Technical Check Thresholds Change Analysis

The Internet Corporation for Assigned Names and Numbers (ICANN), Public Technical Identifiers (PTI) and the Customer Standing Committee (CSC) worked together to develop the "Process for Amending the IANA Naming Service Level Agreements". This process is a guide for determining SLA changes and provides a method for doing so, with appropriate consultation and agreement levels. It also contains safeguards and mechanisms to ensure that due diligence is followed when making changes to the SLAs. None of the requirements in this process overrides any of the obligations within the IANA Naming Functions Contract.

The process requires that "If the CSC and PTI reach a mutual decision to proceed with the SLA change, PTI should draft a change recommendation, which includes an impact analysis that expands with further detail based on their earlier discussions during the 'procedure for determining that a SLA needs amending' stage." Per this requirement, PTI is providing the following analysis and requests that ICANN, PTI and the CSC agree to amend the following metrics:

1. Technical Check – Retest: Time to return results for subsequent performance of technical checks during retesting due to earlier failed tests
2. Technical Check – Supplemental: Time to return results for performance of technical checks during supplemental technical check phase

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BACKGROUND BEHIND REQUEST FOR SLA CHANGE

The initial SLAs in the IANA Naming Function contract were determined using operational data provided by IANA. While the sample contained a significant amount of data, it only covered 6-7 months' worth of data and was not comprehensive enough to encompass every data point for every type of request.

The CSC observed early on that some of the initial SLAs were set at a lower rate than historical trends. The CSC took into account the needs of the naming customers they represent, and the over three (3) years of operational data available on the SLE Dashboard and determined that the Technical Check SLAs needed to be adjusted, recommending a new threshold.

The CSC initiated the SLA change request for the Technical Checks, with ICANN and PTI in agreement.

SYNOPSYS OF REQUSTED CHANGE

The technical check metrics relate to time spent waiting for responses from nameservers that ultimately are unreachable (i.e. time waiting to timeout, multiplied by retries.) These SLAs have been continually and sporadically missed and it was determined that the threshold was set lower than actual historical trends available at the time of the IANA stewardship transition.

A guiding principle of the SLAs is that the time and performance being measured should be accurately attributed to the party responsible. Therefore, an SLA should not be missed by PTI if the delays were

caused by a customer's misconfigured nameservers. The CSC, PTI and ICANN agreed that the missed Technical Check SLAs were attributed to PTI's customer data, and therefore were beyond PTI's control.

CURRENT AND PROPOSED SLA THRESHOLDS

Metric	Current SLA	Actual Performance	Adjusted SLA	Explanation	Implementation Details
Technical Check – Retest	3 minutes	3-8 minutes	10 minutes	No impact on customer and better reflection of historical trend	The SLA Dashboard is already tracking this SLA; however, PTI will need time to apply the new threshold and update the monthly report.
Technical Check - Supplemental	1 minute	3-8 minutes	10 minutes	No impact on customer and better reflection of historical trend	The SLA Dashboard is already tracking this SLA; however, PTI will need time to apply the new threshold and update the monthly report.

CHANGE CATEGORY

SLA AMENDMENT CATEGORY	
	i. New SLA
	ii. Remove SLA
	iii. Change to SLA definition and target/threshold
X	iv. Change SLA Item target/threshold only

IMPACT ANALYSIS

The SLA change process states that an SLA change request should also include an analysis of "impact on potential resources, budget requirements following the PTI and ICANN budgetary processes, and an implementation plan per the PTI and/or ICANN implementation process, should the SLA changes be approved. Prior to moving forward with the recommendation, the CSC and PTI should agree on how PTI can support the implementation of the draft SLA change recommendation. PTI and/or ICANN shall publicly post the draft SLA change recommendation will be based on, and after impact completion of this analysis." The following section provides an impact analysis per this requirement:

Benefit to the Community
Accurate SLA metrics help the community determine reasonable expectations for when an activity will be completed. Adjusting metrics to represent the accurate processing time averages that satisfy the naming customer's requirements, will set clearer expectations for customers, reduce static of meaningless outliers, and increase our ability to detect real systemic issues. The 'Technical Check – Retest' and 'Technical Check – Supplemental' SLA adjustments reflect years of historical data and take into account that the old threshold was missed by the automation system due to misconfigured name servers. Adjusting these SLAs will not result in any degradation of PTI's services.
Feasibility of Implementation
This change impacts the SLE Dashboard and the PTI Monthly Naming Performance report. Updating both can be completed in-house by PTI staff development resources. There are no further implementation requirements or feasibility risks.
Budget Requirements
Resetting the threshold within the SLE Dashboard and the PTI Monthly Naming Performance report will take two (2) business days one (1) developer's time.
Risk Analysis
No risks have been identified.

PTI IMPLEMENTATION PLAN
Resetting the threshold within the SLE Dashboard and the PTI Monthly Naming report will take two (2) business days of one (1) developer's time. As for implementation time, PTI commits to implementing the change within one (1) calendar month of the SLA modification approval (implementation period). The new SLAs will become effective on the first of the calendar month following the implementation period. To implement this change, PTI will follow internal processes to schedule development time to make the coding changes, test the changes, and deploy an updated SLE Dashboard and report generation tool to reflect the changes.

NEXT STEPS FOR CATEGORY iv. CHANGE

Step	PROCESS REQUIREMENT	STATUS
1.	SLA change request distributed to the CSC and PTI	Completed
2.	Request Analysis (this document qualifies) completed and distributed to the CSC, PTI and ICANN	Completed
3.	The CSC, PTI and ICANN discuss whether to proceed and one of the entities summarizes the results in writing for all the other parties. Results: If either party decides not to proceed, the process ends, and the SLA is not amended. OR If all parties decide to proceed, continue to the next step.	
4.	Impact Analysis completed by PTI and posted by PTI/ICANN for community access	
5.	The CSC circulates the SLA Change Request to its stakeholders.	
6.	PTI implements the SLA changes in accordance with the implementation plan provided earlier in the process for the final SLA change recommendation. New SLAs are effective on the first of the calendar month following the implementation period.	
7.	ICANN and PTI update the SLA Tables on the PTI SLA webpage. Upon the effective date of the SLA change, the previous SLA will be archived on the SLA webpage.	