

RPKI-Based Origin Deployment Status

JaNOG / Osaka
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Randy Bush <randy@psg.com>
Masayuki Okada <okadams@nic.ad.jp>,
Tomoya Yoshida <yoshida@mfeed.ad.jp>

The Global RPKI

Grand totals for all repositories

	certificate has expired	AKI extension issuer mismatch	Certificate failed validation	Manifest lists missing object	Object rejected	rsync transfer failed	Trust anchor key mismatch	Unreadable trust anchor	AIA doesn't match issuer	Bad CMS SI signed attributes	Nonconformant X.509 issuer name	Nonconformant X.509 subject name	rsync partial transfer	Stale CRL or manifest	Tainted by stale CRL	Tainted by stale manifest	Tainted by not being in manifest	Non-rsync URI in extension	Object accepted	rsync transfer succeeded	
						2							2								553
backup .cer					3			3													
current .cer	4	1	4		8		1	2	1		2	2			141	72	70	1	2239		
current .crl														76					2172		
backup .gbr															1	1			1		
current .gbr				1											6	6	1		8		
current .mft	1		1		1					34	1	2		75	76			1	2171		
current .roa	16	2	16		18				2	26	75	75			59	59	4		1383		
Total	21	3	21	1	30	2	1	5	3	60	78	79	2	151	283	138	75	2	7974	553	

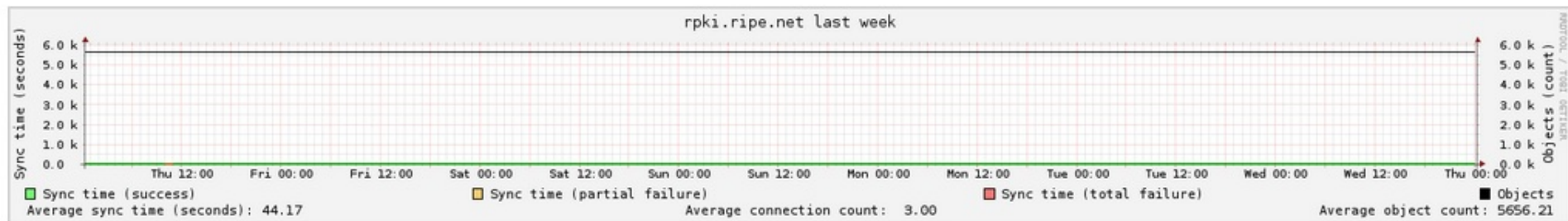
<http://cache0.sea.rpki.net/>

Informant subject name	rsync partial transfer	Stale CRL or manifest	Tainted by stale CRL	Tainted by stale manifest	Tainted by not being in manifest	Non-rsync URI in extension	Object accepted	rsync transfer succeeded
	2							553
2			141	72	70	1	2239	
		76					2172	
			1	1			1	
			6	6	1		8	
2		75	76			1	2171	
75			59	59	4		1383	
79	2	151	283	138	75	2	7974	553

RIPE

Sync transfer	Stale CRL or manifest	Tainted by stale CRL	Tainted by stale manifest	Tainted by not being in manifest	Non-rsync URI in extension	Object accepted	rsync transfer succeeded
							3
						1508	
						1508	
						1508	
						1148	
						5672	3

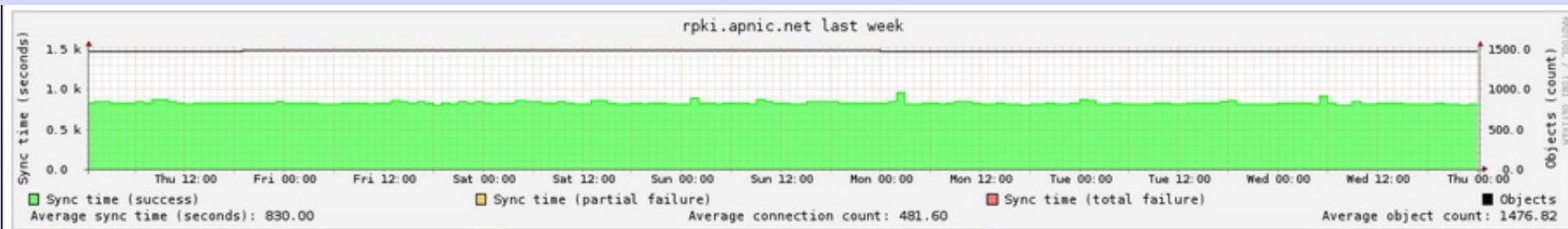
rpki.ripe.net over last week



APNIC

APNIC is operational and moving forward, moving to RIPE's GUI

Stale CRL or manifest	Tainted by stale CRL	Tainted by stale manifest	Tainted by not being in manifest	Non-rsync URI in extension	Object accepted	rsync transfer succeeded
						480
					478	
					478	
					478	
					37	
					1471	480



ARIN, the Lawyer RIR

ARIN is doing their best to make RPKI deployment very hard. Run by lawyers.

