

# Review of Fixed PSTN Interconnection - reasonable grounds assessment draft decision

Draft decision on whether to commence an investigation under  
Clause 1(3) of Schedule 3 of the Telecommunications Act

Date: 10 February 2026



## Associated documents

Publication date	Reference	Title
30 June 2016	ISSN 1178-2560	<a href="#">Review of Designated and Specified Services under Schedule 1 of the Telecommunications Act 2001</a>
12 May 2021	ISSN 1178-2560	<a href="#">Review of Services in Schedule 1 of the Telecommunications Act 2001 - Final decision on whether to commence an investigation under clause 1(3) of Schedule 3 of the Telecommunications Act 2001</a>
17 June 2025	ISBN 978-1-99-133262-2	<a href="#">Framework for reasonable grounds assessment</a>
10 February 2026		Network Strategies “Fixed PSTN Interconnection in New Zealand Final Report for Commerce Commission”.

## Glossary

### Table of terms and abbreviations

Act	The Telecommunications Act 2001
Commission	The Commerce Commission
Designated service	A service described in Part 2 of Schedule 1 of the Act, which includes both price and non-price terms for access
Fixed PSTN	<p>(a) means a PSTN, or that part of a PSTN, that connects an end-user's building to the local switches or equivalent facilities; and</p> <p>(b) includes those local switches or equivalent facilities</p>
FWA	Fixed wireless access – broadband access to a fixed location provided over a wireless mobile network
GEO	Geostationary satellite - Satellites positioned so that they remain over the same place on Earth at around 35,000km
LEO	Low earth orbit satellite - satellites deployed in constellations at lower levels (generally 500 – 1,500km above the Earth's surface)
MNO	Mobile network operator
MOS	Mean opinion score - a numerical rating from one to five that represents the perceived quality of a voice or video service, with five being "Excellent" and one being "Bad"
Off-net	When a call or message originates on one network and terminates on a different network
OIA	Official Information Act 1982
On-net	When a call or message originates and terminates on the same network
OTT	Over-the-top applications such as Facebook Messenger and WhatsApp
POTS	Plain Old Telephone Service
PSTN	Public Switched Telephone Network, defined in clause 5 of the Act as “a dial-up telephone network used, or intended for use, in whole or in part, by the public for the purposes of providing telecommunication between telephone devices”
PSTN Interconnection	Defined in part 2 of Schedule 1 of the Act as “origination and termination (and their associated functions) of voice and data calls (including dial-up Internet calls) on a fixed PSTN”
SMP	Substantial market power

**Table of terms and abbreviations**

STD	Standard Terms Determination
TCF	Telecommunications Carriers Forum
VoIP	Voice over Internet Protocol
VoLTE	Voice over Long-Term Evolution
WISP	Wireless Internet Service Provider

# Contents

<b>Associated documents.....</b>	<b>2</b>
<b>Glossary.....</b>	<b>3</b>
<b>Executive summary .....</b>	<b>6</b>
<b>Chapter 1      Introduction and background .....</b>	<b>7</b>
Purpose and structure .....	7
<i>The PSTN Interconnection service and the regulatory background .....</i>	8
<i>Requirement to review PSTN Interconnection regulation .....</i>	9
<i>Information for interested parties on making a submission. ....</i>	9
<i>Confidentiality.....</i>	10
<b>Chapter 2      Draft decision on the existence of reasonable grounds .....</b>	<b>11</b>
Purpose and structure .....	11
<i>Assessment framework .....</i>	11
Evidence for the assessment .....	11
<i>Description of PSTN Interconnection .....</i>	12
The definition of the PSTN Interconnection service .....	12
How the PSTN Interconnection service is used .....	13
<i>Context for the assessment.....</i>	14
<i>Assessment of reasonable grounds.....</i>	15
Identification of alternatives .....	15
Competition assessment.....	17
Close substitutes .....	20
Consumer switching.....	23
<i>Testing alignment with the section 18 purpose of the Act.....</i>	27
<i>Draft decision and next steps .....</i>	29
<b>Attachment A    Specific feedback sought on this draft paper.....</b>	<b>30</b>
<b>Attachment B    Summary of the Network Strategies Report.....</b>	<b>31</b>

## Executive summary

- X1 The Commerce Commission (**the Commission**) is periodically required to consider, at least every 5 years, if there are reasonable grounds to commence an investigation into whether to omit Interconnection with a fixed Public Switched Telephone Network (**PSTN**) from Schedule 1 of the Telecommunications Act 2001(**Act**). We are required to complete our reasonable grounds assessment by 12 May 2026.
- X2 Interconnection with a fixed PSTN (**PSTN Interconnection**) enables users on one network to communicate with users on another network via their fixed telephone lines.<sup>1</sup> It was first regulated in its current form in 2011 due to concerns about monopolistic behaviour and barriers to competition.
- X3 Since our last review in 2021 there have been some changes in the telecommunications market:
  - X3.1 Spark and One NZ continue to shut down their Plain Old Telephone Service (**POTS**) voice calling services;
  - X3.2 PSTN alternatives have significantly grown and likely provide competitive constraint; and
  - X3.3 It is unlikely that any one player would benefit from exercising market power.
- X4 Our view is that market conditions have changed such that regulation of PSTN Interconnection may no longer be required, as competitive alternatives now provide sufficient constraint on market power, consistent with the conclusions of an independent report prepared for the Commission by Network Strategies.
- X5 As such, our draft decision is that there are reasonable grounds to commence an investigation into whether to omit PSTN Interconnection from Schedule 1.
- X6 We invite submissions on our draft decision, in particular on the topics in **Attachment A**, by 5pm on 10<sup>th</sup> March 2026. We will take account of relevant points raised in submissions on our draft decision and provide our final decision by May 2026.

