# 15 MINUTE RPKI

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### WHY

- ➤ You want to be better than your peers!
- ➤ You've heard it fixes route leaks
- ➤ You think its a replacement to the IRRDB!
- ➤ You want to run a bleeding edge network!
- ➤ You have FOMO
- ➤ Its going to save you money!

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Well its not the magic you think it is"

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### **BIG(ISH?) NETWORKS FILTERING BY IT?**

- > NTT
- > Seacom
- ➤ Workonline
- ➤ Napafrica
- > INXZA
- ➤ Not Verizon :-/ (hint cloudflare)
- ➤ You?

### SHOULD I RUN MY OWN VALIDATOR?

- ➤ Be a control freak!
- ➤ Trust the control freaks around you
- > Routinator!
- ➤ Cloudflares' GoRTR
- ➤ Ripe's Validator :-/

# DROPPING ROUTES? OR LOCAL PREF?

# MIKROTIK?

### WHAT SHOULD I DO

- Sign your prefixes!
- ➤ Drop invalids
- ➤ Keep your IRR up to date still!
- ➤ Run at least two validators
- ➤ Filter your clients!

# CHECK YOURSELF!

## http://irrexplorer.nlnog.net

prefix	\$	bgp 🏺	rpki 🔻	afrinic 🌲	ripe- nonauth	arin 🏺	advice
41.193.240.0/20	)	198504	198504		198504		Looks good: BGP origin consistent with AS in route-objects
102.39.0.0/16		11845	11845	11845			Looks good: BGP origin consistent with AS in route-objects
196.22.192.0/19	9	11845	11845	11845			Looks good: BGP origin consistent with AS in route-objects
196.22.224.0/20	)	11845	11845	11845			Looks good: BGP origin consistent with AS in route-objects
196.3.164.0/22		11845	11845	11845			Looks good: BGP origin consistent with AS in route-objects

# CHECK YOURSELF!

### http://VC1.inx.net.za

#### **BGP Preview**

This page provides a preview of the likely RPKI validity states your routers will associate with BGP announcements. This preview is based on:

- The RIPE NCC Route Collector information that was last updated 7 hours 46 minutes ago.
- BGP announcements that are seen by 5 or more peers.
- The validation rules defined in RFC 6483.
- The validated ROAs found by this RPKI Validator after applying your filters and additional whitelist entries.

Please note that the BGP announcements your routers see may differ from the ones listed here.

Show 10 \$ entries Search: Search

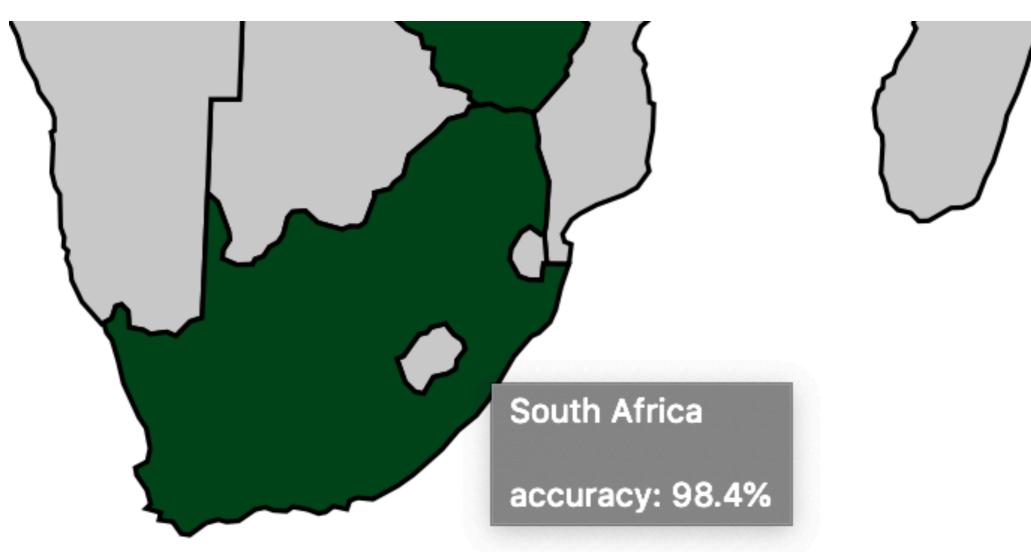
ASN	Prefix	Validity 🗸
AS62240	2a0d:5084::/48	INVALID LENGTH
AS62240	2a0d:5081:d::/48	INVALID LENGTH
AS48582	2a0b:2900:31b4::/47	INVALID LENGTH
AS48582	2a0b:2900:3134::/47	INVALID LENGTH
AS48582	2a0b:2900:22b4::/47	INVALID LENGTH
AS48582	2a0b:2900:2234::/47	INVALID LENGTH
AS48582	2a0b:2900:21b4::/47	INVALID LENGTH
AS51559	2a0a:db00:f::/48	INVALID LENGTH

