

**BEFORE THE CANADIAN RADIO-TELEVISION AND TELECOMMUNICATIONS  
COMMISSION**

*In the matter of*

**Part 1 Application by Mitel Networks Corporation and Mitel Cloud Services Inc.  
for Directions to the Canadian Secure Token Governance Authority regarding  
STIR/SHAKEN, CRTC File No. 8638-M75-202008953**

**JOINT INTERVENTION OF**

**Microsoft Corporation**



**RingCentral Inc.**



**8x8, Inc.**



**FEBRUARY 8, 2021**

**CONTENTS**

**I. INTRODUCTION..... 3**

**II. OUR EXPERIENCE WITH STIR/SHAKEN IMPLEMENTATION IN THE UNITED STATES ..... 6**

**III. CST-GA TOKEN ACCESS POLICY UNNECESSARILY LIMITS TSP PARTICIPATION AND IS  
INCONSISTENT WITH THE POLICY DIRECTIONS ..... 7**

**IV. NO TECHNICAL REASON TO RESTRICT DIRECT ACCESS TO CERTIFICATES..... 11**

**V. CONCLUSION ..... 12**

## I. INTRODUCTION

1. Microsoft Corporation (“Microsoft”), RingCentral, Inc. (“RingCentral”) and 8x8, Inc. (“8x8”) (collectively, the “Joint Intervenors”) submit this joint intervention in support of the above-noted Part 1 Application filed by Mitel Networks Corporation and Mitel Cloud Services Inc. (collectively, “Mitel”) with the Canadian Radio-television and Telecommunications Commission (the “Commission”) on December 21, 2020 (the “Application”).<sup>1</sup>
2. Microsoft, on behalf of its subsidiary Skype Communications US Corp., provides local voice over Internet Protocol (“VoIP”) services to enterprise customers in Canada (hereinafter, “Teams”). Teams may be branded under the title “Calling Plan” and can be reached through the Teams app. Teams Calling Plan is a nomadic VoIP service that uses 10-digit North American Numbering Plan<sup>2</sup> (“NANP”) conforming telephone numbers and enables users to make calls to and receive calls from the Public Switched Telephone Network (“PSTN”) using an internet connection from any location. Microsoft and Skype Communications US Corp. are registered with the Commission as resellers of telecommunications services and hold basic international telecommunications service (“BITS”) licences.
3. RingCentral is a leading provider of communications and collaboration solutions, providing service exclusively to large and small business customers. The company provides VoIP, cloud-based PBX and unified communications services, including team messaging, video and web conferencing and cloud contact centre solutions, in a single integrated platform for global delivery. In all cases, RingCentral’s services are provided over-the-top via data links. The company’s flexible and cost-efficient services empower today’s mobile and globally distributed workforce to communicate, collaborate and connect from anywhere, on any device. RingCentral and RingCentral Canada Inc. are registered with the Commission as resellers of telecommunications services and both entities hold BITS licences.
4. 8x8 is transforming the future of business communications as a leading Software-as-a-Service provider of contact center, voice communications, video, chat and API solutions powered by one global cloud communications platform. 8x8 empowers workforces worldwide to connect individuals and teams so they can collaborate faster and work smarter. Real-time business analytics and intelligence provide businesses unique insights across all interactions and channels

---

<sup>1</sup> Mitel Cloud Services Inc., *Part 1 Application Requesting that the Commission instruct the Canadian Secure Token governance Authority to allow all LECs to participate in STIR/SHAKEN*, December 21, 2020 (“Mitel Part 1 Application”)

<sup>2</sup> North American Numbering Plan <online: <https://nationalnanpa.com>>.

so they can delight end-customers and accelerate their business. 8x8 is registered with the Commission as a reseller of telecommunications services and holds a BITS licence.