---

<sup>1</sup> For this purpose, PSTN Interconnection, as defined in the Act, includes Voice over Internet Protocol (VoIP) services.

# Chapter 1 Introduction and background

- 1.1 To deliver competitive retail telecommunications services, retail service providers may require access to wholesale services. Several wholesale services are subject to limited or no competition. In such cases, access to these services may be mandated under the Act to promote competition for the long-term benefit of end-users.<sup>2</sup>
- 1.2 Market evolution can lead to increased competition, changes in market preferences, or technological change. These developments can mean that it may no longer be necessary to mandate access to a regulated wholesale service.
- 1.3 As such, the Act requires that we consider, at least every five years, whether there are reasonable grounds to commence an investigation into whether the regulated wholesale services, such as PSTN Interconnection, should be omitted from Schedule 1 of the Act. We refer to this type of investigation as a “Clause 1(3) Investigation”.<sup>3</sup>

## Purpose and structure

- 1.4 This paper sets out our draft decision on the existence of reasonable grounds to commence an investigation into whether PSTN Interconnection should be omitted from Schedule 1 of the Act.<sup>4, 5</sup>
- 1.5 This structure of this paper is:
  - 1.5.1 **Chapter 1** is an introduction which provides a background to PSTN regulation and outlines the process for this reasonable grounds assessment;
  - 1.5.2 **Chapter 2** outlines our draft reasonable grounds analysis and decision;
  - 1.5.3 **Attachment A** outlines specific questions for submitters; and
  - 1.5.4 **Attachment B** provides a brief summary of the external Network Strategies report we commissioned.

---

<sup>2</sup> Once a service is included in Schedule 1, regulated terms of access can (but do not need to) be given effect through a determination or standard terms determination. Regulated services are either designated or specified services. We can determine price and non-price terms for designated services. For specified services we are only able to determine non-price terms.

<sup>3</sup> Clause 1(3) of Schedule 3.

<sup>4</sup> Clause 1(3) of Schedule 3 of the Act.

<sup>5</sup> Section 66(b) of the Act.

## The PSTN Interconnection service and the regulatory background

- 1.6 A PSTN is a network of switches and connections that connect telephone calls from one person to another. A network operator needs to be able to interconnect with a fixed PSTN to ensure that its customers can complete calls to customers on another fixed network.
- 1.7 PSTN Interconnection was added to the Act as two designated services in 2001 to cover:<sup>6</sup>
  - 1.7.1 Interconnection with Telecom's fixed PSTN; and
  - 1.7.2 Interconnection with another fixed PSTN.
- 1.8 PSTN interconnection was the fundamental basis of early competition in telecommunications in New Zealand. Toll bypass and dial-up internet access were where the first shoots of competition sprouted. Since that time the importance and size of the market have waned, and the PSTN market is now a small and declining part of the telecommunications market.
- 1.9 Following inclusion of the services, the Commission made a Determination in 2002 which set price and non-price terms for access to both services.<sup>7</sup> This Determination expired in 2003 and there has been no determination since, meaning that the service has not been directly regulated since that time.
- 1.10 The service description in the Act was amended in 2011 to create a single designated service, Interconnection with a fixed PSTN.<sup>8</sup> The single service covers any origination and termination of voice and data calls on a fixed PSTN.
- 1.11 In our 2016 review we concluded that PSTN Interconnection should remain in Schedule 1 of the Act on the basis that there were no direct substitutes, and that any indirect constraints at the retail level were likely to be limited.<sup>9</sup>
- 1.12 In our 2021 review we concluded that the service remained important in many parts of the country. There was no clear direct substitute, and the service was likely to continue to provide an important backstop and reference point for commercial negotiations.<sup>10</sup>

---

<sup>6</sup> Designated services are services where we set both price and non-price terms as opposed to specified services where only the non-price terms can be set.

<sup>7</sup> Commerce Commission (2002), *Determination on the TelstraClear Application for Determination for Designated Access Services, Decision 477*, 5 November 2002.

<sup>8</sup> Telecommunications (TSO, Broadband, and Other Matters) Amendment Act 2011, Schedule 1.

<sup>9</sup> Commerce Commission “*Review of Designated and Specified Services under Schedule 1 of the Telecommunications Act 2001*” (5 July 2016), pages 32 – 34.

<sup>10</sup> Commerce Commission “*Review of Services in Schedule 1 of the Telecommunications Act 2001*” (12 May 2021), pages 15 – 19.

## Requirement to review PSTN Interconnection regulation

1.13 We are required to review each Schedule 1 service at least every five years, starting from the time the service came into force. This is a two-step process; first considering whether there is a case for deregulation and second completing an investigation into whether deregulation should occur. As PSTN Interconnection was last reviewed in May 2021, we must complete the current review by 12 May 2026. We refer to this throughout this paper as the ‘reasonable grounds assessment’.

