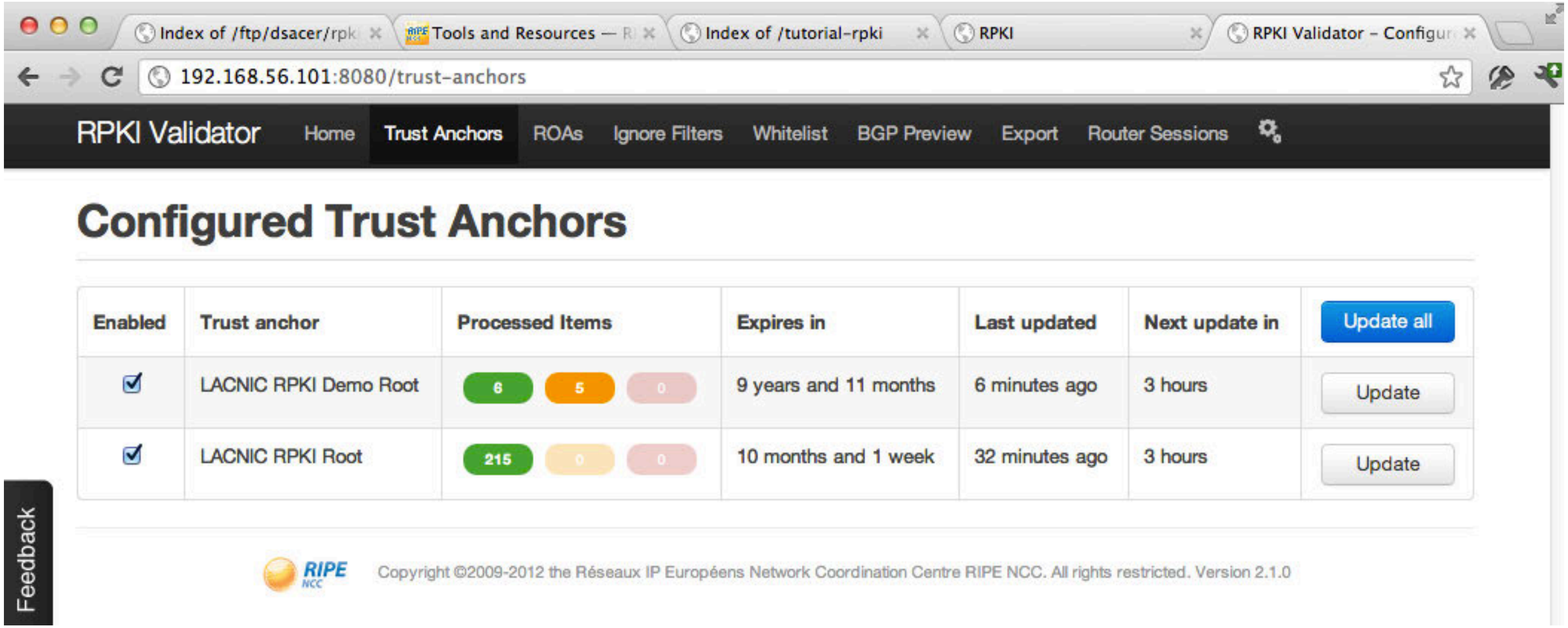
- Bajar de http://www.ripe.net/lir-services/resource-management/certification/tools-and-resources
  - Versión actual 2.1.0
- Descomprimir el archivo zip:
  - Ejecutar zip –x rpki-validator-a.b.zip
    - Se crea un directorio rpki-validator-a.b.zip
  - Ingresar al directorio y ejecutar:
    - ./bin/rpki-validator –r <rtr port>

