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| **Issue Title:** | **Update procedures in ATIS-1000087, “Mechanism for Initial Cross-Border Signature-based Handling of Asserted information using toKENs (SHAKEN)”** |

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| **Forum/Committee:** | **IPNNI** | **Issue Number:** | **S0165** |
| **Committee/Subcommittee Assigned:** | **IPNNI** | **Issue Status:** | **Active** |
| **Submission Date:** | **3/13/2023** | **Initial Closure/Initial Pending Date:** |  |
| **Acceptance Date:** | **3/16/2023** | **Target Date for Moving Issue to Final From Initial Closure or Initial Pending**: |  |
| **Targeted Resolution Date:** | **9/30/2023** | **Final Closure Date:** |  |

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| **Issue Statement/Business Need:** |
| **ATIS-1000087 proposed an initial mechanism to support cross-border SHAKEN at a time when the U.S. was the only country deploying SHAKEN. Today, SHAKEN has been deployed, or is being deployed, in several countries, and initial consideration is being given to establishing cross-border trust. This has identified areas where the initial specification is incomplete or unnecessarily complex, necessitating a revision to ATIS-1000087 to provide a complete set of requirements for use. Specifically, the cross-border procedures defined in ATIS-1000087 have two issues.**  **First, the published procedures don’t describe how a verification service checks the revocation status of a cross-border STI Certificate. The procedures simply say that the cross-border STI-PAs exchange CRLs, without specifying how a verification service would access those CRLs.**  **Second, ATIS-1000087 mandates that when a SHAKEN cross-border agreement is established, each STI-PA will merge Trusted STI-CA Lists onto its local Trusted STI-CA List. The advantage of this approach is the STI-PA does all the heavy lifting, and Service Provider verification services are not impacted. However, having these merged lists may create a problem if an STI-PA shares its merged list with a cross-border STI-PA, where all such mutual agreements have not yet been established.** |
| **Suggested Solution:** |
| **Document the technical requirements for cross-border SHAKEN and develop a document that meets those technical requirements. The leading proposal to resolve the first (CRL) issue is to not exchange cross-border CRLs, but instead have cross-border STI-PAs share the root certificates used to sign their CRL. This will enable RFC-5280-compliant verification services to download and verify cross-border CRLs. Also, cross-border STI-PAs could share their CRL URLs for the benefit of verification services that may want to establish a cross-border CRL polling function that runs separately from its verification services.**  **The leading proposal to resolve the second (Trusted STI-CA List) issue is like the above CRL issue proposal. Cross-border STI-PAs don’t exchange and merge cross-border Trusted STI-CA Lists but instead exchange the URL to their Trusted STI-CA List. Each STI-PA then distributes the URL to its locally hosted Trusted STI-CA List plus the URLs for all exchanged Trusted STI-CA Lists to all local Service Provider verification services so they can download the lists directly. Verification services validate the cross-border Trusted STI-CA List using the same STI-PA root certificate that is used to verify the cross-border CRL.**  **The solutions will add consideration for certificate transparency logs.** |
| **Resolution Statement:** *To be provided at the publication of the deliverable or Initial/Final Closure of the Issue (e.g., the publication of ATIS-1000025 provides the Resolution to this Issue).* |
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| **Associated Committees/Issues:** *Identify other impacted or relevant groups and/or Issues that may have an interest in or are related to this topic, including groups with whom correspondence should be sent to communicate this Issue.* |
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| **Related areas of consideration for the solution to be complete and implementable by the industry:** *Consider functional platform; interoperability; performance, reliability, and security; OAM&P; ordering and billing; user interface work and environmental sustainability.* |
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| **Is the solution/deliverable anticipated to be an American National Standard?** |
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**Issue Champion(s):**

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**Activity Log:** The meeting date and document number of the relevant meeting record(s).

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| **Date** | **Meeting Record (Document Number)** |
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