

A hand holding a red maple leaf in front of a blurred forest background. The text is overlaid on this image.

# The View From Canada

2021 STIR/SHAKEN VIRTUAL SUMMIT  
Keynote Session

# STIR/SHAKEN in Canada

- 🍁 A view from the Canadian Governance Authority
- 🍁 Standards and guideline development
- 🍁 Regulatory direction and STIR/SHAKEN deployment



# STIR/SHAKEN Governance Authority - Canada

Jacques Sarrazin,

President and CEO, Canadian Secure Token – Governance Authority

# Objective

- Background
- Structure
- PA/CA
- PMA
- Shareholders' Board

# Background

- In 2018 the CRTC directed the Canadian telecommunications industry to establish a consortium, similar to CLNPC, to fulfill the role of STIR/SHAKEN Governance Authority (GA) for Canada.
  - CLNPC is incorporated and wholly owned by all Canadian carriers required to participate in local number portability. All 69 Shareholders are represented on the Board of Directors.
  - CLNPC's independent management team is accountable to the Board; this arrangement proved itself effective at balancing the collective interests of the Shareholders.
- Through an initiative led by a group of CLNPC Shareholders CST-GA was incorporated in 2018.

# Corporate Structure

- Early 2020 the CST-GA unanimous shareholders' agreement, which defines matters such as corporate structure, eligibility and funding, was adopted among the founding shareholders settling in place a corporate structure similar to CLNPC.
- Management and administrative services for CST-GA are delivered through a Shared Services Agreement with CLNPC, allowing for cost efficiencies.
- Fees are allocated based on subscribers.
- A technical committee representing a cross section of the industry provides guidance to the Board on technical matters.

# GA Mandate

- ATIS 1000080.v003
  - Define policies and procedures governing which entities can acquire STI Certificates - *all Canadian carriers, registered and in good standing with the CRTC are eligible to join CST-GA and acquire an SPC token.*
  - Establish policies governing which entities can manage the PKI and issue STI Certificates – *a Policy Management Administrator (PMA) has been established to manage the PKI and a Certificate Policy (CP) published defining the requirements to issue STI-Certificates.*

# Roles

- Management, reporting to the Shareholders' Board, are responsible for strategic planning and day to day management of the consortium.
  - Jacques Sarrazin, President
  - Scott Fletcher, Corporate Counsel (Gowlings LLP)
  - Marian Hearn, Executive Director
  - Lee Diep, accounts and administration
- Shareholders' Board directs the work of Management and has final authority over all decisions. Every Shareholder has a representative on the Board. There are currently 32 Shareholders.



# PA/CA

- Early 2020, Neustar were selected to provide a combined PA/CA solution by October 1, 2020, the initial CRTC deadline for implementation of STIR/SHAKEN in Canada; which has since been deferred to 30 November 2021).
- The Board elected to initially implement a combined solution to ensure that at least 1 CA would be available to users for the October deadline. It was always intended that eventually there would be additional CAs for users to choose from.
- The GA controls the authorized user list for the solution.

# PMA

- Q2 2021 the PMA was established and following a review of the initial Certificate Policy, issued CP V1.1 which includes a number of technical, business and legal changes.
- The PMA is currently reviewing two additional Certificate Practice Statements.
- The next priority for the PMA will be to review and revise the CP to support delegate certificates as defined in ATIS 100092.

# Shareholders' Board

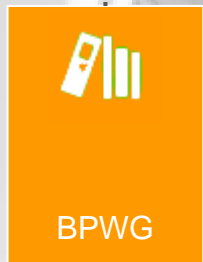
- The GA Board is, among other things, evaluating its position on:
  - RespOrg eligibility
  - Cross Border Attestation ( ATIS 100087) where it will be necessary for STI-GA leadership and the CST-GA Board to develop appropriate terms and conditions between the governance authorities to ensure the continued integrity and security of each ecosystem.
- A revocation and reinstatement policy is being drafted and review of eligibility requirements is ongoing as needs emerge and are defined.

# CISC - a Canadian approach to technology guidelines

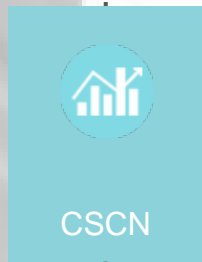
The mandate of the CISC is to undertake tasks related to **technological, administrative and operational issues** on matters assigned by the CRTC or originated by the public, that fall within the CRTC's jurisdiction.



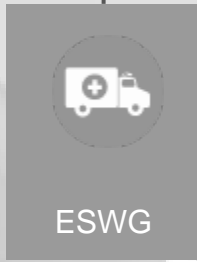
# CISC Steering Committee



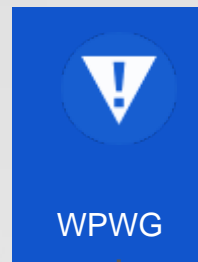
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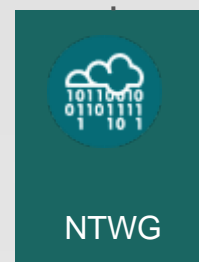
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# NTWG - Driving STIR/SHAKEN Guidelines



## TIF 37

### Canadian TSP Readiness

- 4 status reports
- Aided in establishing timelines



## TIF 38

### Traceback

- Study and trial leading to recommendations on implementation methodology



## TIF 40

### STIR/SHAKEN Guidelines

- Industry-initiated development of guidelines for Canadian implementation

Large initiatives such as S/S are broken into composite parts for analysis.

