

RPKI Validation Performance

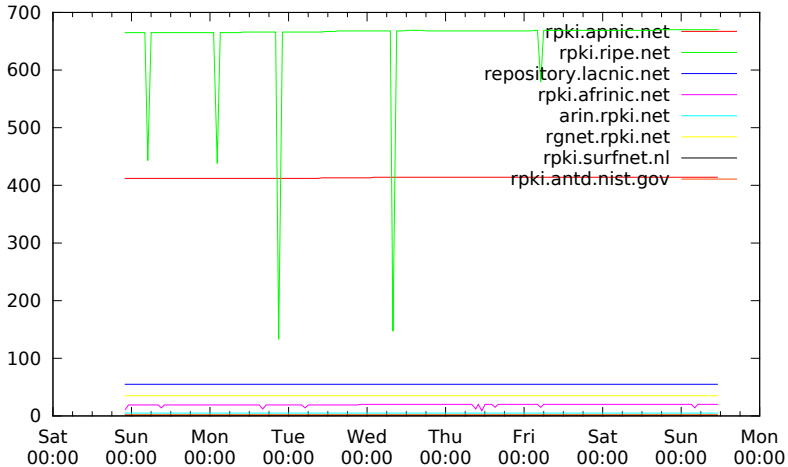
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... and a lot of help from our friends

31 October 2011

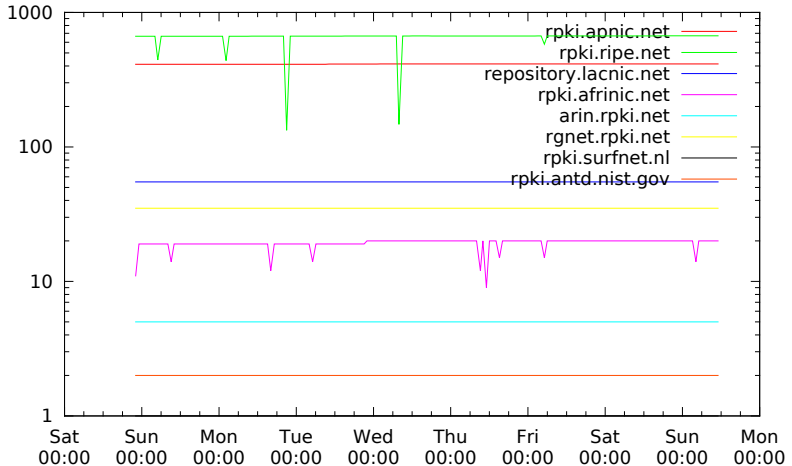
A Day In The Life Of One RPKI Validator

- This is based on data collected from one validator in Seattle
- Data collection only started about a week ago
- Results are very preliminary
- Guilty parties are good people, will likely fix all this if they can
- Expect updated report at some later date

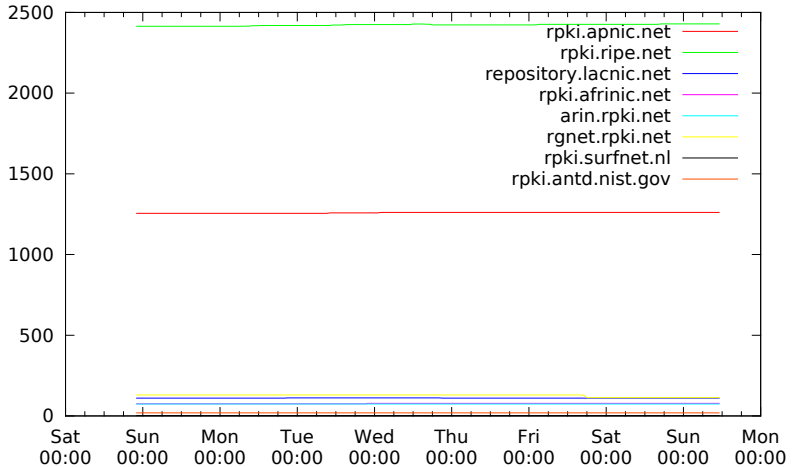
Connection Counts (Linear)