# IX TOOLS?

Prefix	Filtered Because	Filtered On Router(s)
2a02:a00:e002::/48	IRRDB PREFIX FILTERED	rs1-jinx-ipv6 rs2-jinx-ipv6
2800:be0:3e0::/48	RPKI INVALID	rs1-jinx-ipv6 rs2-jinx-ipv6
2800:be0:3e1::/48	RPKI INVALID	rs1-jinx-ipv6 rs2-jinx-ipv6
2401:8800:c00::/40	IRRDB PREFIX FILTERED	rs1-jinx-ipv6 rs2-jinx-ipv6

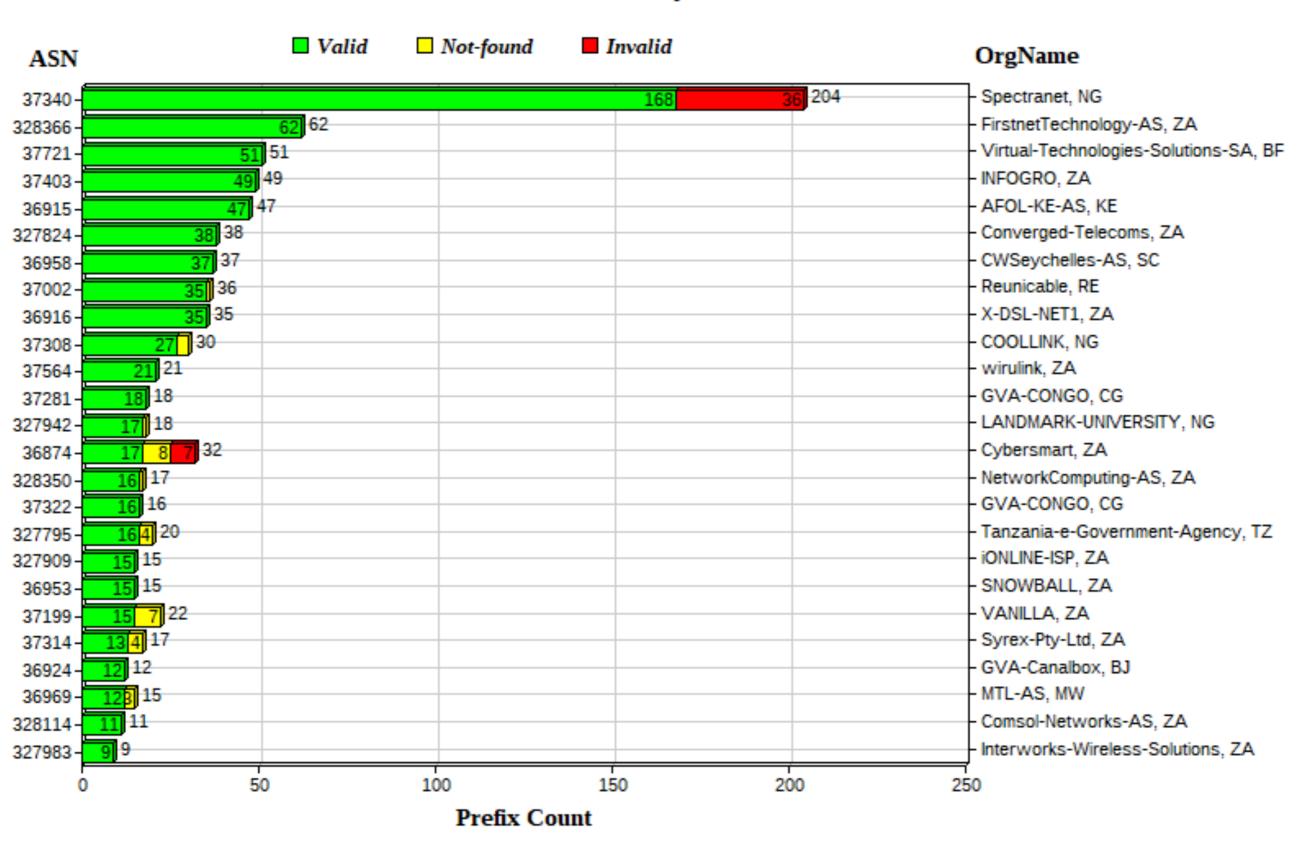
# ACCURACY?

