Telecom Order CRTC 2025-281

PDF version

Gatineau, 30 October 2025

Public record: Tariff Notice 988

Bell Canada – Tariff Notice 988 – Destandardization of DS-1 Access services

Summary

The Commission received an application from Bell Canada proposing to destandardize DS-1 Access services in Ontario and Quebec under its National Services Tariff.

These services are becoming increasingly obsolete as the costs associated with their maintenance increase, customer demand for them decreases, and more modern technologies offer higher quality and more scalable alternatives. Their destandardization preserves service for existing customers and select interconnection purposes while supporting the transition to more reliable and affordable telecommunication services. The Commission therefore approves Bell Canada's application.

A dissenting opinion by Commissioner Bram Abramson is attached to this order.

Application

1. On 30 April 2025, the Commission received an application from Bell Canada proposing to destandardize DS-1 Access services under its National Services Tariff, Item 301 – Digital Network Access.

2. DS-1 Access is a wholesale digital access service that provides competitors with a facility and link from an end-user premises, or a competitor point of presence (PoP), to Bell Canada's serving wire centre. DS-1 Access includes the DS-1 Link, Intra-exchange Channel, and Channelizing Feature – collectively referred to in the application as "DS-1 Access." Bell Canada proposed that existing customers could retain their current DS-1 Access arrangements, but the company would not be offering new DS-1 Access arrangements or customer subscriptions. Bell Canada also submitted that moves, additions, or changes to existing DS-1 Access would not be processed after the destandardization takes effect.

3. Bell Canada's application listed the following exceptions to DS-1 Access destandardization for Megalink-related services and specific interconnection purposes:

    - interconnection under a Master Agreement for Local Interconnection (MALI);

- connection between the customer's PoP and Bell Canada's network for interconnection services pursuant to Telecom Decision 2008-17, Appendix, Category (e); and

- interconnection to provide 9-1-1 services.

4. The proposed destandardization applies to Bell Canada's operating territories in Ontario and Quebec.

5. Bell Canada indicated that DS-1 Access, first introduced to its National Services Tariff[1] on 22 February 1995, is a mature product that has experienced a significant decline in demand.

6. Bell Canada cited the following reasons for the destandardization:

    - The manufacturer discontinued production of the equipment required to support DS-1 Access.
    - Manufacturer support has ceased, which makes it difficult to source spare or replacement parts.
    - Costs associated with obtaining replacement equipment are increasingly prohibitive.
    - These challenges may impact reliability, since service may become increasingly difficult or even impossible to restore in the case of a service outage.

7. Bell Canada argued that continued support of DS-1 Access is not viable given these constraints and noted that several alternative services are available to existing customers, such as Ethernet, Internet Protocol-Virtual Private Network (IP-VPN), and other broadband services. These alternatives leverage newer infrastructure and provide higher data transmission speeds, making them more suitable for modern network requirements.

8. Bell Canada issued customer notifications between 30 April 2025 and early May 2025 where it outlined the proposed changes, listed available substitute services, and provided instructions for submitting comments to the Commission. Customers were advised to refer to Bell Canada's application and to submit any feedback by 16 June 2025.

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[1] Bell Canada's National Services Tariff specifies rates, charges, terms, and conditions that apply to service, equipment, and facilities furnished by Bell Canada, Bell Canada in the Atlantic Provinces, Bell Canada in Manitoba, TELUS Communications (B.C.) Inc., and TELUS Communications Inc. Bell Canada's National Services Tariff comprises tariffs for Digital Network Services, Other Inter-Exchange Voice & Data Services, Switched Voice & Data Services, Special Facilities Services, and Miscellaneous Services.

9. Bell Canada requested an effective date of 29 June 2025.

10. The Commission did not receive any interventions regarding the application.

Commission's analysis

11. In Telecom Order 2023-26, the Commission approved an application from TELUS Communications Inc. (TELUS) to destandardize its DS-1 Access service. While Bell Canada's application shares similarities with TELUS's, it is broader in scope and has a more customer-specific approach. Nonetheless, the Commission considers that Bell Canada's proposal is consistent with the Commission's decision in Telecom Order 2023-26 and other recent decisions.