Utilización del validador



```
rpki-validator      rpki-validator.bat
[rpki@rpkilab rpki-validator]$ ./bin/rpki-validator -r32000
16:56:23,781 INFO  Config file does not exist: File '/home/rpki/bin/rpki-validator-app-2.1.0
/data/configuration.json' does not exist
16:56:25,952 INFO  Loading trust anchors...
16:56:29,995 INFO  RTR server listening on 0.0.0.0/0.0.0.0:32000
16:56:35,922 INFO  Welcome to the RIPE NCC RPKI Validator, now available on port 8080. Hit C
TRL+C to terminate.
16:57:30,987 INFO  Loaded trust anchor from location rsync://repository.lacnic.net/rpki/lacn
ic/RTA_LACNIC_RPKI.cer
16:57:31,691 INFO  Prefetching 'rsync://repository.lacnic.net/rpki/hosted/'
16:57:51,093 INFO  Started validating LACNIC RPKI Root
16:58:17,077 INFO  Retrieved 10228 entries from http://www.ris.ripe.net/dumps/riswhoisdump.I
Pv6.gz, last modified at 2012-05-05T14:06:03.000-04:00
16:59:20,825 INFO  Finished validating LACNIC RPKI Root, fetched 215 valid Objects
16:59:25,857 INFO  Sending Notify with serial 1 to all clients
16:59:26,497 INFO  Started validating 0 BGP announcements with 179 RTR prefixes.
16:59:33,939 INFO  Completed validating 0 BGP announcements with 179 RTR prefixes.
16:59:48,618 INFO  Retrieved 480012 entries from http://www.ris.ripe.net/dumps/riswhoisdump.
IPv4.gz, last modified at 2012-05-05T14:03:44.000-04:00
16:59:58,895 INFO  Started validating 431526 BGP announcements with 179 RTR prefixes.
17:00:10,327 INFO  Completed validating 431526 BGP announcements with 179 RTR prefixes.
^C17:21:44,863 INFO  RTR server stopped
17:21:44,953 INFO  Terminating...
[rpki@rpkilab rpki-validator]$ ./bin/rpki-validator -r32000
```

Uso del validador


Index of /ftp/dsacer/rpk
Tools and Resources — R
Index of /tutorial-rpki
RPKI
RPKI Validator - Configur
192.168.56.101:8080/trust-anchors
RPKI Validator
Home
Trust Anchors
ROAs
Ignore Filters
Whitelist
BGP Preview
Export
Router Sessions
Feedback

Configured Trust Anchors

Enabled	Trust anchor	Processed Items	Expires in	Last updated	Next update in	Update all
☑	LACNIC RPKI Demo Root	6 5 0	9 years and 11 months	6 minutes ago	3 hours	Update
☑	LACNIC RPKI Root	215 0 0	10 months and 1 week	32 minutes ago	3 hours	Update