Nonconformant X.509 issuer name	Nonconformant X.509 subject name	rsync partial transfer	Stale CRL or manifest	Tainted by stale CRL	Tainted by stale manifest	Tainted by not being in manifest	Non-rsync URI in extension	Object accepted	rsync transfer succeeded
									2
2	2							61	
								61	
1	1							61	
75	75							75	
78	78							258	2

AFRINIC & LACNIC

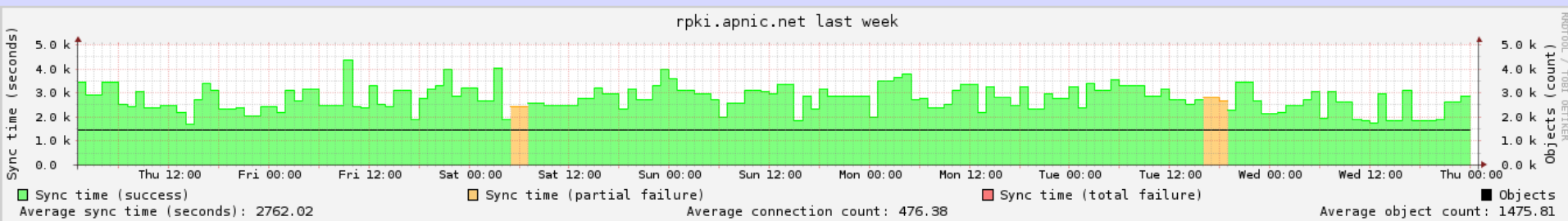
	Tainted by not being in manifest	Non-rsync URI in extension	Object accepted	rsync transfer succeeded
				26
		1	34	
			34	
		1	34	
	4		10	
	4	2	112	26

	Tainted by stale manifest	Non-rsync URI in extension	Object accepted	rsync transfer succeeded
				2
			215	
			215	
			215	
			98	
			743	2

LACNIC Has Been Working Hard on RPKI!

Fetch Problems

Unlike JaNOG 30, APNIC is the only RIR
Where we Had Data Fetching Problems



And the Software Uses the Older Data
Until it Gets Newer Data

JPNIC Has an RPKI Certification TestBed

Come Join!

Router Origin Validation

- **Cisco IOS - solid in 15.2**
- **Cisco IOS/XR - shipped in 4.3.2**
- **Juniper - shipped in 12.2**
- **AlcaLu - in development**

RPKI Implementations

- RIPE/NCC - CA (partial closed) & RP (partial open)
- APNIC - CA only - Closed Source
- RTRlib/Berlin - RP only - Open Source
- BBN - RP Only - Open Source
- RPKI.NET - CA & RP - Open Source

Today - RPKI.NET

- Open Source BSD License
- CA - Hosted and Delegated Models, GUI
- RP - RPKI-RTR, NOC Tools, IRR Gen
- FreeBSD, Ubuntu, Debian, ... Packaged (docs still catching up)

Recent Hackathons

- **JaNOG January - LIRs bring up Relying Party. Few Attended, Most Succeeded**
- **JPNIC 20 Feb - RP only, 3 ISPs were successful**
- **APRICOT February - TW, & KR have CAs in internal test**
- **Beirut March - 18 LIRs as RPs**
- **AfNOG June - 17 RPs**
- **SGNOG June - many RPs**
- **JaNOG July - 14 LIRs, still hacking!**

JPNIC is
Working Hard!

You Can Issue ROAs For Your Prefixes

labuser04

[dashboard](#)

[routes](#)

[alerts](#) 0

[select identity](#)

[web users](#)

[resource holders](#)

[repository clients](#)

[export identity](#)

Resources

Resource	Valid Until	Parent
98.128.4.0/24	July 1, 2014, 1:21 p.m.	workshop

[refresh](#)

ROAs

Prefix	Max Length	AS	
98.128.4.0/24	24	4128	+ - ↺

[Create](#)

[Import](#)

[Export](#)

Children

Handle

[Child](#)

[ASNs](#)

[Prefixes](#)

[ASNs](#)

[Prefixes](#)

Unallocated Resources

The following resources have not been allocated to a child, nor appear in a ROA.

Ghostbusters

Full Name	Organization	Email	Telephone
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[Create](#)

Parents

Handle

[workshop](#)



[Import](#)

You Can Build RPKI Caches and Test with Your Routers

Come Play With
Us and Test!