1.14 This review is limited to considering whether there are reasonable grounds for commencing a Clause 1(3) Investigation into whether the relevant service should be omitted from Schedule 1 of the Act. It does not extend to considering introducing a new service or amending an existing service.<sup>11</sup>

1.15 Table 1.1 sets out the next steps in the reasonable grounds assessment process.

**Table 1.1 Next steps**

Milestone	Indicative date
<b>Draft decision published (this paper)</b>	<b>10 February 2026</b>
<i>Submissions on draft decision due</i>	<i>10 March 2026</i>
<i>Cross-submissions on draft decision due</i>	<i>24 March 2026</i>
<i>Final decision published</i>	<i>By May 2026</i>

## Information for interested parties on making a submission.

1.16 We are seeking submissions on our draft decision by 5pm 10 March 2026. We may also seek cross-submissions.

1.17 You should address your responses to:

- 1.17.1 Toni Shuker (Manager, Regulatory Rules and Compliance);
- 1.17.2 c/o [Telecommunications@comcom.govt.nz](mailto:Telecommunications@comcom.govt.nz)

---

<sup>11</sup> Under clause 1(1) of Schedule 3, we can initiate at any time an investigation into whether a new service should be added to Schedule 1, or whether an existing service should be altered or omitted. This power is separate from our obligation to consider at intervals of not more than 5 years whether there are reasonable grounds to start a clause 1(3) investigation.

1.18 Please include “PSTN Interconnection” in the subject line. We prefer responses to be provided in a file format suitable for word processing in addition to PDF file format.

## **Confidentiality**

1.19 The protection of confidential information is something that we take seriously. If you need to include commercially sensitive or confidential information in your submission, you must provide us with both a confidential and a public version of your submission that are clearly identified. Public versions of all submissions we receive will be published on our website.

1.20 You are responsible for ensuring that commercially sensitive or confidential information is not included in a public version of a submission that you provide to us.

1.21 All submissions we receive, including any parts of them that we do not publish, can be requested under the Official Information Act 1982 (**OIA**). This means we would be required to release material that we do not publish unless a good reason existed under the OIA to withhold it. We would normally consult with the party that provided the information before we disclose it to a requester.

## Chapter 2 Draft decision on the existence of reasonable grounds

### Purpose and structure

- 2.1 This chapter sets out our draft decision on whether there are reasonable grounds to commence an investigation into whether PSTN Interconnection should be omitted from Schedule 1 of the Act.
- 2.2 This chapter is structured as follows:
  - 2.2.1 Assessment framework;
  - 2.2.2 Description of the PSTN Interconnection service;
  - 2.2.3 Context for the assessment; and
  - 2.2.4 Assessment as to whether reasonable grounds exist:
    - 2.2.4.1 identification of alternatives;
    - 2.2.4.2 a competition assessment; and
    - 2.2.4.3 testing alignment with the section 18 purpose of the regulation.

### Assessment framework

- 2.3 We previously published our Framework for reasonable grounds assessments.<sup>12</sup> We have applied this framework to this reasonable grounds assessment.

### Evidence for the assessment

- 2.4 The evidence that we have relied on for this assessment has primarily been sourced from existing Commission data sources. We often use data collected via the Annual Industry Questionnaire and our annual data connection request. We refer to such data throughout the paper as ‘Commission data’. Where available, we have also used relevant information that is publicly available.

---

<sup>12</sup> Commerce Commission “Framework for reasonable grounds assessments” (17 June 2025).

- 2.5 We also commissioned an external expert report by Network Strategies to assist our understanding of PSTN Interconnection in New Zealand and have published this report alongside our draft decision.<sup>13</sup> We summarise the report in **Attachment B**. The report concludes that deregulation in New Zealand is unlikely to significantly harm competition. Fixed PSTN serves a relatively small segment of the population and Spark’s PSTN decommissioning programme continues.
- 2.6 We are aware that various data sources were collated at different points in time and have accounted for this when undertaking our analysis. We will continue to do this as we receive submissions and finalise our decision.

## Description of PSTN Interconnection

### The definition of the PSTN Interconnection service

- 2.7 PSTN Interconnection is a designated wholesale service that enables retail service providers (**RSP**) to connect their network with a fixed PSTN operated by a different provider. It allows calls to be routed and made between users on different networks (**off-net calls**).
- 2.8 A fixed PSTN is defined in the Act as:<sup>14</sup>
  - a PSTN, or that part of a PSTN, that connects an end-user’s building to the local switches or equivalent facilities.
- 2.9 While Spark’s (previously Telecom’s) copper-based PSTN – the system of switches that allowed calls to be made across the copper network – is generally considered both in industry and publicly as ‘the’ fixed PSTN, the Act is broader and refers to ‘a’ fixed PSTN.
- 2.10 PSTN Interconnection is described in the Act as:<sup>15</sup>
  - origination and termination (and their associated functions) of voice and data calls (including dial-up Internet calls) on a fixed PSTN.
- 2.11 These two definitions, particularly the inclusion of “voice and data calls” in the description means the service description is not tied to any one provider or technology.<sup>16</sup> The term “or equivalent” (in the fixed PSTN definition) also implies that the definition remains current and is not technologically static.

