

IANA Naming Function Monthly Performance Report

October 2019

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Summary of Performance


Metric	Category	Expected	Actual	Detail
Submission				
Acceptance Recognition	Routine (Technical)	≤60s (95.0%)	✓ 1.86s	p5
Acceptance Recognition	Routine (Non-Technical)	≤60s (95.0%)	✓ 2.06s	p5
Acceptance Recognition	gTLD Creation/Transfer	≤60s (95.0%)	✓ 1.91s	p6
Acceptance Recognition	ccTLD Creation/Transfer	≤60s (95.0%)	✓ —	p6
Acceptance Recognition	Other Changes	≤60s (95.0%)	✓ —	p6
Manual Lodgment Time	Routine (Technical)	≤3d (95.0%)	✓ 0.37d	p7
Manual Lodgment Time	Routine (Non-Technical)	≤3d (95.0%)	✓ 1.77d	p7
Manual Lodgment Time	gTLD Creation/Transfer	≤3d (95.0%)	✓ —	p7
Manual Lodgment Time	ccTLD Creation/Transfer	≤3d (95.0%)	✓ —	p8
Manual Lodgment Time	Other Changes	≤3d (95.0%)	✓ —	p8
Technical Checks				
Technical Check (First)	Routine (Technical)	≤50m (95.0%)	✓ 4.31m	p9
Technical Check (First)	gTLD Creation/Transfer	≤50m (95.0%)	✓ —	p9
Technical Check (First)	ccTLD Creation/Transfer	≤50m (95.0%)	✓ —	p9
Technical Check (First)	Other Changes	≤50m (95.0%)	✓ —	p10
Technical Check (Retest)	Routine (Technical)	≤10m (95.0%)	✗ 10.62m	p10
Technical Check (Retest)	gTLD Creation/Transfer	≤10m (95.0%)	✓ —	p11
Technical Check (Retest)	ccTLD Creation/Transfer	≤10m (95.0%)	✓ —	p11
Technical Check (Retest)	Other Changes	≤10m (95.0%)	✓ —	p11
Technical Check (Supplemental)	Routine (Technical)	≤10m (95.0%)	✓ 0.33m	p12
Technical Check (Supplemental)	gTLD Creation/Transfer	≤10m (95.0%)	✓ —	p12
Technical Check (Supplemental)	ccTLD Creation/Transfer	≤10m (95.0%)	✓ —	p12
Technical Check (Supplemental)	Other Changes	≤10m (95.0%)	✓ —	p13
Contact Confirmations				
Email Dispatch	Routine (Technical)	≤60000ms (95.0%)	✓ 1.1ms	p13
Email Dispatch	Routine (Non-Technical)	≤60000ms (95.0%)	✓ 3ms	p14
Email Dispatch	gTLD Creation/Transfer	≤60000ms (95.0%)	✓ 1ms	p14
Email Dispatch	ccTLD Creation/Transfer	≤60000ms (95.0%)	✓ —	p14
Email Dispatch	Other Changes	≤60000ms (95.0%)	✓ —	p14
Recognition of Confirmation	Routine (Technical)	≤60000ms (95.0%)	✓ 0.15ms	p15
Recognition of Confirmation	Routine (Non-Technical)	≤60000ms (95.0%)	✓ 1ms	p15
Recognition of Confirmation	gTLD Creation/Transfer	≤60000ms (95.0%)	✓ 1ms	p16
Recognition of Confirmation	ccTLD Creation/Transfer	≤60000ms (95.0%)	✓ —	p16
Recognition of Confirmation	Other Changes	≤60000ms (95.0%)	✓ —	p16
Staff Processing				
Validation and Reviews	Routine (Technical)	≤5d (90.0%)	✓ 1.12d	p17
Validation and Reviews	Routine (Non-Technical)	≤5d (90.0%)	✓ 0.9d	p17
Validation and Reviews	gTLD Creation/Transfer	≤10d (90.0%)	✓ 1.29d	p17
Validation and Reviews	ccTLD Creation/Transfer	≤60d (100.0%)	✓ —	p18
Validation and Reviews	Other Changes	N/A	—	p18
Third Party Approval	ccTLD Creation/Transfer	N/A	—	p19
Implementation				
Root Zone Publication	Routine (Technical)	≤72h (99.0%)	✓ 69.35h	p20
Root Zone Publication	gTLD Creation/Transfer	≤72h (99.0%)	✓ —	p20
Root Zone Publication	ccTLD Creation/Transfer	≤72h (99.0%)	✓ —	p20
Root Zone Publication	Other Changes	N/A	—	p21
Notification of Completion	Routine (Technical)	≤60s (95.0%)	✓ 0.27s	p21

Metric	Category	Expected	Actual	Detail
Notification of Completion	Routine (Non-Technical)	≤60s (95.0%)	✓ 0.29s	p22
Notification of Completion	gTLD Creation/Transfer	≤60s (95.0%)	✓ 0.29s	p22
Notification of Completion	ccTLD Creation/Transfer	≤60s (95.0%)	✓ —	p22
Notification of Completion	Other Changes	≤60s (95.0%)	✓ —	p22
System Availability				
IANA Website	IANA Site Availability	≥99%	✓ 99.92%	p23
Root Zone Management System	RZM Availability	≥99%	✓ 99.95%	p24
Directory Service	WHOIS Availability	≥99%	✓ 100%	p25
Root Zone Service Level Dashboard	Dashboard Availability	≥99%	✓ 99.93%	p26
Credential Recovery	Credential Recovery Response	≤60s (95.0%)	✓ 0.09s	p27
Credential Change	Credential Change	≤300000ms (95.0%)	✓ 1.7ms	p28
Accuracy				
Root Zone File	Routine (Technical)	100%	✓ 100%	p29
Root Zone File	gTLD Creation/Transfer	100%	✓ 100%	p29
Root Zone File	ccTLD Creation/Transfer	100%	✓ 100%	p29
Root Zone File	Other Changes	100%	✓ 100%	p29
Root Zone Database	Routine (Technical)	100%	✓ 100%	p30
Root Zone Database	Routine (Non-Technical)	100%	✓ 100%	p30
Root Zone Database	gTLD Creation/Transfer	100%	✓ 100%	p30
Root Zone Database	ccTLD Creation/Transfer	100%	✓ 100%	p30
Root Zone Database	Other Changes	100%	✓ 100%	p30
Enquiry Processing				
Time to acknowledge	Manual Enquiries	≤60s (95.0%)	✓ 1s	p31
Time to initial response	Manual Enquiries	≤5d (90.0%)	✓ 0.78d	p32
Label Generation Rulesets				
Review Time	Review Time	N/A	—	p33
Implementation Time	Implementation Time	N/A	—	p34
Requester Clarification	Requester Clarification	N/A	—	p35
Time per Actor	IANA	N/A	—	p36
Time per Actor	Requester	N/A	—	p36
Time per Actor	Authorizer	N/A	—	p36
Time per Actor	Regulatory	N/A	—	p36
Request Volumes	Request Volumes	N/A	—	p37

Percentage of SLA thresholds met of those defined

98.4%

Exceptions and Narrative for Reporting Period

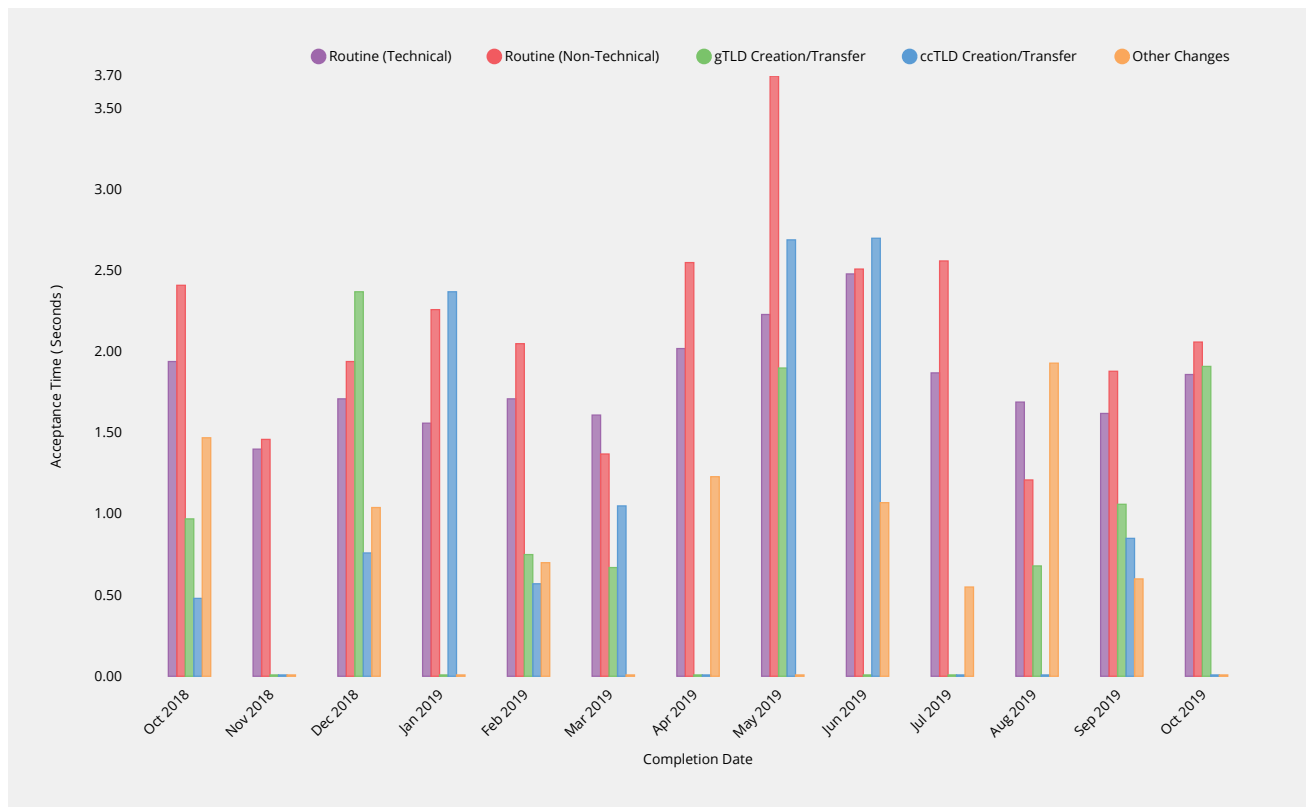
Metric	Category	Expected	Actual
Technical Check (Retest)	Routine (Technical)	10m	10.62m 
Primary cause:	TLD experiencing several technical issues		
Analysis/Comments:	One TLD submitted a change request that had multiple issues with their proposed technical configuration. Testing this configuration repeatedly failed all the minimum technical checks, and the test runs were repeated 47 times during the course of the month. The exception derived from the compounded time spent waiting for responses from name servers that were ultimately unreachable for each of the technical check runs. We will explore how to further refine how the technical checks are performed to reduce the end-to-end processing time for unresponsive name servers, by improving algorithms to quickly identify servers as unreachable and then not retrying them later in an individual tech check test run.		

Detailed Performance for Reporting Period

Submission

Acceptance Recognition

Time for ticket confirmation to be sent to requester following receipt of change request via automated submission interface.



Routine (Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Acceptance Time	1.94s	1.4s	1.71s	1.56s	1.71s	1.61s	2.02s	2.23s	2.48s	1.87s	1.69s	1.62s	1.86s
Monthly Threshold	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Acceptance Count	30	27	64	38	121	111	92	64	27	77	31	54	26
Mean Time	0.87s	0.78s	0.81s	0.8s	0.77s	0.71s	1.1s	1.3s	1.57s	0.83s	0.82s	0.67s	0.95s
Shortest Time	0.45s	0.51s	0.55s	0.54s	0.54s	0.51s	0.55s	0.74s	0.78s	0.47s	0.47s	0.45s	0.5s
Longest Time	3.04s	2.34s	2.09s	1.96s	1.93s	1.99s	3.91s	2.76s	2.65s	3.18s	1.91s	1.81s	2.14s
Median Time	0.6s	0.65s	0.65s	0.65s	0.65s	0.6s	1.1s	1.18s	1.33s	0.61s	0.59s	0.56s	0.65s
PStDev Time	0.59s	0.38s	0.36s	0.36s	0.34s	0.32s	0.5s	0.41s	0.57s	0.49s	0.43s	0.32s	0.49s

Routine (Non-Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Acceptance Time	2.41s	1.46s	1.94s	2.26s	2.05s	1.37s	2.55s	3.7s	2.51s	2.56s	1.21s	1.88s	2.06s
Monthly Threshold	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Acceptance Count	17	14	14	30	40	134	34	33	163	150	928	71	52
Mean Time	1.36s	1.19s	1.2s	1.4s	1.27s	0.99s	1.42s	1.99s	1.61s	1.62s	1.04s	1.11s	1.24s
Shortest Time	0.84s	0.92s	0.84s	0.84s	0.87s	0.81s	0.73s	1.16s	0.99s	0.78s	0.17s	0.67s	0.78s
Longest Time	2.63s	1.47s	1.98s	2.35s	2.63s	2.02s	2.77s	3.74s	3.24s	2.86s	121.58s	2.28s	2.93s
Median Time	1.18s	1.15s	1.1s	1.17s	1.09s	0.94s	1.22s	1.68s	1.66s	1.66s	0.86s	0.94s	1.1s
PStDev Time	0.5s	0.17s	0.35s	0.47s	0.44s	0.2s	0.56s	0.75s	0.44s	0.48s	3.97s	0.39s	0.45s

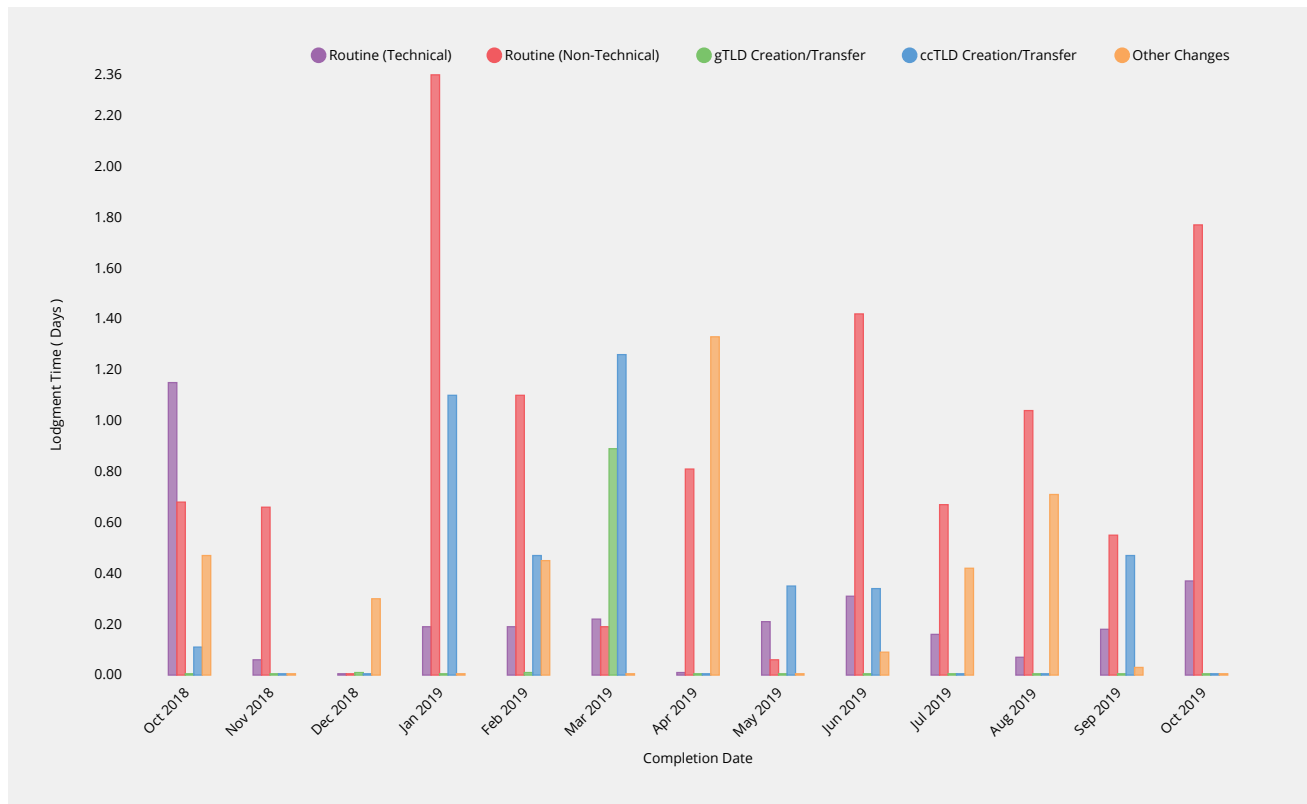
gTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Acceptance Time	0.97s	—	2.37s	—	0.75s	0.67s	—	1.9s	—	—	0.68s	1.06s	1.91s
Monthly Threshold	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Acceptance Count	1	0	1	0	1	1	0	5	0	0	1	1	1
Mean Time	0.97s	—	2.37s	—	0.75s	0.67s	—	1.7s	—	—	0.68s	1.06s	1.91s
Shortest Time	0.97s	—	2.37s	—	0.75s	0.67s	—	1.47s	—	—	0.68s	1.06s	1.91s
Longest Time	0.97s	—	2.37s	—	0.75s	0.67s	—	1.9s	—	—	0.68s	1.06s	1.91s
Median Time	0.97s	—	2.37s	—	0.75s	0.67s	—	1.71s	—	—	0.68s	1.06s	1.91s
PStDev Time	0s	—	0s	—	0s	0s	—	0.16s	—	—	0s	0s	0s

ccTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Acceptance Time	0.48s	—	0.76s	2.37s	0.57s	1.05s	—	2.69s	2.7s	—	—	0.85s	—
Monthly Threshold	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Acceptance Count	1	0	1	2	1	1	0	2	2	0	0	1	0
Mean Time	0.48s	—	0.76s	1.78s	0.57s	1.05s	—	2.12s	1.75s	—	—	0.85s	—
Shortest Time	0.48s	—	0.76s	1.13s	0.57s	1.05s	—	1.49s	0.69s	—	—	0.85s	—
Longest Time	0.48s	—	0.76s	2.43s	0.57s	1.05s	—	2.75s	2.81s	—	—	0.85s	—
Median Time	0.48s	—	0.76s	1.78s	0.57s	1.05s	—	2.12s	1.75s	—	—	0.85s	—
PStDev Time	0s	—	0s	0.65s	0s	0s	—	0.63s	1.06s	—	—	0s	—