5. The Joint Intervenors support Mitel's request that the Commission direct the Canadian Secure Token Governance Authority ("CST-GA") to allow all registered voice telecommunications service providers ("TSPs") to obtain certificates, which are required to authenticate and verify IP-based voice calls in support of STIR/SHAKEN, directly from authorized Canadian certificate authorities ("CAs").<sup>3</sup> Specifically, we submit that the CST-GA should be instructed to expand the subset of TSPs that are eligible to obtain from the Policy Administrator ("PA") a Service Provider Code Token ("Token")<sup>4</sup>, which authorizes a TSP to obtain certificates from a CA and sign certificates. In the Joint Intervenors' submission, a TSP that meets the following eligibility criteria (an "Eligible LVSP" and "Token Eligibility Criteria")<sup>5</sup> should be eligible to obtain a Token from the PA:
  - (a) Registered with the Commission as an authorised provider of local voice services, including local VoIP resellers and mobile virtual network operators ("MVNO"s) in addition to incumbent local exchange carriers ("ILEC"), Small Independent Local Exchange Carriers ("SILEC"s), and all four Types of competitive local exchange carriers ("CLECs");
  - (b) Licensed by the Commission to provide basic international telecommunications services originating in or terminating in Canada; and
  - (c) Assigns NANP conforming telephone numbers to subscribers in Canada, whether obtained directly or through intermediaries.
6. The CST-GA's current *Service Provider Token Access Policy* ("Token Access Policy") updated as of December 3, 2020, provides that only shareholders ("Members") of the CST-GA itself are eligible to obtain Tokens, despite the broader mandate from the Commission.<sup>6</sup> In effect, the

---

<sup>3</sup> Mitel Part 1 Application, paragraphs 20-22.

<sup>4</sup> The SHAKEN model for identification requires that a TSP must first register with the PA and have a valid Service Provider Code Token issued by the PA in order to obtain certificates. See Canadian Secure Token Governance Authority ("CST-GA"), *Signature-Based Handling of Asserted Information using ToKENS (SHAKEN) Certificate Policy - Canada*, November 12, 2020 (the "CST-GA CA Policy"), Section 3.2.

<sup>5</sup> The Token Eligibility Criteria is consistent with the Order requested by Mitel that the Commission instruct the Commission to allow all TSPs that have registered with the CRTC to receive certificates directly from Neustar. See Mitel Part 1 Application, paragraphs 21 and 22.

<sup>6</sup> See discussion below in Section III of this Joint Intervention. See also CST-GA, *Service Provider Token Access Policy*, December 3, 2020, Version 1.1 in CST-GA, *Policy Guide*, Version 1.1, December 3, 2020, attached at Appendix 1 <online: <https://cstga.ca/resources/> / <https://cstga.ca/wp-content/uploads/2021/02/CST-GA-GA-Policy-Guide-V1.1-1.pdf>, accessed February 4, 2021>. The Joint Intervenors note that the Policy, while dated December 3, 2020, was not posted until sometime after February 1, 2021. An earlier version of the Policy dated October 20, 2020 was taken down without explanation and is no longer available on the CST-GA website.

CST-GA's Token Access Policy precludes local VoIP resellers and MVNOs from obtaining Tokens, and in turn, certificates, from CAs. At present, the CST-GA has established no timeline or line of sight to how it intends to allow other LVSPs to participate in STIR/SHAKEN in Canada as required by the CRTC.

7. Yet there are no technological or technical barriers preventing all Eligible LVSPs from gaining direct access to Tokens. Under the Token Eligibility Criteria set out above, all Eligible LVSPs will be registered with and subject to regulatory oversight from the Commission,<sup>7</sup> which will ensure the integrity of the system and enable the Commission to address any misuse or misappropriation of certificates and failure to comply with framework policies.
8. The CST-GA's Token Access Policy threatens the overall effectiveness of the STIR/SHAKEN system in Canada as well as more broadly in North America. Voice telecommunications networks, services and service providers in North America are highly integrated. As interconnected VoIP providers in the United States, the Joint Intervenors will be fully eligible to obtain tokens from the US STI-PA and will use their tokens to obtain certificates directly from US certificate authorities for calls originating/terminating in the United States.
9. In contrast, in Canada, the Joint Intervenors will effectively be precluded from direct participation in STIR/SHAKEN as of the Commission-mandated launch date of June 30, 2021 because they will not be able to obtain their own Tokens in Canada for Canada-to-Canada calls or calls originating in Canada. This is despite their direct requests to the CST-GA to become Members or to otherwise become eligible to obtain Tokens from the PA. The Joint Intervenors have also made efforts to bring to light within the TIF40 sub-working group of the Network Working Group of CISC the negative ramifications of the CST-GA's Token Access Policy on the relative effectiveness of the Commission's STIR/SHAKEN framework.
10. Denying Eligible LVSPs access to Tokens even though there is no technical barrier or issue with doing so violates the principles of competitive neutrality and the promotion of competition that underlie both Policy Directions, and prevents these LVSPs from attesting to their lawful traffic. The CST-GA's Token Access Policy appears to serve no purpose other than to secure a head start advantage for members of the CST-GA in the roll-out of STIR/SHAKEN in Canada and to

---

<sup>7</sup> Under s. 24.1 of the *Telecommunications Act*, S.C. 1993, c.38, the offering and provision of any telecommunications service by any person other than a Canadian carrier are subject to any conditions imposed by the Commission.

thereby restrict the availability of similar protections and tools for customers of excluded LVSPs in Canada.

