



Telecom Decision CRTC 2025-225

PDF version

Gatineau, 4 September 2025

Public record: 1011-NOC2023-0039

Mandatory notification and reporting of major telecommunications service outages

Summary

Canadians need access to reliable, affordable, and high-quality communications services for every part of their daily lives.

Telecommunications service outages, even if they are short, are highly disruptive and can seriously impact Canadians' day-to-day lives. All outages can have harmful effects on people, especially when they cannot connect to emergency services in times of need.

The Commission, along with telecommunications service providers (TSPs) and other government authorities, all play a role in preventing and managing telecommunications service outages. This includes federal departments like Innovation, Science and Economic Development Canada and Public Safety Canada, as well as provincial, and territorial emergency management organizations, and 9-1-1 call centres.

This decision will help improve coordination whenever a major outage happens by requiring TSPs to notify the Commission and other government authorities within specific timeframes. These notifications will help ensure that relevant authorities are aware of outages so that they can help manage them and their impact on Canadians.

This decision also requires TSPs to file comprehensive post-outage reports detailing the causes, effects, and steps taken to resolve an outage. With this information, TSPs can learn from what happened to avoid similar outages in the future, Canadians can learn the cause of an outage and other facts, and governments can develop policies to help limit outages going forward.

Alongside this decision, the Commission is taking two additional actions as part of its broader strategy to help lessen the disruptive impact of service outages on Canadians. First, the Commission is gathering views on measures TSPs should take to help improve the resiliency of their networks and the reliability of their services through Telecom Notice of Consultation 2025-226. Second, the Commission is considering additional consumer protections when Canadians experience an outage with their Internet, cellphone, telephone, or television services through Telecom and Broadcasting Notice of Consultation 2025-227. These protections include clearer communication from service providers during outages and refunds for lost services.

A table summarizing the notification and reporting requirements established in this decision is provided in the appendix to this decision. These requirements will become effective on **4 November 2025**.

A summary of this decision is available in American Sign Language (ASL) and Langue des signes québécoise (LSQ) on the Commission's website.

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

Background

Improving the reliability of services

1. Canadians have experienced telecommunications service outages due to extreme weather events, technical failures, and other factors. These outages, even if they are short, are highly disruptive and can seriously impact Canadians' day-to-day lives. All outages can have harmful effects on people, especially when they cannot connect to emergency services in times of need. Networks need to be resilient to help ensure that telecommunications services remain reliable for Canadians.
2. The Commission is taking action to help lessen the disruptive impact of Internet, cellphone, and telephone service outages on Canadians. This decision, which is part of the Commission's [Consumer Protections Action Plan](#), aims to improve the resiliency and reliability of telecommunications networks and services.
3. As part of its overall efforts, the Commission also published Telecom Regulatory Policy 2025-9 to increase the quality and reliability of Internet services in the Far North. In addition, to help reduce the impact of outages to services that are critical to the health and safety of Canadians, the Commission published Telecom Decision 2025-65. That decision mandated measures to improve the resiliency of 9-1-1 and wireless public alerting services. The Commission is also considering if the Broadband Fund should support projects that would improve the resiliency of networks, especially in rural and remote areas.
4. In this decision, the Commission requires all telecommunications service providers (TSPs) to notify the Commission and other federal, provincial, and territorial government authorities of major service outages. It also requires those TSPs to provide certain information about the outages. The Commission uses the data it collects on the frequency and causes of major service outages to assess the reliability of services, identify trends, inform its policies, and establish requirements that TSPs must follow to improve their networks and services.
5. Improving the reliability of telecommunications services and restoring those services when a TSP experiences a service outage requires continuous collaboration between TSPs and federal, provincial, and territorial governments. In support of this, the Commission also shares the information it collects from TSPs with other government authorities so that they can help quickly restore services, communicate more effectively with Canadians

during a crisis or natural disaster, and advise Canadians on alternate means to access emergency services.

6. The Commission also intends to address other outage-related issues through additional proceedings, including (i) the measures TSPs should take to improve the resiliency of their networks, (ii) improving consumer protections in the event of a service outage or disruption, and (iii) how consumer protections in the event of a service outage or disruption can help Canadians be better informed about the status of their services and receive a refund or credit for a service they could not use.

Telecom Notice of Consultation 2023-39

7. In Telecom Notice of Consultation 2023-39 (the Notice), the Commission established an interim measure for service outage notification and reporting (hereafter, the interim measure). It required all Canadian carriers to notify the Commission of any major service outage meeting the preliminary definition established in the Notice and to submit a post-outage report for any such service outage. The interim measure took effect on 8 March 2023, pending the outcome of the proceeding.
8. The Notice further invited comments on whether the Commission should continue to mandate major service outage notification and post-outage reporting. It also sought views on, among other things, the appropriate definition of a major service outage, which government authorities should be notified, the details that should be included in a post-outage report, and the appropriate timeframes for service outage notification and reporting.
9. In response to the Notice, the Commission received more than 100 interventions from stakeholders that included TSPs, provincial, territorial, and local government authorities, industry associations, consumer groups, and individuals.

Issues

10. This decision addresses the following issues on the record of this proceeding:
 - Should notification of major service outages be mandated?
 - How should a major service outage be defined?
 - Who should provide notification of major service outages?
 - Which government authorities should be notified of major service outages?
 - When should major service outage notifications be provided?
 - What specific information should be provided in the notification of major service outages?
 - Should the Commission require TSPs to file detailed post-outage reports?

- What is the process for notification and reporting?

Should notification of major service outages be mandated?

11. All parties agreed that it is necessary for the Commission, Innovation, Science and Economic Development Canada (ISED), and other government authorities to receive notification of major service outages. Parties generally expressed the view that these notifications keep the Commission updated on major service outages and their resolutions and help with other government authorities' efforts to help resolve service outages.
12. ISED has established a memorandum of understanding (MOU),¹ which includes a communication system through which some TSPs can provide service outage information to government authorities. Some parties noted that this system was sufficient and added that the Commission should extend this protocol to other TSPs not currently covered by the MOU.
13. In Telecom Regulatory Policy 2016-165 and subsequent processes, the Commission required 9-1-1 network providers who experience an outage for 9-1-1 services to immediately notify other 9-1-1 network providers, TSPs, and public safety answering points (PSAPs) that are directly involved in restoring services.
14. However, those frameworks are not comprehensive. The notification process in the MOU is voluntary and is only triggered in cases of mutual assistance and emergency roaming. It also includes a narrow definition of an outage.² It therefore does not ensure that TSPs provide timely notification of major service outages for all types of services in a broad range of situations.
15. There is currently no requirement that the Commission, ISED, or federal, provincial, and territorial (FPT) emergency management organizations (EMOs) be notified of major service outages affecting 9-1-1 or wireless public alerting services. Furthermore, there are no existing requirements to report major service outages impacting the teletypewriter (TTY) relay, Internet Protocol (IP) relay, and 9-8-8 services that play a fundamental role in ensuring the well-being of the users of these services.
16. The Commission's interim reporting requirements have demonstrated the value of mandatory service outage notification. They have allowed the Commission to better understand the frequency and causes of major service outages, and whether TSPs are taking appropriate measures to prevent similar outages in the future. This information will help the Commission establish evidence-based policies to improve the reliability of services.

¹ At the request of the Minister of Industry, major wireless service providers have signed an [MOU](#) to provide emergency roaming, mutual assistance, and communications to the public and government authorities during a critical network failure.

² The MOU covers a "critical network failure," which it defines as an unintentional and unplanned network outage caused by, or occurring in the context of, an urgent and critical situation that seriously endangers the lives, health, or safety of Canadians.

17. When the Commission is notified about major service outages as they happen, it can monitor their resolution. ISED can also use that information to coordinate actions with other government authorities, including FPT EMOs, to restore service, manage telecommunication emergencies, and work to prevent outages in the future. In addition, information from major service outage notifications will enable the Commission to work with TSPs to further improve the reliability of all services.
18. Accordingly, the Commission determines that it is necessary and appropriate to require notification of major service outages, as set out in this decision.

How should a major service outage be defined?

19. In the interim measure, the Commission defined a major service outage as any outage affecting (i) more than 100,000 subscribers or a material portion of the carrier's subscribers for more than one hour; (ii) subscribers that are in a geographic area served only by the affected carrier; (iii) critical infrastructure; (iv) major transport facilities; or (v) a 9-1-1 network (hereafter, the interim definition).
20. In this decision, service outage notification requirements are grouped into the following three categories of services: A) primary services; B) emergency services; and C) specialized services. The following sections define these services and the appropriate definitions for major service outages affecting them.
21. This grouping will allow the Commission to better capture the unique impact that different types of major service outages have on people and businesses. It will also allow the Commission to better define major service outages and capture their impact on various telecommunications services, identify who must provide notification and when, and which government authorities should be notified.

A) Primary services

22. Primary services are the telecommunications services used by individuals, small businesses, and large enterprises, including telephone, Internet, cellphone, and data services. Given the importance of these services to Canadians, the notification requirements for primary service outages must capture the impact on the people and businesses that rely on those services.

Defining the end-user for primary services

23. To determine if a primary service outage is a major primary service outage, it is important to have a consistent definition of who is using the service and, therefore, who is affected by the service outage. An appropriate definition will reasonably and effectively capture the impact of the service outage on Canadians. The interim definition uses the term "subscribers" to refer to the affected individuals, households, or businesses.
24. For most retail telecommunications services, the subscriber is also the end-user. However, the term subscriber does not capture situations where one entity subscribes on behalf of

several end-users, for example, a corporate or business subscription where the business's employees are the actual end-users of the service. In these situations, "end-users" would be a more accurate and clear representation of who is affected.

25. The Commission will, therefore, define a major primary service outage based on the end-users of the service, where the end-user is the individual, household, or entity assigned an individual wireless or wireline telephone number, Internet connection, or data link.³
26. There are three situations when defining an end-user may be challenging: (i) when a single connection is being used by multiple people; (ii) when a TSP is providing other TSPs wholesale access to their networks; and (iii) when a TSP is experiencing multiple service outages. These situations are described in more detail below:
 - (i) A household or a coffee shop with a single Internet connection is considered a single end-user, even if that connection is being shared among several household members or coffee shop customers. This is because a TSP would not know how many people in a household or coffee shop are using that single Internet connection.
 - (ii) Some TSPs provide wholesale services to other TSPs. If a TSP who provides wholesale services to other TSPs experiences a service outage then the TSP must also include the number of affected end-users for its TSP customers, using a reasonable estimate if actual numbers are not available.
 - (iii) Finally, if a TSP is experiencing multiple service outages, the end-users must be considered separately for each primary service outage that results from a different cause. For example, a TSP experiencing a service outage in Atlantic Canada caused by a power failure and another service outage on the West Coast caused by a wildfire should count the end-users separately for each outage.
27. Having defined end-users, the Commission must next define a primary service outage and determine when such an outage becomes a major primary service outage.