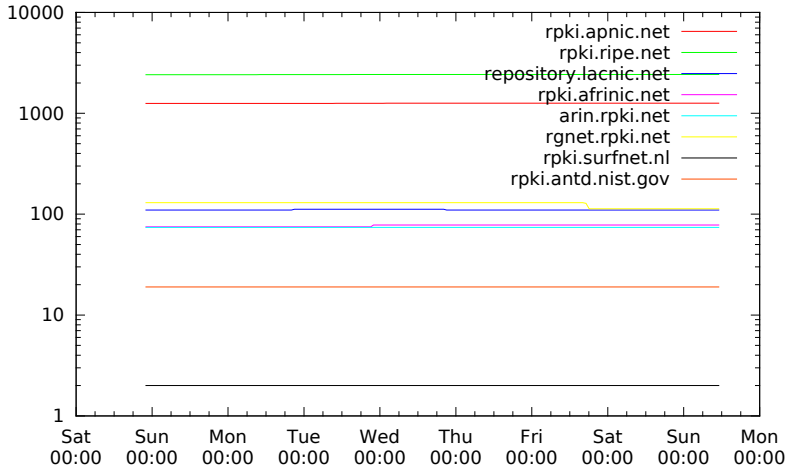
Connection Counts (Logarithmic)



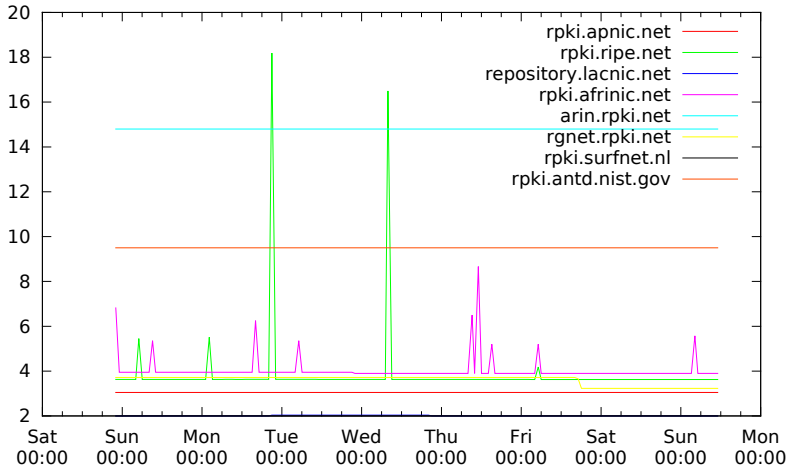
Object Counts (Linear)



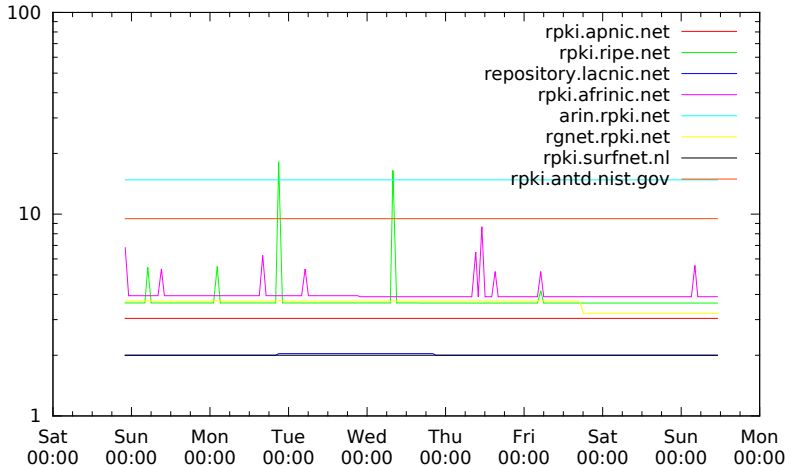
Object Counts (Logarithmic)