12. The challenges Bell Canada raised regarding its ability to support DS-1 Access are consistent with industry trends in the phase-out of legacy Time Division Multiplexing (TDM)-based services.[2] Furthermore, modern alternatives, such as Ethernet, are available and provide better quality and scalability than these legacy services. The Commission therefore considers that, from a technical and operational perspective, Bell Canada's argument that DS-1 Access has reached the end of its commercial and operational viability is reasonable.

13. In the Commission's view, the revised tariff pages are clear and consistent with the formatting of tariff pages previously approved by the Commission. The proposed language accurately defines the scope of the destandardization and allowable exceptions and provides regulatory transparency.

14. The application aligns with the Commission's policy objective of facilitating the transition to modern network infrastructure while protecting consumer interests. The Commission considers that Bell Canada has substantiated its request to destandardize DS-1 Access with a sound rationale. Bell Canada provided evidence that demonstrates trends of declining demand for the service, the service's technological obsolescence, and an increasing lack of manufacturer support. At the same time, the application preserves customer access in cases where the service remains essential for interconnection or public safety.

15. From a regulatory perspective, the Commission is of the view that the application meets the requirements set out in Telecom Information Bulletin 2010-455-1, including the requirement to adequately notify affected customers in a timely manner. The proposed revisions are clear and appropriately limited in scope, and Bell Canada has also identified a range of available alternative services capable of meeting customer needs without disruption. The Commission considers the proposal to be

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[2] TDM is a method of transmitting multiple signals over a single communication channel by dividing the signal into different time slots. Each signal is assigned a specific time interval in a repeating sequence, allowing for efficient and synchronized sharing of bandwidth on legacy digital networks such as traditional telephone systems.

both technically justified and consistent with the established regulatory and policy frameworks, including the policy objectives outlined in paragraphs 7(b) and (f) of the *Telecommunications Act*.[3]

16. In the absence of customer opposition and given the technical and operational rationale provided, the application does not raise concerns regarding service affordability, accessibility, or compliance with broader Commission objectives.

Conclusion

17. In light of all of the above, the Commission approves, by majority decision, Bell Canada's application.

18. Revised tariff pages are to be issued within 10 calendar days of the date of this order. Revised tariff pages can be submitted to the Commission without a description page or a request for approval; a tariff application is not required.

Secretary General

Related documents

- *TELUS Communications Inc. – Withdrawal of Internet Voice Access Service,* Telecom Order CRTC 2025-228, 5 September 2025
- *CISC Canadian Steering Committee on Numbering – Consensus report CNRE138B – Methods to address the high assignment rate of non-geographic (6YY) CO codes*, Telecom Decision CRTC 2025-224, 2 September 2025
- *Saskatchewan Telecommunications – Removal of print directory obligation,* Telecom Order CRTC 2025-207, 15 August 2025
- *The Independent Telecommunications Providers Association and TELUS Communications Inc. – Small incumbent local exchange carriers' responsibilities and funding considerations in the Next-Generation 9-1-1 framework,* Telecom Decision CRTC 2025-63, 28 February 2025
- *TELUS Communications Inc. – Tariff Notices 567 and 644 – Destandardization of DS-0 and DS-1 services and Tariff Notice 568 - Destandardization of DS-0 and DS-1 competitor digital network services*, Telecom Order CRTC 2023-26, 10 February 2023

[3] The cited policy objectives are: 7(b) to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada; and (f) to foster increased reliance on market forces for the provision of telecommunications services and to ensure that regulation, where required, is efficient and effective.

- *Revisions to Master Agreement for Local Interconnection*, Telecom Decision CRTC 2022-313, 17 November 2022

- *Phase-out of the local service subsidy regime*, Telecom Regulatory Policy CRTC 2018-213, 26 June 2018

- *Review of the competitor quality of service regime*, Telecom Regulatory Policy CRTC 2018-123, 13 April 2018

- *Next-generation 9-1-1 – Modernizing 9-1-1 networks to meet the public safety needs of Canadians*, Telecom Regulatory Policy CRTC 2017-182, 1 June 2017, as amended by Telecom Regulatory Policy 2017-182-1, 28 January 2019

- *Rogers Communications Canada Inc. – Application regarding the use of underlying carriers by competitive local exchange carriers to exchange traffic with other local exchange carriers*, Telecom Decision CRTC 2016-471, 2 December 2016