Defining a primary service outage

28. In Telecom Notice of Consultation 2023-39, the Commission defined a service outage as a telecommunications network outage that disrupts the provision of telecommunications services to customers.
29. Some parties suggested that service degradation be included in the definition of a major service outage. However, service degradation would be difficult to define or measure, because it is influenced in part by individual user experience.

³ The number of end-users affected during an outage for a mobile service will be estimated based on the average number of end-users served by the cell sites affected by the outage.

30. Accordingly, the Commission determines that a primary service outage is a telecommunications network outage that results in a complete loss of a primary service.

What method should be used to determine whether a primary service outage is a major primary service outage?

31. Parties proposed several methods that the Commission could use to determine whether a primary service outage is a major primary service outage, including by using:

- fixed threshold values for the number of end-users affected and/or the service outage duration (e.g., 100,000 end-users were affected for one hour);
- a minimum percentage of end-users affected based on a TSP's total number of end-users, a TSP's total number of end-users within a geographic area, or the percentage of a TSP's cellphone towers that are affected; or
- the number of user-minutes affected, which is calculated by multiplying the duration of a service outage in minutes by the number of end-users that might be affected.⁴

32. The Commission finds that an approach based on the number of user-minutes affected by a service outage would best capture the impact of a primary service outage because it:

- creates a flexible sliding scale that most accurately captures a major service outage based on its impact under a wide range of outage scenarios; and
- captures service outages affecting small and large TSPs, outages affecting many end-users, long-duration outages affecting smaller TSPs, and outages affecting small or large communities.

33. Defining meaningful thresholds for when a primary service outage qualifies as a major primary service outage is necessary when using the method of number of user-minutes affected. This requires consideration of two variables, namely the number of end-users affected and the duration of the outage.

Defining the user-minutes threshold for a major primary service outage

34. The Federal Communications Commission (FCC) has defined a threshold of 900,000 affected user-minutes for a reportable service outage. The Public Interest Advocacy Centre noted that this threshold represents a more workable definition of a major primary service outage than the threshold used for the interim definition because it is based on a simple formula of multiplying the service outage duration by the total number of end-users potentially affected by the service outage. It submitted that this accounts for differences in rural and urban areas because it captures both longer duration outages in

⁴ This is the method that has been adopted by the Federal Communications Commission of the United States.

low population density areas and shorter duration outages in high population density areas.

35. The population of the United States is over eight times that of Canada. As a result, TSPs in Canada have a lower number of end-users than TSPs in the United States. In the Commission’s view, setting a threshold of 900,000 affected user-minutes for Canadian TSPs would result in either many service outages impacting large numbers of end-users not being reported, or outages needing to last longer before they are reported. As a result, the Commission finds that a lower user-minute threshold would be more appropriate for Canada.
36. Parties proposed thresholds for the number of end-users and duration of a service outage that, if multiplied, would result in a threshold of 600,000 user-minutes affected by an outage. For example, parties proposed using a threshold of 5,000 end-users affected for two hours or 10,000 end-users affected for one hour, which both result in 600,000 user-minutes. The following table provides examples of the size and duration of outages that a threshold of 600,000 user-minutes affected would capture:

Number of end-users affected by a service outage	Time duration after which the TSPs must report the outage	User-minutes affected
20,000	30 min (1/2 hour)	600,000
10,000	60 min (1 hour)	600,000
5,000	120 min (2 hours)	600,000
3,000	200 min (3 hours 20 min)	600,000
1,000	600 min (10 hours)	600,000

37. Setting the user-minutes threshold at 600,000 would capture service outages from both small and large TSPs, outages across multiple geographic regions, and outages impacting large groups of end-users for short durations or smaller groups of end-users for longer durations. This would help ensure that a large breadth of service outages is effectively captured while still allowing TSPs to focus their efforts on restoring services.
38. Accordingly, the Commission requires TSPs to report a primary service outage when the user-minutes affected are 600,000 or higher. If the user-minutes affected are close to the threshold and the TSP is uncertain if the threshold is met, the TSP should report the outage.

Other considerations to define a major primary service outage

39. In addition to a user-minutes approach to define a major primary service outage, parties also suggested setting a minimum outage duration for reporting. They also recommended that the Commission give special consideration to community isolation events and

outages involving critical infrastructure or transport networks. These will be addressed in the following sections.

Minimum duration for a major primary service outage

40. The user-minutes approach provides a sliding scale that could capture a very short service outage when the outage affects a large number of end-users. Such short outages could have minimal impact. Therefore, the Commission must determine an appropriate minimum service outage duration to trigger the notification requirement.
41. The interim measure required TSPs to notify the Commission of service outages lasting more than one hour, a threshold that TSPs generally supported. However, various governments and consumer associations suggested that the threshold should be reduced to 30 minutes because primary service outages affect an end-user's ability to access emergency services.
42. Given the importance of primary services and the fact that a primary service outage also affects access to other services, including emergency services, the Commission determines that a 30-minute threshold is appropriate. Furthermore, setting a minimum outage duration threshold of 30 minutes to define a major primary service outage would align with the FCC's outage reporting threshold and would enable the Commission to benchmark and compare the reliability of Canada's telecommunications systems with those in the United States.

Community isolation

43. When end-users in a community have access to only a single TSP, a primary service outage affecting that TSP means that end-users are unable to communicate with people outside their community and unable to access services, such as online learning and healthcare. This results in the community becoming isolated (a community isolation event). Several parties have suggested that the definition of a major primary service outage must give special consideration to this situation.
44. A community isolation event is a critical event for people in the community. Some communities are more likely to experience such an event because they are often served by just one TSP or have limited connectivity to networks outside the community. This type of service outage prevents access to basic services, such as emergency and government services for all end-users in the community. Accordingly, the Commission finds that a community isolation event should be captured within the definition of a major primary service outage, triggering notification requirements.
45. The availability of satellite telecommunications services does not eliminate the impact of a community isolation event caused by a primary service outage. During such events, end-users who are not already subscribed to satellite services cannot immediately use satellite services to replace their affected primary services, because it would take time to establish a new satellite service subscription. This means that the availability of satellite service does not preclude community isolation.

46. It is therefore necessary to define what communities or types of communities would trigger a community isolation event.
47. A service outage in urban or suburban areas would not typically raise concerns of community isolation because they are generally served by multiple TSPs, have various connections to surrounding communities, and in many cases, have access to public Wi-Fi. Furthermore, due to the large concentration of end-users in urban or suburban areas, a service outage affecting primary services in these areas would qualify as a major primary service outage in much shorter time, based on the affected user-minute threshold, when compared to sparsely populated areas.
48. However, communities that are far away from urban and suburban areas are at the greatest risk of experiencing a community isolation event. These communities are remote, isolated, and rural communities. No single definition exists for such communities. The Commission therefore finds that, to identify communities at greater risk of a community isolation event, TSPs must use the Statistics Canada classifications for remote⁵ or rural⁶ communities, as amended from time to time, and isolated⁷ communities as defined by the Public Health Agency of Canada.
49. Parties suggested different thresholds for community size that could be considered when determining if a community isolation event is a major primary service outage. However, because of the negative impact that a community isolation event has on every person in the community, it is not necessary to determine a minimum threshold of affected end-users.
50. Accordingly, the Commission determines that a primary service outage is a major primary service outage if it results in a community isolation event impacting a remote, isolated, or rural community. Additionally, the minimum primary service outage duration threshold of 30 minutes applies when determining whether a community isolation event is a major primary service outage.

⁵ A remote community is an area or a community that is classified as such by Statistics Canada using an Index of Remoteness. Statistics Canada's recommendation at the time of publishing this decision is to classify a community that has an Index of Remoteness of 0.4 or above as remote. Statistics Canada concludes that this classification is generic, and that different applications might require specialized groupings by remoteness. The classification is subject to change. Source: [Statistics Canada](#)

⁶ For the purposes of community isolation events, a rural community is a census subdivision in a rural area. Rural areas include all territory lying outside population centres. Rural population includes all population living in rural areas of census metropolitan areas (CMAs) and census agglomerations (CAs), and population living in rural areas outside CMAs and CAs. Census subdivision is the general term for municipalities (as determined by provincial or territorial legislation) or areas treated as municipal equivalents for statistical purposes (e.g., Indian reserves, Indian settlements, and unorganized territories). Municipal status is defined by the laws in effect in each province and territory in Canada. Source: [Statistics Canada](#)

⁷ An isolated community has scheduled flights and good telephone services but does not have year-round road access. However, it is possible that not all homes in the community have phones. Source: [Public Health Agency of Canada](#)

Critical infrastructure or transport network outages

51. Some parties suggested that the definition of a major primary service outage should include outages to critical infrastructure and major transport networks because such outages would impact the primary services of multiple end-users.
52. If a TSP experiences an outage to its critical telecommunications infrastructure or transport network, it will likely result in a primary service outage affecting numerous end-users. The Commission therefore considers that it is unnecessary to include critical telecommunications infrastructure or transport networks as separate criteria, because these outages would be captured as major primary service outages if the previously established criteria are met.

Definition of a major primary service outage

53. In conclusion, the Commission determines that a primary service outage is defined as a complete loss of a primary service. It is considered a major primary service outage if it lasts a minimum of 30 minutes and results in either:
 - at least 600,000 user-minutes affected, calculated by multiplying the duration of a service outage in minutes by the number of end-users affected by the outage; or
 - a community isolation event, which is the loss of primary services to a remote, isolated, or rural community, as defined above.

B) Emergency services

54. Emergency services include two types of telecommunications services used by end-users in emergencies: (i) 9-1-1 services and (ii) wireless public alerting services.
55. Major primary service outages will automatically affect access to 9-1-1 services and wireless public alerting services. Notification requirements for primary service outages would therefore encompass situations where end-users cannot access 9-1-1 or wireless public alerting services. However, there may be outages that affect only 9-1-1 or wireless public alerting services while primary services continue to function. In the Commission's view, such outages should therefore have their own notification considerations.

(i) 9-1-1 services

56. 9-1-1 services are used by end-users to reach emergency services, such as fire, police, and ambulance. TSPs that offer voice services⁸ are required to provide their end-users with access to 9-1-1 services. When an end-user initiates a 9-1-1 communication, such as a call or text, it is first routed over the same networks that handle all communications. In the context of providing 9-1-1 services, the TSPs operating such networks are referred to as the originating network providers.

⁸ Including local wireless voice, local wireline voice, and local VoIP services.