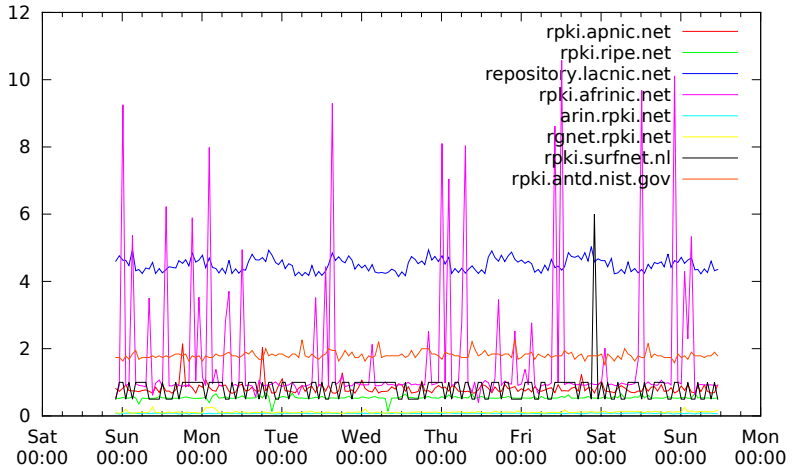
Objects/Connection (Linear)



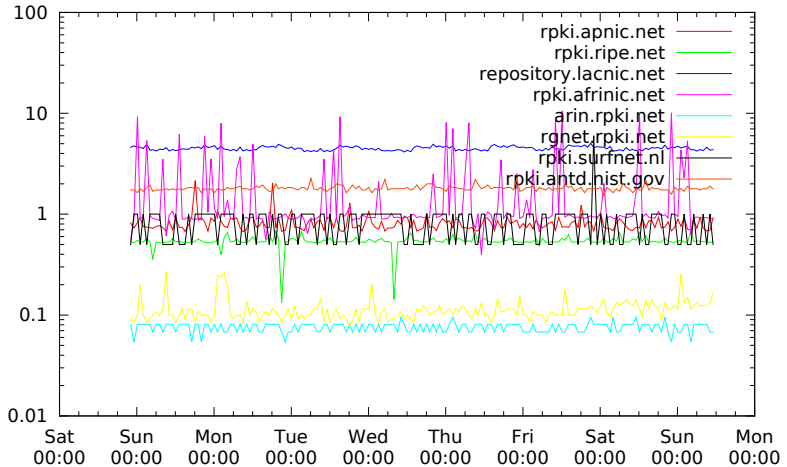
Objects/Connection (Logarithmic)



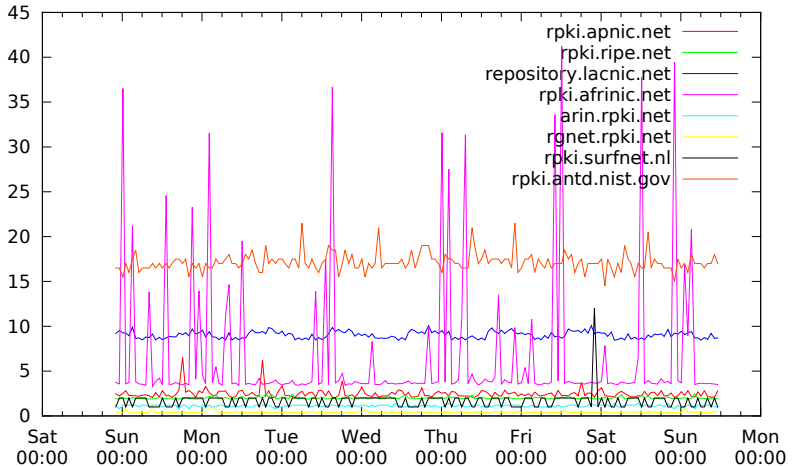
Seconds/Object (Linear)



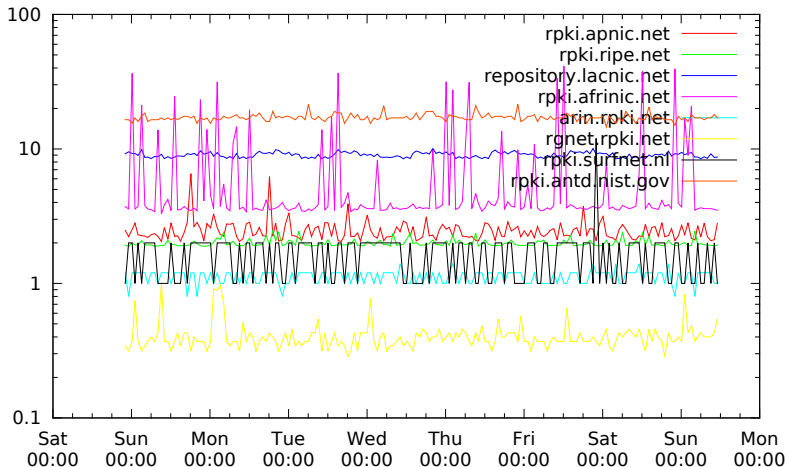
Seconds/Object (Logarithmic)