- *Approval processes for tariff applications and intercarrier agreements*, Telecom Information Bulletin CRTC 2010-455-1, 19 February 2016

- *Network interconnection for voice services*, Telecom Regulatory Policy CRTC 2012-24, 19 January 2012

- *Follow-up to Telecom Decision 2008-105 – Retail quality of service regime in non-forborne markets for ILECs with over 25,000 NAS*, Telecom Regulatory Policy CRTC 2009-304, 25 May 2009

- *CRTC Interconnection Steering Committee – Consensus items*, Telecom Decision CRTC 2009-139, 12 March 2009

- *Retail quality of service regime in non-forborne markets*, Telecom Decision CRTC 2008-105, 6 November 2008

- *Regulatory policy, Revised regulatory framework for wholesale services and definition of essential service*, Telecom Decision CRTC 2008-17, 3 March 2008

- *IP-to-IP interconnection report - Follow-up to Decision 2006-13*, Telecom Decision CRTC 2007-22, 12 April 2007

- *Forbearance from the regulation of retail local exchange services*, Telecom Decision CRTC 2006-15 (Consolidated version), 6 April 2006, as amended by Order in Council P.C. 2007-532, 4 April 2007

- *IP-to-IP interconnection - Follow-up to Decision 2005-28*, Telecom Decision CRTC 2006-13, 16 March 2006

- *Regulatory framework for voice communication services using Internet Protocol*, Telecom Decision CRTC 2005-28, 12 May 2005

Dissenting opinion of Commissioner Bram Abramson

1. Reports of the public switched telephone network's (PSTN) death are, if not exaggerated, at least misunderstood. The PSTN is evolving into a modern ecosystem of number-based interpersonal communications services (NB-ICS) resources for critical network functions.

2. That evolution depends in significant part on a full upgrade from Time Division Multiplexed (TDM) to Internet Protocol (IP) interconnection. But the Commission has not mandated such an upgrade. Nor has one occurred organically. Until IP-to-IP interconnection is routinely implemented, PSTN participants will continue to require the ability to sustain TDM interconnection for voice and signalling traffic. Proposals to withdraw market access to DS-1s, the building blocks of TDM interconnection, should therefore be scrutinized carefully. Bell Canada's, modelled on the one filed by TELUS Communications Inc. (TELUS) three years prior,[1] is similarly tempered by a carve-out to preserve access for interconnection purposes. A majority of the Telecommunications Committee[2] is satisfied this suffices.

3. I am not. The carve-out here is narrower. The number of lines affected is greater. The hour is later, the equipment base smaller, vendor support thinner, and interoperability gap wider. Interconnecting carriers' upgrade cycles have marched on. Uneven progression toward fully-mandated IP-to-IP regime now poses a greater challenge to the sector, and to critical infrastructure.

4. I have elsewhere lamented the continued processing of one-off tariff applications that raise underlying policy issues. That is a path of *ad-hoc*-ery. Triggering a broader proceeding to address systemic issues, and pre-empt a parade of further me-too applications, would be the better path: more effective; more efficient.[3]

5. So here. We ought not have processed Bell Canada's application in isolation from IP-to-IP interconnection considerations. We ought not have been left to determine, piecemeal, the depth or diameter of DS-1 provisioning required for Local Exchange Carriers (LECs) to continue to interoperate in a TDM environment. We did not

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[1] TELUS Communications Inc., Tariff Notices 567, 644 and 568, 27 January 2022.

[2] Decisions of the Telecommunications Committee are made on behalf of the Commission: *Telecommunications Committee*, By-Law No. 10 (CRTC), paragraph (e) ("[a]ny act or thing done by the Telecommunications Committee shall be deemed to be an act or thing done by the members […]"), pursuant to paragraph 11(1)(b) and subsection 12(3) of the *Canadian Radio-television and Telecommunications Commission Act* (duties delegated to standing committees by by-law). Delegation to standing committees, whose remit is made explicit through by-law, may be distinguished from other forms of delegation, like the assignment of particular files and of panels to those files (*Shoan v. Canada [Attorney General]*, 2016 FCA 261, para 6).

