**Retry Timers and Intervals**

*Submitted By: NPIF*

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*Version: 1*

**Version History:**

This Best Practice was created by the LNPA WG (now known as the NPIF – Number Portability Industry Forum) and originally accepted on 05/06/2019 (Version 1). It was reviewed again at the 02/08/2023 NPIF where consensus was reached that no changes were required

**Background:**

The Industry, through a series of discussions (dating back approximately 20+ years), concluded that the appropriate retry attempts for messages on the interface that have not been acknowledged by the other side and time interval in minutes between retries would be 1x15 due to messages not lost on interface so retries are not necessitated (“retry’ attempts is a bit of a misnomer - it really means total message send attempts and includes the initial attempt plus any retries). This has been the adopted methodology prior to Transition. Post Transition it was observed that at least one local system is not replicating the NPAC behavior and has chosen to continue to implement the original retry attempts and time interval of 3x5. This does not take advantage of the reduced messaging. See also PIM 122.

**Documentation Referenced:**

[PIM 122 – Retry Timer Intervals v2](https://workinggroup.numberportability.com/documents/5589/PIM_122_-_Retry_Timer_intervals_v2.doc)

**Recommend Change to Requirements:**

Modify FRS to reflect current default values. This is assumed to be a “Doc-Only” change for informational purposes only given the default settings have been the updated values across all regions prior to and after the transition of the NPAC to iconectiv in 2018.

**Decisions/Recommendations:**

The “x by y” retry functionality (where “x” is the number of attempts, and “y” is the interval in number of minutes in between attempts) utilized by the local systems should be in alignment with the agreed to and documented values utilized by the NPAC SMS. If the SOA or LSMS retries faster than the NPAC can process the request, redundant requests are queued which exacerbates the problem and may result in timeouts and failures. This is more likely to occur when the NPAC is processing data intensive requests under heavy loads.

Service Providers should utilize the recommended Retry Timer Intervals documented in the Functional Requirements Specification (FRS) – Appendix C – System Tunables.

In addition utilizing a single retry timer (i.e. 1 x 15 timer) instead of multiple retries would eliminate unnecessary retries and additional traffic to a local system when NPAC is processing and responding to a previous data-intensive request.