---

<sup>13</sup> Network Strategies “Fixed PSTN Interconnection in New Zealand Final Report for Commerce Commission”.

<sup>14</sup> Section 5 of Part 1 of the Act.

<sup>15</sup> Part 2 of Schedule 1 of the Act.

<sup>16</sup> Dial-up Internet calls is used as an example of a data call in the Act. Dial-up is one type of data call but not the only one. The use of “dial up” is used for illustrative purposes of data calls that was highly relevant in 2001 but practically obsolete now.

- 2.12 VoIP is one of several protocols for carrying voice over broadband. In practice it is the technology that landlines which operate over fibre, fixed wireless access (**FWA**) and other modern broadband technologies use. VoIP voice services involve fixed-line and off-net calls.
- 2.13 Our view is that VoIP voice services fall within the definition of a PSTN. This is consistent with our 2021 report, which found: *“This single service covers any origination or termination of voice and data calls on a fixed PSTN and is not limited to just the legacy Telecom copper-based PSTN.”*<sup>17</sup> As a result, as we discuss further below, our preliminary view is that fixed-line calls using VoIP are captured under the service description and therefore are not a retail alternative. We invite submissions on this position to support our final reasonable grounds assessment.
- 2.14 PSTN Interconnection encompasses the origination and termination of calls which either start and/or end on a geographic number (landline). This includes calls made from a mobile to a landline as the call must be terminated using a PSTN.<sup>18</sup>

## How the PSTN Interconnection service is used

- 2.15 In New Zealand, a calling party pays system has typically applied, where the party making the call pays for the call, and the party receiving the call does not. Under this charging model, owners of networks charge other providers for calls to be terminated on their network. For example, where a One NZ customer makes a call from a landline or a mobile to a Spark landline customer, Spark would charge One NZ a wholesale termination rate to recover the costs of terminating the call on its fixed network. This wholesale termination rate is recovered from the calling party in the form of a retail price (either a per minute price or a retail plan cost if it includes an allocation of minutes). If a PSTN determination were in effect, this wholesale rate would be no more than the regulated maximum termination rate.
- 2.16 Origination rates apply in specific situations where the calling party does not pay for making the call, such as calls to a special number (eg, an 0800 number) or toll bypass. In this case, the ‘receiving party pays’ for the call. If a PSTN determination were in effect, the wholesale price for originating the call would be no more than the regulated maximum origination rate.

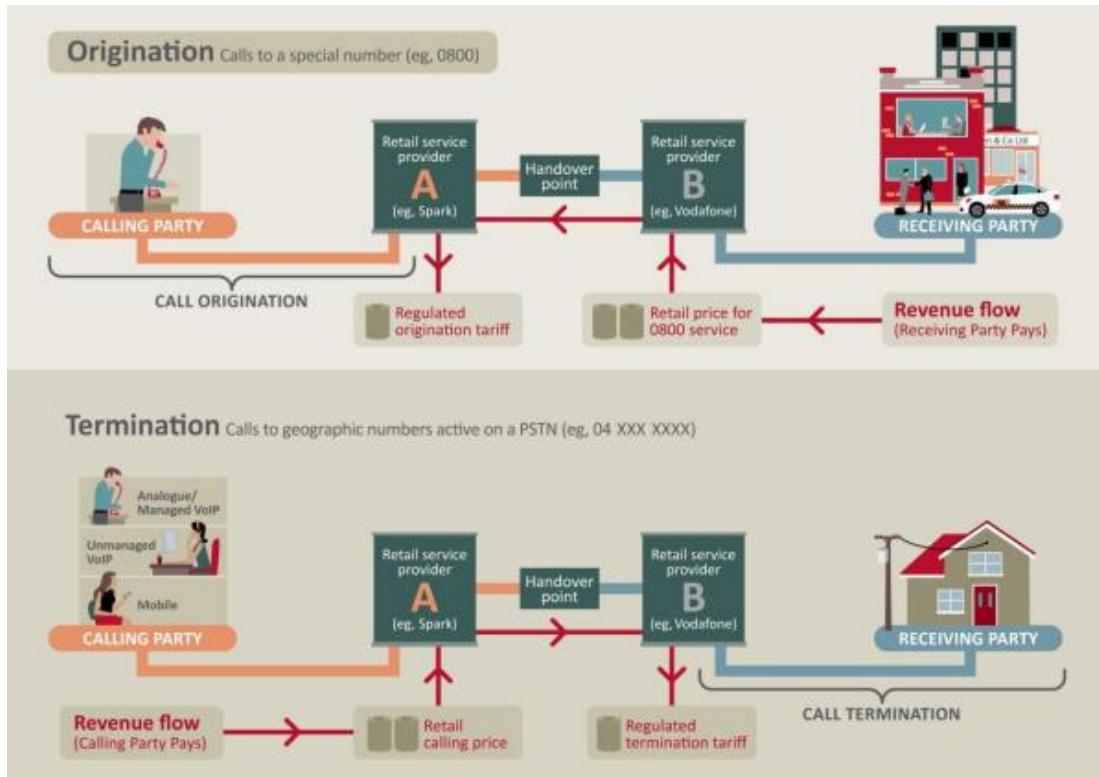
---

<sup>17</sup> Commerce Commission “[Review of Services in Schedule 1 of the Telecommunications Act 2001](#)”, 12 May 2021, paragraph 50.