Other Changes	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Acceptance Time	1.47s	—	1.04s	—	0.7s	—	1.23s	—	1.07s	0.55s	1.93s	0.6s	—
Monthly Threshold	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Acceptance Count	2	0	2	0	4	0	1	0	1	1	6	3	0
Mean Time	1.06s	—	0.83s	—	0.64s	—	1.23s	—	1.07s	0.55s	1.17s	0.58s	—
Shortest Time	0.6s	—	0.59s	—	0.56s	—	1.23s	—	1.07s	0.55s	0.6s	0.56s	—
Longest Time	1.51s	—	1.07s	—	0.7s	—	1.23s	—	1.07s	0.55s	2.05s	0.61s	—
Median Time	1.06s	—	0.83s	—	0.64s	—	1.23s	—	1.07s	0.55s	1.09s	0.58s	—
PStDev Time	0.46s	—	0.24s	—	0.06s	—	0s	—	0s	0s	0.56s	0.02s	—

Manual Lodgment Time

Time for lodgment of change request into RZMS by ICANN staff on behalf of request sent by email.



Routine (Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Lodgment Time	1.15d	0.06d	—	0.19d	0.19d	0.22d	0.01d	0.21d	0.31d	0.16d	0.07d	0.18d	0.37d
Monthly Threshold	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Lodgment Count	2	1	0	1	18	4	3	1	1	6	1	2	2
Mean Time	0.65d	0.06d	—	0.19d	0.11d	0.07d	0.01d	0.21d	0.31d	0.09d	0.07d	0.14d	0.25d
Shortest Time	0.09d	0.06d	—	0.19d	0.03d	0.01d	0.01d	0.21d	0.31d	0.01d	0.07d	0.09d	0.12d
Longest Time	1.21d	0.06d	—	0.19d	0.2d	0.25d	0.01d	0.21d	0.31d	0.18d	0.07d	0.18d	0.38d
Median Time	0.65d	0.06d	—	0.19d	0.1d	0.01d	0.01d	0.21d	0.31d	0.08d	0.07d	0.14d	0.25d
PStDev Time	0.56d	0d	—	0d	0.05d	0.11d	0d	0d	0d	0.05d	0d	0.05d	0.13d

Routine (Non-Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Lodgment Time	0.68d	0.66d	—	2.36d	1.1d	0.19d	0.81d	0.06d	1.42d	0.67d	1.04d	0.55d	1.77d
Monthly Threshold	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Lodgment Count	2	11	0	5	5	6	9	2	8	13	17	9	6
Mean Time	0.36d	0.34d	—	1d	0.36d	0.14d	0.42d	0.04d	0.3d	0.2d	0.34d	0.22d	0.81d
Shortest Time	0.01d	0.12d	—	0d	0.01d	0.04d	0.24d	0.02d	0.01d	0d	0d	0.04d	0.01d
Longest Time	0.71d	0.67d	—	2.7d	1.29d	0.2d	1.08d	0.07d	2.16d	0.67d	2.38d	0.61d	1.92d
Median Time	0.36d	0.29d	—	0.98d	0.09d	0.16d	0.34d	0.04d	0.05d	0.1d	0.18d	0.18d	0.75d
PStDev Time	0.35d	0.17d	—	0.93d	0.48d	0.05d	0.24d	0.03d	0.7d	0.22d	0.53d	0.19d	0.71d

gTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Lodgment Time	—	—	0.01d	—	0.01d	0.89d	—	—	—	—	—	—	—
Monthly Threshold	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Lodgment Count	0	0	1	0	1	1	0	0	0	0	0	0	0
Mean Time	—	—	0.01d	—	0.01d	0.89d	—	—	—	—	—	—	—

gTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Shortest Time	—	—	0.01d	—	0.01d	0.89d	—	—	—	—	—	—	—
Longest Time	—	—	0.01d	—	0.01d	0.89d	—	—	—	—	—	—	—
Median Time	—	—	0.01d	—	0.01d	0.89d	—	—	—	—	—	—	—
PStDev Time	—	—	0d	—	0d	0d	—	—	—	—	—	—	—

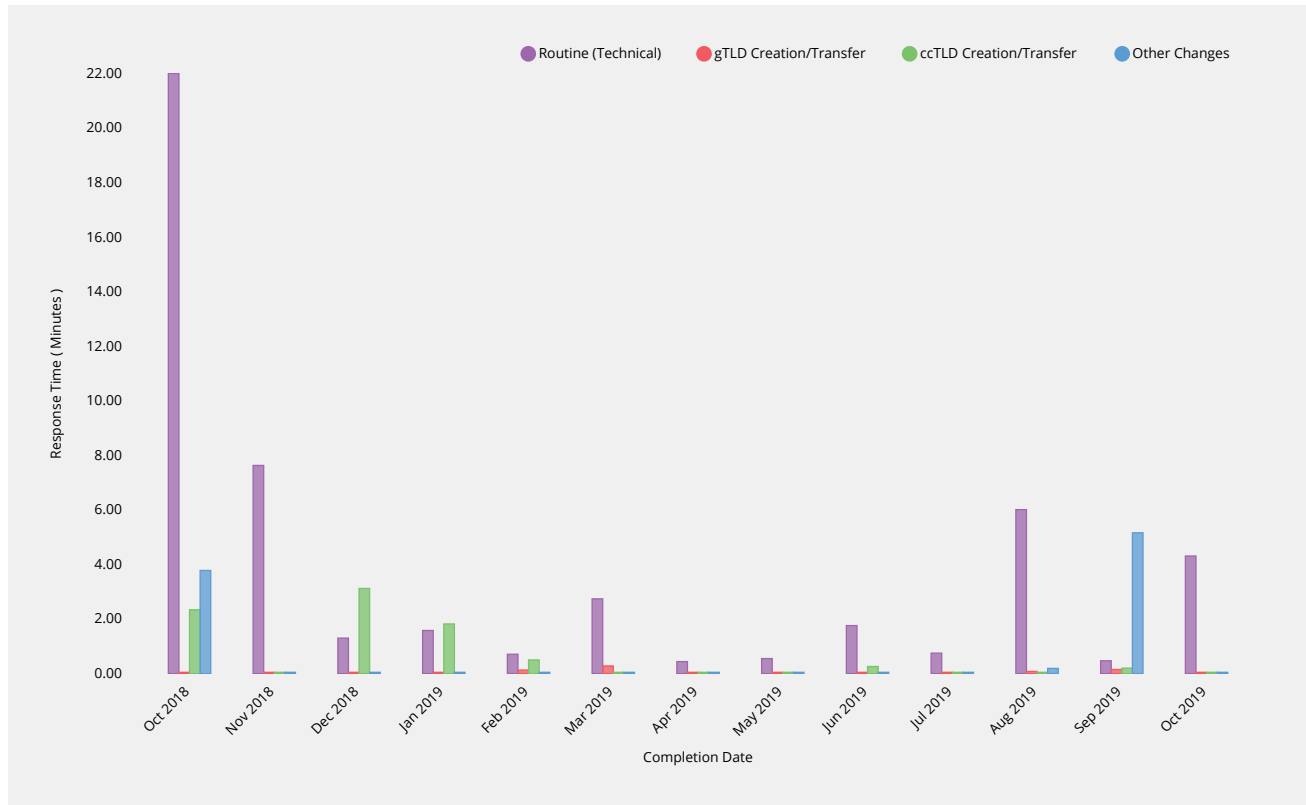
ccTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Lodgment Time	0.11d	—	—	1.1d	0.47d	1.26d	—	0.35d	0.34d	—	—	0.47d	—
Monthly Threshold	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Lodgment Count	1	0	0	2	1	1	0	1	1	0	0	1	0
Mean Time	0.11d	—	—	0.6d	0.47d	1.26d	—	0.35d	0.34d	—	—	0.47d	—
Shortest Time	0.11d	—	—	0.05d	0.47d	1.26d	—	0.35d	0.34d	—	—	0.47d	—
Longest Time	0.11d	—	—	1.16d	0.47d	1.26d	—	0.35d	0.34d	—	—	0.47d	—
Median Time	0.11d	—	—	0.6d	0.47d	1.26d	—	0.35d	0.34d	—	—	0.47d	—
PStDev Time	0d	—	—	0.55d	0d	0d	—	0d	0d	—	—	0d	—

Other Changes	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Lodgment Time	0.47d	—	0.3d	—	0.45d	—	1.33d	—	0.09d	0.42d	0.71d	0.03d	—
Monthly Threshold	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d	3d
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Lodgment Count	1	0	2	0	4	0	1	0	1	1	3	2	0
Mean Time	0.47d	—	0.23d	—	0.24d	—	1.33d	—	0.09d	0.42d	0.47d	0.03d	—
Shortest Time	0.47d	—	0.16d	—	0.09d	—	1.33d	—	0.09d	0.42d	0.07d	0.03d	—
Longest Time	0.47d	—	0.3d	—	0.48d	—	1.33d	—	0.09d	0.42d	0.72d	0.03d	—
Median Time	0.47d	—	0.23d	—	0.19d	—	1.33d	—	0.09d	0.42d	0.62d	0.03d	—
PStDev Time	0d	—	0.07d	—	0.16d	—	0d	—	0d	0d	0.29d	0d	—

Technical Checks

Technical Check (First)

Time to return results for technical checks following submission of request via automated submission interface.



Routine (Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Response Time	22m	7.63m	1.3m	1.58m	0.71m	2.74m	0.44m	0.55m	1.76m	0.75m	6.01m	0.47m	4.31m
Monthly Threshold	50m	50m	50m	50m	50m	50m	50m	50m	50m	50m	50m	50m	50m
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
First Test Count	30	27	64	38	121	111	92	64	27	77	31	54	26
Mean Time	8.42m	2.42m	0.54m	0.44m	0.43m	0.52m	0.3m	0.27m	0.62m	0.28m	1.22m	0.29m	0.84m
Shortest Time	0.24m	0.2m	0.1m	0.11m	0.12m	0.12m	0.11m	0.12m	0.13m	0.14m	0.13m	0.09m	0.12m
Longest Time	27.21m	10.37m	2.93m	2.55m	6.26m	8.04m	6.64m	1.29m	4.3m	3.03m	11.92m	1.51m	9.32m
Median Time	4.58m	1.61m	0.34m	0.28m	0.31m	0.21m	0.21m	0.22m	0.34m	0.2m	0.36m	0.27m	0.29m
PStDev Time	7.47m	2.6m	0.48m	0.5m	0.69m	1.16m	0.67m	0.16m	0.83m	0.38m	2.43m	0.19m	1.97m

gTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Response Time	—	—	—	—	0.13m	0.28m	—	—	—	—	0.08m	0.15m	—
Monthly Threshold	50m	50m	50m	50m	50m	50m	50m	50m	50m	50m	50m	50m	50m
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
First Test Count	0	0	0	0	1	1	0	0	0	0	1	1	0
Mean Time	—	—	—	—	0.13m	0.28m	—	—	—	—	0.08m	0.15m	—
Shortest Time	—	—	—	—	0.13m	0.28m	—	—	—	—	0.08m	0.15m	—
Longest Time	—	—	—	—	0.13m	0.28m	—	—	—	—	0.08m	0.15m	—
Median Time	—	—	—	—	0.13m	0.28m	—	—	—	—	0.08m	0.15m	—
PStDev Time	—	—	—	—	0m	0m	—	—	—	—	0m	0m	—

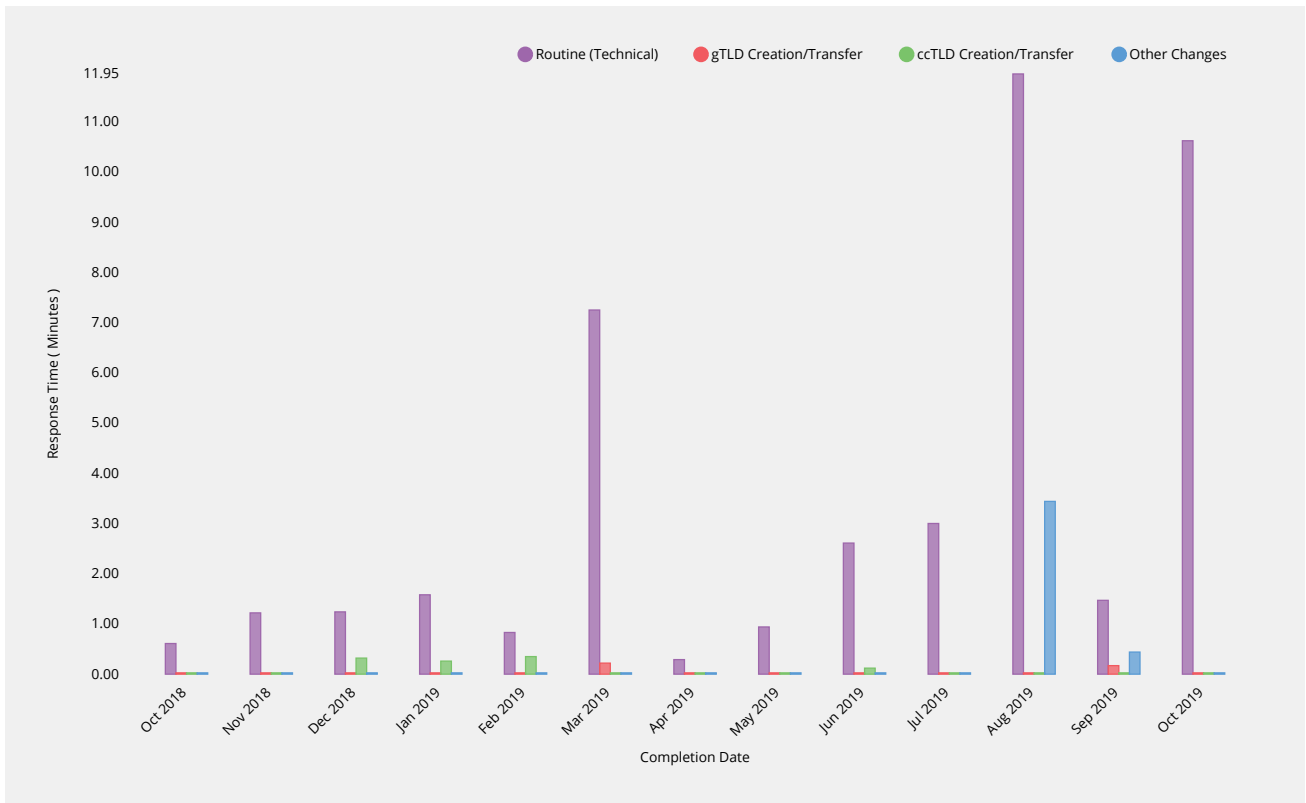
ccTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Response Time	2.34m	—	3.12m	1.82m	0.5m	—	—	—	0.26m	—	—	0.2m	—

ccTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Monthly Threshold	50m	50m	50m	50m	50m	50m	50m	50m	50m	50m	50m	50m	50m
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
First Test Count	1	0	1	1	1	0	0	0	2	0	0	1	0
Mean Time	2.34m	—	3.12m	1.82m	0.5m	—	—	—	0.22m	—	—	0.2m	—
Shortest Time	2.34m	—	3.12m	1.82m	0.5m	—	—	—	0.17m	—	—	0.2m	—
Longest Time	2.34m	—	3.12m	1.82m	0.5m	—	—	—	0.27m	—	—	0.2m	—
Median Time	2.34m	—	3.12m	1.82m	0.5m	—	—	—	0.22m	—	—	0.2m	—
PStDev Time	0m	—	0m	0m	0m	—	—	—	0.05m	—	—	0m	—

Other Changes	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Response Time	3.78m	—	—	—	—	—	—	—	—	—	0.19m	5.16m	—
Monthly Threshold	50m	50m	50m	50m	50m	50m	50m	50m	50m	50m	50m	50m	50m
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
First Test Count	1	0	0	0	0	0	0	0	0	0	2	1	0
Mean Time	3.78m	—	—	—	—	—	—	—	—	—	0.17m	5.16m	—
Shortest Time	3.78m	—	—	—	—	—	—	—	—	—	0.16m	5.16m	—
Longest Time	3.78m	—	—	—	—	—	—	—	—	—	0.19m	5.16m	—
Median Time	3.78m	—	—	—	—	—	—	—	—	—	0.17m	5.16m	—
PStDev Time	0m	—	—	—	—	—	—	—	—	—	0.02m	0m	—

Technical Check (Retest)

Time to return results for subsequent performance of technical checks during retesting due to earlier failed tests.