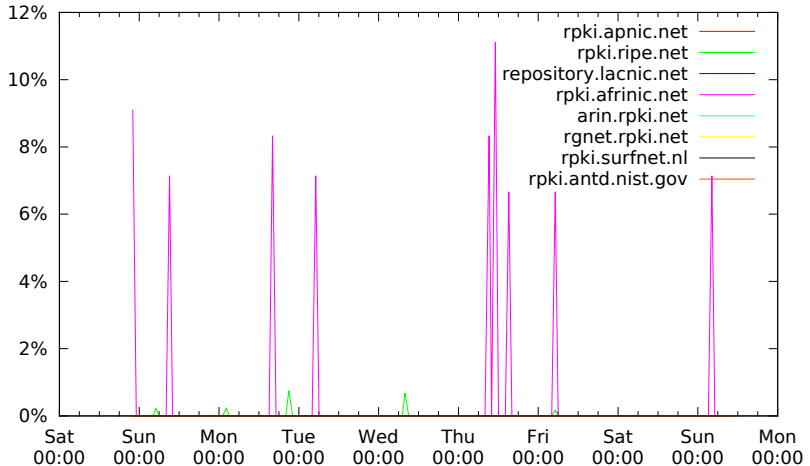
Length of Average Connection (Linear)



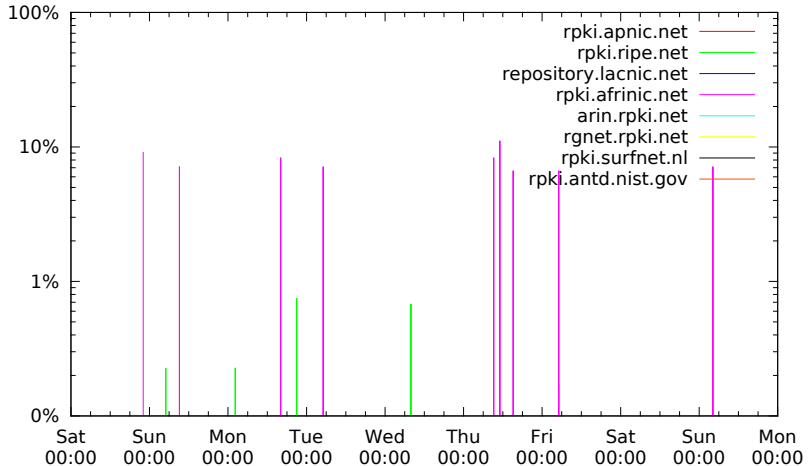
Length Average Connection (Logarithmic)



Failure Rate (Linear)



Failure Rate (Logarithmic)



Summary: rpki.apnic.net

Summary for rpki.apnic.net 2011-10-31T08:06:06Z

	certificate has expired	certificate revoked	AIA doesn't match issuer	Certificate failed validation	Object rejected	rsync transfer failed	Nonconformant X.509 issuer name	Nonconformant X.509 subject name	Stale CRL or manifest	Tainted by stale CRL	Tainted by stale manifest	Unknown object type skipped	Object accepted	rsync transfer succeeded
														413
current .cer							411	1					413	
current .crl													413	
backup .mft							1							
current .mft							1						413	
current .roa													19	
Total							413	1					1258	413

Summary: rpki.ripe.net

Summary for rpki.ripe.net 2011-10-31T08:06:06Z

	certificate has expired	certificate revoked	AIA doesn't match issuer	Certificate failed validation	Object rejected	rsync transfer failed	Nonconformant X.509 issuer name	Nonconformant X.509 subject name	Stale CRL or manifest	Tainted by stale CRL	Tainted by stale manifest	Unknown object type skipped	Object accepted	rsync transfer succeeded
														671
current .cer							668	101					670	
current .crl													670	
backup .mft							101	1						
current .mft							101	1					670	
current .roa							111	66					422	
Total							981	169					2432	671