57. Originating network providers are interconnected to specialized 9-1-1 networks that are operated by the incumbent local exchange carriers. Those specialized 9-1-1 networks route 9-1-1 calls, and in the future, 9-1-1 texts⁹ to PSAPs.
58. The following sections will discuss the definition of a 9-1-1 service outage and when such an outage should be considered a major 9-1-1 service outage.

Defining a 9-1-1 service outage

59. Several parties proposed that a 9-1-1 service outage is an outage that results in a failure to route 9-1-1 calls or texts to a PSAP. Some parties further proposed that a total or partial loss of accompanying 9-1-1 information that is delivered to a PSAP with a 9-1-1 call or text, such as the caller's name, telephone number, and location (also known as ancillary 9-1-1 data) should also be considered a 9-1-1 service outage.
60. In Telecom Regulatory Policy 2016-165 and subsequent proceedings, the Commission found that 9-1-1 service outages occur when subscribers may be able to make normal telephone calls, but their 9-1-1 calls are not delivered to their local PSAP. 9-1-1 service outages are usually the result of a failure (i) in the 9-1-1 network, (ii) in an originating network provider's 9-1-1 service-specific equipment and facilities,¹⁰ or (iii) within the PSAP.
61. PSAPs can only take action to help people in need if 9-1-1 calls or texts are routed to them. They also rely on the accompanying 9-1-1 call or text information to inform first responders so that those first responders can respond to emergencies quickly. The actions PSAPs can take are limited if they do not receive the 9-1-1 call or text and the accompanying information. The Commission therefore considers that it is appropriate to capture not just 9-1-1 service outages that affect the delivery of 9-1-1 calls or texts to the PSAP, but also those that affect the accompanying information.
62. Accordingly, the Commission determines that a 9-1-1 service outage is an outage where only 9-1-1 services are affected. 9-1-1 service outages originate in either the 9-1-1 network operated by the 9-1-1 network providers or in the 9-1-1 service-specific equipment and systems operated by originating network providers. This includes both (i) a full disruption of 9-1-1 services, where 9-1-1 calls or texts are not delivered to the PSAP; and (ii) a partial disruption of 9-1-1 services, where 9-1-1 calls or texts are delivered but the accompanying 9-1-1 information is not delivered to the PSAP.

⁹ Currently, text-based communications with PSAPs are not conducted over the specialized 9-1-1 networks. However, the Commission has provided a roadmap that will allow for 9-1-1 text-based communications with PSAPs to be made over Next-Generation 9-1-1 (NG9-1-1) networks as part of its regulatory framework.

¹⁰ The originating network providers' 9-1-1 service-specific equipment and facilities include 9-1-1 voice trunks and/or data links used to route 9-1-1 calls, any network equipment used to route or provide 9-1-1 call information, and self-provisioned Location Information Server and Additional Data Repository functionalities in NG9-1-1.

How should a major 9-1-1 service outage be defined?

63. Parties proposed several methods that the Commission could use to determine whether a 9-1-1 service outage is a major 9-1-1 service outage, including the number of 9-1-1 calls or texts affected, the number of end-users affected, or the duration of the 9-1-1 service outage.
64. The Commission recognizes that it is difficult for the 9-1-1 network providers and originating network providers to know the exact number of 9-1-1 calls or texts affected during a service outage. Compiling that information may take several days, which would delay the outage notification. The Commission also considers that when a 9-1-1 network provider or originating network provider experiences a 9-1-1 service outage, a large number of end-users may be affected. As a result, the number of end-users affected is not a helpful indicator of whether a 9-1-1 service outage can be defined as “major.”
65. 9-1-1 services are critical to public safety. It is important that PSAPs be informed as soon as possible of 9-1-1 service outages so that they can take immediate action for the health and safety of Canadians, for example by informing the public of alternative ways to contact emergency services. Accordingly, the Commission determines that every 9-1-1 service outage, regardless of duration and the number of end-users affected, is considered a major 9-1-1 service outage. The relevant PSAPs must be notified of all major 9-1-1 service outages.
66. The Commission uses information from 9-1-1 service outages to help improve the reliability of 9-1-1 services. ISED and the FPT EMOs support the resolution of prolonged 9-1-1 service outages and information about these outages help assist them in making emergency management decisions. Considering this, the Commission, ISED, and FPT EMOs do not require notification of all 9-1-1 service outages. Requiring this would be burdensome to TSPs and divert their resources away from trying to resolve the outage. Therefore, the Commission, ISED, and FPT EMOs must be notified of any major 9-1-1 service outages with a minimum duration of 30 minutes.

(ii) Wireless public alerting service

67. Wireless public alerting is a service whereby wireless service providers (WSPs) transmit emergency alerts to cellphone users (end-users). Emergency alerts are created and sent through the national public alerting system by authorized EMOs, such as police departments, provincial and territorial governments, and Environment and Climate Change Canada.¹¹ In providing this service, WSPs make use of network components separate from those used for primary voice, data, and text services. WSPs also use some

¹¹ The [National Public Alerting System](#) is a federal, provincial, and territorial system that enables emergency management organizations across Canada to warn the public of imminent or possible dangers such as floods, tornadoes, fires, and other disasters. The system is also used for Amber Alerts concerning child abductions when the child is thought to be in grave danger.

shared parts of the network, such as the radio access network, for both wireless public alerting and primary services.

68. The following sections will discuss what is considered a wireless public alerting service outage and when such an outage should be considered a major wireless public alerting service outage.

Defining a wireless public alerting service outage

69. Some parties suggested that a wireless public alerting service outage is an outage that results in a WSP's loss of access to a wireless public alerting platform or any other disruption that results in a WSP failing to send a public alert. In those situations, end-users do not receive wireless public alerts.
70. A service outage that impacts the network components specific to the wireless public alerting service or an outage to shared portions of a WSP's network used to provide both primary services and wireless public alerts would both impact wireless public alerting services.
71. Service outages that impact the shared portions of the network are captured as primary service outages and do not need to be considered in the definition of a wireless public alerting service outage. However, an outage that impacts only the network components specific to wireless public alerting and that does not affect the primary services must be considered separately from primary service outages.
72. Accordingly, the Commission determines that a wireless public alerting service outage is an outage that originates in a WSP's network components specific to wireless public alerting services, resulting in a WSP being unable to send wireless public alerts to end-users.

How should a major wireless public alerting service outage be defined?

73. Most parties proposed that all wireless public alerting service outages, regardless of duration, should be considered major service outages. Some parties proposed that a wireless public alerting service outage should be considered major if the outage lasts more than 30 minutes.
74. As with 9-1-1 services, a wireless public alerting service outage will affect many, if not all, of the affected WSP's end-users. Therefore, the Commission considers that it would not be useful to include the number of end-users affected as one of the criteria for defining a major wireless public alerting outage.
75. Wireless public alerting services are critical to public safety. It is important that FPT EMOs are aware of service outages affecting wireless public alerting services as soon as possible so that they can provide the public with information on alternative ways to receive alerts, such as through radio or television.

76. The Commission and ISED use information from outages to (i) remain updated and aware of them, their impacts, and how they will be resolved; and (ii) monitor WSPs' resolution of prolonged outages that could have a significant impact on end-users. The Commission also provides regulatory guidance on specific outages where necessary.
77. Therefore, the Commission considers that a minimum wireless public alerting outage duration of 30 minutes is appropriate for the purposes of notification to the Commission and ISED.
78. In light of the above, the Commission determines that every wireless public alerting service outage, regardless of the duration and the number of end-users affected, is considered a major wireless public alerting service outage. The relevant FPT EMOs must be notified of all major wireless public alerting service outages. The Commission and ISED must be notified of any such outage with a minimum duration of 30 minutes.

C) Specialized services

79. Specialized services are (i) the TTY and IP relay-based accessibility services used by persons with hearing or speech disabilities,¹² and (ii) the 9-8-8 mental health crisis and suicide prevention service.

Defining a specialized service outage

80. TSPs do not rely on separate networks to offer specialized services. Instead, they rely on the same networks used to deliver primary services. As a result, a primary service outage will result in an outage to specialized services. Notification of those types of outages will be captured as a primary service outage.
81. Specialized service outages can also occur when a TSP cannot connect end-users to the TTY or IP relay service platforms or to 9-8-8 call centres, or when those platforms or call centres are not functioning.
82. TTY and IP relay service platforms are either operated by the TSPs or by a third-party operator under contract with the TSPs. The TSPs are therefore able to capture outages to TTY and IP relay platforms that they operate or platforms operated by a third-party. The TSPs would also be aware of when they are unable to route 9-8-8 calls to the relevant call centre due to an outage not captured by a primary service outage.
83. However, 9-8-8 call centres are not operated by TSPs or parties they have contracted. These call centres are operated by the Centre for Addiction and Mental Health or its partners. TSPs would be able to identify when they are unable to route 9-8-8 calls to the relevant call centre due to an outage not captured by a primary service outage, but they

¹² Video Relay Service (VRS) is another specialized service used by sign-language users but is out of the scope of the proceeding because this service is not provided by TSPs. The Commission recently completed its review of the VRS policy which addressed requirements for notification of VRS outages. More information can be found on the [Video Relay Service](#) section of the Commission's website.

would not have insight into outages that originate in the 9-8-8 call centres. It would therefore not be appropriate to require TSPs to identify outages within 9-8-8 call centres.

84. Accordingly, the Commission determines that a specialized service outage is an outage that is not a primary service outage and (i) results in a TSP being unable to connect its end-users to TTY or IP relay platforms; (ii) involves TTY or IP relay platforms that are not functioning, including where they are operated by third-parties contracted by the TSPs; or (iii) results in a TSP being unable to connect its end-users to the 9-8-8 service because of an issue within the TSP's network.¹³

How should a major specialized service outage be defined?

85. Parties submitted that the definition of a major specialized service outage should be an outage of TTY relay, IP relay, or 9-8-8 services that prevents a significant number of customers from accessing those services. They also noted that the definition should not be based on the number of end-users affected, because TSPs will not be able to specifically identify affected end-users.
86. During a specialized service outage, many, if not all, of an affected TSP's end-users may be unable to access specialized services. Furthermore, TSPs are not able to identify the end-users who need specialized services. The Commission therefore considers that the number of end-users affected by a specialized service outage is not a useful threshold for defining whether that outage is a major specialized service outage.
87. The duration of a specialized service outage is a better indicator to determine if it is a major specialized service outage. The Deaf and Hard of Hearing Coalition proposed 15 minutes as a minimum duration to define a major specialized service outage, whereas TELUS Communications Inc. proposed a minimum duration of 60 minutes.
88. Specialized services are comparable to primary voice and text services. To align the definition of major specialized service outage with that of a major primary service outage, setting a minimum outage duration of 30 minutes is appropriate.
89. Accordingly, the Commission determines that a specialized service outage is considered a major specialized service outage if it lasts at least 30 minutes.