<sup>18</sup> It excludes calls made from fixed lines to mobiles, and from mobiles to mobiles. These are regulated under Mobile Termination Access Service (**MTAS**) regulation. We are currently undertaking a Clause 1(3) investigation into MTAS. Further information on this can be found here: <https://www.comcom.govt.nz/regulated-industries/telecommunications/projects/mobile-termination-access-services-review-2/>.

2.17 These functions and the associated revenue flows with origination and termination of calls on a fixed PSTN are illustrated in Figure 2.1.

**Figure 2.1 Origination and termination on a fixed PSTN**



2.18 As such, the regulated service in scope covers interconnection with another fixed voice network, (ie both origination and termination). As outlined previously, we include fixed-line calls made using VoIP in this definition.

## Context for the assessment

2.19 For a network operator to be able to connect telephone calls from one person to another on a different network, that operator must be able to interconnect with that other network. In the absence of interconnection, a network operator would only be able to offer calls between its own customers. It would not be able to terminate their calls on other networks or receive calls from other networks.

2.20 Without interconnection, smaller networks may be constrained from competing with larger networks, as customers on the smaller network would only be able to call a small number of customers.

2.21 To date, the purpose of having PSTN Interconnection as a designated service in Schedule 1 of the Act has been to:

2.21.1 prevent discrimination between RSPs;

- 2.21.2 keep competition fair and encourage market entry from smaller providers; and
- 2.21.3 act as a deterrent to excessive wholesale prices.

## Assessment of reasonable grounds

### Identification of alternatives

- 2.22 As discussed above, ‘interconnection’ in the context of this paper includes both origination and termination. Finding reasonable grounds to investigate the continuing regulation of either of these components of interconnection will trigger an investigation. Accordingly this paper considers both origination and termination as components of the regulated service as a whole.
- 2.23 We first consider the wholesale market for termination, and any competitive constraints that any alternatives may provide. We then look at any indirect competitive constraints that may exist, including alternatives in a downstream retail market.
- 2.24 We note that there are some market participants who have historically considered that there is a lack of direct substitutes and limited indirect constraints from the retail market.<sup>19</sup> This argument was stronger in 2016 and 2021 (and is one we agreed with), but due to market developments, it likely holds less weight in 2025.
- 2.25 Even with our approach in this paper of including VoIP in the service definition (and thus excluding it as an alternative), the continued reduction in fixed-line calling at the expense of mobile calls and over-the-top (**OTT**) applications, as well as cloud-based telephony (eg, Microsoft Teams), particularly for business customers, supports our preliminary view that there are reasonable grounds to commence an investigation into the deregulation of the PSTN Interconnection service.

### The wholesale market

- 2.26 We consider the current market in which PSTN Interconnection services compete to comprise wholesale services that can be used to offer fixed-line voice services to end-users.
- 2.27 Due to the nature of the technology, there are no direct substitutes for PSTN Interconnection. Making a call that involves another fixed network requires the handover of the call onto another operator’s network.

---

<sup>19</sup> Network Strategies “Fixed PSTN Interconnection in New Zealand Final Report for Commerce Commission”, page 2 Spark, page 14 2degrees (sub 2016 paper), page 15 Nova 2021 review, page 18 Symbio.

## The retail voice market

2.28 While there are no wholesale alternatives, there are alternatives in the downstream retail voice market that could provide an indirect competitive constraint. These are alternative options for making voice calls that do not require interconnection with a PSTN and are something which a consumer could switch to if a fixed-line network owner decided to raise interconnection prices, or to not interconnect with other networks (were regulation not present). These include:

- 2.28.1 Calling the party's cellular mobile (including Wi-Fi calling);<sup>20</sup> and
- 2.28.2 calling the party over OTT apps including cloud-based telephony such as Microsoft Teams.<sup>21</sup>

2.29 Cellular mobile services allow consumers to call mobile or fixed-line connections. It offers some different characteristics to fixed lines such as portability but is limited on battery life and coverage varies. Pricing often differs to traditional fixed-line calls with an allowance of minutes often included in a plan making the price per minute less visible.

2.30 Wi-Fi calling allows consumers with a mobile to make calls over a broadband connection (via Wi-Fi) instead of using the cellular mobile network. This is useful where mobile coverage is limited or not available, but a broadband connection is available.

2.31 OTT apps such as WhatsApp and Facebook Messenger allow consumers to make voice calls over an internet connection. These calls can be made and received on many devices anywhere there is an internet connection.<sup>22</sup> Cloud-based telephony requires a dedicated number (unlike OTT apps), and has switches 'in the cloud'.<sup>23</sup>

2.32 While this assessment is forward looking, we are excluding direct-to-cell satellite services from consideration at this time (either specifically or as part of cellular mobile) due to:

- 2.32.1 their limited availability (both providers and handset); and

---

<sup>20</sup> Wi-Fi calling uses an active mobile plan to make calls over a Wi-Fi connection rather than using mobile coverage. As such, there are differences in these two technologies in coverage (eg in remote areas where there is no mobile coverage but a broadband connection is present and thus Wi-Fi calling is available). However, these differences are small so we consider them together.