Summary: repository.lacnic.net

Summary for repository.lacnic.net 2011-10-31T08:06:06Z

	certificate has expired	certificate revoked	AIA doesn't match issuer	Certificate failed validation	Object rejected	rsync transfer failed	Nonconformant X.509 issuer name	Nonconformant X.509 subject name	Stale CRL or manifest	Tainted by stale CRL	Tainted by stale manifest	Unknown object type skipped	Object accepted	rsync transfer succeeded
														55
current .cer							2	22					54	
current .crl													2	
backup .mft							1	2						
current .mft			52		52		1	2					2	
Total			52		52		4	26					58	55

Summary: rpki.afrinic.net

Summary for rpki.afrinic.net 2011-10-31T08:06:06Z

	certificate has expired	certificate revoked	AIA doesn't match issuer	Certificate failed validation	Object rejected	rsync transfer failed	Nonconformant X.509 issuer name	Nonconformant X.509 subject name	Stale CRL or manifest	Tainted by stale CRL	Tainted by stale manifest	Unknown object type skipped	Object accepted	rsync transfer succeeded
												2		20
current .cer													19	
current .crl													19	
current .mft													19	
current .roa	1			1	1								20	
Total	1			1	1							2	77	20

Summary: arin.rpki.net

Summary for arin.rpki.net 2011-10-31T08:06:06Z

	certificate has expired	certificate revoked	AIA doesn't match issuer	Certificate failed validation	Object rejected	rsync transfer failed	Nonconformant X.509 issuer name	Nonconformant X.509 subject name	Stale CRL or manifest	Tainted by stale CRL	Tainted by stale manifest	Unknown object type skipped	Object accepted	rsync transfer succeeded
														5
current .cer													17	
backup .crl								1						
current .crl													9	
current .gbr													1	
backup .mnf								1						
current .mnf													9	
current .roa													38	
Total								2					74	5

Summary: rgnet.rpki.net

Summary for rgnet.rpki.net 2011-10-31T08:06:06Z

	certificate has expired	certificate revoked	AIA doesn't match issuer	Certificate failed validation	Object rejected	rsync transfer failed	Nonconformant X.509 issuer name	Nonconformant X.509 subject name	Stale CRL or manifest	Tainted by stale CRL	Tainted by stale manifest	Unknown object type skipped	Object accepted	rsync transfer succeeded
														35
current .cer													34	
backup .crl								17						
current .crl													35	
current .gbr													1	
backup .mnf								17						
current .mnf													35	
current .roa													8	
Total								34					113	35

Summary: rpki.surfnet.nl

Summary for rpki.surfnet.nl 2011-10-31T08:06:06Z

	certificate has expired	certificate revoked	AIA doesn't match issuer	Certificate failed validation	Object rejected	rsync transfer failed	Nonconformant X.509 issuer name	Nonconformant X.509 subject name	Stale CRL or manifest	Tainted by stale CRL	Tainted by stale manifest	Unknown object type skipped	Object accepted	rsync transfer succeeded
														1
backup .crl									1					
current .crl									1				1	
backup .mnf									1	1				
current .mnf									1	1			1	
Total									4	2			2	1

Summary: rpki.antd.nist.gov

Summary for rpki.antd.nist.gov 2011-10-31T08:06:06Z

	certificate has expired	certificate revoked	AIA doesn't match issuer	Certificate failed validation	Object rejected	rsync transfer failed	Nonconformant X.509 issuer name	Nonconformant X.509 subject name	Stale CRL or manifest	Tainted by stale CRL	Tainted by stale manifest	Unknown object type skipped	Object accepted	rsync transfer succeeded
														2
backup .crl									4					
current .crl									4				5	
backup .mnf									4	4				
current .mnf									4	4			5	
backup .roa											6			
current .roa										6	6		9	
Total									16	14	12		19	2

In Conclusion

- Drawing pictures is easy; learning anything from them is harder
- Find problems now, before people bet their nets on this stuff