



# Compliance and Enforcement and Telecom Notice of Consultation CRTC 2019-404

PDF version

Ottawa, 9 December 2019

*Public record: 1011-NOC2019-0404*

## Call for comments – Authentication/verification measures for caller identification for IP-based voice calls – Implementation of STIR/SHAKEN framework

**Deadline for submission of interventions: 27 January 2020**

[\[Submit an intervention or view related documents\]](#)

*The Commission hereby calls for comments on its proposal to require Canadian carriers and other telecommunications service providers that provide voice telecommunications services in Canada to implement the STIR [Secure Telephony Identity Revisited] / SHAKEN [Signature-based Handling of Asserted information using toKENs] framework to authenticate and verify caller identification (ID) information for Internet Protocol (IP)-based voice calls as a condition of offering and providing telecommunications services pursuant to sections 24 and 24.1 of the Telecommunications Act, effective 30 September 2020.*

### Background

1. In Compliance and Enforcement and Telecom Decision (CETD) 2018-32, the Commission determined that authentication and verification of caller identification (ID) information for Internet Protocol (IP)-based voice calls should be implemented by Canadian carriers and other telecommunications service providers that provide voice telecommunications services in Canada (TSPs) by no later than 31 March 2019 to empower Canadians to better protect themselves against nuisance calls. In CETD 2019-402, the Commission approved an extension to this deadline to 30 September 2020.
2. In CETD 2018-32, the Commission also noted that the Internet Engineering Task Force (IETF)<sup>1</sup> has developed a technical standard, referred to as STIR [Secure Telephony Identity Revisited], which would provide a means for call-originating TSPs to certify the identity of callers, thus enabling the caller's identity to be validated by the call-terminating TSP. In conjunction with STIR, the Alliance for

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<sup>1</sup> The IETF is an international body that develops standards for the IP suite, namely Transmission Control Protocol/Internet Protocol (TCP/IP).

Telecommunications Industry Solutions (ATIS)<sup>2</sup> has developed a framework, referred to as SHAKEN [Signature-based Handling of Asserted information using toKENs] (see [ATIS-1000080](#)), for the implementation of STIR in IP-based service providers' networks.

3. Under the STIR/SHAKEN framework, TSPs certify the extent to which a given caller's identity can be trusted. This information is transmitted using "tokens" and is used by the called party, or their TSP, to verify the authenticity of the caller ID (i.e. to determine the extent to which the caller ID can be trusted). This process is dependent upon one or more Certificate Authorities (CAs) administering and issuing certificates to TSPs.
4. To ensure the effective use of these certificates, the STIR/SHAKEN framework is managed by the following authorities:
  - a Governance Authority (GA), which will ensure the integrity of the issuance, management, security, and use of certificates issued in compliance with the SHAKEN specification;
  - a Policy Administrator (PA), which is selected by the GA and is responsible for applying the rules defined by the GA, including ensuring that CAs implement appropriate certificate management practices and that certificates are issued only to authorized TSPs. The PA is the administrator and primary trust anchor of the system; and
  - CAs, which issue certificates to validated TSPs.
5. In CETD 2018-32, the Commission indicated that it considered that the STIR/SHAKEN framework would increase the effectiveness of other measures taken to combat nuisance calls, such as an industry-wide call traceback process, opt-in call filtering solutions, and network-level blocking of nuisance calls with blatantly illegitimate caller ID. The Commission also noted that the Canadian telecommunications industry is well placed to establish a Canadian Certificate Administrator (CCA) that would issue and administer certificates for the authentication and verification of IP-based voice calls in support of STIR/SHAKEN.
6. In CETD 2019-403, the Commission approved the establishment of the Canadian Secure Token Governance Authority (CSTGA) as the GA in Canada.
7. In CETD 2019-402, the Commission requested that TSPs providing voice telecommunications services and the CRTC Interconnection Steering Committee (CISC) submit to it various reports (action plans, progress reports, and implementation plans) to provide an overview of the progress made regarding STIR/SHAKEN implementation in Canada.

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<sup>2</sup> ATIS brings together the top information and communications technologies (ICT) companies in the United States to advance the ICT industry's business priorities.

## Call for comments

8. The Commission considers that the STIR/SHAKEN framework is currently the only viable authentication and verification solution that can provide consumers with a measure of additional trust in caller ID.
9. The Commission hereby calls for comments 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 24.1 of the *Telecommunications Act*, effective 30 September 2020.
10. Interested parties may file comments on the above proposal. TSPs or any interested party that objects to the above proposal should provide specific justification for their objection, including detailed information regarding issues stemming from CETD 2019-402 and CETD 2019-403, such as barriers to STIR/SHAKEN implementation, by 30 September 2020.

## Procedure

11. The *Canadian Radio-television and Telecommunications Commission Rules of Practice and Procedure* (the Rules of Procedure) apply to this proceeding. The Rules of Procedure set out, among other things, the rules for the content, format, filing, and service of interventions, answers, replies, and requests for information; the procedure for filing confidential information and requesting its disclosure; and the conduct of public hearings. Accordingly, the procedure set out below must be read in conjunction with the Rules of Procedure and related documents, which can be found on the Commission's website at [www.crtc.gc.ca](http://www.crtc.gc.ca), under "[Statutes and regulations](#)". The guidelines set out in Broadcasting and Telecom Information Bulletin 2010-959 provide information to help interested persons and parties understand the Rules of Procedure so that they can more effectively participate in Commission proceedings.
12. All parties to the proceeding that led to CETD 2018-32 are parties to this proceeding and may file interventions with the Commission by **27 January 2020**.
13. Interested persons who wish to become parties to this proceeding must file an intervention with the Commission regarding the above-noted issues by **27 January 2020**. The intervention must be filed in accordance with section 26 of the Rules of Procedure.
14. Parties are permitted to coordinate, organize, and file, in a single submission, interventions by other interested persons who share their position. Information on how to file this type of submission, known as a joint supporting intervention, as well as a [template](#) for the accompanying cover letter to be filed by parties, can be found in Telecom Information Bulletin 2011-693.
15. All documents required to be served on parties to the proceeding must be served using the contact information contained in the interventions.