11. The Joint Intervenors submit that Mitel's Part 1 Application should be granted forthwith in order to preserve the Commission-mandated June 30, 2021 launch date. In particular, we submit that CST-GA should be directed to:
- (a) Amend the Token Access Policy to allow all Eligible LVSPs that meet the Token Eligibility Criteria to obtain Tokens from the Canadian PA;
  - (b) To the extent that the CST-GA argues that it is unable to do so absent other steps being taken, the Commission should:
    - (i) Direct the CST-GA to prepare and disclose to the Commission, and Eligible LVSPs, the steps that the organization will take to implement the Commission's directives resulting from Mitel's Application;
    - (ii) To avoid a competitive imbalance in the marketplace, prohibit the PA from issuing Tokens until such time as all Eligible LVSPs are able to request and obtain a Token from the PA and certificates from the CA;
    - (iii) Adjust the Commission's June 30, 2021 deadline for the implementation of STIR/SHAKEN to provide the CST-GA with sufficient time to extend its Token Access Policy to allow Eligible LVSPs that meet the Token Eligibility Criteria to obtain Tokens from the PA.

## II. OUR EXPERIENCE WITH STIR/SHAKEN IMPLEMENTATION IN THE UNITED STATES

12. In the United States, the Federal Communications Commission (the "FCC") has directed all originating and terminating voice service providers to implement STIR/SHAKEN in the IP portions of their networks by June 30, 2021.<sup>8</sup>
13. Defined by the FCC as "Interconnected VoIP providers,"<sup>9</sup> the Joint Intervenors are active participants in the STIR/SHAKEN ecosystem in the United States. They are directly involved in

---

<sup>8</sup> Report and Order and Further Notice of Proposed Rulemaking (FCC 20-42), March 31, 2020, paragraph 24. See also FCC press release, "FCC Mandates that phone companies implement caller ID authentication to combat spoofed robocalls", March 31, 2020 <online: <https://docs.fcc.gov/public/attachments/DOC-363399A1.pdf>>.

<sup>9</sup> An interconnected VoIP provider provides a service that (i) enables real-time, two-way voice communications; (ii) requires a broadband connection from the user's location; (iii) requires internet protocol-compatible customer premises equipment; and (iv) permits users generally to receive calls that originate on the public switched

the governance and implementation of the STIR/SHAKEN call authentication framework and are recognized as having the experience and technical expertise to assist in developing the SHAKEN certificate management framework. Notably, the board of the U.S. governance authority, the Secure Telephone Identity Governance Authority (“STI-GA”), is comprised of broad, multi-stakeholder representation from the U.S. communications sector, including one board member representing interconnected VoIP providers.<sup>10</sup> Board members are chosen for their knowledge and expertise relevant to the industry and their familiarity with legal and technical issues related to the SHAKEN framework. Microsoft is currently the designated representative on the board for the industry association representing interconnected VoIP providers.

14. Based on our experiences to date, the U.S. STIR/SHAKEN framework is more transparent, participatory and competitively neutral than the STIR/SHAKEN framework administered by the CST-GA in Canada. Unlike the CST-GA, the STI-GA has published its token access policies as well as the STI-PA Service Provider Agreement online in a timely manner and encourages broad-based participation in the governance and implementation of the SHAKEN ecosystem.<sup>11</sup>
15. Under the broad-based and inclusive U.S. STIR/SHAKEN framework, policies and procedures have been developed that will allow each of the Joint Intervenors to apply for and obtain a token from the Secure Telephone Identity – Policy Administrator (“STI-PA”). With this token, they can obtain certificates directly from an approved Secure Telephone Identity Certification Authority (“STI-CA”). As a result, they will be able to fully certify calls that originate on their voice networks. To be clear, in the U.S., there will be no staggered timeframe whereby incumbent telephone companies have a head start over the rest of the industry in fully implementing STIR/SHAKEN.