Routine (Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Response Time	0.61m	1.22m	1.24m	1.58m	0.83m	7.25m	0.29m	0.94m	2.61m	3m	11.95m	1.47m	10.62m
Monthly Threshold	3m	3m	3m	3m	3m	3m	3m	3m	3m	10m	10m	10m	10m
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Retest Count	58	65	145	169	666	254	135	72	39	165	151	100	167
Mean Time	0.45m	0.54m	0.67m	0.63m	0.5m	2.57m	0.23m	0.45m	0.74m	1.15m	4.26m	0.3m	5.48m

Routine (Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Shortest Time	0.25m	0.27m	0.07m	0.09m	0.17m	0.06m	0.1m	0.09m	0.12m	0.08m	0.06m	0.05m	0.06m
Longest Time	0.79m	1.57m	4.43m	2.91m	2.55m	8.84m	6.47m	1.1m	4.14m	4.55m	15.07m	1.48m	11.34m
Median Time	0.43m	0.33m	0.54m	0.58m	0.48m	2.45m	0.17m	0.38m	0.27m	1.12m	2.99m	0.15m	6.25m
PStDev Time	0.07m	0.37m	0.58m	0.6m	0.22m	2.3m	0.55m	0.23m	1.02m	1m	4.55m	0.41m	4.17m

Exception Narrative

Primary cause: TLD experiencing several technical issues
 Analysis/Comments: One TLD submitted a change request that had multiple issues with their proposed technical configuration. Testing this configuration repeatedly failed all the minimum technical checks, and the test runs were repeated 47 times during the course of the month. The exception derived from the compounded time spent waiting for responses from name servers that were ultimately unreachable for each of the technical check runs. We will explore how to further refine how the technical checks are performed to reduce the end-to-end processing time for unresponsive name servers, by improving algorithms to quickly identify servers as unreachable and then not retrying them later in an individual tech check test run.

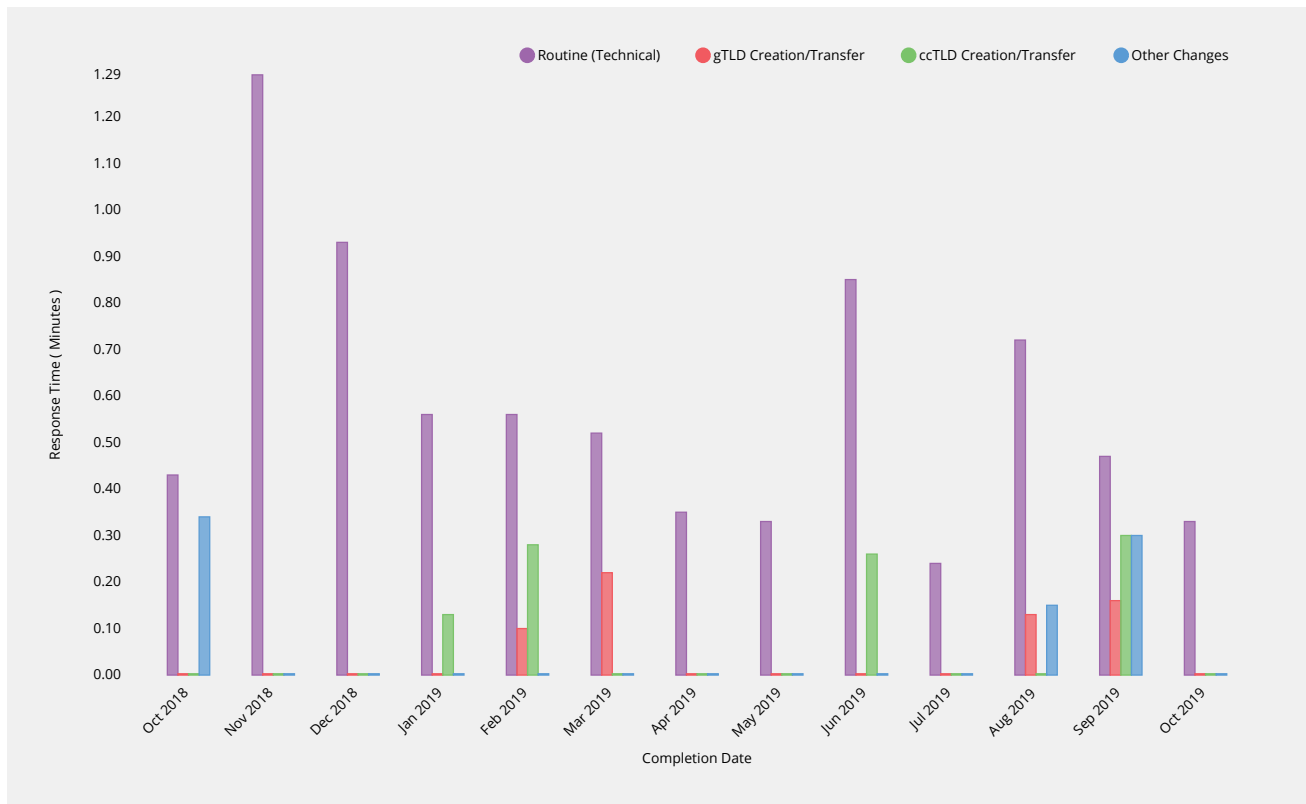
gTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Response Time	—	—	—	—	—	0.22m	—	—	—	—	—	0.17m	—
Monthly Threshold	3m	3m	3m	3m	3m	3m	3m	3m	3m	10m	10m	10m	10m
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Retest Count	0	0	0	0	0	2	0	0	0	0	0	9	0
Mean Time	—	—	—	—	—	0.22m	—	—	—	—	—	0.17m	—
Shortest Time	—	—	—	—	—	0.22m	—	—	—	—	—	0.16m	—
Longest Time	—	—	—	—	—	0.22m	—	—	—	—	—	0.17m	—
Median Time	—	—	—	—	—	0.22m	—	—	—	—	—	0.17m	—
PStDev Time	—	—	—	—	—	0m	—	—	—	—	—	0m	—

ccTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Response Time	—	—	0.32m	0.26m	0.35m	—	—	—	0.12m	—	—	—	—
Monthly Threshold	3m	3m	3m	3m	3m	3m	3m	3m	3m	10m	10m	10m	10m
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Retest Count	0	0	9	4	8	0	0	0	56	0	0	0	0
Mean Time	—	—	0.26m	0.17m	0.26m	—	—	—	0.1m	—	—	—	—
Shortest Time	—	—	0.23m	0.11m	0.22m	—	—	—	0.08m	—	—	—	—
Longest Time	—	—	0.34m	0.28m	0.38m	—	—	—	0.12m	—	—	—	—
Median Time	—	—	0.25m	0.14m	0.24m	—	—	—	0.1m	—	—	—	—
PStDev Time	—	—	0.03m	0.07m	0.05m	—	—	—	0.01m	—	—	—	—

Other Changes	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Response Time	—	—	—	—	—	—	—	—	—	—	3.44m	0.44m	—
Monthly Threshold	3m	3m	3m	3m	3m	3m	3m	3m	3m	10m	10m	10m	10m
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Retest Count	0	0	0	0	0	0	0	0	0	0	5	6	0
Mean Time	—	—	—	—	—	—	—	—	—	—	1.46m	0.27m	—
Shortest Time	—	—	—	—	—	—	—	—	—	—	0.11m	0.19m	—
Longest Time	—	—	—	—	—	—	—	—	—	—	3.44m	0.5m	—
Median Time	—	—	—	—	—	—	—	—	—	—	0.2m	0.22m	—
PStDev Time	—	—	—	—	—	—	—	—	—	—	1.61m	0.11m	—

Technical Check (Supplemental)

Time to return results for performance of technical checks during Supplemental Technical Check phase.



Routine (Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Response Time	0.43m	1.29m	0.93m	0.56m	0.56m	0.52m	0.35m	0.33m	0.85m	0.24m	0.72m	0.47m	0.33m
Monthly Threshold	1m	1m	1m	1m	1m	1m	1m	1m	1m	10m	10m	10m	10m
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Supplemental Test Count	33	30	56	25	102	422	96	71	30	66	38	82	18
Mean Time	0.22m	0.43m	0.41m	0.4m	0.27m	0.28m	0.24m	0.2m	0.36m	0.16m	0.42m	0.24m	0.19m
Shortest Time	0.06m	0.15m	0.08m	0.08m	0.08m	0.05m	0.07m	0.04m	0.08m	0.09m	0.07m	0.05m	0.06m
Longest Time	0.45m	1.59m	1.22m	4.35m	0.99m	6.12m	6.57m	1.09m	1.09m	1.1m	2.52m	2.4m	0.71m
Median Time	0.18m	0.34m	0.25m	0.18m	0.16m	0.13m	0.14m	0.15m	0.29m	0.12m	0.36m	0.16m	0.18m
PStDev Time	0.14m	0.34m	0.28m	0.82m	0.19m	0.59m	0.65m	0.12m	0.25m	0.14m	0.39m	0.31m	0.14m

gTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Response Time	—	—	—	—	0.1m	0.22m	—	—	—	—	0.13m	0.16m	—
Monthly Threshold	5m	5m	5m	5m	5m	5m	5m	5m	5m	10m	10m	10m	10m
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Supplemental Test Count	0	0	0	0	1	1	0	0	0	0	1	1	0
Mean Time	—	—	—	—	0.1m	0.22m	—	—	—	—	0.13m	0.16m	—
Shortest Time	—	—	—	—	0.1m	0.22m	—	—	—	—	0.13m	0.16m	—
Longest Time	—	—	—	—	0.1m	0.22m	—	—	—	—	0.13m	0.16m	—
Median Time	—	—	—	—	0.1m	0.22m	—	—	—	—	0.13m	0.16m	—
PStDev Time	—	—	—	—	0m	0m	—	—	—	—	0m	0m	—

ccTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Response Time	—	—	—	0.13m	0.28m	—	—	—	0.26m	—	—	0.3m	—
Monthly Threshold	5m	5m	5m	5m	5m	5m	5m	5m	5m	10m	10m	10m	10m
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Supplemental Test Count	0	0	0	1	1	0	0	0	1	0	0	2	0
Mean Time	—	—	—	0.13m	0.28m	—	—	—	0.26m	—	—	0.22m	—

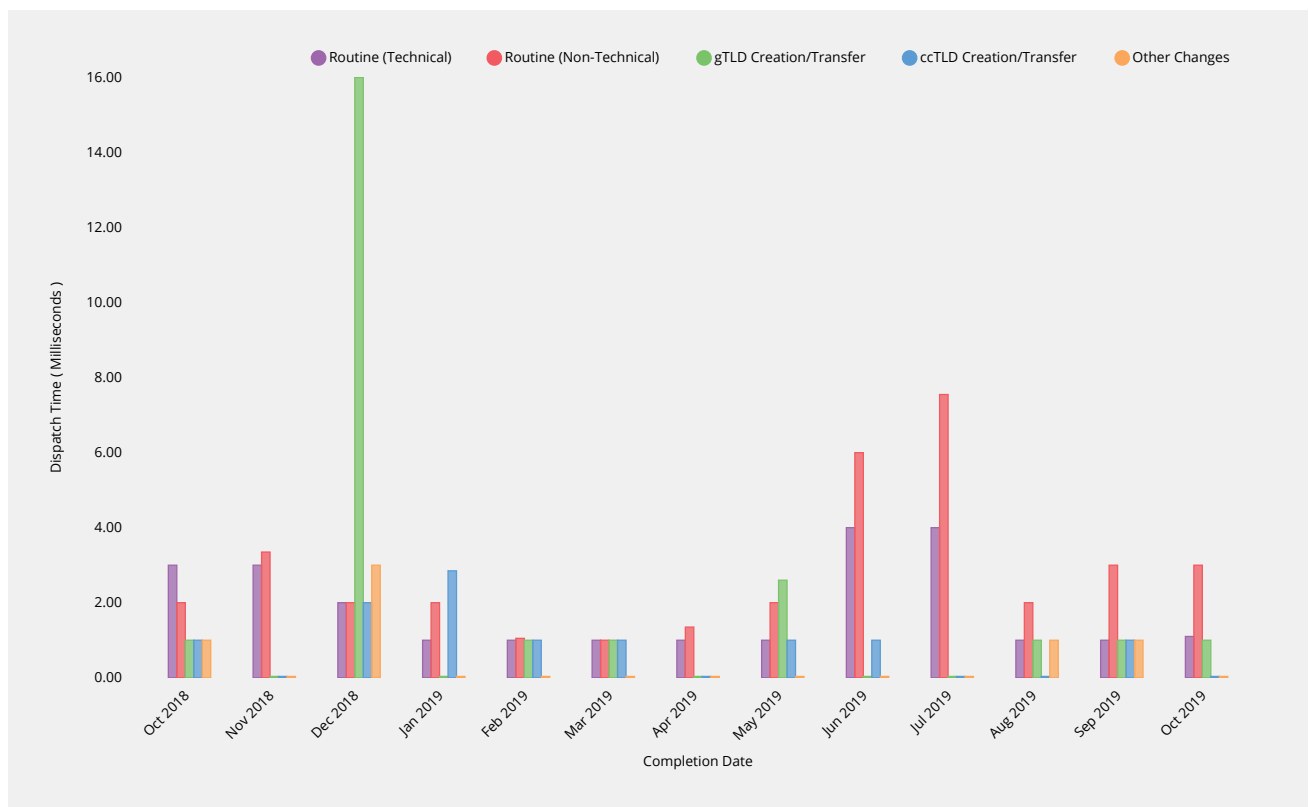
ccTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Shortest Time	—	—	—	0.13m	0.28m	—	—	—	0.26m	—	—	0.14m	—
Longest Time	—	—	—	0.13m	0.28m	—	—	—	0.26m	—	—	0.31m	—
Median Time	—	—	—	0.13m	0.28m	—	—	—	0.26m	—	—	0.22m	—
PStDev Time	—	—	—	0m	0m	—	—	—	0m	—	—	0.09m	—

Other Changes	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Response Time	0.34m	—	—	—	—	—	—	—	—	—	0.15m	0.3m	—
Monthly Threshold	5m	5m	5m	5m	5m	5m	5m	5m	5m	10m	10m	10m	10m
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Supplemental Test Count	1	0	0	0	0	0	0	0	0	0	4	1	0
Mean Time	0.34m	—	—	—	—	—	—	—	—	—	0.13m	0.3m	—
Shortest Time	0.34m	—	—	—	—	—	—	—	—	—	0.12m	0.3m	—
Longest Time	0.34m	—	—	—	—	—	—	—	—	—	0.15m	0.3m	—
Median Time	0.34m	—	—	—	—	—	—	—	—	—	0.13m	0.3m	—
PStDev Time	0m	—	—	—	—	—	—	—	—	—	0.01m	0m	—

Contact Confirmations

Email Dispatch

Time for authorization contacts to be asked to approve change request after completing previous process phase.