[3] See, e.g., dissenting opinions attached to Telecom Orders 2025-207, at paragraph 14, and 2025-228, at paragraphs 7-8.

explore obvious ways to better align incentives with outcomes, like conditioning destandardization on making IP-to-IP interconnection available to all LECs within a given territory. For these reasons, set out more fully below, I dissent.

A vital system's zombie afterlife

6. The PSTN's guts are aging. So, imperfectly, are the tariffs meant to keep them in check. Yet the PSTN, or at least what it is becoming, remains a vital system whose disruption would have serious consequences for national security and public safety.

7. In connectivity-poor regions that need lifeline telephone service, that is an easy case to make. But the importance of what we knew as the PSTN to Canada's security, safety, and social fabrics extends far beyond phone-dependent communities. From Next-Generation 9-1-1 (NG9-1-1)[4] to Internet of Things (IoT) connectivity,[5] we continue to stack public policy goals atop the interoperability, and continued evolution, of a universally-accessible, continuously-reliable, telephone-number-based communications overlay. Call it, as some of Canada's trading partners do, the NB-ICS ecosystem,[6] aligning:

    a) E.164[7] numbering resources to label endpoints and the traffic destined for them;

    b) older TDM but mostly newer Session Initiation Protocol (SIP)-over-IP network fabrics, stitched together over segments like DS-1s to form a full, if federated, network; and

    c) within each network fabric, a host of signalling and control protocols that switch, route, and deliver communications traffic. Traditionally these were the Common Channel Signalling System 7 (CCS7)[8] standards family. More recently, they are protocols like SIP which replicate CCS7's functions over IP.

8. The result remains a global addressing and signalling system that continues to underpin interoperability but is no longer the PSTN as we once knew it. In carrying forward and modularizing PSTN functions, the NB-ICS detethers labelling, signalling, and routing so that they need not be pursued in concert. The outcome is a flexible set of hybrid, often-virtualized resources, rather than a unified

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[4] Telecom Regulatory Policy 2017-182 (Internet Protocol-based emergency services).

[5] See, e.g., Telecom Decision 2025-224 (high assignment rate of non-geographic Central Office codes for machine-to-machine and Internet of Things applications).

[6] European Electronic Communications Code, Article 2(6).

[7] *The international public telecommunication numbering plan*, International Telecommunications Union (ITU) Recommendation E.164 (11/10), 18 November 2010.

[8] Also known, particularly in the U.S., as Signalling System 7 (SS7).

communications stack. Different services mine these resources to different depths: IoT systems depend on numbering for identity but not interconnection, while NG9-1-1 requires the full stack.

9. This adds colour to the familiar narrative of a telecom centre of gravity once anchored in the PSTN but since drifted into the orbit of converged IP networks staged over fixed and mobile access. The vital system the PSTN once was now persists in an afterlife state, its numbering organs still active, its signalling reflexes still serving other systems. Animated by the network applications that feed on its resources, the PSTN-turned-NB-ICS remains a body whose parts continue to sustain core telecommunications functions, and that still requires care.

10. Phasing out financial support for ongoing PSTN operations in non-forborne high-cost serving areas,[9] and phasing out competitor and most consumer quality-of-service reporting to identify when it matters,[10] have eroded that care. Implementation of STIR/SHAKEN is meant, conversely, to support continued NB-ICS coherence and usability.[11] So too, more fundamentally, is upgrading core NB-ICS interconnection from TDM to IP-to-IP, the architecture needed to support NG9-1-1, STIR/SHAKEN authentication, and whatever comes next.

11. Yet no regulatory framework compels any upgrade from TDM to SIP. On the contrary. We have set in place a framework for IP-to-IP, including some of the standard-setting[12] and transitional flexibility[13] needed to achieve it. We have required detailed status information from LECs.[14] We have even, from time to time, declared

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[9] Telecom Regulatory Policy 2018-213, paragraphs 48-53.

[10] Telecom Regulatory Policy 2018-123, paragraphs 49-52 (phasing out regular PSTN competitor quality of service reporting); Telecom Decision 2006-15, paragraph 488 (phasing out PSTN retail quality of service reporting for forborne areas); Telecom Decision 2008-105 and Telecom Regulatory Policy 2009-304 (phasing out most PSTN retail quality of service indicators for non-forborne areas).