Who should provide notification of major service outages?

90. In the interim measure, the Commission required only Canadian carriers to provide notification of major service outages.
91. Canadian carriers operate networks that provide all telecommunications services, including primary, emergency, and specialized services. TSPs that do not own or operate the transmission facilities necessary for the provision of telecommunications services are considered non-carrier TSPs.

¹³ See Telecom Regulatory Policy 2022-234.

92. The following sections consider (i) whether non-carrier TSPs should be required to provide notification of major service outages, and (ii) whether third parties who are contracted to provide services to TSPs should be permitted to provide notification on behalf of those TSPs.

Should carrier and non-carrier TSPs both be required to provide notification?

93. Parties suggested that non-carrier TSPs should also be required to provide notification of major service outages, in part because only those TSPs would have all necessary information about an outage they are experiencing. Parties further noted that smaller TSPs serve remote communities, critical infrastructure sectors, and territorial and municipal governments and agencies. They added that requiring all TSPs to provide outage notification would therefore ensure a comprehensive reporting structure that would benefit all end-users. However, other parties expressed concerns that this would impose an undue regulatory burden on smaller TSPs.

94. Non-carrier TSPs may own or operate exempt transmission apparatus¹⁴ as defined in the *Telecommunications Act* (the Act) that could result in a service outage, should they fail. In such situations, only the affected non-carrier TSP would have detailed information about those outages. Furthermore, major service outages that affect smaller TSPs impact Canadians no differently from major service outages affecting larger TSPs. Smaller TSPs may also require additional support from government authorities to more quickly restore services. The Commission therefore considers that requiring smaller TSPs to report major service outages would help service restoration efforts.

95. Furthermore, the Commission is of the view that requiring all TSPs who own and operate transmission facilities or exempt transmission apparatus to provide service outage notifications will help ensure that all major service outages are captured and will help facilitate more consistent and comprehensive reporting.

96. Accordingly, the Commission determines that TSPs must provide notification for major service outages resulting from a failure or disruption of their own network equipment or support systems or those of a third party they have contracted to provide services as follows:

- Major primary service outages: All TSPs that own and operate transmission facilities or exempt transmission apparatus.
- Major 9-1-1 service outages: 9-1-1 network providers and originating network providers that are mandated to provide 9-1-1 services.
- Major wireless public alerting service outages: Wireless service providers.

¹⁴ “Exempt transmission apparatus” means any apparatus whose functions are limited to one or more of the following: (i) the switching of telecommunications; (ii) the input, capture, storage, organization, modification, retrieval, output, or other processing of intelligence; or (iii) control of the speed, code, protocol, content, format, routing, or similar aspects of the transmission of intelligence. Source: *Telecommunications Act*.

- Major specialized service outages: All TSPs that own and operate transmission facilities or exempt transmission apparatus and are mandated to provide TTY relay, IP relay, or 9-8-8 service.

97. TSPs are not required to provide notification of major service outages that result from the failure or disruption of the network equipment of other TSPs, including any carrier of which the TSP is a customer.

Should third parties be permitted to provide notification on behalf of TSPs?

98. Some TSPs contract third parties to provide services required for emergency and specialized services. For example, some TSPs use third-party call centres to process voice over Internet Protocol (VoIP) 9-1-1 calls¹⁵ or relay operators to provide TTY relay or IP relay services.¹⁶

99. These third parties often provide services to multiple TSPs, whereby a service outage experienced by one of those third parties can affect the services of multiple TSPs. The Commission therefore considers that it would be efficient for these third parties to provide notification of major service outages on behalf of the TSPs they serve.

100. Accordingly, the Commission determines that a TSP with contracts or other arrangements with third-party TTY or IP relay operators or 9-1-1 service call centres may allow those third parties to provide notification of major service outages on the TSP's behalf. The TSP remains responsible for ensuring that all outage notification requirements are met.

Which government authorities should be notified of major service outages?

101. Most parties suggested that notification of all major service outages should be sent to the Commission and ISED. In the case of 9-1-1 service outages, some parties submitted that notification should also be provided to the affected PSAPs and the 9-1-1 authorities that oversee them. In the case of wireless public alerting service outages, some parties suggested that notification should also be provided to FPT EMOs. This is because of their statutory role to enhance the reliability of wireless public alerting services and deliver emergency services, and their need to have situational awareness about the availability of services in managing emergencies.

¹⁵ VoIP 9-1-1 calls are 9-1-1 calls initiated from a VoIP phone. These calls are routed to third-party call centres to retrieve information about the location of the caller so that the call can be routed to the correct PSAP.

¹⁶ A wireless public alerting service outage could also occur due to an issue with the National Alert Aggregation and Dissemination (NAAD) system operator (currently Pelmorex Weather Networks [Television] Inc. [Pelmorex]). Pelmorex's function as a NAAD system operator is regulated under the *Broadcasting Act*. Requirements for Pelmorex to provide notification of and report major wireless public alerting service outages are therefore best considered and addressed within the conditions of service associated with its NAAD operations and not within the context of this decision.

102. However, some parties submitted that the list of other relevant government authorities that should be notified should be minimized, and that reducing the number of required notifications would allow the TSPs to focus more on restoring services.

103. The Commission considers that a primary objective of major service outage notification is to provide government authorities with the information they need to (i) minimize or manage the impact of an outage, (ii) monitor the service restoration process, (iii) oversee service reliability, and (iv) help manage emergencies.¹⁷ The government authorities that contribute to those actions are the Commission, ISED, FPT EMOs, and PSAPs.

104. In the Commission's view, it is important that each authority receives only information about the major service outages that fall within its specific jurisdiction and area of responsibility. This will reduce any burden for the TSPs and ensure that notification is provided only to the entities who can take action.

105. In considering the different areas of responsibility, the Commission determines that the following entities are to be notified in the event of a major service outage:

- The Commission and ISED are to be notified in all regions of Canada of major primary service outages, major 9-1-1 service outages with a minimum duration of 30 minutes, major wireless public alerting service outages with a minimum duration of 30 minutes and major specialized service outages;
- FPT EMOs are to be notified of major primary service outages, major 9-1-1 service outages with a minimum duration of 30 minutes, and major wireless public alerting service outages where these directly affect geographic areas for which they are responsible; and
- PSAPs are to be notified of major 9-1-1 service outages in their serving areas.

106. The Commission encourages originating network providers to also notify PSAPs of major primary service outages affecting voice or text services within their regions. The Commission also encourages provincial and territorial EMOs to share major primary service outage information with relevant PSAPs.

When should major service outage notifications be provided?

107. The interim measure required carriers to provide notification of a major service outage within two hours of the carrier becoming aware of the outage. Most parties supported maintaining that notification timeframe. Other parties proposed reducing it to 15 minutes or increasing it to four hours, while some parties suggested using a different time threshold for major service outages that occur outside of normal business hours.

¹⁷ "Emergency management" means the prevention and mitigation of, preparedness for, response to, and recovery from emergencies.

108. In the Commission's view, the amount of time between the start of a major service outage and when a TSP must provide notification should depend on (i) the services affected, (ii) the government authority to which the outage is being reported, and (iii) the actions the authority may take after receiving the information.

109. 9-1-1 services are critical to the health and safety of all Canadians. In Telecom Regulatory Policy 2016-165 and subsequent proceedings, the Commission required 9-1-1 network providers to notify all affected PSAPs within 30 minutes of the TSP becoming aware of a 9-1-1 service outage.

110. The 30-minute reporting requirement is well established and has been effective in keeping PSAPs informed of major 9-1-1 service outages. When PSAPs are kept informed of such outages, they can take the immediate measures necessary to continue providing emergency services. This includes informing the public about alternative ways to contact PSAPs.

111. Wireless public alerting services are also important to the health and safety of Canadians. FPT EMOs use those services to warn the public of hazards through their cellphones. When FPT EMOs are immediately made aware of outages to wireless public alerting services, they can more rapidly inform the public of alternative means to receive alerts.

112. The Commission considers that immediately notifying the Commission, ISED, and FPT EMOs (for major primary service outages) would unduly divert resources away from restoring services. The two-hour notification timeframe established in the interim measure has proven sufficient to keep the Commission and ISED informed while allowing the TSPs to focus their efforts on restoring services during the earliest hours of an outage.

113. In light of the above, the Commission determines that after becoming aware of a major service outage, TSPs must provide notification as follows:

- Major primary service outage: TSPs must notify the Commission, ISED, and FPT EMOs within two hours. Originating network providers are encouraged to notify PSAPs of an outage affecting voice and text services within 30 minutes;
- Major 9-1-1 service outage: 9-1-1 network providers and originating network providers must notify (i) PSAPs within 30 minutes; and (ii) the Commission, ISED, and FPT EMOs within two hours;
- Major wireless public alerting service outage: WSPs must notify (i) FPT EMOs within 30 minutes, and (ii) the Commission and ISED within two hours; and
- Major specialized service outage: TSPs must notify the Commission and ISED within two hours.

114. Additionally, the Commission considers that, when the Commission, ISED, and the relevant government authorities are immediately notified of a material change to the service outage information, they are better positioned to take necessary actions relative to

their mandates. TSPs must therefore submit updates to the information provided with respect to an ongoing major service outage as new or revised information becomes available. TSPs must also inform the Commission, ISED, and the relevant government authorities once services have been fully restored.

115. Teams within PSAPs, FPT EMOs, and ISED manage and respond to emergencies whenever they occur. The Commission therefore determines that TSPs must submit notification within the timeframes above, even if that submission is outside of normal business hours.

What specific information should be provided in the notification of major service outages?

116. The information that TSPs are required to provide in a major service outage notification should be sufficient for the relevant government authorities to address the causes and impacts of an outage, facilitate emergency response decision-making, and allow for regulatory oversight. To reduce the administrative burden, the Commission considers that each government authority should receive only the information it needs to fulfill its role and responsibilities in its area of jurisdiction.

117. The interim measure identified certain information that must be included in a major service outage notification to the Commission.¹⁸ In the Commission's view, that information continues to serve the purpose of providing major service outage notification and it therefore remains appropriate to require the same information to be provided in a major service outage notification going forward.

What additional information should be included in the notification?

118. Now that the Commission has defined the criteria for major service outages, it is important for the Commission to know which criteria resulted in an outage being reportable as a major service outage. This includes the type of outage and the threshold that triggered the notification. This will help the Commission better understand the nature and scope of the outage and ensure compliance with reporting requirements.

119. When an outage occurs, ISED is responsible for coordinating federal actions to manage telecommunications emergencies and quickly restore services. If ISED is aware of the circumstances surrounding the outage, including what factors are preventing a TSP from repairing its networks or restoring service, it will be better able to respond appropriately.