Routine (Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Dispatch Time	3ms	3ms	2ms	1ms	1ms	1ms	1ms	1ms	4ms	4ms	1ms	1ms	1.1ms
Monthly Threshold	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Email Count	27	24	56	32	104	103	91	62	23	67	23	51	19

Routine (Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Mean Time	1.56ms	1.75ms	1.04ms	0.91ms	0.96ms	0.79ms	0.9ms	0.81ms	1.96ms	1.18ms	0.96ms	0.78ms	0.95ms
Shortest Time	0ms	0ms	0ms	0ms	0ms	0ms	0ms	0ms	0ms	0ms	0ms	0ms	0ms
Longest Time	4ms	3ms	8ms	2ms	9ms	2ms	9ms	2ms	5ms	5ms	1ms	1ms	2ms
Median Time	1ms	2ms	1ms	1ms	1ms	1ms	1ms	1ms	1ms	1ms	1ms	1ms	1ms
PStDev Time	0.87ms	0.88ms	1.03ms	0.38ms	0.94ms	0.45ms	0.94ms	0.5ms	1.49ms	1.17ms	0.2ms	0.41ms	0.39ms

Routine (Non-Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Dispatch Time	2ms	3.35ms	2ms	2ms	1.05ms	1ms	1.35ms	2ms	6ms	7.55ms	2ms	3ms	3ms
Monthly Threshold	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Email Count	17	14	14	30	40	134	34	33	163	150	927	71	52
Mean Time	1.24ms	2.29ms	1.14ms	1.27ms	1ms	1.03ms	1ms	1.15ms	3.93ms	4.21ms	1.05ms	1.38ms	1.31ms
Shortest Time	1ms	1ms	1ms	1ms	0ms	0ms	0ms	1ms	1ms	0ms	0ms	0ms	0ms
Longest Time	2ms	4ms	2ms	2ms	2ms	7ms	2ms	2ms	8ms	13ms	20ms	13ms	5ms
Median Time	1ms	2ms	1ms	1ms	1ms	1ms	1ms	1ms	4ms	4ms	1ms	1ms	1ms
PStDev Time	0.42ms	0.8ms	0.35ms	0.44ms	0.32ms	0.69ms	0.34ms	0.36ms	1.26ms	2.04ms	1ms	1.59ms	0.77ms

gTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Dispatch Time	1ms	—	16ms	—	1ms	1ms	—	2.6ms	—	—	1ms	1ms	1ms
Monthly Threshold	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Email Count	1	0	1	0	1	1	0	5	0	0	1	1	1
Mean Time	1ms	—	16ms	—	1ms	1ms	—	1.4ms	—	—	1ms	1ms	1ms
Shortest Time	1ms	—	16ms	—	1ms	1ms	—	1ms	—	—	1ms	1ms	1ms
Longest Time	1ms	—	16ms	—	1ms	1ms	—	3ms	—	—	1ms	1ms	1ms
Median Time	1ms	—	16ms	—	1ms	1ms	—	1ms	—	—	1ms	1ms	1ms
PStDev Time	0ms	—	0ms	—	0ms	0ms	—	0.8ms	—	—	0ms	0ms	0ms

ccTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Dispatch Time	1ms	—	2ms	2.85ms	1ms	1ms	—	1ms	1ms	—	—	1ms	—
Monthly Threshold	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Email Count	1	0	1	2	1	1	0	2	1	0	0	1	0
Mean Time	1ms	—	2ms	1.5ms	1ms	1ms	—	1ms	1ms	—	—	1ms	—
Shortest Time	1ms	—	2ms	0ms	1ms	1ms	—	1ms	1ms	—	—	1ms	—
Longest Time	1ms	—	2ms	3ms	1ms	1ms	—	1ms	1ms	—	—	1ms	—
Median Time	1ms	—	2ms	1.5ms	1ms	1ms	—	1ms	1ms	—	—	1ms	—
PStDev Time	0ms	—	0ms	1.5ms	0ms	0ms	—	0ms	0ms	—	—	0ms	—

Other Changes	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Dispatch Time	1ms	—	3ms	—	—	—	—	—	—	—	1ms	1ms	—
Monthly Threshold	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Email Count	1	0	1	0	0	0	0	0	0	0	3	1	0
Mean Time	1ms	—	3ms	—	—	—	—	—	—	—	1ms	1ms	—
Shortest Time	1ms	—	3ms	—	—	—	—	—	—	—	1ms	1ms	—
Longest Time	1ms	—	3ms	—	—	—	—	—	—	—	1ms	1ms	—
Median Time	1ms	—	3ms	—	—	—	—	—	—	—	1ms	1ms	—

Routine (Non-Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Longest Time	1ms	1ms	1ms	1ms	0ms	1ms	1ms	1ms	1ms	1ms	4ms	2ms	1ms
Median Time	0ms	0ms	0ms	0ms	0ms	0ms	0ms	0ms	0ms	0ms	0ms	0ms	0ms
PStDev Time	0.27ms	0.43ms	0.33ms	0.26ms	0ms	0.27ms	0.28ms	0.24ms	0.39ms	0.42ms	0.33ms	0.4ms	0.33ms

gTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Affirmation Time	0ms	—	—	—	0ms	0ms	—	0.8ms	—	—	0ms	0ms	1ms
Monthly Threshold	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Affirmation Count	1	0	0	0	1	1	0	5	0	0	1	1	1
Mean Time	0ms	—	—	—	0ms	0ms	—	0.2ms	—	—	0ms	0ms	1ms
Shortest Time	0ms	—	—	—	0ms	0ms	—	0ms	—	—	0ms	0ms	1ms
Longest Time	0ms	—	—	—	0ms	0ms	—	1ms	—	—	0ms	0ms	1ms
Median Time	0ms	—	—	—	0ms	0ms	—	0ms	—	—	0ms	0ms	1ms
PStDev Time	0ms	—	—	—	0ms	0ms	—	0.4ms	—	—	0ms	0ms	0ms

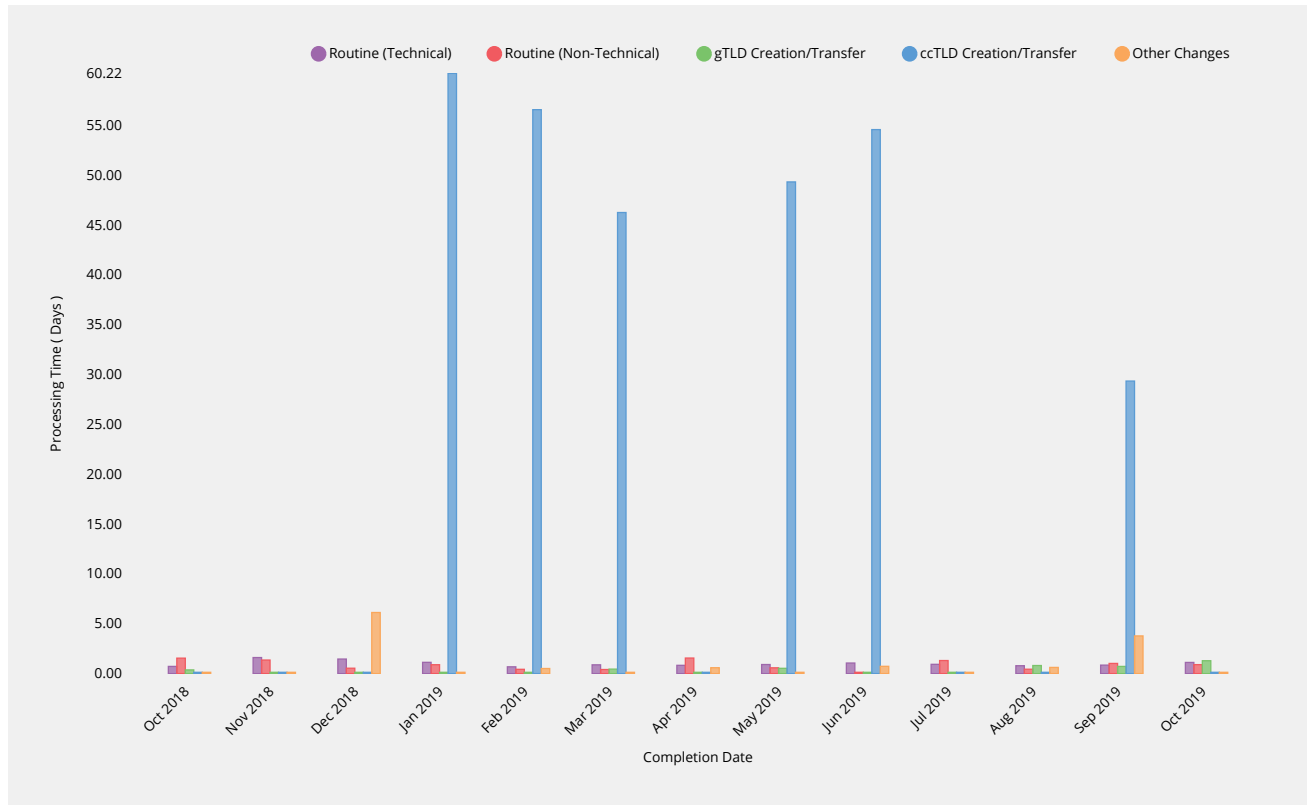
ccTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Affirmation Time	—	—	—	0ms	0ms	0ms	—	0ms	0ms	—	—	0ms	—
Monthly Threshold	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Affirmation Count	0	0	0	1	1	1	0	2	1	0	0	1	0
Mean Time	—	—	—	0ms	0ms	0ms	—	0ms	0ms	—	—	0ms	—
Shortest Time	—	—	—	0ms	0ms	0ms	—	0ms	0ms	—	—	0ms	—
Longest Time	—	—	—	0ms	0ms	0ms	—	0ms	0ms	—	—	0ms	—
Median Time	—	—	—	0ms	0ms	0ms	—	0ms	0ms	—	—	0ms	—
PStDev Time	—	—	—	0ms	0ms	0ms	—	0ms	0ms	—	—	0ms	—

Other Changes	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Affirmation Time	0ms	—	0ms	—	0ms	—	0ms	—	0ms	0ms	0ms	0ms	—
Monthly Threshold	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms	60000ms
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Affirmation Count	2	0	2	0	4	0	1	0	1	1	6	3	0
Mean Time	0ms	—	0ms	—	0ms	—	0ms	—	0ms	0ms	0ms	0ms	—
Shortest Time	0ms	—	0ms	—	0ms	—	0ms	—	0ms	0ms	0ms	0ms	—
Longest Time	0ms	—	0ms	—	0ms	—	0ms	—	0ms	0ms	0ms	0ms	—
Median Time	0ms	—	0ms	—	0ms	—	0ms	—	0ms	0ms	0ms	0ms	—
PStDev Time	0ms	—	0ms	—	0ms	—	0ms	—	0ms	0ms	0ms	0ms	—

Staff Processing

Validation and Reviews

Time to complete all other validations and reviews by IANA Functions Operator and release request for implementation.



Routine (Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Processing Time	0.72d	1.61d	1.46d	1.13d	0.68d	0.88d	0.83d	0.91d	1.06d	0.93d	0.79d	0.85d	1.12d
Monthly Threshold	5d	5d	5d	5d	5d	5d	5d	5d	5d	5d	5d	5d	5d
Threshold Percentile	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%
Request Count	27	22	56	24	117	104	88	60	23	67	23	45	19
Mean Time	0.42d	0.94d	0.91d	0.57d	0.28d	0.42d	0.55d	0.5d	0.51d	0.66d	0.45d	0.52d	0.68d
Shortest Time	0.12d	0.03d	0d	0.01d	0d	0d	0.03d	0d	0.01d	0d	0.01d	0.08d	0d
Longest Time	1.03d	2.91d	2.82d	1.83d	1.77d	2.41d	1.76d	3.18d	1.57d	2.11d	2.67d	3.5d	2.37d
Median Time	0.41d	0.66d	0.71d	0.48d	0.33d	0.39d	0.63d	0.35d	0.36d	0.56d	0.38d	0.32d	0.63d
PStDev Time	0.21d	0.71d	0.6d	0.43d	0.31d	0.33d	0.38d	0.5d	0.44d	0.36d	0.55d	0.58d	0.54d

Routine (Non-Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Processing Time	1.55d	1.36d	0.54d	0.89d	0.43d	0.41d	1.56d	0.58d	0.09d	1.31d	0.44d	1.02d	0.9d
Monthly Threshold	5d	5d	5d	5d	5d	5d	5d	5d	5d	5d	5d	5d	5d
Threshold Percentile	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%
Request Count	13	12	11	27	36	128	22	31	162	145	899	59	40
Mean Time	0.48d	2.18d	0.2d	0.56d	0.17d	0.21d	0.63d	0.24d	0.09d	0.76d	0.15d	0.38d	0.5d
Shortest Time	0.02d	0.03d	0d	0d	0.04d	0d	0d	0d	0d	0d	0d	0d	0d
Longest Time	1.94d	20.88d	0.7d	3.47d	0.74d	1.18d	6.48d	2.82d	2.76d	2.52d	3.42d	2.8d	2.69d
Median Time	0.18d	0.63d	0.21d	0.41d	0.08d	0.15d	0.08d	0.1d	0d	0.86d	0.02d	0.15d	0.42d
PStDev Time	0.62d	5.65d	0.22d	0.74d	0.17d	0.24d	1.4d	0.51d	0.35d	0.47d	0.27d	0.57d	0.51d

gTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Processing Time	0.37d	—	—	—	0.06d	0.45d	—	0.53d	—	—	0.81d	0.72d	1.29d

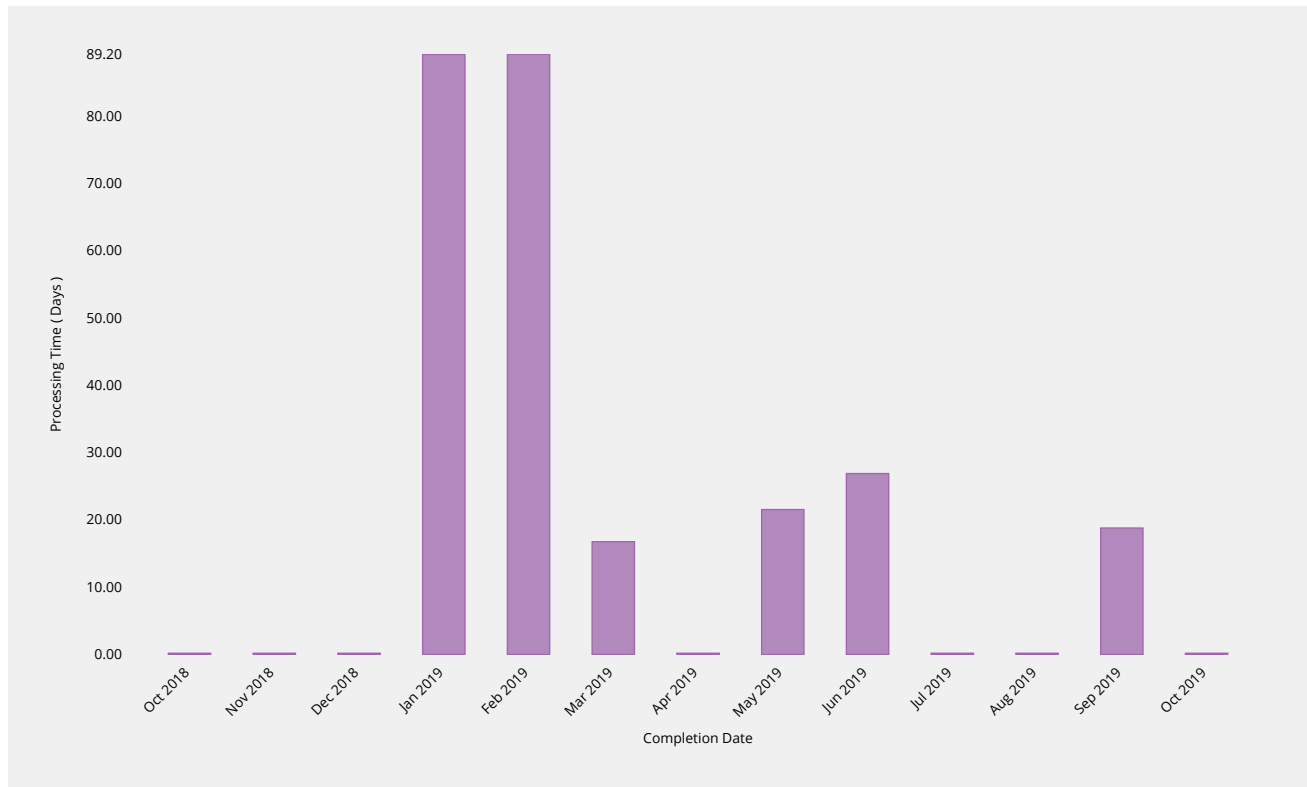
gTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Monthly Threshold	10d	10d	10d	10d	10d	10d	10d	10d	10d	10d	10d	10d	10d
Threshold Percentile	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%
Request Count	1	0	0	0	1	1	0	5	0	0	1	1	1
Mean Time	0.37d	—	—	—	0.06d	0.45d	—	0.25d	—	—	0.81d	0.72d	1.29d
Shortest Time	0.37d	—	—	—	0.06d	0.45d	—	0.09d	—	—	0.81d	0.72d	1.29d
Longest Time	0.37d	—	—	—	0.06d	0.45d	—	0.81d	—	—	0.81d	0.72d	1.29d
Median Time	0.37d	—	—	—	0.06d	0.45d	—	0.11d	—	—	0.81d	0.72d	1.29d
PStDev Time	0d	—	—	—	0d	0d	—	0.28d	—	—	0d	0d	0d

ccTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Processing Time	—	—	—	60.22d	56.58d	46.26d	—	49.33d	54.58d	—	—	29.35d	—
Monthly Threshold	60d	60d	60d	60d	60d	60d	60d	60d	60d	60d	60d	60d	60d
Threshold Percentile	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Request Count	0	0	0	1	1	1	0	2	2	0	0	1	0
Mean Time	—	—	—	60.22d	56.58d	46.26d	—	37.01d	27.29d	—	—	29.35d	—
Shortest Time	—	—	—	60.22d	56.58d	46.26d	—	24.69d	0d	—	—	29.35d	—
Longest Time	—	—	—	60.22d	56.58d	46.26d	—	49.33d	54.58d	—	—	29.35d	—
Median Time	—	—	—	60.22d	56.58d	46.26d	—	37.01d	27.29d	—	—	29.35d	—
PStDev Time	—	—	—	0d	0d	0d	—	12.32d	27.29d	—	—	0d	—

Other Changes	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Processing Time	0.07d	—	6.13d	—	0.51d	—	0.59d	—	0.73d	0.08d	0.62d	3.78d	—
Monthly Threshold	0d	0d	0d	0d	0d	0d	0d	0d	0d	0d	0d	0d	0d
Threshold Percentile	—	—	—	—	—	—	—	—	—	—	—	—	—
Request Count	2	0	2	0	4	0	1	0	1	1	6	3	0
Mean Time	0.04d	—	3.14d	—	0.25d	—	0.59d	—	0.73d	0.08d	0.24d	3.11d	—
Shortest Time	0d	—	0.15d	—	0.14d	—	0.59d	—	0.73d	0.08d	0d	2.77d	—
Longest Time	0.07d	—	6.13d	—	0.51d	—	0.59d	—	0.73d	0.08d	0.62d	3.78d	—
Median Time	0.04d	—	3.14d	—	0.18d	—	0.59d	—	0.73d	0.08d	0.14d	2.78d	—
PStDev Time	0.04d	—	2.99d	—	0.15d	—	0d	—	0d	0d	0.25d	0.47d	—

Third Party Approval

Time for third party review of request (e.g. by ICANN Board of Directors, PTI Board or other relevant verification parties).