98+% in SA! Whoohoo!



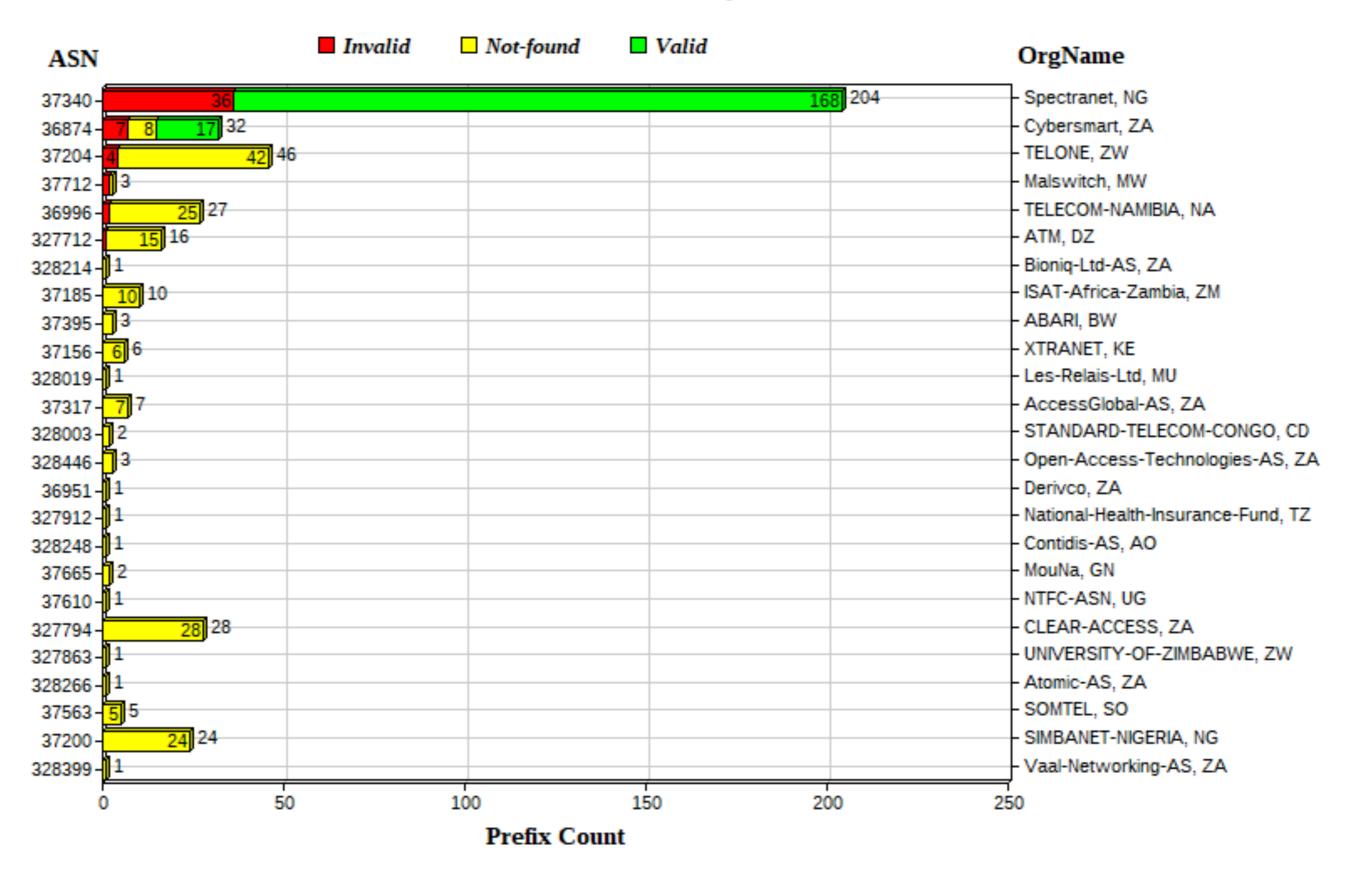
# THE GOOD, THE BAD AND THE UGLY

#### AfriNIC: 25 Autonomous Systems with the most Prefixes VALID by RPKI



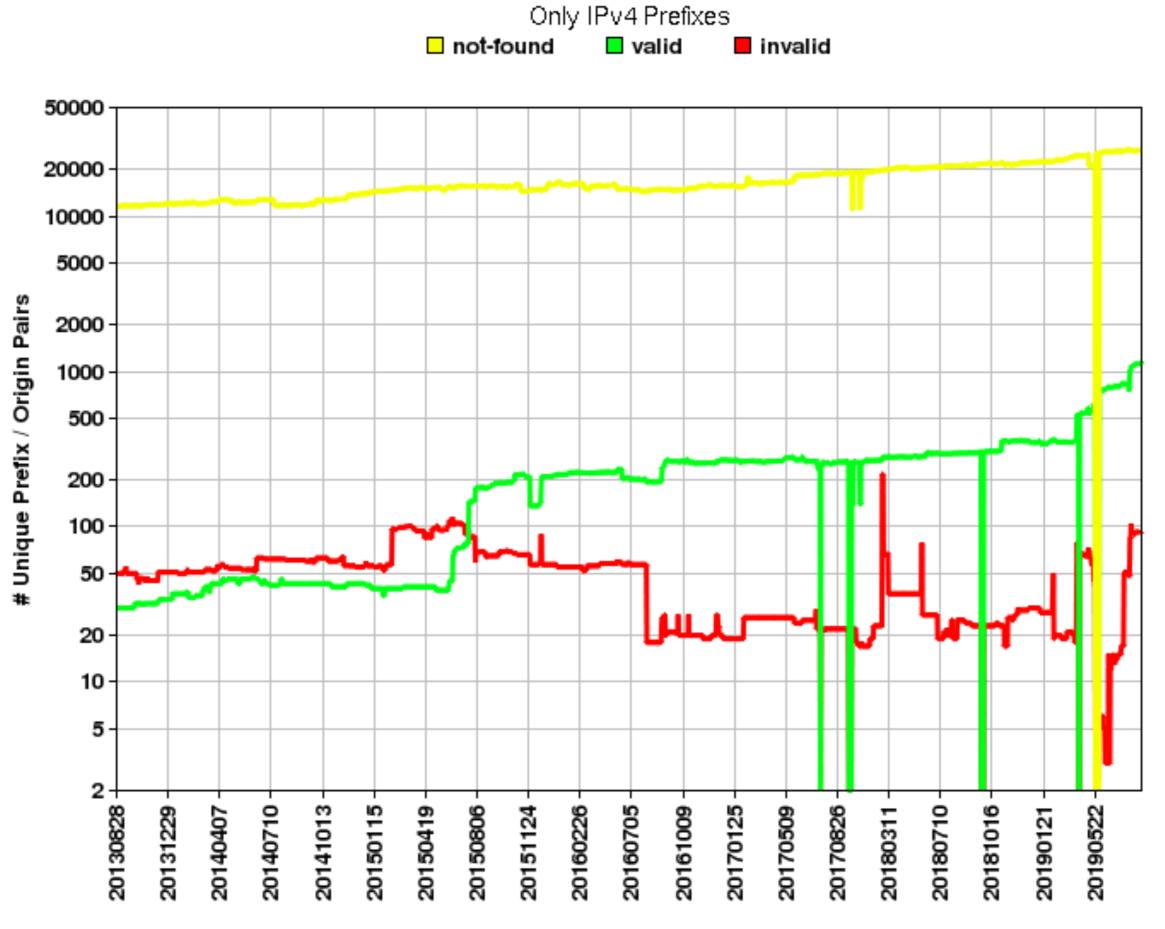
NIST RPKI Monitor: 2019-09-25

#### AfriNIC: 25 Autonomous Systems with the most Prefixes INVALID by RPKI



NIST RPKI Monitor: 2019-09-25

### AfriNIC-Region: Validation History of Unique P/O pairs



# QUESTIONS?

# QUALITY VS QUANTITY

### **RESOURCES**

- https://nog.net.za/downloads/
- http://irrexplorer.nlnog.net/
- ➤ ZA/WC/GP/KZNNog and its mailing list

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