



Internet Society Canada Chapter

Internet Society Canada Chapter (ISCC)

Feb 8th, 2020

File No. 8638-M75-202008953

Subject: Application Requesting that the Commission instruct the Canadian Secure Token Governance Authority to allow all LECs to participate in STIR/SHAKEN Application Requesting that the Commission instruct the Canadian Secure Token Governance Authority to allow all LECs to participate in STIR/SHAKEN

- 1) The Internet Society Canada Chapter (ISCC) is a not-for-profit corporation that engages in internet legal and policy issues to advocate for an open, accessible, and affordable internet for Canadians. An open internet means one in which ideas and expression can be communicated and received except where limits have been imposed by law. An accessible internet is one where all persons and all interests can freely access websites that span all legal forms of expression. An affordable internet is one by which all Canadians can access internet services at a reasonable price.
- 2) ISCC is fully aware of the impact that fraudulent and nuisance calls have on Canadians and we applaud the CRTC for pushing forward technological solutions to these problems. When fully implemented, SHAKEN/STIR will reduce the impact of fraudulent calls on Canadians and allow for easier investigation and traceback of calls to the originating party.
- 3) ISCC intervenes in this proceeding because the application by Mitel Cloud Services, Inc. (Mitel) highlights a serious issue with the current implementation of SHAKEN/STIR by the Canadian Secure Token Governance Authority (CST-GA)
- 4) As noted by Mitel in paragraph 12 of the application the CST-GA has mandated that only carriers who directly obtain telephone number resources from the Canadian Numbering Administrator (CNAC) will be issued certificates and permitted to sign calls with full attestation.
- 5) There are over 1200 entities registered with the CRTC as Resellers of Telecommunications Services¹. These resellers provide valuable telecommunications services to Canadians, including services such as business Hosted PBX platforms, residential over the top products, and others innovative voice services. Many of these TSPs do not have their own

¹ https://applications.crtc.gc.ca/telecom/eng/registration-list?_ga=2.2790576.1697620185.1580093672-1953692077.1579026250



Internet Society Canada Chapter

numbering resources. They rely on the services of underlying CLECs, LECs, SILECs, and others to obtain the numbering resources which they need to operate.

- 6) These smaller TSPs are generally interconnected via Internet Protocol (IP) to upstream carriers via Session Initiation Protocol (SIP) and therefore in the best position to implement the SHAKEN/STIR framework and yet they have been left out of the process by the CST-GA certificate issuance policy.
- 7) As noted by Mitel in paragraph 19 of the application, there are serious competitive disadvantages for TSPs that cannot directly access certificates.
- 8) The reason for this is that the SHAKEN/STIR standard defines 3 levels of attestation for a phone call:
 - a. • Full Attestation (A) — The service provider has authenticated the calling party and they are authorized to use the calling number. An example of this case is a subscriber registered with the originating telephone service provider's softswitch.
 - b. • Partial Attestation (B) — The service provider has authenticated the call origination, but cannot verify whether the call source is authorized to use the calling number. An example of this use case is a telephone number behind an enterprise PBX.
 - c. • Gateway Attestation (C) — The service provider has authenticated from where it received the call, but cannot authenticate the call source. An example of this case would be a call received from an international gateway.
- 9) On the surface, this does not appear to be a problem – TSPs who are not issued certificates will have their calls signed at B or C level attestation. But as the technology becomes widely deployed, network-based call screening services will look at B and C level calls more suspiciously than A level calls, with the result that they may filter them more aggressively. Some carriers or customers may start to reject calls that do not have an A level attestation.
- 10) If TSPs cannot provide calls with A level attestation to customers, this will cause end customers to move their business to someone who can provide A level attestation for all calls, and thereby create a two-tiered telecommunications system in Canada – those who can sign and those who cannot. Like other internet technologies, we must ensure that all players, including small TSPs, can participate on an equal footing. If parties cannot participate equally in this process, the harm to the smaller carriers will be irreparable.



Internet Society

Canada Chapter

- 11) Therefore the ISCC strongly agrees with Mitel that the CRTC should instruct the CST-GA to allow all TSPs to be able to implement STIR/SHAKEN by receiving certificates directly from Neustar. This is the only way to ensure that the innovation and competition brought to the Canadian telecommunications market by smaller TSPs is not lost, and to avoid unjustifiable levels of preference and discrimination, contrary to law

Matthew M. Gamble

Director & Policy Committee Chair, Internet Society Canada Chapter