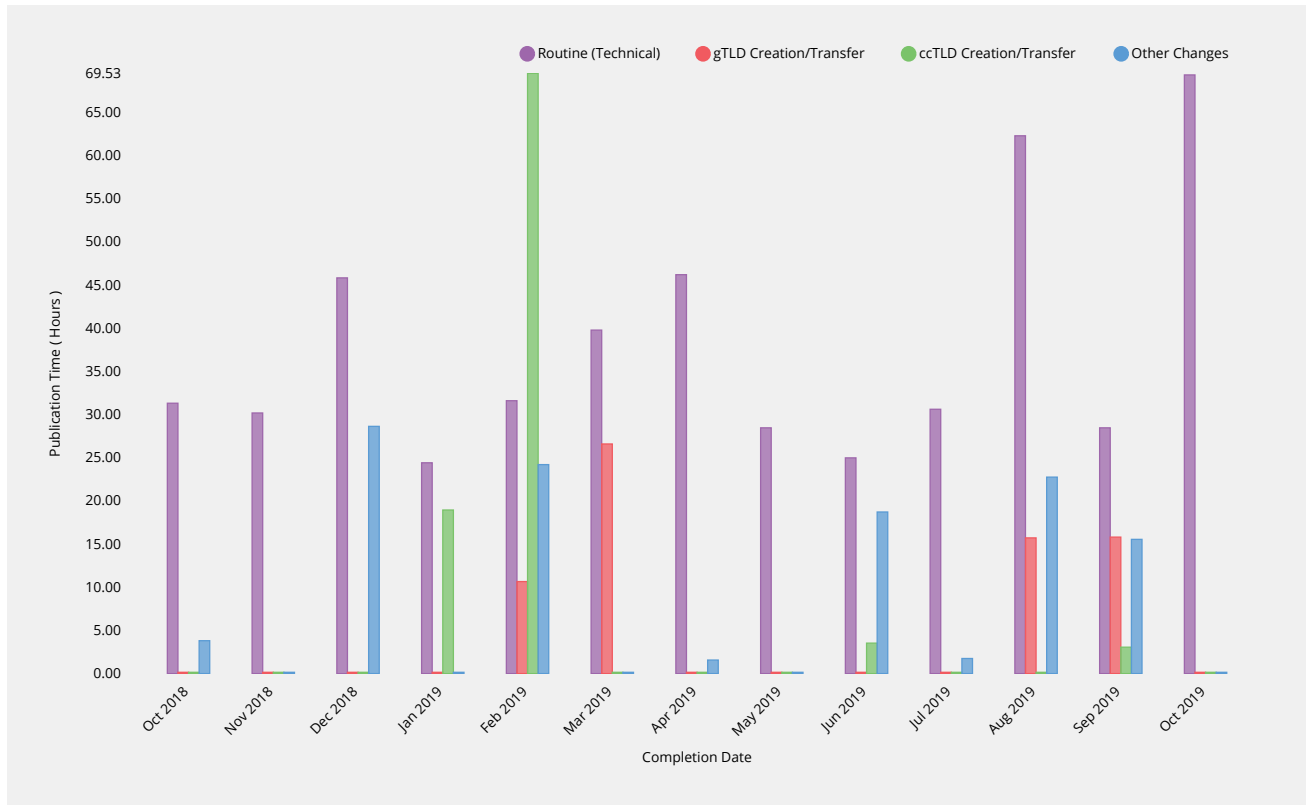


ccTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Processing Time	—	—	—	89.19d	89.2d	16.77d	—	21.55d	26.9d	—	—	18.8d	—
Request Count	0	0	0	1	1	1	0	1	1	0	0	1	0
Mean Time	—	—	—	89.19d	89.2d	16.77d	—	21.55d	26.9d	—	—	18.8d	—
Shortest Time	—	—	—	89.19d	89.2d	16.77d	—	21.55d	26.9d	—	—	18.8d	—
Longest Time	—	—	—	89.19d	89.2d	16.77d	—	21.55d	26.9d	—	—	18.8d	—
Median Time	—	—	—	89.19d	89.2d	16.77d	—	21.55d	26.9d	—	—	18.8d	—
PStDev Time	—	—	—	0d	0d	0d	—	0d	0d	—	—	0d	—

Implementation

Root Zone Publication

Time for root zone changes to be published following completion of validations and reviews by IANA Functions Operator.



Routine (Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Publication Time	31.32h	30.19h	45.84h	24.42h	31.61h	39.79h	46.21h	28.47h	24.99h	30.62h	62.3h	28.47h	69.35h
Monthly Threshold	72h	72h	72h	72h	72h	72h	72h	72h	72h	72h	72h	72h	72h
Threshold Percentile	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%
Publication Count	27	22	55	24	102	102	88	59	23	66	23	42	18
Mean Time	7.52h	14.24h	11.65h	8.7h	13.69h	16.29h	23.17h	19.57h	13.17h	12.85h	15.47h	8.88h	13.8h
Shortest Time	0.52h	1.1h	0.46h	0.61h	0.58h	0.32h	0.58h	0.79h	1.67h	0.44h	1.23h	0.64h	1.51h
Longest Time	31.64h	31.16h	64.82h	25.04h	32.12h	39.82h	46.21h	31.44h	25.03h	36.59h	66.99h	32.21h	71.38h
Median Time	6.01h	10.94h	12.72h	5.16h	11.9h	13.34h	14.95h	26.08h	16.81h	13.71h	14.19h	5.68h	5.05h
PStDev Time	8.47h	9.39h	11.18h	8h	8.75h	11.22h	15.9h	9.41h	8.01h	6.44h	14.45h	7.9h	19.63h

gTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Publication Time	—	—	—	—	10.66h	26.6h	—	—	—	—	15.72h	15.81h	—
Monthly Threshold	72h	72h	72h	72h	72h	72h	72h	72h	72h	72h	72h	72h	72h
Threshold Percentile	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%
Publication Count	0	0	0	0	1	1	0	0	0	0	1	1	0
Mean Time	—	—	—	—	10.66h	26.6h	—	—	—	—	15.72h	15.81h	—
Shortest Time	—	—	—	—	10.66h	26.6h	—	—	—	—	15.72h	15.81h	—
Longest Time	—	—	—	—	10.66h	26.6h	—	—	—	—	15.72h	15.81h	—
Median Time	—	—	—	—	10.66h	26.6h	—	—	—	—	15.72h	15.81h	—
PStDev Time	—	—	—	—	0h	0h	—	—	—	—	0h	0h	—

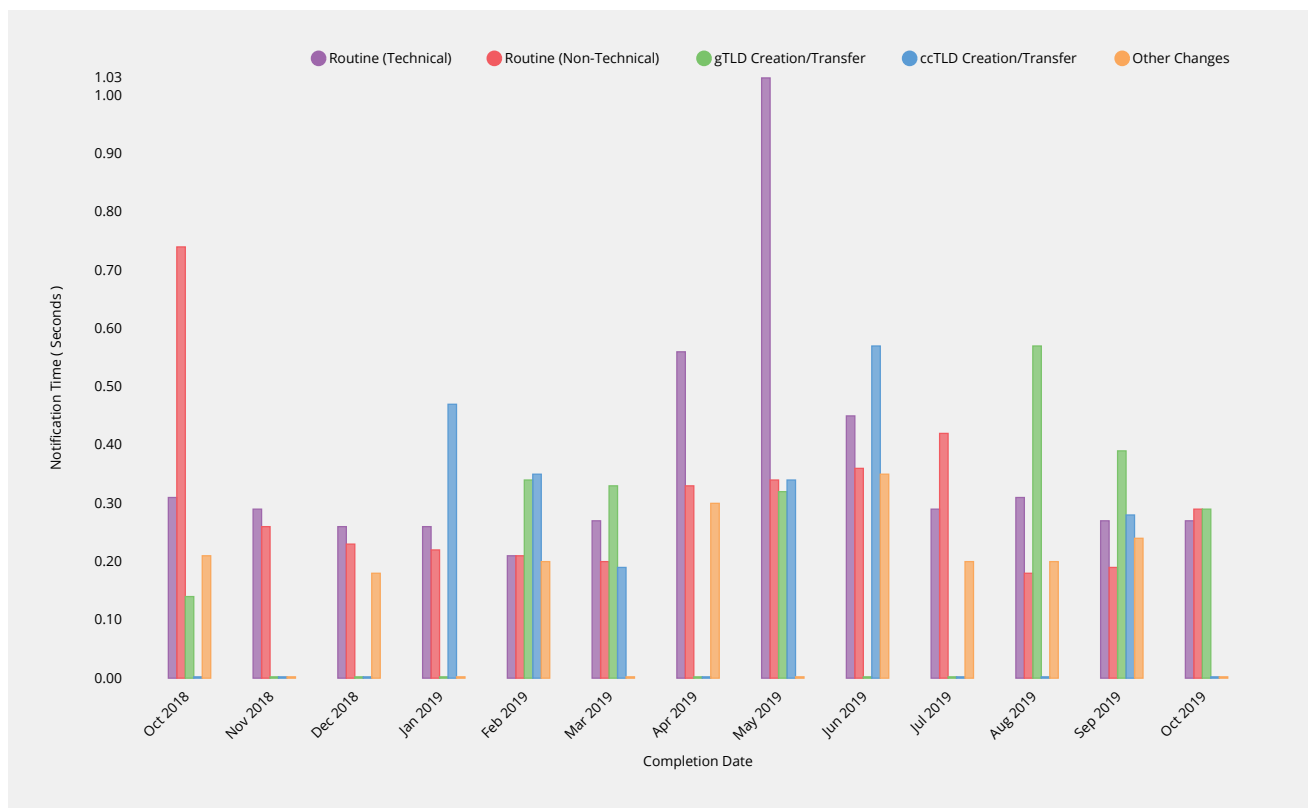
ccTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Publication Time	—	—	—	18.95h	69.53h	—	—	—	3.53h	—	—	3.06h	—

ccTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Monthly Threshold	72h	72h	72h	72h	72h	72h	72h	72h	72h	72h	72h	72h	72h
Threshold Percentile	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%
Publication Count	0	0	0	1	1	0	0	0	1	0	0	1	0
Mean Time	—	—	—	18.95h	69.53h	—	—	—	3.53h	—	—	3.06h	—
Shortest Time	—	—	—	18.95h	69.53h	—	—	—	3.53h	—	—	3.06h	—
Longest Time	—	—	—	18.95h	69.53h	—	—	—	3.53h	—	—	3.06h	—
Median Time	—	—	—	18.95h	69.53h	—	—	—	3.53h	—	—	3.06h	—
PStDev Time	—	—	—	0h	0h	—	—	—	0h	—	—	0h	—

Other Changes	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Publication Time	3.81h	—	28.64h	—	24.21h	—	1.57h	—	18.72h	1.75h	22.76h	15.55h	—
Monthly Threshold	0h	0h	0h	0h	0h	0h	0h	0h	0h	0h	0h	0h	0h
Threshold Percentile	—	—	—	—	—	—	—	—	—	—	—	—	—
Publication Count	2	0	1	0	4	0	1	0	1	1	5	3	0
Mean Time	2.09h	—	28.64h	—	13.74h	—	1.57h	—	18.72h	1.75h	11.16h	8.23h	—
Shortest Time	0.36h	—	28.64h	—	5.88h	—	1.57h	—	18.72h	1.75h	0.93h	4.56h	—
Longest Time	3.81h	—	28.64h	—	24.21h	—	1.57h	—	18.72h	1.75h	22.76h	15.55h	—
Median Time	2.09h	—	28.64h	—	12.44h	—	1.57h	—	18.72h	1.75h	10.88h	4.57h	—
PStDev Time	1.73h	—	0h	—	8.06h	—	0h	—	0h	0h	8.28h	5.18h	—

Notification of Completion

Time to notify requester of change completion following publication of requested changes.



Routine (Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Notification Time	0.31s	0.29s	0.26s	0.26s	0.21s	0.27s	0.56s	1.03s	0.45s	0.29s	0.31s	0.27s	0.27s
Monthly Threshold	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Notification Count	27	22	55	24	102	102	88	59	23	66	23	42	18
Mean Time	0.18s	0.19s	0.18s	0.18s	0.16s	0.16s	0.36s	0.58s	0.33s	0.16s	0.19s	0.16s	0.18s
Shortest Time	0.11s	0.14s	0.13s	0.14s	0.13s	0.13s	0.15s	0.19s	0.18s	0.12s	0.12s	0.12s	0.13s

Routine (Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Longest Time	0.41s	0.3s	0.3s	0.27s	1.14s	0.33s	0.59s	2.24s	0.46s	0.51s	0.33s	0.34s	0.3s
Median Time	0.16s	0.17s	0.16s	0.18s	0.15s	0.15s	0.39s	0.54s	0.33s	0.13s	0.18s	0.15s	0.17s
PStDev Time	0.07s	0.05s	0.04s	0.03s	0.1s	0.04s	0.16s	0.31s	0.08s	0.07s	0.05s	0.05s	0.04s

Routine (Non-Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Notification Time	0.74s	0.26s	0.23s	0.22s	0.21s	0.2s	0.33s	0.34s	0.36s	0.42s	0.18s	0.19s	0.29s
Monthly Threshold	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Notification Count	13	12	8	26	36	128	21	31	162	145	899	59	40
Mean Time	0.3s	0.2s	0.18s	0.19s	0.18s	0.17s	0.27s	0.28s	0.26s	0.24s	0.14s	0.16s	0.2s
Shortest Time	0.14s	0.15s	0.14s	0.14s	0.14s	0.13s	0.16s	0.17s	0.16s	0.12s	0.12s	0.13s	0.13s
Longest Time	1.18s	0.27s	0.25s	0.27s	0.43s	0.31s	0.36s	0.37s	0.53s	0.5s	0.26s	0.2s	0.39s
Median Time	0.21s	0.21s	0.17s	0.19s	0.18s	0.17s	0.29s	0.27s	0.27s	0.22s	0.14s	0.17s	0.19s
PStDev Time	0.27s	0.04s	0.03s	0.03s	0.05s	0.02s	0.06s	0.04s	0.06s	0.1s	0.02s	0.02s	0.06s