<sup>21</sup> We note that OTT apps and cloud-based telephony differ in that cloud-based telephony requires a dedicated number while OTT apps do not. However, their similarities in consumer use, access and function mean we have combined these for consideration of competition.

<sup>22</sup> VoIP and OTT are related but they are not the same thing. VoIP is a technology that facilitates voice communication over internet protocol networks. OTT apps use VoIP technology for example to make voice and video calls so are essentially a broader category of services.

<sup>23</sup> We note that cloud-based telephony may or may not be considered VoIP depending on the configuration. We have included it as an alternative to capture the situations where it isn't VoIP.

2.32.2 unclear timelines regarding wider rollout across handsets and providers.

2.33 We do expect these services to grow in use in the future, enhancing the attractiveness of mobile as a substitute by reducing coverage concerns and limitations mobile users face.

## Competition assessment

2.34 As demand for PSTN Interconnection is primarily derived from the downstream retail voice market, for this analysis we assess competition for retail voice services and the competitive constraint applied to voice services using a fixed PSTN (we use the term ‘fixed-line’ to refer to such services).

2.35 We consider that assessing competition in the retail voice market requires analysis of:

- 2.35.1 the market structure;
- 2.35.2 whether alternatives represent close substitutes; and
- 2.35.3 actual switching behaviour.

## Market structure

2.36 The number of fixed-line voice services (landlines) in New Zealand has fallen over the last two decades. In 2013, over 85% of New Zealand households had a landline, while in March 2023, that share had fallen to 31%.<sup>24</sup> Conversely, the number of mobile connections has grown consistently.<sup>25</sup>

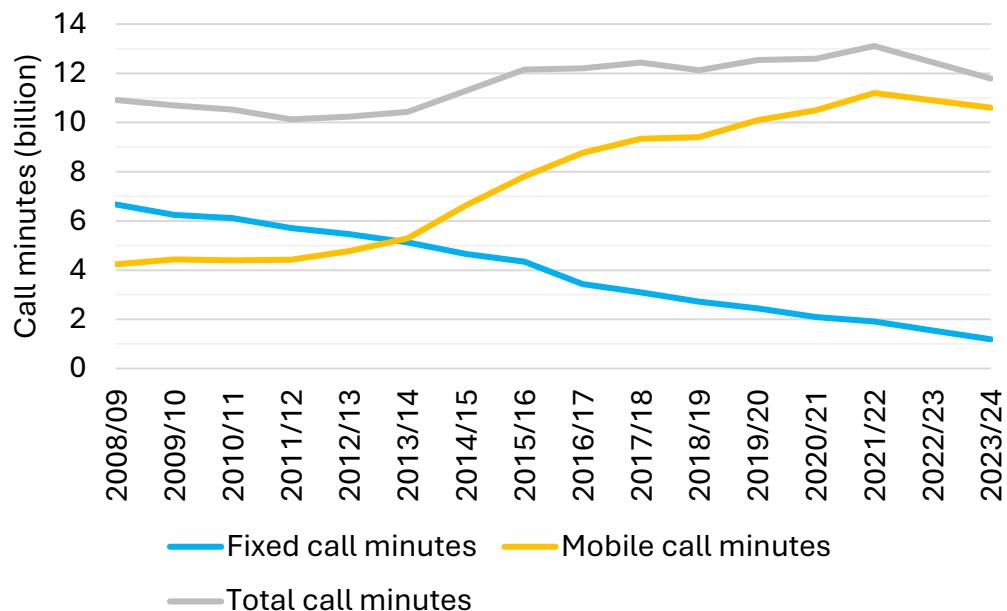
2.37 The trends are similar when we consider minutes. Figure 2.2 highlights the decline in landline minutes as consumers, some of whom may still keep their residential landline, make more of their calls over mobile services and other technologies.

---

<sup>24</sup> Stats NZ “[2023 Census Your Place, Your Data](#)” (11 April 2025), page 13.

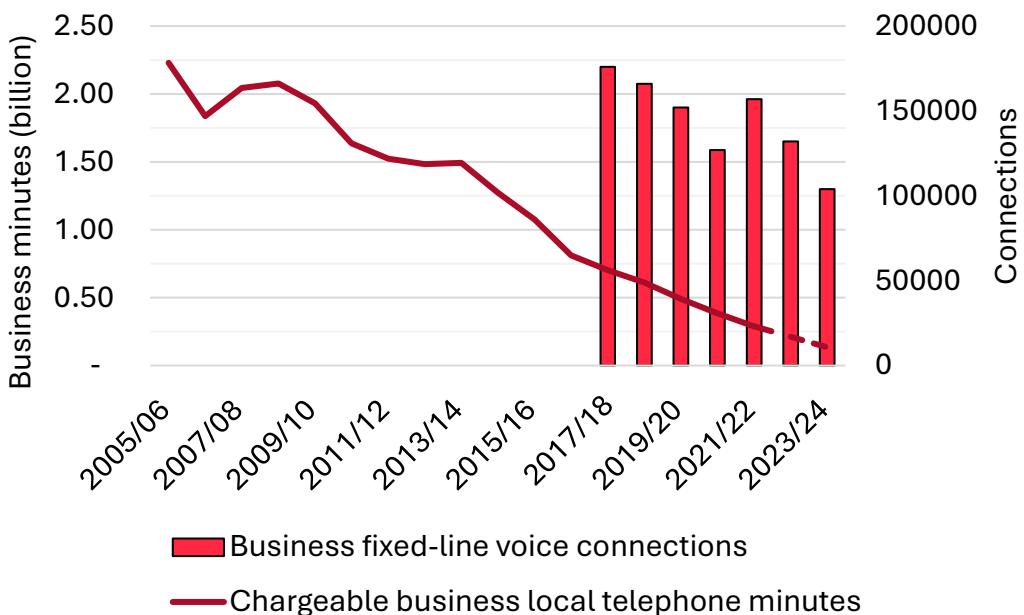
<sup>25</sup> Commerce Commission “[2024 Telecommunications Monitoring Report](#)” (30 June 2025), page 13.