### **III. CST-GA TOKEN ACCESS POLICY UNNECESSARILY LIMITS TSP PARTICIPATION AND IS INCONSISTENT WITH THE POLICY DIRECTIONS**

16. In Canada, the CST-GA has taken the position that only Members (shareholders) of the CST-GA are eligible to access Canadian Service Provider Code Tokens and certificates from the CA. In

---

telephone network and to terminate calls to the public switched telephone network. See 47 C.F.R. § 9.3 Definitions

<sup>10</sup> FCC News, *Chairman Pai Welcomes Call Authentication Recommendations from the North American Numbering Council*, May 14, 2018, <online: [http://nanc-chair.org/docs/mtg\\_docs/May18\\_FCC\\_Chairman\\_Welcomes\\_CATA\\_Recommendations.pdf](http://nanc-chair.org/docs/mtg_docs/May18_FCC_Chairman_Welcomes_CATA_Recommendations.pdf)>; and North American Numbering Council, *Report on Selection of Governance Authority and Timely Deployment of SHAKEN/STIR*, May 3, 2018, <online: <https://www.fcc.gov/about-fcc/advisory-committees/north-american-numbering-council/general/nanc-correspondence#block-menu-block-4>>.

<sup>11</sup> See STI Governance Authority, *Resources*, <online: <https://sti-ga.atis.org/resources/>>

turn, membership in the CST-GA is limited to entities that meet both of the following criteria.

Entities are eligible to become CST-GA Members:

- (a) If they are at once an ILEC, SILEC, CLEC or facilities-based WSP; and
  - (b) Have “direct access to Canadian numbering resources from the Canadian Numbering Administrator.”<sup>12</sup>
17. In effect, the CST-GA’s Token Access Policy precludes local VoIP resellers and MVNOs from obtaining Tokens, and in turn, certificates, from CAs.<sup>13</sup> The Joint Intervenors further note that the second CST-GA membership eligibility condition above also effectively excludes Type III and IV CLECs from obtaining Tokens since these categories were created by the Commission to provide relief from certain CLEC obligations, such as membership in the Canadian Numbering Administration Consortium (“CNAC”), and are, by definition, CLECs that rely on an underlying LECs for access to Canadian numbering resources.
18. More to the point, the CST-GA’s current Token Access Policy restricts full and native execution of STIR/SHAKEN by the full TSP ecosystem, despite the fact that the CST-GA has articulated no technical or policy reasons to exclude these providers.
19. The Commission expects all TSPs that provide voice telecommunications services in Canada, including both carriers and resellers, to implement the STIR/SHAKEN framework on the IP voice portion of their networks by no later than June 30, 2021 (i.e., for all SIP-based voice calls).<sup>14</sup> In early 2020, the CRTC consulted<sup>15</sup> on its proposal to require TSPs to implement the STIR/SHAKEN framework to authenticate and verify caller ID information for IP-based voice calls as a condition of offering and providing telecommunications services pursuant to sections 24 and

---

<sup>12</sup> CST-GA Token Access Policy.

<sup>13</sup> CST-GA Token Access Policy.

<sup>14</sup> In Compliance and Enforcement and Telecom Decision CRTC 2018-32, *Measures to reduce caller identification spoofing and to determine the origins of nuisance calls*, January 25, 2018, the Commission determined that authentication and verification of caller ID information for IP-based voice calls should be implemented by no later than March 31, 2019. In Compliance and Enforcement and Telecom Decision CRTC 2019-402, *CISC Network Working Group – Status of implementation by telecommunications service providers of authentication/verification measures for caller identification*, December 9, 2019, the Commission approved an extension of this deadline to 30 September 2020. The deadline for implementation was last extended to June 30, 2021 in Compliance and Enforcement and Telecom Decision CRTC 2019-402-2, *Rogers Communications Canada Inc. – Request for a nine-month postponement of STIR/SHAKEN implementation*, September 15, 2020.

<sup>15</sup> Compliance and Enforcement and Telecom Notice of Consultation CRTC 2019-404, *Call for comments – Authentication/verification measures for caller identification for IP-based voice calls – Implementation of STIR/SHAKEN framework*, December 9, 2019.