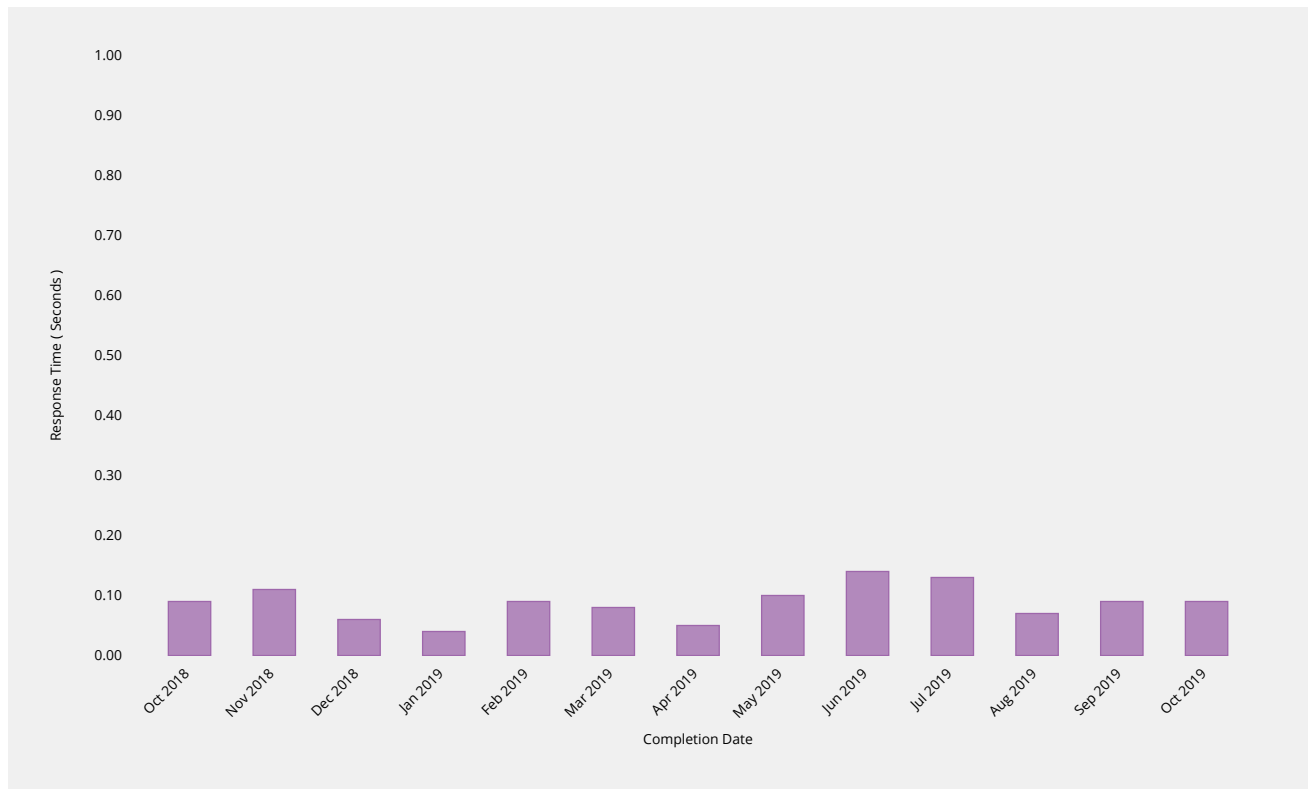
gTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Notification Time	0.14s	—	—	—	0.34s	0.33s	—	0.32s	—	—	0.57s	0.39s	0.29s
Monthly Threshold	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Notification Count	1	0	0	0	1	1	0	5	0	0	1	1	1
Mean Time	0.14s	—	—	—	0.34s	0.33s	—	0.28s	—	—	0.57s	0.39s	0.29s
Shortest Time	0.14s	—	—	—	0.34s	0.33s	—	0.24s	—	—	0.57s	0.39s	0.29s
Longest Time	0.14s	—	—	—	0.34s	0.33s	—	0.33s	—	—	0.57s	0.39s	0.29s
Median Time	0.14s	—	—	—	0.34s	0.33s	—	0.27s	—	—	0.57s	0.39s	0.29s
PStDev Time	0s	—	—	—	0s	0s	—	0.03s	—	—	0s	0s	0s

ccTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Notification Time	—	—	—	0.47s	0.35s	0.19s	—	0.34s	0.57s	—	—	0.28s	—
Monthly Threshold	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Notification Count	0	0	0	1	1	1	0	1	1	0	0	1	0
Mean Time	—	—	—	0.47s	0.35s	0.19s	—	0.34s	0.57s	—	—	0.28s	—
Shortest Time	—	—	—	0.47s	0.35s	0.19s	—	0.34s	0.57s	—	—	0.28s	—
Longest Time	—	—	—	0.47s	0.35s	0.19s	—	0.34s	0.57s	—	—	0.28s	—
Median Time	—	—	—	0.47s	0.35s	0.19s	—	0.34s	0.57s	—	—	0.28s	—
PStDev Time	—	—	—	0s	0s	0s	—	0s	0s	—	—	0s	—

Other Changes	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Notification Time	0.21s	—	0.18s	—	0.2s	—	0.3s	—	0.35s	0.2s	0.2s	0.24s	—
Monthly Threshold	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Notification Count	2	0	2	0	4	0	1	0	1	1	6	3	0
Mean Time	0.18s	—	0.16s	—	0.17s	—	0.3s	—	0.35s	0.2s	0.17s	0.19s	—
Shortest Time	0.16s	—	0.14s	—	0.15s	—	0.3s	—	0.35s	0.2s	0.15s	0.14s	—
Longest Time	0.21s	—	0.18s	—	0.21s	—	0.3s	—	0.35s	0.2s	0.2s	0.24s	—
Median Time	0.18s	—	0.16s	—	0.17s	—	0.3s	—	0.35s	0.2s	0.17s	0.18s	—
PStDev Time	0.03s	—	0.02s	—	0.03s	—	0s	—	0s	0s	0.02s	0.04s	—

Credential Recovery

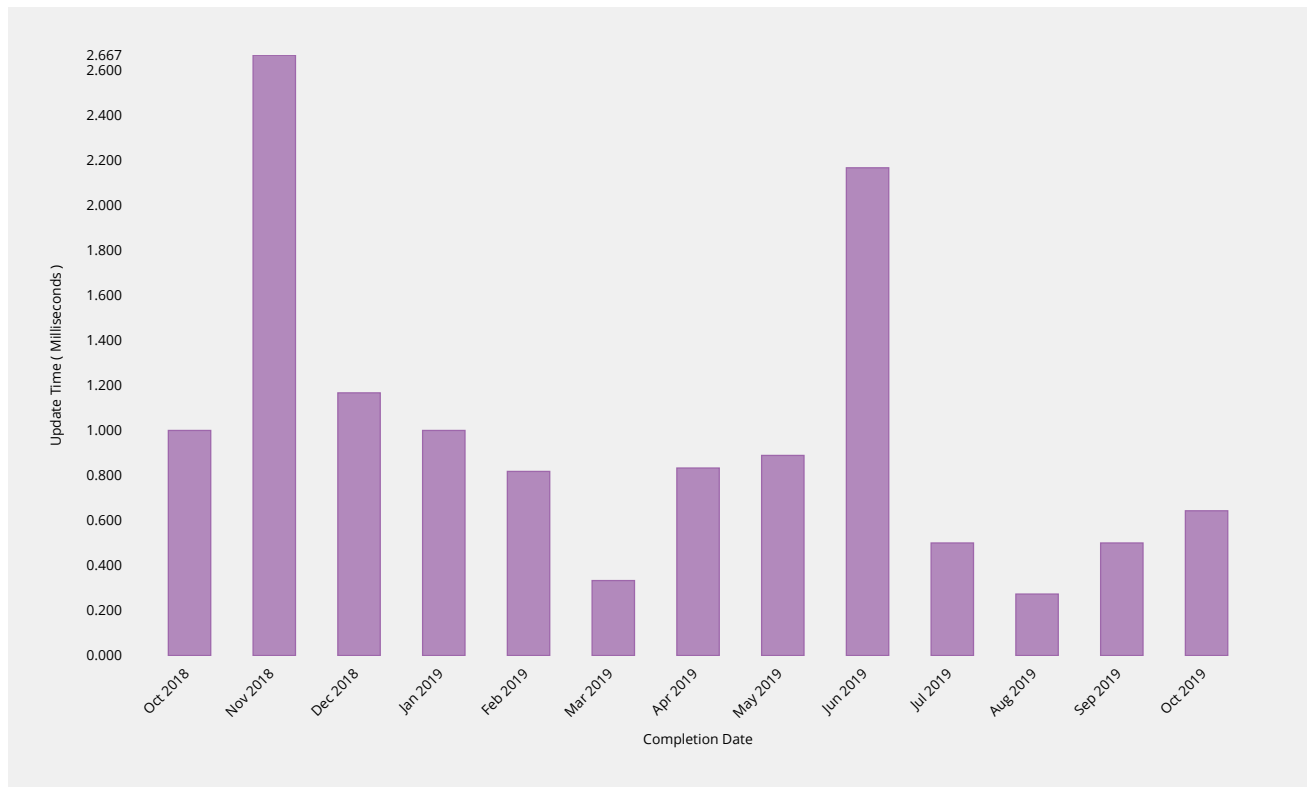
Time to dispatch confirmation email of forgotten password.



Credential Recovery Response	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Response Time	0.09s	0.11s	0.06s	0.04s	0.09s	0.08s	0.05s	0.1s	0.14s	0.13s	0.07s	0.09s	0.09s
Monthly Threshold	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Response Count	9	22	28	5	11	14	7	25	12	10	22	16	16
Mean Time	0.05s	0.03s	0.02s	0.04s	0.05s	0.04s	0.04s	0.03s	0.07s	0.06s	0.04s	0.05s	0.05s
Shortest Time	0.03s	0s	0s	0.04s	0.02s	0s	0s	0s	0s	0.02s	0.01s	0.03s	0.04s
Longest Time	0.09s	0.21s	0.07s	0.04s	0.09s	0.09s	0.06s	0.11s	0.15s	0.14s	0.07s	0.12s	0.1s
Median Time	0.04s	0.01s	0s	0.04s	0.04s	0.04s	0.04s	0.04s	0.07s	0.04s	0.04s	0.04s	0.05s
PStDev Time	0.02s	0.05s	0.02s	0s	0.02s	0.03s	0.02s	0.03s	0.05s	0.04s	0.01s	0.02s	0.02s

Credential Change

Time to implement new password within the system.

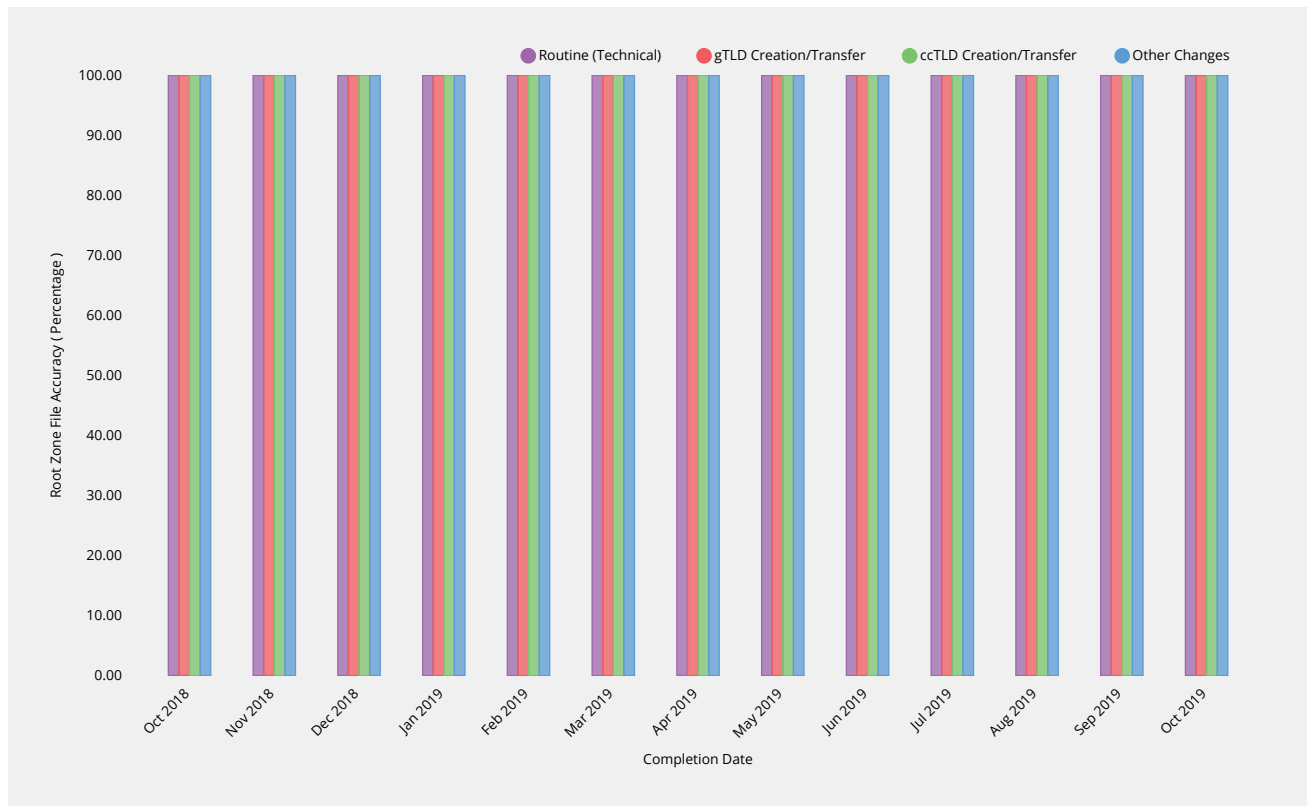


Credential Change	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Update Time	2ms	9.5ms	2.75ms	1ms	2ms	1ms	1.75ms	1.6ms	4ms	1.65ms	1ms	2ms	1.7ms
Monthly Threshold	300000ms	300000ms	300000ms	300000ms	300000ms	300000ms	300000ms	300000ms	300000ms	300000ms	300000ms	300000ms	300000ms
Threshold Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Update Count	6	6	6	3	11	9	6	9	6	8	22	16	14
Mean Time	1ms	2.667ms	1.167ms	1ms	0.818ms	0.333ms	0.833ms	0.889ms	2.167ms	0.5ms	0.273ms	0.5ms	0.643ms
Shortest Time	0ms	0ms	0ms	1ms	0ms	0ms	0ms	0ms	1ms	0ms	0ms	0ms	0ms
Longest Time	2ms	12ms	3ms	1ms	2ms	1ms	2ms	2ms	4ms	2ms	1ms	2ms	3ms
Median Time	1ms	1ms	1ms	1ms	1ms	0ms	1ms	1ms	1.5ms	0ms	0ms	0ms	0.5ms
PStDev Time	0.816ms	4.23ms	1.067ms	0ms	0.716ms	0.471ms	0.687ms	0.567ms	1.344ms	0.707ms	0.445ms	0.707ms	0.811ms

Accuracy

Root Zone File

Root zone file data published in the root zone matches that provided in the change request.