**Figure 2.2 Mobile and fixed call minutes 2008-2024**



2.38 It should be noted that Figure 2.2 contains both residential and business minutes. Businesses also regularly use landlines. However, like residential connections, both the number of business landlines and business landline minutes have continued to fall.

**Figure 2.3 Business voice connections and minutes<sup>26</sup>**



<sup>26</sup> We do not have a figure for 2022/23 for business minutes so have assumed a straight line fall to 2023/24 and indicated this estimate as a dotted line on the graph.

- 2.39 Business landlines are often charged differently to residential landlines which often have a set number of free minutes included in the plan. Business landlines are generally charged on a per minute basis meaning they may be more susceptible to an increase in fixed termination charges.
- 2.40 While not all of the fixed call and mobile call minutes will involve PSTN Interconnection (separate Mobile Termination Access Service (**MTAS**) regulation covers mobile-to-mobile and fixed-to-mobile calls), we expect that the overall impact is a decline in calls involving a fixed PSTN. The rising number of mobiles means more mobile calls will be to another mobile rather than a fixed-line.<sup>27</sup> Similarly, we expect a rising proportion of fixed call minutes are to mobiles and are thus not reliant on PSTN Interconnection.
- 2.41 In line with this, consumers also seem to be using the internet for more of their voice services rather than landlines. In June 2024 only 24% of connections (voice or broadband) include a fixed-line voice service compared to 82% in mid-2016.<sup>28</sup> This indicates that residential consumers are likely shifting to mobile calling (including over Wi-Fi) and/or OTT apps, using mobile data or a home broadband connection for at least some of their voice services.

## Coverage

- 2.42 Mobile coverage is present for around 99% of New Zealand's population (noting this will vary in quality). This means mobile is not a viable substitute for (at least) the remaining 1%, though a portion of this 1% may never have had a connection to the PSTN. While many of these consumers may be remote households, the coverage of wireless internet service providers (**WISPs**) and satellite broadband services means they are likely able to access a broadband service and thus make voice calls via OTT apps or Wi-Fi calling.<sup>29</sup>
- 2.43 Most New Zealanders are in coverage of multiple broadband networks. In urban areas, fibre is present nearly everywhere. FWA networks are available to 99% of the urban population but that drops to 95% of the population in rural areas.<sup>30</sup> Nearly 70% of rural premises are in coverage of a WISP,<sup>31</sup> while low earth orbit (**LEO**) and geostationary (**GEO**) satellites are available to all premises (urban and rural) with adequate line of sight to the sky.

---

<sup>27</sup> The number of mobile connections in New Zealand grew from 5.6m in 2013/14 to 6.8m in 2023/24.

<sup>28</sup> Commerce Commission “[Mobile Termination Access Service \(MTAS\) investigation under Schedule 3 of the Telecommunications Act](#)” (5 November 2025), page 53.

<sup>29</sup> Direct to cell satellite services will mean improved coverage for a large number of these consumers where they have line of sight to the sky.

<sup>30</sup> Commerce Commission “[2024 Telecommunications Monitoring Report](#)” (30 June 2025), pages 25 and 111.

<sup>31</sup> Commerce Commission “[2024 Telecommunications Monitoring Report](#)” (30 June 2025), page 115.

## Close substitutes

2.44 We now consider whether the retail voice alternatives represent close substitutes for the retail services using a fixed PSTN. This involves consideration of both price and performance characteristics.

### Price comparison

2.45 Table 2.1 outlines the cost for landlines that use a fixed PSTN. We have included the costs for a landline only (voice only service) and where it is bundled with a broadband connection for completeness. We have also included the cost of mobile plans as the alternative that incurs a cost (Wi-Fi calling uses a mobile plan and OTT apps are generally free).

**Table 2.1 Summary of retail residential voice plans by technology (December 2025)<sup>32</sup>**

Voice technology	Monthly price	NZ Landlines c/min	NZ Mobiles c/min	Notes
<b>Mercury Fibre (voice only)</b>	\$49	\$0.18	\$0.48	Mercury and Spark are the only major RSPs who sell a fibre voice only plan.
<b>Spark Fibre (voice only)</b>	\$68	\$0.24	\$0.39	
<b>FWA (voice only)</b>	-	-	-	There are no FWA voice only plans available. <sup>33</sup>
<b>Fibre (bundled)</b>	From \$70	Unlimited	\$0.22	Landlines are able to be added to an existing fibre broadband connection from \$10 a month.
<b>FWA (bundled)</b>	From \$60	\$0.24	\$0.39	Comes with 50GB monthly data.