- 24.1 of the *Telecommunications Act*. The Commission's framework does not envisage any exclusions based on the business model or choice of technology of a given LVSP.
20. The most efficient and effective way for the Commission to ensure that the June 30, 2021 deadline is met is to allow all Eligible LVSPs, including duly registered resellers that provide local voice services, to obtain certificates required to implement the STIR/SHAKEN framework directly from the CA.
21. Not only is the CST-GA's Token Access Policy inconsistent with the Commission's policy objective in adopting STIR/SHAKEN in Canada, the CST-GA's position is not competitively and technologically neutral. Rather, it is discriminatory and erects artificial barriers to increased competition in the local voice services market with no reasonable justification.
22. Should CST-GA Members be allowed to launch STIR/SHAKEN ahead of other non-facilities-based LVSPs, this could harm competitive market forces in the local voice services market in Canada:
- (a) Outbound calling products of excluded TSPs could be disadvantaged; customers of local VoIP resellers may find their outbound calls blocked or degraded by terminating providers because calls originating on VoIP reseller networks won't be signed with the providers' own SHAKEN tokens.
  - (b) Being excluded from direct access to Tokens and certificate-signing authority means that non-Member LVSPs will have less flexibility and room to innovate in downstream retail markets for voice services, thereby reducing the effectiveness of competitive market forces.
23. The CST-GA Token Access Policy contravenes both the 2006 and 2019 Policy Directions. Both the 2006 and 2019 Policy Directions signal the importance of symmetrical and competitively neutral regulation that apply equally to all TSPs, regardless of their business models:
- (a) The 2006 Policy Directions states that when relying on regulation, the Commission should use measures (i) that are efficient and proportionate to their purpose and that interfere with the operation of competitive market forces to the minimum extent necessary to meet the telecommunications policy objectives set out in section 7 of the

*Telecommunications Act*, and (ii) if they are not of an economic nature, to the greatest extent possible, are implemented in a symmetrical and competitively neutral manner.<sup>16</sup>

- (b) Under the 2019 Policy Direction, the Commission, when exercising its powers and performing its duties under the *Telecommunications Act*, should consider how its decisions can promote competition, affordability, consumer interests and innovation.<sup>17</sup> This includes the extent to which they reduce barriers to entry into market and to competition for TSPs that are new, regional or smaller than the incumbent national service providers.
24. CST-GA is a privately constituted corporation whose Members are limited to Canadian carriers that provide local voice services, which CST-GA has further limited to carriers that have direct access to Canadian numbering resources. The CST-GA was created with no public input or process, whose constating documents have not been publicly disclosed either on the Commission's public record or on the CST-GA's public-facing website.
25. We have approached the CST-GA to advise them of the negative public policy and competitive implications of its Token Access Policy. However, the administrators of the CST-GA have not taken action to address these concerns.
26. Furthermore, non-facilities-based LVSPs have made significant efforts within the CRTC Interconnection Steering Committee ("CISC") Network Working Group – NTTF 40 – Framework for STIR/SHAKEN in Canada to open a dialogue with the CST-GA and Members of the CST-GA on the effects that excluding non-facilities-based LVSPs will have and on the need to review the CST-GA's position on certificate eligibility. No consensus has been possible and in some cases, these efforts have been blocked.
27. The Joint Intervenors are willing to dialogue with the CST-GA to improve its governance structure to ensure broad representation in the interests of voice telecommunications users in Canada. However, the immediate priority for the Joint Intervenors, as it must be for the Commission, is to direct the CST-GA to amend its Token Access Policy forthwith. If the June 30, 2021 deadline, or a date as soon as possible thereafter is to be preserved, the Canadian Token Access Policy must immediately be addressed to encompass all Eligible LVSPs. Not doing so as an immediate

---

<sup>16</sup> Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives, SOR/2006-355.

<sup>17</sup> Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives to Promote Competition, Affordability, Consumer Interests and Innovation, SOR/2019-227.

priority will clearly harm the interests of users, who will have limited choices of providers that can fully authenticate and verify IP-based voice calls in support of STIR/SHAKEN.