Routine (Technical)	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Accuracy	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Monthly Threshold	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Incident Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Request Count	27	22	55	24	102	102	88	59	23	66	23	42	18

gTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Accuracy	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Monthly Threshold	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Incident Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Request Count	1	0	0	0	1	1	0	5	0	0	1	1	1

ccTLD Creation/Transfer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Accuracy	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Monthly Threshold	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Incident Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Request Count	0	0	0	1	1	1	0	1	1	0	0	1	0

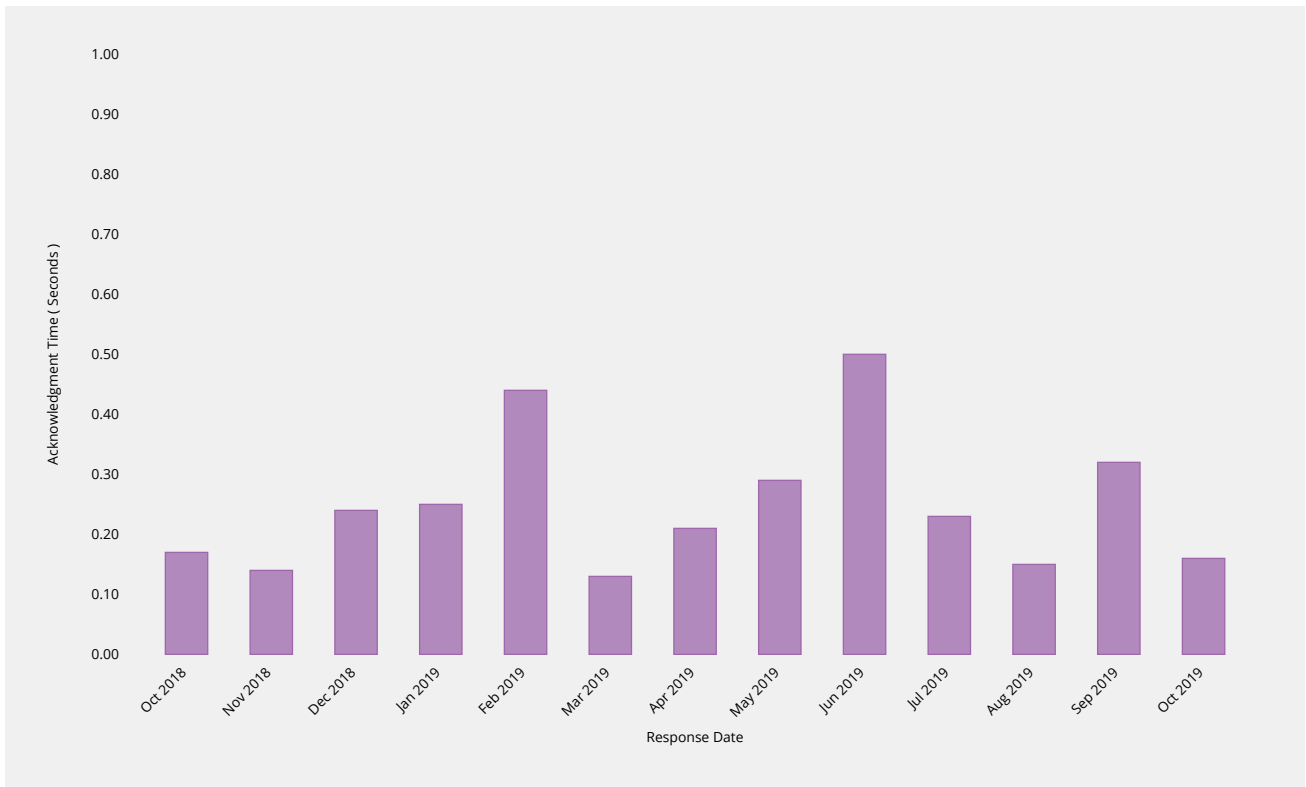
Other Changes	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Accuracy	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Monthly Threshold	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Incident Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Request Count	2	0	2	0	4	0	1	0	1	1	6	3	0

Other Changes	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Incident Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Request Count	2	0	2	0	4	0	1	0	1	1	6	3	0

Enquiry Processing

Time to acknowledge

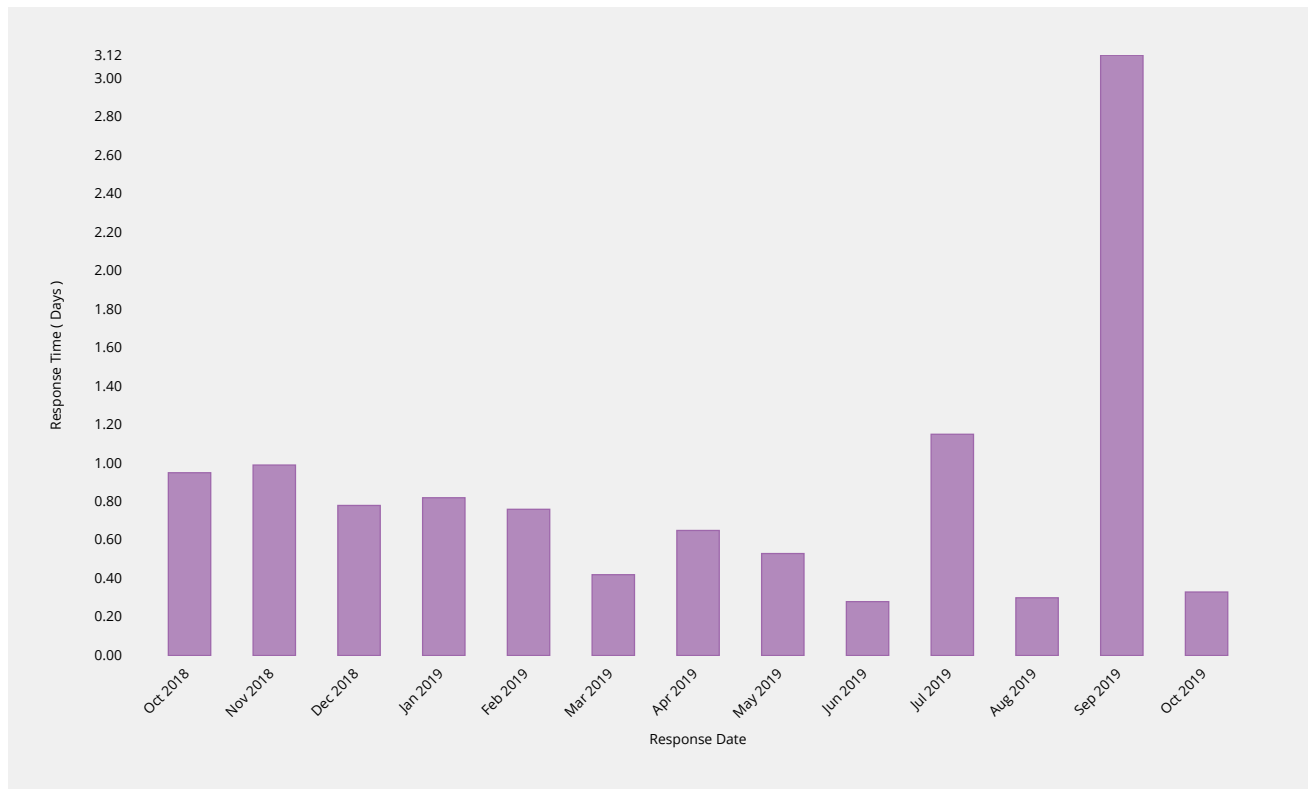
Time taken to send initial acknowledgement of a receipt of a general enquiry pertaining to root zone management but not pertaining to interactions in a change request context.



Manual Enquiries	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Acknowledgment Time	1s	1s	1s	1s	1s	1s	1s	1s	1.45s	1s	1s	1s	1s
Monthly Threshold	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s	60s
Acknowledge Percentile	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%
Acknowledgment Count	12	14	17	8	16	15	14	7	12	26	48	28	25
Mean Time	0.17s	0.14s	0.24s	0.25s	0.44s	0.13s	0.21s	0.29s	0.5s	0.23s	0.15s	0.32s	0.16s
Shortest Time	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s
Longest Time	1s	1s	1s	1s	1s	1s	1s	1s	2s	1s	1s	1s	1s
Median Time	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s	0s
PStDev Time	0.37s	0.35s	0.42s	0.43s	0.5s	0.34s	0.41s	0.45s	0.65s	0.42s	0.35s	0.47s	0.37s

Time to initial response

Time taken for staff to respond to enquiry, either in part or in whole.

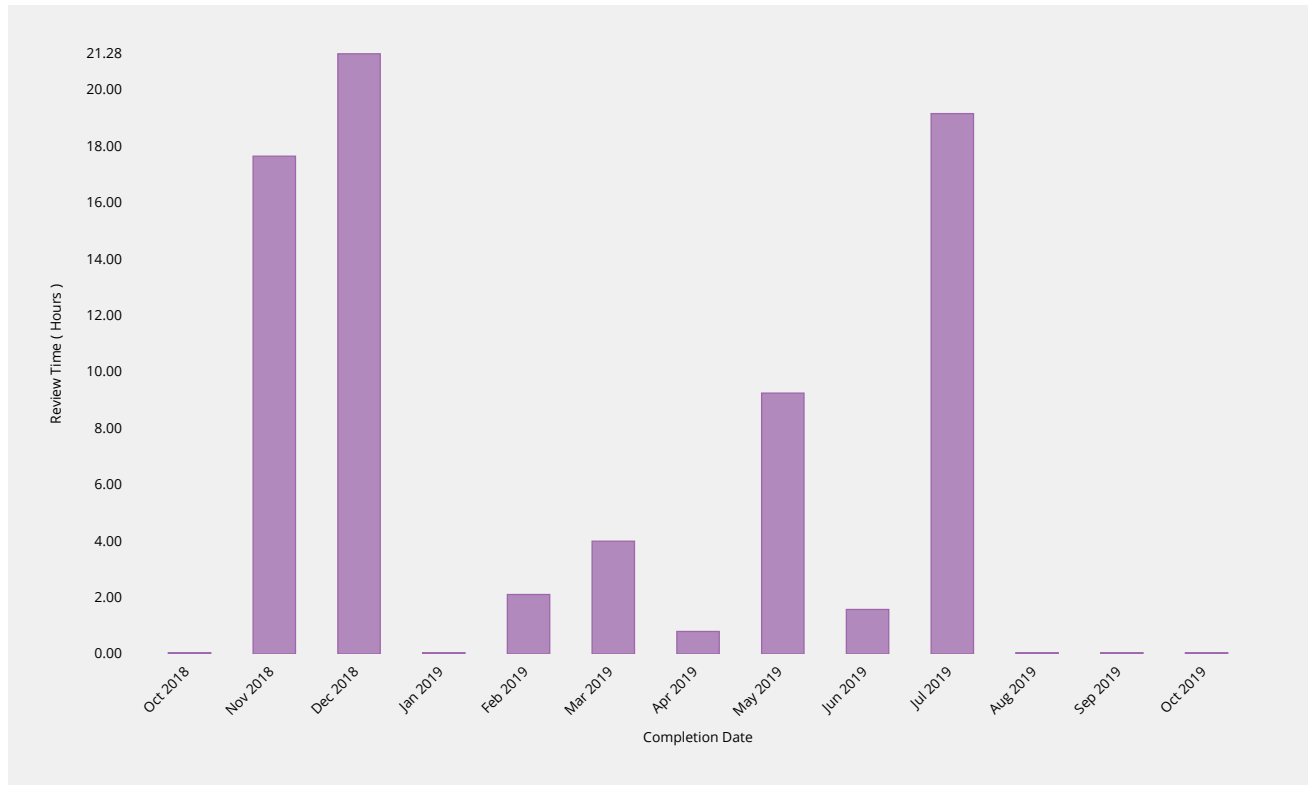


Manual Enquiries	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Response Time	2.95d	2.77d	1.91d	1.68d	2.15d	1d	1.16d	1.56d	0.47d	2.84d	0.75d	2.61d	0.78d
Monthly Threshold	5d	5d	5d	5d	5d	5d	5d	5d	5d	5d	5d	5d	5d
Threshold Percentile	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%
Request Count	11	15	17	7	16	12	17	7	9	29	40	30	21
Mean Time	0.95d	0.99d	0.78d	0.82d	0.76d	0.42d	0.65d	0.53d	0.28d	1.15d	0.3d	3.12d	0.33d
Shortest Time	0d	0.09d	0d	0.17d	0d	0d	0.01d	0d	0.04d	0.01d	0d	0d	0.01d
Longest Time	3.18d	3.04d	3.02d	1.96d	4.82d	1.33d	4.6d	2.95d	0.49d	11.23d	1.27d	41.11d	1.26d
Median Time	0.44d	0.46d	0.48d	0.62d	0.27d	0.27d	0.24d	0.05d	0.31d	0.28d	0.21d	0.3d	0.19d
PStDev Time	1.09d	1.04d	0.81d	0.64d	1.28d	0.39d	1.07d	1.01d	0.17d	2.14d	0.3d	9.56d	0.33d

Label Generation Rulesets

Review Time

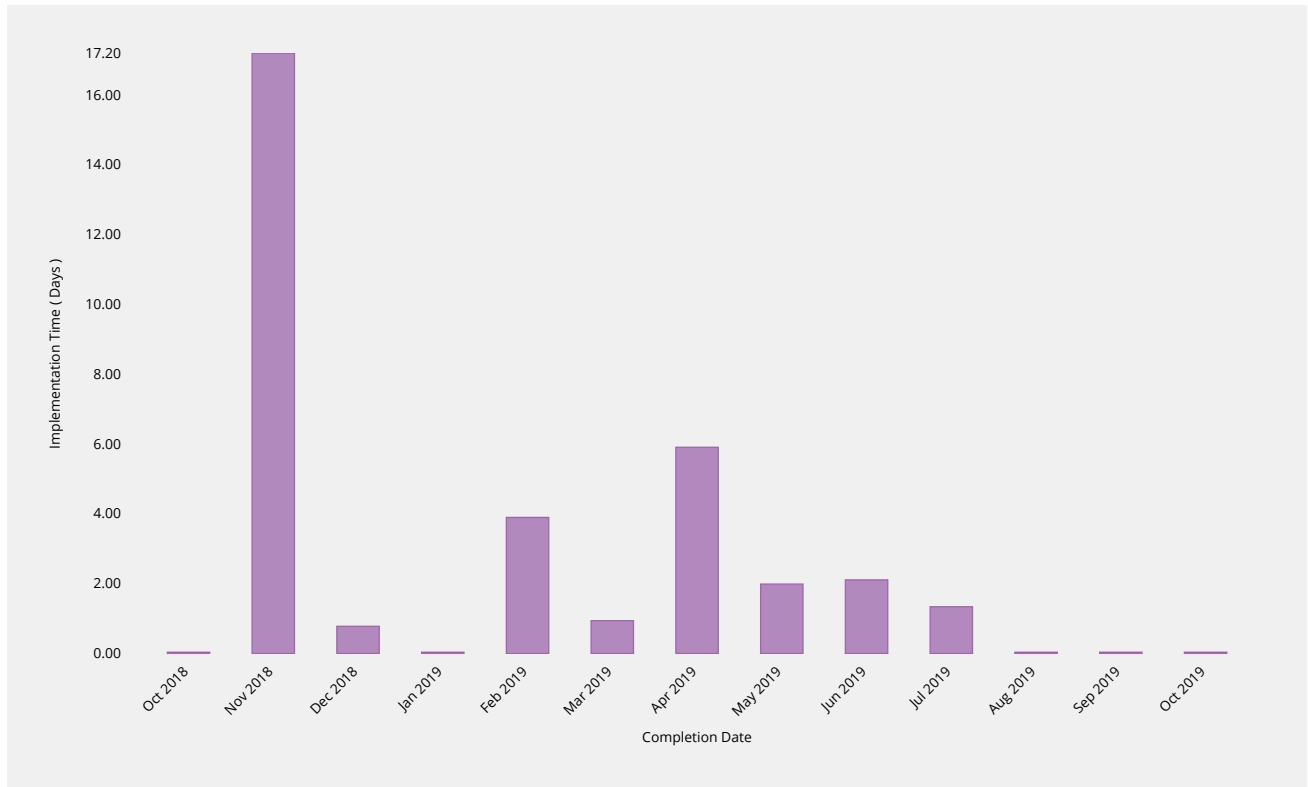
The time it takes for staff to review a submission and either agree that it is well-formed or send it back for remediation.



Review Time	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Mean Time	—	17.65h	21.28h	—	2.11h	4h	0.8h	9.25h	1.58h	19.16h	—	—	—
Monthly Threshold	0h	0h	0h	0h	0h	0h	0h	0h	0h	0h	0h	0h	0h
Review Count	0	8	3	0	2	2	1	10	2	2	0	0	0
Shortest Time	—	0.15h	0.13h	—	2.03h	0.63h	0.8h	0.5h	0.04h	18.96h	—	—	—
Longest Time	—	88.13h	53.35h	—	2.19h	7.38h	0.8h	44.07h	3.13h	19.35h	—	—	—
Median Time	—	6.08h	10.36h	—	2.11h	4h	0.8h	2.19h	1.58h	19.16h	—	—	—
PStDev Time	—	28.25h	23.06h	—	0.08h	3.38h	0h	13.68h	1.55h	0.19h	—	—	—

Implementation Time

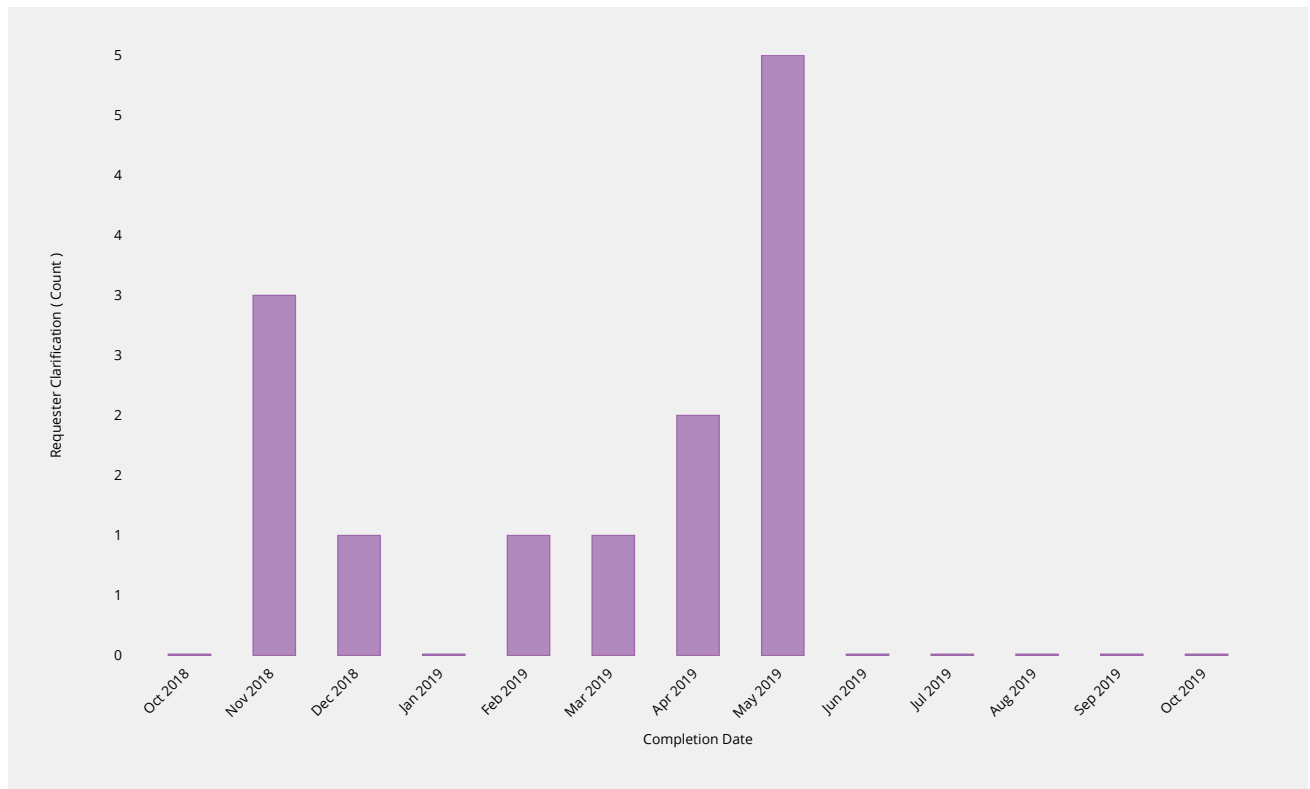
Time it takes for staff to publish a change once it meets all requirements.