120. The Commission therefore determines that TSPs must provide the following additional information when they provide notification of a major service outage:

- the major outage type and the criteria the outage met to be considered a major service outage, including the threshold that triggered the notification; and

¹⁸ [Service Outage Reporting Form – Interim Reporting Measure](#).

- the factors that are preventing the TSP from repairing its networks or restoring services.

121. If information about failed attempts to call 9-1-1 during a major service outage is made available to PSAPs, they can prioritize contacting those callers to determine whether they still need assistance. However, originating network providers may not have access to this information during or soon after a service outage due to technical limitations in originating networks. The Commission therefore encourages the originating network providers and 9-1-1 network providers to provide PSAPs with any available information about failed attempts to call 9-1-1 in a timely manner. This will enable PSAPs to follow up with the 9-1-1 callers, as appropriate.

Information that must be included in the notification

122. The Commission determines that a major service outage notification to the Commission and ISED must include all the information listed below. This will help in monitoring the restoration process and initiating necessary actions, including engaging the stakeholders that can assist in early service restoration:

- (a) the name of the TSP reporting the service outage;
- (b) the services affected, such as voice, text, Internet, 9-1-1, wireless public alerting, TTY relay, IP relay, or 9-8-8;
- (c) the service areas affected, including the provinces or territories, municipalities, and regions;
- (d) the service outage start date and time;
- (e) the expected service restoration date and time;
- (f) the criteria the service outage met to require reporting;
- (g) a brief description of communications with end-users and stakeholders, including a link to the TSP's communication web page or channel used to inform end-users about service outages;
- (h) the TSP's primary and secondary contact details;
- (i) a brief description of the service outage and its impact;
- (j) the networks affected: for example, mobile wireless, fixed wireless, wireline, 9-1-1 networks;
- (k) other TSPs affected, including flanker brands and downstream TSPs;
- (l) the number of end-users affected;

- (m) the causes of the service outage, if known, and a brief description of the causes of the outage, if known;
- (n) a brief description of the steps taken to restore service; and
- (o) the factors that prevent the TSP from repairing its networks or restoring services.

123. In addition to the information required in the interim measure, the list above includes two new items that TSPs must include in their notification of a major service outage: (f) the criteria the outage met to require reporting and (o) the factors that prevent the TSP from repairing its networks or restoring services.

124. The major outage type and the criteria that triggered notification will help all interested parties, including the Commission, better understand the nature, scope, and impact of the outage. It will also help the Commission ensure compliance with reporting requirements. Awareness of the factors that prevent restoring services can assist ISED in allocating and mobilizing resources when coordinating with other government authorities for quick service restoration. This information will also better inform the Commission of any challenges TSPs are facing in restoring services.

125. When a TSP does not have all the required information at the time it initially provides notification of a major service outage, the Commission considers that it must provide all available information, even if it is preliminary. TSPs must then provide additional and updated information as it becomes available.

Confidentiality of the information provided in the notification

126. Some parties raised concerns regarding the provision and public disclosure of certain confidential network information related to service outages to government agencies other than the Commission.

127. Subsection 39(1) of the Act allows TSPs to file information in confidence if that information would result in material or financial loss or gain, impact their competitive position, or affect contractual or other negotiations.

128. The Commission has maintained the confidentiality of certain information provided in major service outage notifications for the interim measure.¹⁹ The confidentiality of that information remains applicable. The confidentiality of the new information to be provided (outlined in paragraph 122 above) also needs to be considered.

129. The major outage type and the criteria that an outage meets to trigger notification are not expected to contain information that would cause direct harm to the TSP providing that notification.

¹⁹ [Interim Service Outage Reporting Information Confidentiality Process.](#)

130. In contrast, the factors preventing a TSP from repairing its networks or restoring services are, in the Commission's view, likely to contain network-specific information that could harm the TSP if publicly disclosed. That information is important for the Commission and ISED to respond to the service outage properly but would provide little benefit to the public should it be disclosed. The Commission has typically treated this information as confidential and specific to the operation of telecommunications networks, given the likely harm to network security and competitiveness resulting from its public disclosure. Given this and the limited benefit to the public that would result from its disclosure, it is appropriate to treat this information as confidential for the purposes of the current notification requirements.
131. The service outage notification information required in paragraph 122 (a) to (g) must therefore be publicly disclosed. TSPs may file the remaining information in confidence. TSPs are also permitted to file the information subject to the requirement that government authorities other than the Commission use it only to address the specific outage.
132. The Act contemplates the provision of confidential information to the Minister of Industry while also subjecting the Minister and their employees to the statutory prohibition against disclosure. The Commission may therefore share all information, including information designated as confidential, with ISED.
133. Other relevant government authorities do not need to receive the confidential information listed above. A notification to PSAPs and FPT EMOs must include the information in paragraph 122 (a) to (g). In the Commission's view, this information will be sufficient to provide them with situational awareness about major service outages.

Should the Commission require TSPs to file detailed post-outage reports?

134. The interim measure required carriers to provide a comprehensive post-outage report within 14 days of the major service outage start date.
135. Most parties supported the requirement for a post-outage report that includes the same information as required in the interim post-outage reports, such as the root cause of the service outage and the total number of end-users affected. Parties also submitted that the post-outage report should include details on the impact of the outage on emergency and accessibility services, the impact on Indigenous peoples, lessons learned, and the TSP's plan to prevent similar outages.
136. While parties proposed deadlines ranging from seven to 30 days for TSPs to file a post-outage report, either from the service outage's start date or its end date, most parties supported a deadline of 30 days following the end of an outage. Parties that proposed the longer timeframe noted that a TSP's priority is restoring services, after which it can focus on post-outage analysis and reporting. TSPs recommended that post-outage reports be treated as confidential because they may contain competitively sensitive information, while other parties supported sharing the report with other TSPs to communicate lessons learned and making public the general impact and root cause of the outage.

137. In the Commission's view, post-outage analysis helps TSPs improve their processes, prevent future service outages, and ensure better preparedness for future challenges. The post-outage report will help the Commission determine if the cause of a major service outage has been sufficiently addressed or if regulatory actions are needed. Post-outage reports will also help the Commission make informed policy decisions.
138. TSPs will need enough time once a service outage has been resolved to analyze the root causes and assess the impact of the outage in order to create an accurate post-outage report. That work should not take TSP resources away from service restoration. The Commission considers that a 30-day deadline following the restoration of services provides enough time for a TSP to collect the necessary information and create a post-outage report without affecting service restoration efforts.
139. Post-outage reports may contain confidential information. However, the lessons learned by a TSP from a major service outage event can benefit the industry by helping to prevent and address future outages. The Commission therefore encourages TSPs to share lessons learned that the Commission can make public to inform other TSPs.
140. Accordingly, the Commission determines that TSPs must submit a post-outage report to the Commission within 30 days of restoring the services affected by a major service outage. The post-outage report must include the following information:
- (a) service outage description;
 - (b) service outage start date and time;
 - (c) root cause of the service outage (if known);
 - (d) networks affected;
 - (e) services affected, including 9-1-1, wireless public alerting, TTY relay, IP relay, and 9-8-8;
 - (f) other TSPs affected;
 - (g) service areas affected;
 - (h) in the case of community isolation, which community was isolated, including whether it was an Indigenous community;
 - (i) number of end-users affected;
 - (j) steps taken to restore the service;
 - (k) impact of the service outage on affected end-users of telecommunications services, including emergency services and specialized services;

- (l) measures implemented or planned, including timelines, to address the cause of the service outage to avoid a similar outage in the future, and to improve reliability and resiliency; and
- (m) an explanation of the lessons learned.

141. TSPs who designate information within their post-outage report as confidential must also provide a meaningful abridged version for publication on the Commission's website. TSPs are encouraged to share their lessons learned in a way that can be made public.

What is the process for notification and reporting?

142. The interim measure requires TSPs to (i) send a confidential version of the service outage notification form to a dedicated email address within two hours of becoming aware of the major service outage; (ii) file confidential and abridged versions of the service outage notification with the Commission, using the My CRTC Account web interface, at the start of regular business hours of the following day; and (iii) submit to the Commission a detailed post-outage report within 14 days following the service outage.

143. Most parties found the My CRTC Account impractical and submitted that information should be provided to the Commission by email, with some parties recommending that voice calls or text messaging be accepted for notifications to relevant government authorities. Pelmorex Weather Networks (Television) Inc. recommended that the National Alert Aggregation and Dissemination (NAAD) system support team, which is available 24/7, could help with the process by receiving and relaying major wireless public alerting service outage notifications to relevant government authorities. Other parties suggested that the Commission should create an online system to handle these tasks more efficiently.

144. In the Commission's view, government authorities must receive accurate service outage information quickly and efficiently so that they can quickly respond to major service outages. However, the method that TSPs use to provide notification must balance speed with ease of use. Requiring TSPs to directly notify all government authorities may not be the best method in all situations, because it would require TSPs to establish new communication channels and maintain long lists of contact information for different outage types.

145. The following sections establish the procedures for TSPs to submit service outage notifications and post-outage reports to (i) the Commission and ISED, (ii) FPT EMOs, and (iii) PSAPs, as appropriate.

How should TSPs submit information to the Commission and ISED?

146. The My CRTC Account submission and the process to post information on the Commission's website are not designed nor optimized to receive service outage notifications or to provide real-time service outage information to Canadians.

Additionally, in the Commission's view, it would be inefficient for TSPs to notify the Commission through both the My CRTC Account web interface and by email.

147. While voice calls and text messages are convenient, the Commission does not consider them to be efficient or appropriate methods to provide the amount and type of information a TSP is required to provide in a major service outage notification or post-outage report. Submitting information to the Commission and ISED through a single dedicated email address would be a more efficient way for TSPs to quickly and easily send all relevant major service outage information.

148. Accordingly, the Commission determines that TSPs must use the email notification process established in the interim measure²⁰ to submit major service outage notifications and post-outage reports to the Commission. The Commission will then share that service outage information with ISED, which will fulfill TSPs' requirement to notify ISED.

149. A web-based system could be more efficient for TSPs to submit notifications and reports to the Commission and ISED, and for the Commission to receive, categorize, and analyze service outage information. The Commission therefore plans to develop an online service outage reporting system, in collaboration with other relevant stakeholders, including those who must be notified and third parties that can help develop and operate the system.

How should TSPs notify FPT EMOs?

150. ISED coordinates telecommunications emergency response efforts with FPT EMOs during emergencies and disasters on matters related to telecommunications services and networks. ISED follows established processes to communicate information about major service outages to FPT EMOs. In the Commission's view, it would be efficient to use that process to ensure that FPT EMOs are notified of major primary service outages and major 9-1-1 service outages with a minimum duration of 30 minutes.

151. Given that ISED will receive notification of major primary service outages and major 9-1-1 service outages with a minimum duration of 30 minutes, ISED can continue to notify the relevant FPT EMOs through its existing communications processes and channels with those organizations.