16. All parties may file replies to interventions with the Commission by **11 February 2020**.
17. The Commission encourages interested persons and parties to monitor the record of this proceeding, available on the Commission's website at [www.crtc.gc.ca](http://www.crtc.gc.ca), for additional information that they may find useful when preparing their submissions.
18. Submissions longer than five pages should include a summary. Each paragraph of all submissions should be numbered, and the line **\*\*\*End of document\*\*\*** should follow the last paragraph. This will help the Commission verify that the document has not been damaged during electronic transmission.
19. Pursuant to Broadcasting and Telecom Information Bulletin 2015-242, the Commission expects incorporated entities and associations, and encourages all Canadians, to file submissions for Commission proceedings in accessible formats (for example, text-based file formats that enable text to be enlarged or modified, or read by screen readers). To provide assistance in this regard, the Commission has posted on its website [guidelines](#) for preparing documents in accessible formats.
20. Submissions must be filed by sending them to the Secretary General of the Commission using **only one** of the following means:

**by completing the**  
[\[Intervention form\]](#)

or

**by mail to**  
CRTC, Ottawa, Ontario K1A 0N2

or

**by fax to**  
819-994-0218

21. Parties who send documents electronically must ensure that they will be able to prove, upon Commission request, that filing, or where required, service of a particular document was completed. Accordingly, parties must keep proof of the sending and receipt of each document for 180 days after the date on which the document is filed or served. The Commission advises parties who file or serve documents by electronic means to exercise caution when using email for the service of documents, as it may be difficult to establish that service has occurred.
22. In accordance with the Rules of Procedure, a document must be received by the Commission and all relevant parties by 5 p.m. Vancouver time (8 p.m. Ottawa time) on the date it is due. Parties are responsible for ensuring the timely delivery of their submissions and will not be notified if their submissions are received after the

deadline. Late submissions, including those due to postal delays, will not be considered by the Commission and will not be made part of the public record.

23. The Commission will not formally acknowledge submissions. It will, however, fully consider all submissions, which will form part of the public record of the proceeding, provided that the procedure for filing set out above has been followed.

### **Important notice**

24. All information that parties provide as part of this public process, except information designated confidential, whether sent by postal mail, fax, email, or through the Commission's website at [www.crtc.gc.ca](http://www.crtc.gc.ca), becomes part of a publicly accessible file and will be posted on the Commission's website. This includes all personal information, such as full names, email addresses, postal/street addresses, and telephone and fax numbers.
25. The personal information that parties provide will be used and may be disclosed for the purpose for which the information was obtained or compiled by the Commission, or for a use consistent with that purpose.
26. Documents received electronically or otherwise will be posted on the Commission's website in their entirety exactly as received, including any personal information contained therein, in the official language and format in which they are received. Documents not received electronically will be available in PDF format.
27. The information that parties provide to the Commission as part of this public process is entered into an unsearchable database dedicated to this specific public process. This database is accessible only from the web page of this particular public process. As a result, a general search of the Commission's website with the help of either its search engine or a third-party search engine will not provide access to the information that was provided as part of this public process.

### **Availability of documents**

28. Electronic versions of the interventions and other documents referred to in this notice are available on the Commission's website at [www.crtc.gc.ca](http://www.crtc.gc.ca) by using the public record number provided at the beginning of this notice or by visiting the "Consultations and hearings – Have your say!" section, then selecting "our applications and processes that are open for comment". Documents can then be accessed by clicking on the links in the "Subject" and "Related Documents" columns associated with this particular notice.

29. Documents are also available at the following address, upon request, during normal business hours.

Les Terrasses de la Chaudière  
Central Building  
1 Promenade du Portage  
Gatineau, Quebec  
J8X 4B1  
Tel.: 819-997-2429  
Fax: 819-994-0218

Toll-free telephone: 1-877-249-2782

Toll-free TTY: 1-877-909-2782

Secretary General

### **Related documents**

- *CISC Network Working Group – Status of implementation by telecommunications service providers of authentication/verification measures for caller identification*, Compliance and Enforcement and Telecom Decision CRTC 2019-402, 9 December 2019
- *Establishment of the Canadian Secure Token Governance Authority*, Compliance and Enforcement and Telecom Decision CRTC 2019-403, 9 December 2019
- *Measures to reduce caller identification spoofing and to determine the origins of nuisance calls*, Compliance and Enforcement and Telecom Decision CRTC 2018-32, 25 January 2018; as amended by Compliance and Enforcement and Telecom Decisions CRTC 2018-32-1, 24 October 2018; and 2018-32-2, 18 December 2018
- *Filing submissions for Commission proceedings in accessible formats*, Broadcasting and Telecom Information Bulletin CRTC 2015-242, 8 June 2015
- *Filing of joint supporting interventions*, Telecom Information Bulletin CRTC 2011-693, 8 November 2011
- *Guidelines on the CRTC Rules of Practice and Procedure*, Broadcasting and Telecom Information Bulletin CRTC 2010-959, 23 December 2010