[11] STIR stands for Secure Telephone Identity Revisited. SHAKEN stands for Signature-based Handling of Asserted Information using toKENs. It is a suite of protocols and procedures intended to combat caller identification (ID) spoofing by providing authentication and verification of caller ID information. See Compliance and Enforcement and Telecom Decision 2021-123 (STIR/SHAKEN achieved through SIP interconnection).

[12] Telecom Decision 2005-28, paragraphs 365-369, and Telecom Decisions 2006-13, 2007-22, and 2009-139 (designation of technical guidelines for SIP-based IP-to-IP interconnection between LECs).

[13] Telecom Decision 2016-471 (use of multiple Competitive Local Exchange Carrier types, including underlying LECs, within a single local interconnection region).

[14] Commission Staff Letter, 21 October 2021 (survey of IP voice network interconnection arrangements between network operators and associated issues).

the goal of imminently addressing it,[15] recognizing that meanwhile the PSTN continues to operate "in the absence of a full IP interconnection framework."[16]

12. The interim framework still treats omnibus IP-to-IP implementation as optional, declines to establish timelines, and defines triggering conditions[17] that may disincent uptake, lest doing so compel reciprocal obligations. Yet we simultaneously require IP-to-IP interconnection elsewhere for NG9-1-1 and mandate STIR/SHAKEN implementation regardless of how little SIP interconnection is in place to carry it.

Rickety TDM, unfulfilled SIP

13. The evidence on this proceeding underscores the problem. Bell Canada submits, and the majority accepts, that DS-1 circuits are reaching the end of their life. Vendors no longer support or service them. Alternatives are cost-prohibitive. Service restoration may soon depend on scavenging spares.

14. In short: TDM interconnection's basic building blocks are crumbling, even as no regulatory framework compels their SIP replacement. Yet we continue to depend on the evolving PSTN's resilience and availability for functions core to our public policy obligations!

15. Respectfully, that is not coherent.

16. We learn, and the majority accepts, that DS-1s are becoming unreliable. We know that lifeline communications in phone-dependent communities nonetheless depend on the telephone network those DS-1s help hold together. We know that carriers have already been obliged to invest in SIP to meet NG9-1-1 deadlines, and in authenticated calling protocols that require SIP to function.

17. Surely all of this should have led us, upon reviewing Bell Canada's application, to accelerate incentives to complete the shift to universal SIP interconnection. If Bell Canada wishes to move local exchange traffic off DS-1s, should it not make reliable IP-to-IP interconnection available there? Indeed, should not any carrier? Otherwise, are we not striking a direct blow to the very policy goals of reliability and resiliency we purport to uphold?

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[15] CRTC, *2020-2021 Departmental Plan*, page 9 (plan to carry out, in 2021-22, a review of the interconnection regulatory framework, with a focus on IP interconnection); Telecom Decision 2022-313, paragraph 10 ("[s]ince there may be an IP interconnection proceeding, it would not be productive to modify the MALI [Master Agreement for Local Interconnection] for IP/SIP technology until after any regulatory requirements for IP interconnection are known.").

[16] Telecom Decision 2025-63, paragraph 25.

[17] Telecom Regulatory Policy 2012-24, paragraph 36.

18. Yet, rather than condition destandardization in an exchange, or Local Interconnection Region, on making IP-to-IP interconnection available to all LECs within that territory, the majority is prepared to allow the market withdrawal of end-of-life DS-1s. In doing so, the majority makes two assumptions. First, that the application's limited carve-out, narrower than TELUS's in early 2022, will suffice for interconnecting carriers' TDM ecosystems. Second, that the reliability concerns cited by Bell Canada justify destandardization, but raise no systemic issue.

19. I can endorse neither assumption, and dissent on that basis. The PSTN may be in decline, but the number-based interpersonal communications ecosystem that descends from it still animates vital functions. To withdraw its lifeblood components before a new circulatory system is fully connected is not modernization, but neglect. If we wish phone-dependent communities to share in the resiliency and reliability we elsewhere vaunt, and the NB-ICS ecosystem to thrive rather than stumble through a zombie afterlife, we must act with more coherence. That means identifying systemic issues embedded in tariff applications, and treating such applications not as conveyor-belt mechanics but as signals from the system's still-beating heart: opportunities to steady its transition before it stops altogether.