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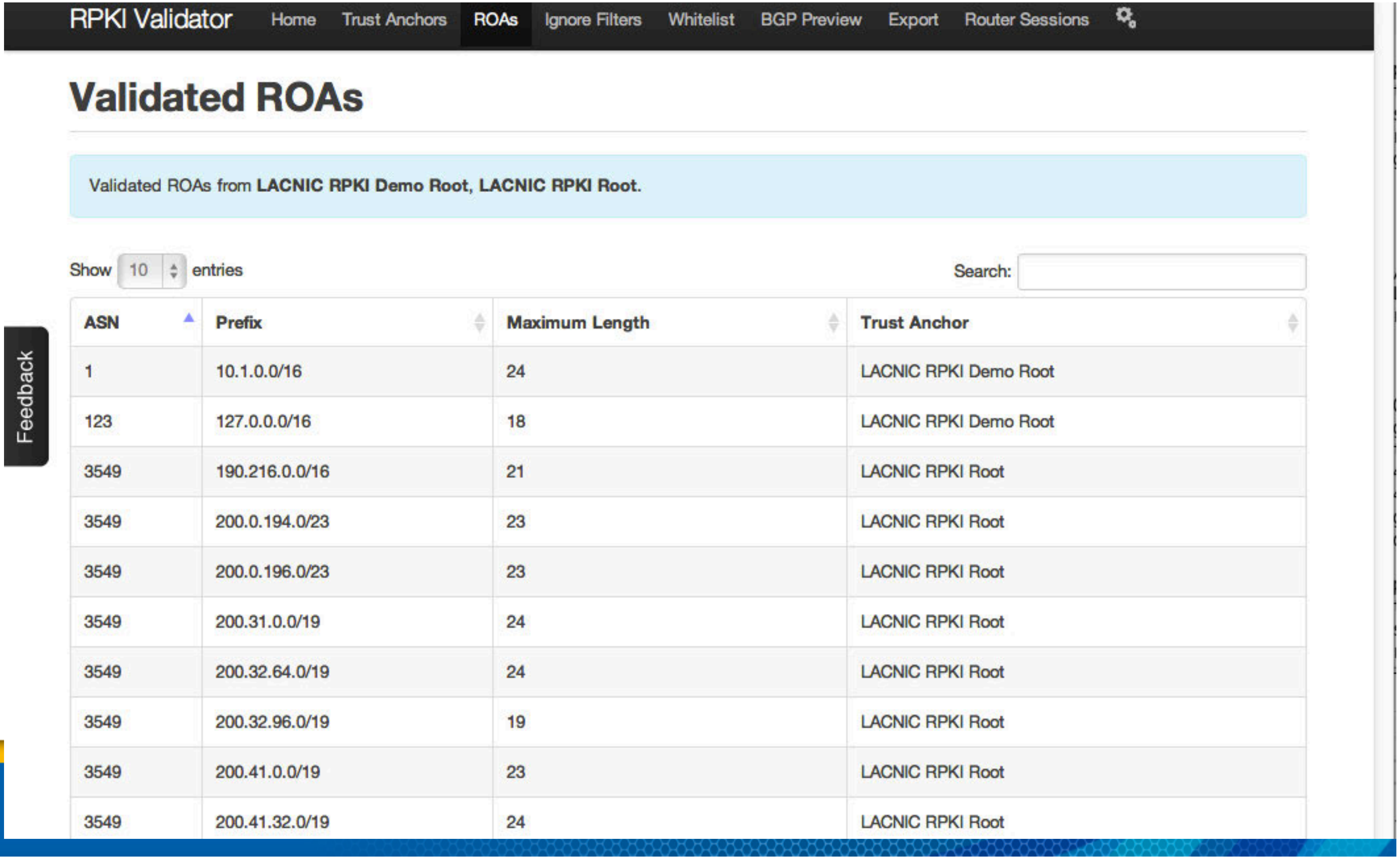
Uso del validador (ii)

- Visualización de ROAs validados


RPKI Validator
Home
Trust Anchors
ROAs
Ignore Filters
Whitelist
BGP Preview
Export
Router Sessions
Feedback
Show 10 entries
Search:

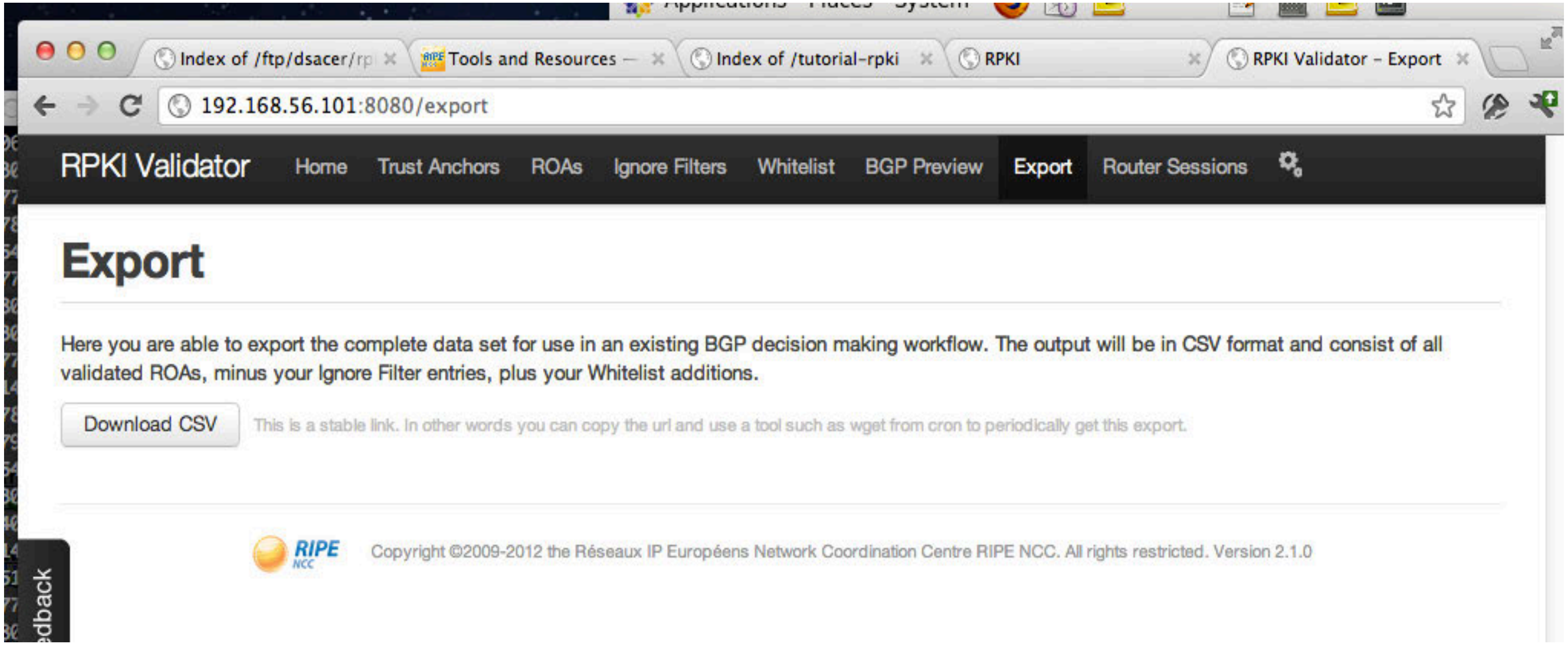
Validated ROAs

Validated ROAs from **LACNIC RPKI Demo Root, LACNIC RPKI Root**.

ASN	Prefix	Maximum Length	Trust Anchor
1	10.1.0.0/16	24	LACNIC RPKI Demo Root
123	127.0.0.0/16	18	LACNIC RPKI Demo Root
3549	190.216.0.0/16	21	LACNIC RPKI Root
3549	200.0.194.0/23	23	LACNIC RPKI Root
3549	200.0.196.0/23	23	LACNIC RPKI Root
3549	200.31.0.0/19	24	LACNIC RPKI Root
3549	200.32.64.0/19	24	LACNIC RPKI Root
3549	200.32.96.0/19	19	LACNIC RPKI Root
3549	200.41.0.0/19	23	LACNIC RPKI Root
3549	200.41.32.0/19	24	LACNIC RPKI Root

Uso del validador

- Exportación de prefijos en ROAs


Index of /ftp/dsacer/rp
Tools and Resources –
Index of /tutorial-rpki
RPKI
RPKI Validator – Export
192.168.56.101:8080/export
RPKI Validator
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edback

Export

Here you are able to export the complete data set for use in an existing BGP decision making workflow. The output will be in CSV format and consist of all validated ROAs, minus your Ignore Filter entries, plus your Whitelist additions.

This is a stable link. In other words you can copy the url and use a tool such as wget from cron to periodically get this export.

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¡Muchas gracias!

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