Implementation Time	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Mean Time	—	17.2d	0.78d	—	3.9d	0.94d	5.91d	1.99d	2.11d	1.34d	—	—	—
Monthly Threshold	0d	0d	0d	0d	0d	0d	0d	0d	0d	0d	0d	0d	0d
Request Count	0	5	2	0	1	1	1	5	2	2	0	0	0
Shortest Time	—	0.33d	0.39d	—	3.9d	0.94d	5.91d	0.22d	0.67d	1.34d	—	—	—
Longest Time	—	41.57d	1.17d	—	3.9d	0.94d	5.91d	3.09d	3.56d	1.34d	—	—	—
Median Time	—	5.16d	0.78d	—	3.9d	0.94d	5.91d	3.09d	2.11d	1.34d	—	—	—
PStDev Time	—	18.77d	0.39d	—	0d	0d	0d	1.35d	1.44d	0d	—	—	—

Requester Clarification

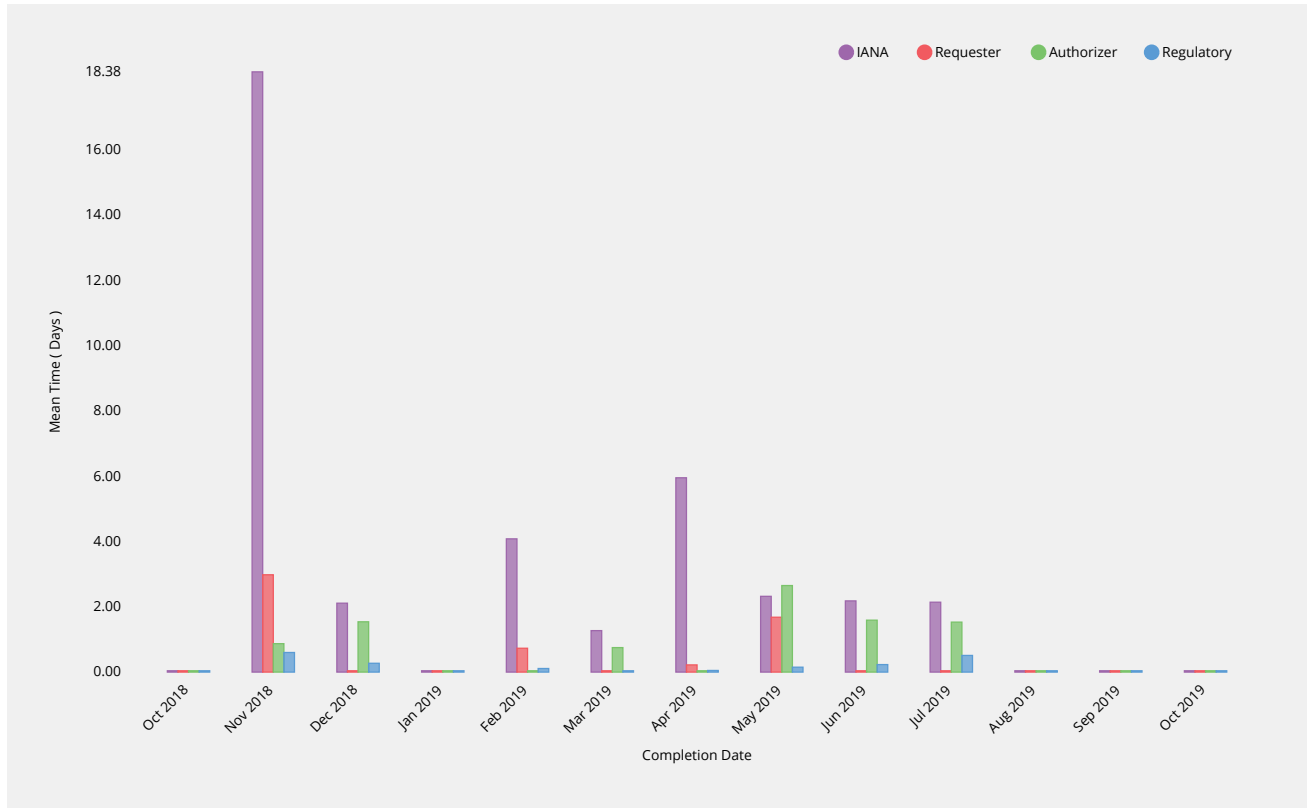
The number of times a clarification or remediation was required from the requester.



Requester Clarification	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Count	—	3	1	—	1	1	2	5	0	0	—	—	—
Request Count	0	5	2	0	1	1	1	6	2	2	0	0	0
Shortest Clarification	—	0	0	—	1	1	2	0	0	0	—	—	—
Longest Clarification	—	1	1	—	1	1	2	2	0	0	—	—	—

Time per Actor

Average time taken for staff processing, requester clarification, administrative contact authorization and regulatory checks.



IANA	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Mean Time	—	18.38d	2.11d	—	4.08d	1.27d	5.95d	2.32d	2.18d	2.14d	—	—	—
Review Count	0	5	2	0	1	1	1	6	2	2	0	0	0
Shortest Time	—	0.33d	1.6d	—	4.08d	1.27d	5.95d	0.14d	0.8d	2.13d	—	—	—
Longest Time	—	41.94d	2.62d	—	4.08d	1.27d	5.95d	3.18d	3.56d	2.15d	—	—	—
Median Time	—	9.26d	2.11d	—	4.08d	1.27d	5.95d	3.11d	2.18d	2.14d	—	—	—
PStDev Time	—	18.71d	0.51d	—	0d	0d	0d	1.21d	1.38d	0.01d	—	—	—

Requester	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Mean Time	—	2.98d	0d	—	0.73d	0.02d	0.22d	1.68d	—	—	—	—	—
Review Count	0	3	1	0	1	1	1	3	0	0	0	0	0
Shortest Time	—	0d	0d	—	0.73d	0.02d	0.22d	0.02d	—	—	—	—	—
Longest Time	—	8.83d	0d	—	0.73d	0.02d	0.22d	4.88d	—	—	—	—	—
Median Time	—	0.12d	0d	—	0.73d	0.02d	0.22d	0.13d	—	—	—	—	—
PStDev Time	—	4.13d	0d	—	0d	0d	0d	2.27d	—	—	—	—	—

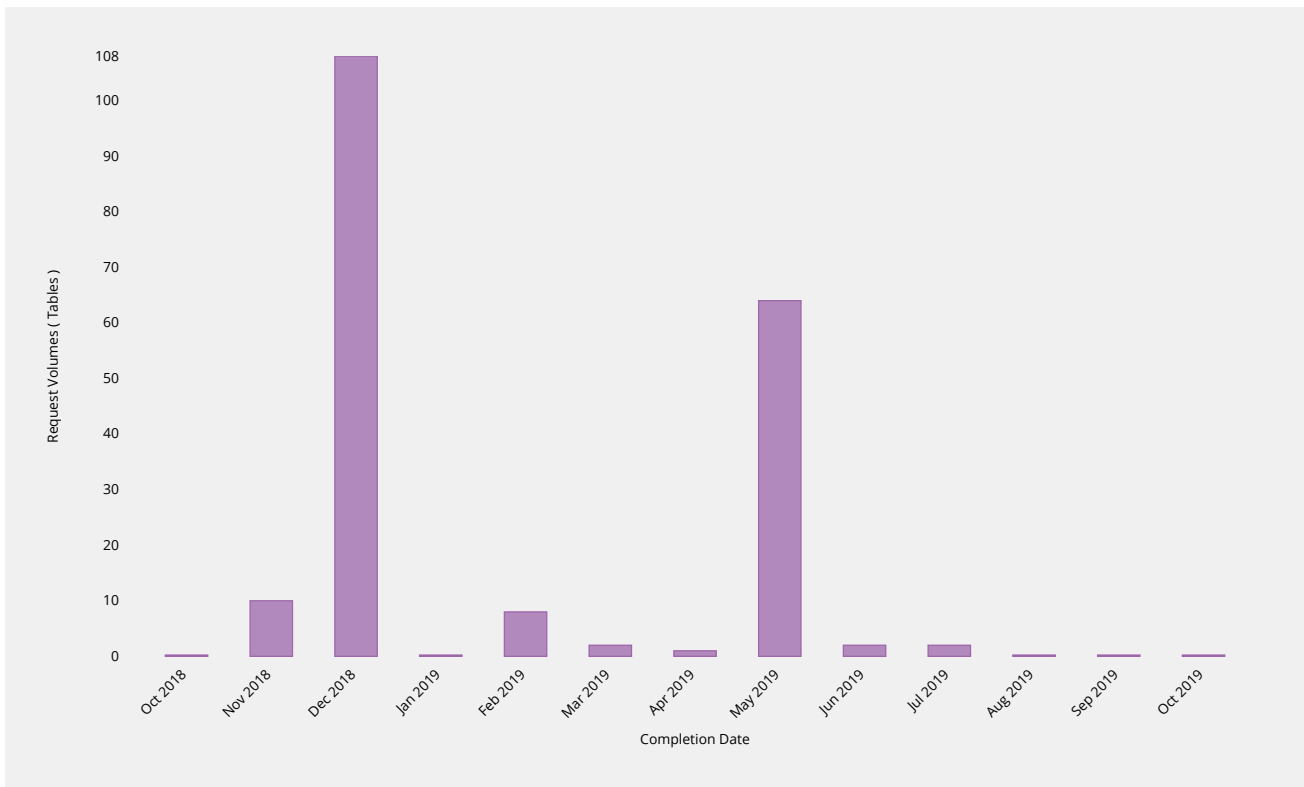
Authorizer	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Mean Time	—	0.87d	1.54d	—	0.03d	0.75d	0.04d	2.65d	1.59d	1.53d	—	—	—
Review Count	0	5	2	0	1	1	1	5	2	2	0	0	0
Shortest Time	—	0.01d	0.69d	—	0.03d	0.75d	0.04d	0d	0.02d	1.53d	—	—	—
Longest Time	—	3.6d	2.4d	—	0.03d	0.75d	0.04d	3.87d	3.16d	1.53d	—	—	—
Median Time	—	0.06d	1.54d	—	0.03d	0.75d	0.04d	3.87d	1.59d	1.53d	—	—	—
PStDev Time	—	1.38d	0.85d	—	0d	0d	0d	1.58d	1.57d	0d	—	—	—

Regulatory	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Mean Time	—	0.6d	0.27d	—	0.11d	0d	0.05d	0.15d	0.23d	0.51d	—	—	—

Regulatory	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Review Count	0	5	2	0	1	1	1	5	2	2	0	0	0
Shortest Time	—	0d	0.01d	—	0.11d	0d	0.05d	0.01d	0.11d	0.51d	—	—	—
Longest Time	—	2.35d	0.53d	—	0.11d	0d	0.05d	0.65d	0.34d	0.51d	—	—	—
Median Time	—	0.24d	0.27d	—	0.11d	0d	0.05d	0.01d	0.23d	0.51d	—	—	—
PStDev Time	—	0.88d	0.26d	—	0d	0d	0d	0.25d	0.11d	0d	—	—	—

Request Volumes

Total number of LGRs added or modified.



Request Volumes	2018-10	2018-11	2018-12	2019-01	2019-02	2019-03	2019-04	2019-05	2019-06	2019-07	2019-08	2019-09	2019-10
Total LGRs Processed	—	10	108	—	8	2	1	64	2	2	—	—	—
Request Count	0	5	2	0	1	1	1	5	2	2	0	0	0
Average LGRs per Request	—	2	54	—	8	2	1	13	1	1	—	—	—
Smallest per Request	—	1	4	—	8	2	1	1	1	1	—	—	—
Largest per Request	—	3	104	—	8	2	1	20	1	1	—	—	—

Definitions

Service Definitions

While there are many different ways change requests can be categorized, the key areas of distinction between different processing types for the purposes of metrics are as follows:

- **Category I (Routine updates impacting Root Zone File)** — Routine change requests that alter the technical data published in the DNS root zone (e.g. changes to NS records, DS records and glue records) . For these changes the process requires IANA, both pre- and post-transition, to engage third parties to implement, publish and distribute changes in the root zone file.
- **Category II (Routine updates not impacting Root Zone File)** — Routine change requests that do not alter the DNS root zone file (e.g. contact data and metadata). These changes do not engage third parties as part of implementation, and therefore will have a materially different processing timeframe.
- **Category III (Creating or Transferring a gTLD)** — Requests to create (“delegate”) or transfer (“redelegate” or “assign”) a generic top-level domain. These changes require additional processing by IANA to ensure policy and contractual requirements are met associated with a change of control for the TLD. While the key processing is performed elsewhere within ICANN, the IANA processing is significant and therefore distinguishes this type of request from a routine change request.
- **Category IV (Creating or Transferring a ccTLD)** — Requests to create or transfer a country-code top-level domain. These changes require additional processing by IANA to ensure policy requirements are met. This processing is performed by IANA staff, and includes performing additional analysis on the change request, producing a report, and having that report reviewed externally (including verification that all existing registration data has been successfully transferred from the old to new Registry operator). This processing is significant, and is normally substantially longer than a routine change request, and therefore should be distinguished.
- **Category V (Other change requests)** — Other non-routine change requests. IANA is required to process change requests that may have special handling requirements, or require additional documentary evidence or additional clarifications from the customer or third parties, that do not afford them the ability to automate. These scenarios include, but are not necessarily limited to:
 - i. Customers that require requests to be handled outside the online self-service platform, such as those lodging change requests through the exchange of postal mail;
 - ii. Customers that have placed special handling instructions on file with IANA, or have otherwise asked for special handling for a request that deviates from the normal process, that must be executed manually by IANA staff;
 - iii. Unique legal or regulatory encumbrances that must be satisfied that require additional processing;
 - iv. Removing a TLD from service (e.g. retirement or revocation);
 - v. Changes that relate to the operation of the root zone itself, including changing the Root Key Signing Key, altering the set of authoritative name servers for the root zone (e.g. the “root servers”), and changes to the “root hints” file.

Field Definitions

The fields in the preceding tables are as follows:

- **Process.** The business process that IANA is requested to perform.
- **Metric.** The individual metric that will be measured as part of the completion of the business process.
- **Target.** The specified target for each individual change request.
- **Type.** Whether the target specified is a minimum target (compliance must not be less than the target) or a maximum target (compliance must not be more than the target).
- **Breach.** The percentage limit of change requests within the specified period that fail to meet the metric, which if reached is deemed a breach in the SLE.
- **Period.** The period over which SLE compliance is measured.

Addendum

One TLD submitted a change request that had multiple issues with their proposed technical configuration. Testing this configuration repeatedly failed all the minimum technical checks, and the test runs were repeated 47 times during the course of the month. The exception derived from the compounded time spent waiting for responses from name servers that were ultimately unreachable for each of the technical check runs. We will explore how to further refine how the technical checks are performed to reduce the end-to-end processing time for unresponsive name servers, by improving algorithms to quickly identify servers as unreachable and then not retrying them later in an individual tech check test run.