152. FPT EMOs issue public alerts to inform the public of health and safety emergencies. The Commission therefore considers that these organizations need to be informed of a major wireless public alerting service outage so that they can use alternative communication channels where necessary. The urgency of ensuring that FPT EMOs can keep the public informed requires a separate process that will allow TSPs to more quickly notify the FPT EMOs of a major wireless public alerting service outage.

153. The NAAD system operator has offered to facilitate notification to affected FPT EMOs. The NAAD system operator is available 24/7 by email and telephone and has well-established and effective communication channels with FPT EMOs. In the Commission's

²⁰ The [interim measures](#) established the dedicated [email](#) address for notification and reporting purposes.

view, it would be efficient for the WSPs to use those existing communication channels to quickly notify the FPT EMOs when the WSP experiences a major wireless public alerting service outage.

154. Accordingly, the Commission determines that WSPs must contact the NAAD system support team, by email or telephone, within 30 minutes of becoming aware of a major wireless public alerting service outage. The NAAD system operator is then to relay the outage information to affected FPT EMOs as soon as possible.

How should TSPs notify PSAPs of major 9-1-1 service outages?

155. In Telecom Decision 2017-389, the Commission approved a process for 9-1-1 network providers to inform PSAPs about 9-1-1 service outages. 9-1-1 network providers must continue to notify the PSAPs directly of major 9-1-1 service outages using that process. That process will continue for major 9-1-1 service outages as defined in this decision.

156. The Commission considers that it would be efficient to rely on the same process for originating network providers to inform PSAPs of major 9-1-1 service outages. Therefore, originating network providers must inform the 9-1-1 network providers of major 9-1-1 service outages. The 9-1-1 network providers must then use the process established in Telecom Decision 2017-389 and subsequent decisions to notify PSAPs. TSPs are also encouraged to use this same process to notify PSAPs of major primary service outages affecting the voice and text services that are required to provide access to 9-1-1 services.

157. The infrastructure for 9-1-1 service is currently being upgraded to Next-Generation 9-1-1 (NG9-1-1). As part of that work, the CRTC Interconnection Steering Committee (CISC) Emergency Services Working Group (ESWG) is reviewing the service outage notification requirements for 9-1-1 network providers specific to NG9-1-1. It would therefore, in the Commission's view, be efficient for the CISC ESWG to expand the scope of that work to consider the process that originating network providers should use to notify PSAPs of major 9-1-1 service outages.

Summary of the service outage notification and reporting processes

158. In conclusion, the Commission determines that TSPs must use the following processes to submit relevant major service outage information:

(a) The Commission and ISED:

(i) TSPs must submit all information, including service outage notifications and post-outage reports, to both the Commission and ISED, using the Commission's [outage email](#). The Commission will share the information with ISED. This will fulfill the TSPs' requirement to notify ISED.

(b) FPT EMOs:

(i) FPT EMOs will be notified about major primary service outages and major 9-1-1 service outages with a minimum duration of 30 minutes and

all relevant non-confidential information through ISED's existing communications processes and channels with those organizations; and

- (ii) WSPs must notify the NAAD system operator of a major wireless public alerting service outage. The WSPs should include all required non-confidential information in that notification, which the NAAD system operator will provide to the FPT EMOs as soon as possible.

(c) PSAPs:

- (i) 9-1-1 network providers must notify the PSAPs of a major 9-1-1 service outage using the existing process approved in Telecom Decision 2017-389 and subsequent decisions. The notification must include all relevant non-confidential information; and
- (ii) Originating network providers must notify the 9-1-1 network provider in the service outage area of a major 9-1-1 service outage. The notification must include all relevant non-confidential information. The 9-1-1 network provider must then notify, and provide the information to, the relevant PSAP using the existing process approved in Telecom Decision 2017-389 and subsequent decisions. TSPs are encouraged to use this same process to notify relevant PSAPs of major primary service outages affecting voice and text services that are required to provide access to 9-1-1 service.

159. The Commission requests the CISC ESWG to expand the scope of its work to develop a service outage notification process that considers this decision. The CISC ESWG is to file a report with the Commission by **4 March 2026** that includes recommendations for processes that 9-1-1 network providers should follow to notify PSAPs of major 9-1-1 service outages for both NG9-1-1 networks and legacy 9-1-1 networks. The recommendations should also include processes that the originating network providers should use to notify PSAPs of major 9-1-1 service outages and major primary service outages affecting the voice and text services that are required for 9-1-1 services.

Conclusion

160. In light of all of the above, the Commission requires TSPs, as a condition of providing telecommunications services pursuant to sections 24 and 24.1 of the Act, and pursuant to its authority under subsections 37(1) and (2) of the Act, to provide notification of, and report on, major service outages in the circumstances and in the manner set out in this decision.

161. For ease of reference, the table in the appendix to this decision summarizes the notification and reporting requirements.

Effective date of these requirements

162. The effective date of the requirement for TSPs to notify PSAPs will be determined after the Commission receives the CISC ESWG's recommendations.

163. The remaining determinations in this decision will take effect on **4 November 2025**. This will give TSPs time to implement new procedures and train staff. The service outage notification and reporting requirements established on an interim basis by the Commission in Telecom Notice of Consultation 2023-39 will remain in effect until that date.

Secretary General

Related documents

- *Call for comments – Consumer protections in the event of a service outage or disruption*, Telecom and Broadcasting Notice of Consultation CRTC 2025-227, 4 September 2025
- *Call for comments – Development of a regulatory policy on measures to improve the resiliency of telecommunications networks and the reliability of telecommunications services*, Telecom Decision CRTC 2025-226, 4 September 2025
- *CISC Emergency Services Working Group and Network Working Group – Consensus report NTRE081 on measures to improve the resiliency of 9-1-1 and public alerting services and reduce the impacts of outages*, Telecom Decision CRTC 2025-65, 28 February 2025
- *Telecommunications in the Far North*, Telecom Regulatory Policy CRTC 2025-9, 16 January 2025
- *Call for comments – Broadband Fund policy review*, Telecom Notice of Consultation CRTC 2023-89, 23 March 2023; as amended by Telecom Notices of Consultation CRTC 2023-89-1, 17 April 2023; and 2023-89-2, 25 July 2024
- *Call for comments – Development of a regulatory framework to improve network reliability and resiliency – Mandatory notification and reporting about major telecommunications service outages*, Telecom Notice of Consultation CRTC 2023-39, 22 February 2023; as amended by Telecom Notice of Consultation CRTC 2023-39-1, 11 September 2023
- *Introduction of 9-8-8 as the three-digit abbreviated dialing code for mental health crisis and suicide prevention services and Northwestel Inc.'s application for modified implementation of ten-digit local dialing*, Telecom Regulatory Policy CRTC 2022-234, 31 August 2022; as amended by Telecom Regulatory Policy CRTC 2022-234-1, 9 December 2022

- *Call for comments – Review of video relay service*, Telecom Notice of Consultation CRTC 2021-102, 11 March 2021; as amended by Telecom Notices of Consultation CRTC 2021-102-1, 26 April 2021; 2021-102-2, 30 June 2021; 2021-102-3, 14 March 2022; and 2021-102-4, 19 September 2023
- *CISC Emergency Services Working Group – Consensus report ESRE0076 – 9-1-1 Service Outage Notification Processes*, Telecom Decision CRTC 2017-389, 27 October 2017
- *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 CRTC 2017-182-1, 28 January 2019
- *Implementation of the National Public Alerting System by wireless service providers to protect Canadians*, Telecom Regulatory Policy CRTC 2017-91, 6 April 2017
- *Matters related to the reliability and resiliency of the 9-1-1 networks*, Telecom Regulatory Policy CRTC 2016-165, 2 May 2016

Appendix to Telecom Decision CRTC 2025-225

Summary of major service outage notification and reporting requirements

Type of service outage	Major primary service outage	Major emergency services outage		Major specialized services outage
		Major 9-1-1 service outage	Major wireless public alerting service outage	
Outage description	A complete loss of service to any primary service, such as Internet access, cellphone, and data services, and telephone services (including landline and voice over Internet Protocol [VoIP]).	<p>An outage that results in a full disruption (9-1-1 calls not delivered to the public safety answering point [PSAP]) or partial disruption (9-1-1 calls are delivered, but ancillary data is not delivered) of 9-1-1 services that originates in either:</p> <ul style="list-style-type: none"> • the 9-1-1 network operated by the 9-1-1 network providers; or • the 9-1-1 service-specific equipment and systems operated by an originating 	An outage in the public alerting specific network elements operated by a wireless service provider (WSP) that results in a WSP being unable to send wireless public alerts to end-users.	<p>An outage that results in the inability of a telecommunications service provider (TSP) to connect its end-users to the teletypewriter (TTY) relay or Internet Protocol (IP) relay services; or</p> <p>An outage where the TTY or IP relay platforms are not functioning; or</p> <p>an outage that results in the inability of a TSP to connect its end-users to the 9-8-8 service because of an issue with the TSP's implementation of that service.</p>

		network provider.		
End-user impact for service outage to be considered major	<p>At least 600,000 user-minutes affected, calculated by multiplying the duration of an outage in minutes by the number of end-users affected; or</p> <p>A community isolation event, defined as the loss of primary services to a community that is remote, isolated, or rural.</p>	Any number of end-users affected.	Any number of end-users affected.	Any number of end-users affected.
Minimum duration for service outage to require notification	30 minutes	<p>Notifying PSAPs: any duration</p> <p>Notifying the Commission, Innovation, Science and Economic Development Canada (ISED) and federal, provincial, and territorial emergency management organizations</p>	<p>Notifying FPT EMOs: any duration</p> <p>Notifying the Commission and ISED: 30 minutes</p>	30 minutes

		(FPT EMOs): 30 minutes		
Who must provide notification	<p>All TSPs that own and operate transmission facilities or exempt transmission apparatus.</p> <p>Originating network providers are encouraged to notify PSAPs about major primary service outages affecting voice and text.</p>	<p>Originating network providers.</p> <p>9-1-1 network providers.</p>	<p>WSPs that are mandated to provide wireless public alerting services.</p>	<p>TSPs that are mandated to provide TTY relay, IP relay, or 9-8-8 services.</p>
Government authorities to be notified	<p>The Commission</p> <p>ISED</p> <p>The FPT EMOs who are responsible in the geographic area of the outage.</p> <p>Notification to the PSAPs who serve the area of an outage impacting voice and text services is encouraged.</p>	<p>The Commission</p> <p>ISED</p> <p>The FPT EMOs who are responsible in the geographic area of the outage.</p> <p>The PSAPs who serve the area of the outage.</p>	<p>The Commission</p> <p>ISED</p> <p>The FPT EMOs who are responsible in the geographic area of the outage.</p>	<p>The Commission</p> <p>ISED</p>

Time frame to provide notification after the TSP has become aware of the service outage	The Commission, ISED, and FPT EMOs within two hours. Notification to PSAPs within 30 minutes is encouraged.	The Commission, ISED, and FPT EMOs within two hours. PSAPs within 30 minutes.	The Commission and ISED within two hours. FPT EMOs within 30 minutes.	The Commission and ISED within two hours.
How to provide notification	The Commission and ISED: by the Commission's outage email . FPT EMOs: the Commission will share the notification with ISED, who can then notify the relevant FPT EMOs. PSAPs: through 9-1-1 network providers.	The Commission and ISED: by the Commission's outage email . FPT EMOs: The Commission will share the notification with ISED, who can then notify the relevant FPT EMOs. PSAPs: through 9-1-1 network providers.	The Commission and ISED: by the Commission's outage email . FPT EMOs: WSPs will notify FPT EMOs through the National Alert Aggregation and Dissemination (NAAD) system operator by email or telephone.	The Commission and ISED: by the Commission's outage email .