# Regulatory status

- Canada has only one telecom regulator, the Canadian Radio-television and Telecommunications Commission (CRTC).
- Since 2016, the CRTC has urged the Canadian industry to implement measures to combat nuisance calls and fraudulent calls. It has either encouraged or directly ordered:
  - call filtering
  - call blocking
  - call traceback
  - STIR/SHAKEN
- Starting in 2018, the CRTC ordered progress reports regarding STIR/SHAKEN readiness, implementation and performance.

# STIR/SHAKEN in Canada



## **What's resolved from a regulatory perspective?**

All telecommunications service providers must implement STIR/SHAKEN

- by Nov 30, 2021
- for “IP-based voice calls”

## **What remains outstanding?**

Eligibility to obtain tokens. Carriers only or all voice service providers?

<https://crtc.gc.ca/eng/archive/2021/2021-123.htm>



# Developing the Canadian Implementation Guideline

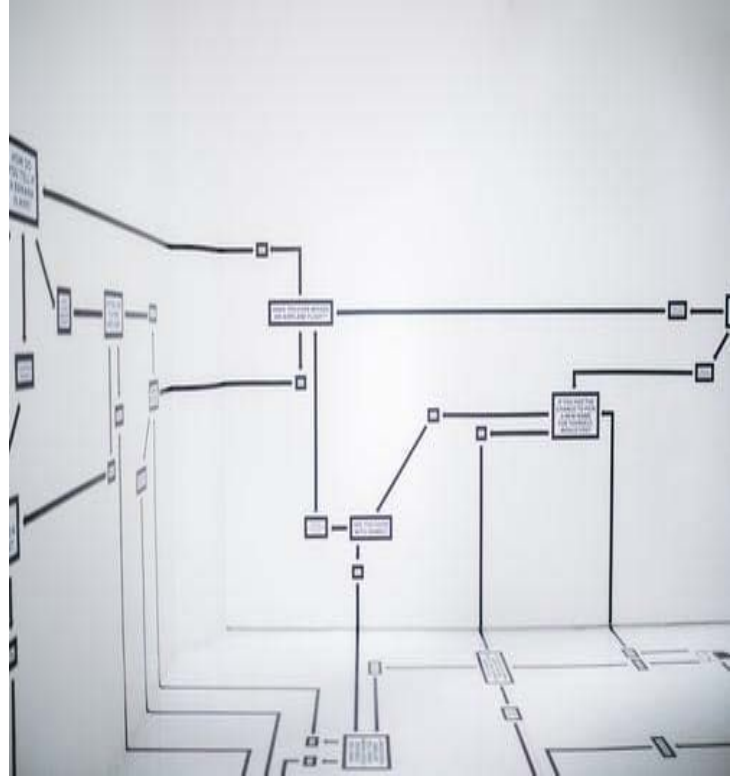
Intended to support the CRTC and the industry, the STIR/SHAKEN guideline document developed by TIF 40 is intended to address the following:

- Highlighting issues that will remain after the initial implementation and how that may affect public perception of STIR/SHAKEN
- Developing an implementation guideline for the Canadian industry including a central reference for which features are to be implemented and how
- Ensure maximum effectiveness of STIR/SHAKEN at any stage of development and implementation
- Promote consistency of approaches where interoperability or public perceptions are affected
- Minimize disruption

# STIR/SHAKEN issues identified

The following are some issues identified by CISC as potentially causing delays in implementation or unfavourable public perceptions.

- Solutions for enterprise customers
- Absence of support for toll-free calling
- Insufficient testing time and likelihood of 'false positives'
- Lacking support for International calls
- Vendor timelines



# Vive la différence?

- Canada has a significant amount of domestic, TDM interconnection
- Canadian nuisance traffic is predominantly international in origin
- Handset displays - Analytics are not as common in Canada
- Canada predominantly sends Calling Name in the INVITE message (spoofable)
- Prevalence of UNI between TSPs
- Lacking “Safe Harbour” legislation



# FCC experience as a future mode of operation?

- Focus of much discussion amongst Canadian Service Providers
- Consternation about rules
  - Who should register?
  - What about Tier III?
- Loss of our seamless border (in telecom terms)
- Imagine multiplied on an International scale as other countries adopt STIR/SHAKEN!



# A global problem necessitates a global solution



- Cross-border STIR/SHAKEN is very important!
- FCC restrictions may leave foreign bad actors looking for alternative routes
- Traceback activities leading to overseas points of origin will lack enforceability
- Post-domestic launch this needs to be a high priority enhancement

Questions?