#### **IV. NO TECHNICAL REASON TO RESTRICT DIRECT ACCESS TO CERTIFICATES**

28. There is no technical reason to restrict LVSPs that under CNAC rules do not have direct access to Central Office Codes (“CO Codes”) and NANP-conforming ten-digit telephone numbers from obtaining a Token from the PA and certificates directly from a CA in Canada.
29. Direct access to numbering resources is not a technical requirement to administer certificates nor to participate in the call authentication process. Indeed, this requirement was recently eliminated in the United States and providers without direct access to numbering resources will nevertheless implement SHAKEN using their own tokens. The Joint Intervenors know their customers, and as LVSPs that sign certificates, they have a direct relationship with the originator of calls on their networks. They are technically able to directly integrate their certificate management and call authentication/verification systems with the SHAKEN Trust Model administered by the CST-GA, PA and CA and can support the CA certificate request process, including identity validation (i.e., demonstrating proof of possession of private keys to the CA) and certificate life-cycle operational requirements.<sup>18</sup>
30. In particular, we note that the CST-GA has selected Neustar Information Services, Inc. (“Neustar”) as the Canadian PA. Neustar is a certificate authority in the United States and will be assisting many VoIP resellers in the United States in implementing US tokens and certification. As such, implementing the Token Access Policy change that we are seeking in Canada should be relatively seamless for VoIP resellers with operations in the United States that have established relationships with Neustar or other STI-CAs.
31. It is unclear why the CST-GA believes it is justified in insisting that LVSPs in Canada must have direct access to numbering resources in order to obtain certificates from a CA when, as Mitel explains in its Application, the STI-GA updated its Service Provider Code Token Access Policy in November 2020 to remove the requirement that U.S. service providers must have direct access to telephone numbers from the NANP Administrator and National Pooling Administrator to receive a certificate.<sup>19</sup>

---

<sup>18</sup> See CST-GA CA Policy, Sections 1.1, 3.2 and 4.

<sup>19</sup> See Mitel Part 1 Application, paragraph 9.

32. The Joint Intervenors' experiences in the United States demonstrate that non-facilities-based LVSPs have the technical capability to sign and validate VoIP calls using STIR/SHAKEN as well as the requisite expertise to monitor and maintain certificates and public key infrastructure ("PKI") requirements.
33. Certain Members of the CST-GA are proponents within the CISC Network Working Group of using so-called "Delegate Certificates" to enable a Member to certify calls originating and/or terminating on non-Member LVSP networks. We agree with Mitel<sup>20</sup> that LVSPs that must rely on Delegate Certificates to authenticate calls could be at a competitive disadvantage compared to CST-GA Members that can obtain certificates directly from the CA.
34. For one, there is no mandated timeline for CST-GA Members to implement Delegate Certificates nor is it clear how many Members will issue the certificates. This will give the Members a head start on implementing STIR/SHAKEN natively.
35. Forcing reliance on Delegate Certificates will also restrict what LVSPs will be able to do to offer choice and vibrantly competitive offerings in downstream retail markets.
36. Although Delegate Certificates, once available, may be an effective way to allow retail enterprise class business telecommunications customers or even certain smaller LVSPs to certify calls, from both a technical readiness and competitive neutrality perspective, it is unacceptable for it to be the only available solution for most competing non-Member LVSPs. It will inhibit the ability of non-Member LVSPs from offering competitive and innovative voice services in the Canadian market. If non-Member LVSPs that do not have direct access to certificates must rely on Delegate Certificates to implement STIR/SHAKEN, this will inevitably lead to delays and gaps in implementation.

## **V. CONCLUSION**

37. Due to the anti-competitive implications of an uneven and discriminatory rollout of STIR/SHAKEN in Canada, we submit that the relief sought in the Mitel Application should be granted. In particular, the Joint Intervenors submit that the CST-GA should be directed to:
  - (a) Amend the Token Access Policy to allow all Eligible LVSPs that meet the following criteria to obtain Tokens from the Canadian PA:

---

<sup>20</sup> See Mitel Part 1 Application, paragraph 12.

- (i) Registered with the Commission as an authorised provider of local voice services, including local VoIP resellers and MVNOs in addition to ILECs, SILECs and all CLEC Types;
  - (ii) Licensed by the Commission to provide basic international telecommunications services originating in or terminating in Canada; and
  - (iii) Assigns NANP-conforming telephone numbers to subscribers in Canada, whether obtained directly or through intermediaries.
- (b) To the extent that the CST-GA argues that it is unable to do so absent other steps being taken the Commission should:
- (i) Direct the CST-GA to prepare and disclose to the Commission, and Eligible LVSPs, the steps that the organization will take to implement the Commission's directives resulting from Mitel's Application;
  - (ii) Prohibit the PA from issuing Tokens until such time as all Eligible LVSPs are able to request and obtain a Token from the PA and certificates from the CA; and
  - (iii) Adjust the Commission's June 30, 2021 deadline for the implementation of STIR/SHAKEN to provide the CST-GA with sufficient time to extend its Token Access Policy to Eligible LVSPs.