Updates

TSPs must submit updates to all required government authorities as soon as possible following a material change in the information provided in the notification. These updates must continue until all required information has been provided, the service outage has ended, and all services have been restored. The final update must include confirmation that the outage has ended.

Post-outage reports

TSPs must submit a post-outage report to the Commission by email no more than **30 days** after the major service outage ends and services have been restored. The report must include, at a minimum, the information established by the Commission in this decision.

Dissenting opinion of Commissioner Bram Abramson

1. A coordination failure occurs when multiple parties fail to achieve a better outcome because they do not coordinate their decision-making, even when decisive unilateral action by one of them would have achieved such an outcome. Think of an unsignalled traffic intersection, or a revolving-door standoff.
2. The Commission’s inaction on implementing a robust outage notifications framework, until setting forth on the course leading to the framework implemented in this decision, stems from such a coordination failure. It cannot be divorced from the dual-regulator environment in which we operate. The framework, established in this decision by the full Commission,¹ is an important corrective to that coordination failure, and an important step on our careful, now-three-year-old journey towards a clean notifications framework for the telecommunications sector as a whole.
3. Some of the most important legs of that journey are yet to be travelled. Notification of end-users, the key stakeholders in all of this, is one such leg. Another is the means by which notifications are effected. To date, we have relied on email notifications as an interim measure on the way to plans for an online service outage reporting portal or system.² Such a system, which will surely be built around standardized data formats that integrate gracefully with industry-prevalent tools³—and lend itself to ingesting third-party monitoring data that enrich telecommunications service providers’ (TSPs) first-party reporting⁴—will orchestrate the very notifications contemplated here. It will simplify their registration. It will reduce overhead, replacing rickety email storms with automated push notifications, and permissioned pull capabilities. It will open the door to essential features—most notably, intercarrier notifications—addressed neither by the current decision, focused on notifying authorities, nor the next one to come, which will add our crucial focus on notifying consumers.
4. The Commission and its stakeholders will continue reviewing and refining the approach taken. With appreciation for the robust dialogue and careful analysis that informed this proceeding,

¹ A determination of the Commission—whether it is a formal decision affecting parties’ legal rights, or merely a policy decision presenting preferences (*Bell Canada v. Canada [Attorney General]*, 2016 FCA 217)—is distinguished from a staff determination (*CRARR v. CRTC*, 2000 CanLII 16685), and may be rendered through four main routes. First, and most evidently, a decision may be taken by the full Commission, as this one was. Second, a standing committee or subcommittee, struck pursuant to section 11 of the *Canadian Radio-television and Telecommunications Commission Act*, may decide: the Telecommunications (By-law No. 10) and Broadcasting (By-law No. 26) Committees, and the Broadcasting Committee Sub-committee for Routine and Non-Contentious Matters (By-law No. 29). Third, the Chairperson may alternatively delegate a decision to a temporary panel struck under section 20 of the *Broadcasting Act* or equivalent powers implied under the *Telecommunications Act* (*Shoan v. Canada [A.-G.]*, 2016 FCA 261, paras. 6-10). Fourth, certain decisions may be delegated to a “designated person” pursuant to statutory authority: if so, the act of delegation is itself generally a Commission decision: see, e.g., *Telecommunications Act*, subsection 41.3(3).

² See paragraph 149 of the majority decision.

³ See, e.g., [StatusPage API](#), [Status.io API v2](#), [PagerDuty Developer Platform](#), or [Datadog API Reference](#).

⁴ See, e.g., [Cloudflare Radar \(Canada\)](#), [Ookla Downtetector](#), or [Kentik Network Analysis Center](#).

and constructive exchanges with colleagues and Commission staff throughout, I depart from the majority's conclusions in several key respects, including the scope of services and outages deemed notifiable, interpretation of TSP responsibilities, and decision not to provide a definitive reference list for isolated communities. My concern is that we risk building a framework that is overly rigid in some places, under-inclusive in others, and needlessly complex in its operational expectations.

Fit to modern purpose

5. For a major outage to be notifiable, its service profile must fall into primary, emergency, or specialized services. The majority decision leaves primary services both ill- and under-defined, and is too limited when it comes to emergency and specialized services. Primary services should have been defined more precisely and, when it comes to outage notification, followed the lead of many other jurisdictions by including unregulated but pervasive interpersonal communications services on which everyone depends. Emergency and specialized outage notifications should have included outages in the next link of the chain. Emergency outage notifications should have contemplated last-resort emergency broadcast alerting systems.

a) Primary services

6. "Primary services" relate to subscriptions assigned to a telephone number, Internet connection, or "data link."⁵ They "include [...] telephone, Internet, cellphone, and data services."⁶ They are services "such as Internet access, cellphone, and data services, and telephone services (including landline and voice over Internet Protocol)."⁷ That this definition is service-oriented, at least to a degree, appropriately promotes technological neutrality, ensuring services delivered over wireline, fixed and mobile wireless, and satellite-based networks are equally covered. But why the open-ended "such as" or "includes" in each case? And which data links and data services, defined separately from telephone, cellphone, and Internet services, are we talking about?

⁵ See paragraph 25 of the majority decision.

⁶ See paragraph 22 of the majority decision.

⁷ See the appendix to the majority decision. The voice over Internet Protocol services referred to are presumably those that provide universal access to and/or from the public switched telephone network: Telecom Decision 2005-28, paragraph 16.

7. Is this a reference to basic⁸ connectivity⁹ such as that deployed for off-net financial networks¹⁰ and industrial applications like closed networks-of-things, electric grid control, or mass transit, or even the long-imminent Public Safety Broadband Network (PSBN)?¹¹ The majority decision neither says, nor provides an analytic framework to interpret it.
8. And what about widely-used higher-layer services like Apple’s iMessage; Meta’s Facebook Messenger, WhatsApp, and Instagram Direct; and Snap’s Snapchat, on which most Canadians rely daily to communicate with one another?¹² Excluding what is in the European Economic Area known, and held to outage notification requirements,¹³ as “number-independent interpersonal communications services” (NI-ICS)¹⁴ is out of step with the tools by which Canadians telecommunicate, and on whose resilience and reliability they rely. It is not, after all, at random that widespread NI-ICS outages attract widespread media attention.¹⁵ They are widely reported precisely because of their broad impact as tools that have supplanted telephony. When these communications applications accumulate 600,000 user-minutes of outage time in Canada, then even when the underlying network connectivity remains up,

⁸ *Telecommunications Act*, section 2: a “telecommunications service provider” provides “basic telecommunications services;” Telecom Decision 84-18, section II.C.1: a “basic service is one that is limited to the offering of transmission capacity for the movement of information. In offering this capacity, a communications path is provided for the analog or digital transmission of information of various types such as voice, data and video. [...] A basic service should be limited to the offering of transmission capacity between two or more points suitable for a subscriber’s transmission needs and subject only to the technical parameters of fidelity or distortion criteria, or other conditioning. [...] In offering a basic service, therefore, a service provider essentially offers a pure transmission capability over a communications path that is virtually transparent in terms of its interaction with subscriber supplied information.”

⁹ Layers two and three of the Open Systems Interconnection model.

¹⁰ See Intercontinental Exchange (ICE), Intervention.

¹¹ See PSBN Innovation Alliance, Intervention, paragraph 33.

¹² See *Telecommunications Act*, sections 24.1 (Commission’s jurisdiction over such persons), 23 and 2 (meaning of “telecommunications service”), and subsection 37(2) (relevant jurisdiction even in the unlikely event that these companies did not deliver services in Canada by means of telecommunications facilities).

¹³ See *European Electronic Communications Code*, Directive (EU) 2018/1972 (“EECC”), article 40(2) (obligation to “notify without undue delay the competent authority of a security incident that has had a significant impact on the operation of networks or services”); but see *Technical Guideline on Incident Reporting under the EECC*, ENISA, 21 March 2021, pages 24 (classifying a service outage caused by a cable cut as a Type A notifiable incident) and 29 (classifying a BGP configuration error or wrong update error as affecting the security property of “availability” within the Confidentiality, Integrity, Availability, Authenticity [CIA+] triad).

¹⁴ Services that do not make use of public switched telephone network numbers. See EECC, articles 40(2) (“publicly available electronic communications services”), 2(4) (an “electronic communications service” includes an interpersonal communications service); and 2(5-7) (“interpersonal communications service,” distinguishing number-based from number-independent such services).

¹⁵ See, e.g., “WhatsApp, Meta outages appear over after thousands affected” (Sean Previl, Global News, 28 February 2025), “WhatsApp outages impact users worldwide as tracker reports more than 150,000 incidents” (CBC News, 19 July 2023), etc.