38. We thank the Commission for this opportunity to provide this intervention.



**CST-GA**

Canadian Secure Token  
Governance Authority

Policy Guide  
Date: December 3, 2020  
Version: 1.1

## Table of Contents

<b>OVERVIEW</b> .....	<b>3</b>
<b>DEFINITIONS</b> .....	<b>4</b>
<b>POLICIES</b> .....	<b>5</b>
SERVICE PROVIDER TOKEN ACCESS POLICY .....	5
CANADIAN SHAKEN CERTIFICATE – RESTRICTIONS ON USE.....	6

## Overview

The Canadian Secure Token Governance Authority (“CST-GA”) has been directed by the Canadian Radio-television and Telecommunications Commission (“CRTC”) Compliance and Enforcement Sector Decision 2019-403 to fulfill the following responsibilities in accordance with ATIS 1000080.v003 and its successors:

1. define policies and procedures governing which entities can acquire STI certificates and,
2. establish policies governing which entities can manage the PKI and issue STI certificates.

This Guide is a repository of policy decisions made by the CST-GA Shareholders’ Board from time to time and provides a single source reference for all such policies.

All policies may be reviewed and amended from time to time by the CST-GA Shareholders’ Board.



## Definitions

“Authorized User” means those entities who meet the criteria to receive a Service Provider Code Token as described in *CST-GA Policy 001 Service Provide Code Token Access Policy*.

“Canadian Telephone Number” means telephone numbers derived from the assignment of central office codes by the Canadian Numbering Administrator to qualified Canadian telecommunications service providers.

All other capitalized terms have the meaning set forth in the relevant ATIS documents, i.e. ATIS 1000074 and 1000080 v003, 1000084v002 and their successors.

## Policies

### Service Provider Token Access Policy

Policy Decision: 001    Version: 1.1

Date: December 3, 2020

Service Provider Code (SPC) Tokens are obtained from the Canadian STI-PA and will permit access to Secure Telephone Identity (STI) certificates from an approved STI Certificate Authority (CA). STI Certificates are used to sign calls (i.e. to authenticate Caller ID) in the Canadian SHAKEN ecosystem.

Shareholders of the Canadian Secure Token Governance Authority (“CST-GA”) are eligible to obtain SPC Tokens. Eligibility criteria to become a Shareholder in the CST-GA is as follows:

1. Canadian Incumbent Local Exchange Carrier (“ILEC”), Small Incumbent Local Exchange Carrier (“SiLEC”), Competitive Local Exchange Carrier (“CLEC”), facilities based Wireless Service Provider (“WSP”), registered and in good standing with the Canadian Radio-television and Telecommunications Commission (“CRTC”).
2. ILEC, SiLEC, CLEC or WSP has direct access to Canadian numbering resources from the Canadian Numbering Administrator.

In addition to the foregoing eligibility requirements, ILEC, SiLEC, CLEC or WSP is required to submit a statutory declaration in a form determined by CST-GA from time to time (“Statutory Declaration”) reporting the total combined number of Network Access Services and Mobile Subscribers (collectively, “NAS”, as further defined in the Statutory Declaration) in its network. For ILECs, SiLECs, CLECs or WSPs that participate in the annual Statistics Canada Data Collection Survey (“DCS”), NAS shall be as reported in their most recent DCS filing. ILECs, SiLECs, CLECs or WSPs who are not required to participate in the DCS, or who become operational following the annual DCS filing deadline (and therefore have not yet filed a DCS report) will be required to report the actual NAS in its network at the time of its application to become an Authorized User.

### Revision Control

Revision #	Reason
1.0	Initial definition of SPC token access policy
1.1	Amendment to reflect collection of NAS data as a requirement and not as criteria

### Canadian SHAKEN certificate – Restrictions on Use

Policy Decision: 002      Version: 1.0

Date:                      August 5, 2020

Authorized Users of STI certificates obtained from approved Certification Authorities in Canada must only use these STI certificates for the authentication of Canadian Telephone Numbers and toll-free telephone numbers assigned to Canadian Authorized Users.

### Revision Control

Revision #	Description
1.0	Initial Policy

\*\*\* END OF DOCUMENT \*\*\*