Canadians are deeply affected. The *Telecommunications Act* is technology-neutral legislation. It does not trap the Commission in a box made of legacy telecom services. We should not trap ourselves in such a box, either.

b) Emergency and specialized services

9. The scope of the “emergency services” and “specialized services” subject to outage notifications is, by contrast, clear. Emergency services are 9-1-1 and wireless public alerting services. Specialized services are accessibility intermediaries: teletypewriter relay services (TTY) and Internet Protocol (IP) video relay services (VRS).
10. But here, too, we have overly narrowed our scope. Interruptions to the networks conveying calls to primary public safety answering points (PSAPs), to suicide prevention call intake, and to the Canadian VRS routing service are notifiable. Yet interruptions immediately on the other side of those networks are not. Callers are unlikely to know or care, and ought not have to, on which side of the demarcation the fault lies. A mental health crisis call routed flawlessly to 9-8-8, for instance, fails if the intake system on the other side of it is down, but such an outage falls outside our framework.
11. To be sure, the Commission does not regulate the services provided by primary PSAPs or by the 9-8-8 call administration or by the Canadian VRS routing service. Our role in overseeing emergency response or suicide prevention is even more distant than it might be in respect of number-independent interpersonal communications services. And, admittedly, adding local parties to the outage notification system would be complex in the short-term given the absence of a modern portal. Until we have stood up an efficient system for parties to register their outage so that relevant notifications can be pushed automatically and pulled by appropriately-permissioned parties, the scaling problems that make an email-based workaround a challenge to administer remain.
12. However, an outage in the next bottleneck link required to access these services, which are provided by means of telecommunications, has exactly the same effect as an outage in the previous link in the chain. Nor is there any other easily-findable source for identifying when these services are experiencing an outage. Nor, for that matter, is it efficient or desirable for the agencies and, eventually, the Canadians who rely on these services to have to target their look-ups by where they think the problem might lie.
13. Failing to create a single source of truth as to outages for these federated services is, in my view and for these reasons, a mistake. In the case of primary services, otherwise-unregulated¹⁶ NI-ICS are telecommunications services that in this case should, as they do in countries around the world, attract outage notification requirements when the outage is sufficiently serious. The same is true of those emergency and specialized services—9-1-1, 9-8-8, and

¹⁶ With respect to jurisdiction, see footnote 12 to this dissenting opinion, above. This would create obligations for service providers not currently obliged to register their telecommunications services with the Commission: Telecom Regulatory Policy 2017-11. Such obligations are, in my view, commensurate with the role of these services in society and with the objectives of the *Telecommunications Act*.

Canadian VRS routing, which lie on the other side of dialled calls—where a bottleneck outage has the same effect as an outage in the previous link in the routing chain.¹⁷

c) Emergency broadcast services

14. Our major outages notification framework formalizes the obligation to register timely notification, and a list of who ought to receive such notifications, when there is a major wireless public alerting outage. It does so because such an outage “will affect many, if not all, of the affected [wireless service provider]’s end-users,” given that such services “are critical to public safety. It is important that [federal, provincial, and territorial emergency management organizations] are aware of service outages [...] as soon as possible so that they can provide the public with information on alternative ways to receive alerts, such as through radio or television.”
15. The National Public Alerting System arranges for emergency alerts to be relayed to end-users through both wireless and broadcast last-mile distributors (LMDs). Over-the-air radio and television broadcasters and television service providers of all sizes were required, in 2014, to outfit within a year or two their operations, often at significant expense, to incorporate public alerting systems that override their programming.¹⁸ During the years that followed, the Commission, likewise at significant expense, engaged a sweeping compliance program to try to ensure broadcasting undertakings charged with standing up such a system have done so.
16. All of this expense was deemed worthwhile because of the importance of getting emergency messages to Canadians quickly, accurately, and pervasively. The Coalition pour le service 9-1-1 au Québec, Québec Direction générale de la sécurité incendie et des télécommunications d’urgence, and Vaccination Informatique¹⁹ each made special mention of the essential and backstop role of broadcast LMDs, as does our decision itself. It is clear that outages in broadcast public alerting affect many end-users in respect of services that are critical to public safety.
17. It is, therefore, perplexing that despite both the significant importance we have attached to broadcast emergency alerting and this fundamental role as a complement and backstop to wireless alerting, we did not consider whether major broadcast public alerting service outages ought to be notifiable. We could have done so by launching a follow-up broadcast proceeding to accompany issuance of the majority decision. We could have done so by styling this proceeding as a Telecom and Broadcasting Notice of Consultation, as we have done in a

¹⁷ With respect to jurisdiction, the better approach in respect of these social services would have been to rely on the general information provision powers at subsection 37(2) of the *Telecommunications Act*. This would have avoided any suggestion of their regulation as telecommunications services.

¹⁸ See Broadcasting Regulatory Policy 2014-444 and accompanying orders.

¹⁹ See Coalition pour le service 9-1-1 au Québec, Intervention, page 3 at paragraph Q1(ii)(d); Direction générale de la sécurité incendie et des télécommunications d’urgence, Reply, page 3 at paragraph (d); and Vaccination Informatique, Intervention, paragraph 48.

separate consultation that does not expressly ask about outage notifications.²⁰ Perhaps the latter proceeding will yet provide an additional opportunity for parties to raise the matter. We should already have done so here.

Notification triggers: ambiguous signals delay action

18. Outage notification is not an activity to be embarked upon only once the dust has settled. Its goal is prompt notification enabling swift action. Speculative or unconfirmed reporting is, of course, unacceptable. But whenever there exists reasonable certainty of a significant impact, moving quickly is necessary and appropriate.
19. That is why we have established deadlines and timely standards for reporting major services outages. But three elements of the framework we have adopted work, in my view, against that goal.
20. The first is our threshold for the totality of a primary service outage. A primary service outage is notifiable only on the “complete loss of a primary service” that meets either the 600,000 user-minutes or the remote, isolated, or rural community impact thresholds. I agree with those interveners that highlighted how material degradation of services can substantially compromise primary services’ availability in ways that meet the impact thresholds. But our reporting obligations should account for functional availability: rather than “complete loss”, I would have adopted a “functionally unusable” threshold.
21. The second is the distinction, which will matter little to end-users, between accidental outages and planned ones. Many service providers’ terms of service incorporate a regular maintenance window during which interruptions may take place. But when a planned outage will rise to the level of the impact thresholds for major service outages, it seems to me it ought to attract a notification obligation to ensure that all parties are aware of it. Ideally, that notification could be registered into the outages portal well in advance, supporting awareness and planning by all parties that need to know—as well as by consumers, rules around whose notification has been put forward to another day.²¹
22. The third is the displacement of responsibility from the TSP whose end-users actually experience a major service outage to a carrier upstream from it. The Commission’s registration obligations have long been aligned with the *Telecommunications Act*’s definitions: this is the simple principle that the person who offers a relevant service, and who arranges for customers to receive it, is the registrant.²² So it is not clear why the majority decision becomes entangled in whether the TSP experiencing the major service outage operates “transmission facilities,” like fibre, copper, or active spectrum; operates “exempt transmission apparatus,” like routers, switchers, or multiplexers; or, presumably, operates other kinds of

²⁰ See Telecom and Broadcasting Notice of Consultation 2025-180.

²¹ See paragraph 6 of the majority decision.

²² See, e.g., Telecom Regulatory Policy 2017-11.

“telecommunications facilities.”²³ Surely, the threshold question ought to be whether the TSP has entered into an agreement with end-users to provide telecommunications services to them.

23. If the TSP is a highly self-reliant carrier, they will handle notifications themselves. If the TSP is little more than a marketing team that acts as a nexus of contracts, then responsibility for this function, too, must be included in the contracts that cement their ability to deliver the service they sell. But, either way, responsibility should fall with the TSP registered to provide the service and contractually responsible for doing so. We ought not unnecessarily involve ourselves in management choices as to how they go about it. To exclude some TSPs from major outage notification responsibilities on the grounds that they have outsourced technical capabilities to a subcontractor would be perplexing.²⁴ So would fettering a TSP’s right to subcontract compliance with outage notification obligations²⁵—provided, of course, that subcontracting does not transfer or relieve the TSP, for greater certainty, from its responsibility.
24. These differences are more than a quibble. The majority has decided that “TSPs are not required to provide notification of major service outages that result from the failure or disruption of the network equipment of other TSPs, including any carrier of which the TSP is a customer.”²⁶ That shifts notification responsibility from the TSP whose end-users are affected by the outage upstream, to the TSP identified as responsible for the outage.
25. But the very essence of outage notification is timely situational awareness, not *post mortem* completeness. Providing for TSPs to avoid notification if they can determine the fault lies with an upstream carrier undermines the principle of timely notification upon reasonable certainty of significant impact. In fact, it takes switchless reseller TSPs out of outage reporting altogether. As to the rest, it inserts an unnecessary delay into the process as TSPs first tackle allocation of fault before arriving at the downstream question of whether they are, therefore, responsible for notifying the Commission. That is the wrong order of things. If we wish timely situational awareness—surely our goal—we should incent early notification. Determining causation or fault should be later.

Community scope: a definition requiring more work-through

26. Major primary service outages are notifiable when their severity meets one of two impact thresholds. At least 600,000 user-minutes must have been affected, a threshold that is met more quickly when multiple services experience an outage at the same time. Or a 30-minute outage must have hit a rural, remote, or isolated community.

²³ See paragraphs 93-97 of the majority decision.

²⁴ See paragraph 95 of the majority decision.

²⁵ See paragraphs 98-100 of the majority decision.

²⁶ See paragraphs 96-97 of the majority decision.

27. Relying on the rural, remote, or isolated nature of a community affected by an outage, rather than expecting TSPs to know when and whether they are the only game in town, is a more functional approach to defining a community isolation event. I concur with the majority decision in this regard. However, in my view we ought to have gone further both definitionally and operationally.
28. Definitionally, when considering isolation events that leave many or even most in a given community without the ability to telecommunicate, I wonder whether we have established too narrow a focus. Innovation, Science and Economic Development Canada publishes all of the open data required to determine where only one mobile wireless provider has coverage, which may include areas beyond the rural, remote, and isolated community definitions. At the same time, a growing number of multi-dwelling unit (MDU) disputes before the Commission reflect a trend towards vertical communities of hundreds or even thousands all perched in the sky and subscribed to the same Internet service provider. Should we not have defined wireless and broadband outages in single-provider coverage areas, like these, as community isolation events?
29. Operationally, it seems to me that in simply pointing regulated parties to Statistics Canada's and the Public Health Agency of Canada's definitions, we have done something of a disservice to the TSPs that must now make preparations to meet these outage notification obligations. It is inefficient that every TSP serving non-urban locations undertake this work separately. More, it is inevitable that when they do, different TSPs undertaking data analysis differently will have slightly different conclusions as to which communities are in and which are out. The more efficient approach would have been for the Commission to create a list of such communities. Where we have the opportunity to do once definitively what will otherwise be done many times in parallel and tentatively, we ought to seize it.

Conclusion

30. This decision is an important milestone on the Commission's continuing build of a resilient, inclusive, and comprehensive modern outages framework that was, for too long, missing in action as the result of coordination failures. Our next steps must be towards a regime that reflects the technologies Canadians use and rely on, the interdependencies that define our networks, and the clarity and trust that real-time coordination demands. That will require us to keep "shift[ing] to a more proactive and forward-looking style of regulation [...] with an enhanced focus on strategic foresight and research," "generat[ing] and sift[ing] through a broader base of information, much of it from non-traditional sources."²⁷ I believe we are ready to meet that challenge.

²⁷ *Canada's communications future: Time to act*, Broadcasting and Telecommunications Legislative Review Panel, 29 January 2020, section 1.3.2.