<sup>32</sup> Operator websites accessed December 2025

<sup>33</sup> Spark has a \$50 landline plan over FWA that comes with 50GB per month data if you want to connect to the internet.

Voice technology	Monthly price	NZ Landlines c/min	NZ Mobiles c/min	Notes
<b>LEO<sup>34</sup> (bundled)</b>	From \$171.95	\$0.05	\$0.17	
<b>Mobile<sup>35</sup> (bundled with SMS and data)</b>	From \$8 – plans with unlimited minutes from \$13.33	Free – some plans have caps	Free – some plans have caps	Data caps may apply for cheaper plans.

2.46 Residential fixed-line voice services are \$50 - \$70.70 per month for a voice only service (fibre or copper), while voice services bundled with a broadband connection range in price from \$60 - \$171.95 per month.

2.47 Price comparison analysis could be improved with access to data showing how mobile-to-mobile calling compares with fixed-line calling. If an investigation into whether to omit Interconnection with a fixed PSTN from Schedule 1 were to occur, this data would be sought.

2.48 Our MTAS investigation also highlighted that the cost of mobile plans in New Zealand has trended slightly down over the last six years, with mobile data typically the key price driver of plans.<sup>36</sup>

2.49 Wi-Fi calling uses an active mobile plan (ie, minutes called over Wi-Fi calling will count towards any monthly minute limits). As such, the mobile price analysis reflects Wi-Fi calling too.

<sup>34</sup> Starlink do not offer a voice service but one can be purchased from a third party to use over a Starlink LEO broadband connection. This price includes both the broadband connection and the third party voice service.

<sup>35</sup> Some mobile RSPs offer ‘monthly’ plans while others offer plans for four weeks. While there will be some differences over the long term, we have included all as ‘monthly’ for the sake of this analysis. Our view is that the difference would be minimal at most.

<sup>36</sup> Commerce Commission “[Mobile Termination Access Service \(MTAS\) investigation under Schedule 3 of the Telecommunications Act - Draft Report on whether MTAS should be omitted from Schedule 1 of the Act](#)” (5 Nov 2025), see Figure 3.8, page 38.

2.50 OTT apps, such as Facebook Messenger or WhatsApp, bypass PSTN Interconnection completely for voice calling. The cost of OTT apps for voice calls is included in the end-user's broadband allowance or monthly phone bill when using mobile OTT apps, and the use of OTT apps for voice calls likely requires an immaterial amount of data. Consumers view the 'free' nature of OTT apps as the main driver for their use.<sup>37</sup>

### Performance comparison

2.51 Both our Copper Services Investigation final report and our Fibre Voice draft recommendation report note that voice over any technology that provides a fixed PSTN is likely to be usable by most consumers, regardless of the technology.<sup>38</sup> The exception is voice over GEO satellite, which we view as likely not providing a quality experience for end-users.

2.52 Umlaut's 2025 research on New Zealand mobile voice services found an average Mean Opinion Score (**MOS**) of 4.01, indicating general user satisfaction, with high-definition voice widely available and reliability rated as "good" at 78%.<sup>39</sup> <sup>40</sup> For OTT voice apps, Opensignal's 2023 study scored the three major operators an average of 79.3/100, considered "acceptable," meaning calls are generally understandable but some quality impairments occur.<sup>41</sup> Umlaut's additional tests on OTT voice services reported a median MOS of 3.7, suggesting sufficient quality overall, though some users remain dissatisfied.<sup>42</sup>

---

<sup>37</sup> Commerce Commission "[Customer Satisfaction Tracking – Messaging Apps Quarterly Report Jan – Mar 2025](#)" (30 October 2025), page 15.

<sup>38</sup> Each of these investigations has different parts of New Zealand in scope which provides a reasonably comprehensive coverage. The CSI focuses on rural premises in NZ that can access the copper network (2/3<sup>rd</sup> of all rural premises) while the Fibre Voice report considered all urban premises across the country (anywhere there is regulated fibre networks). This means only around 137,000 premises are not directly covered by these two. However, the analysis of VoIP over FWA, non-cellular FWA and satellite will be applicable for these premises meaning all people in New Zealand who may use a PSTN are reflected. Commerce Commission "[Copper Services Investigation under section 69AH of the Telecommunications Act Recommendation to the Minister for Media and Communications on the future of copper regulation – final report](#)" (21 August 2025) and "[Fibre Deregulation Review under section 210 of the Telecommunications Act Draft recommendation to the Minister for Media and Communications on fibre Voice services](#)" (30 October 2025).

<sup>39</sup> Umlaut "[Best in Test](#)" (2025), page 12.

<sup>40</sup> The International Telecommunication Union Standardisation sector categories MOS scores as above 4.34 - users very satisfied, between 4.03 and 4.33—users satisfied, between 3.6 and 4.02—some users dissatisfied, between 3.1 and 3.59—many users dissatisfied, and below 3.09—nearly all users dissatisfied. See TTU "[The E-model, a computational model for use in transmission planning](#)" (3 December 1998), page 12.

<sup>41</sup> Opensignal "[New Zealand Mobile Network Experience Report – April 2024](#)" (April 2024), Voice App experience results.

<sup>42</sup> Umlaut "[Best in Test](#)" (2025), pages 15 – 17.

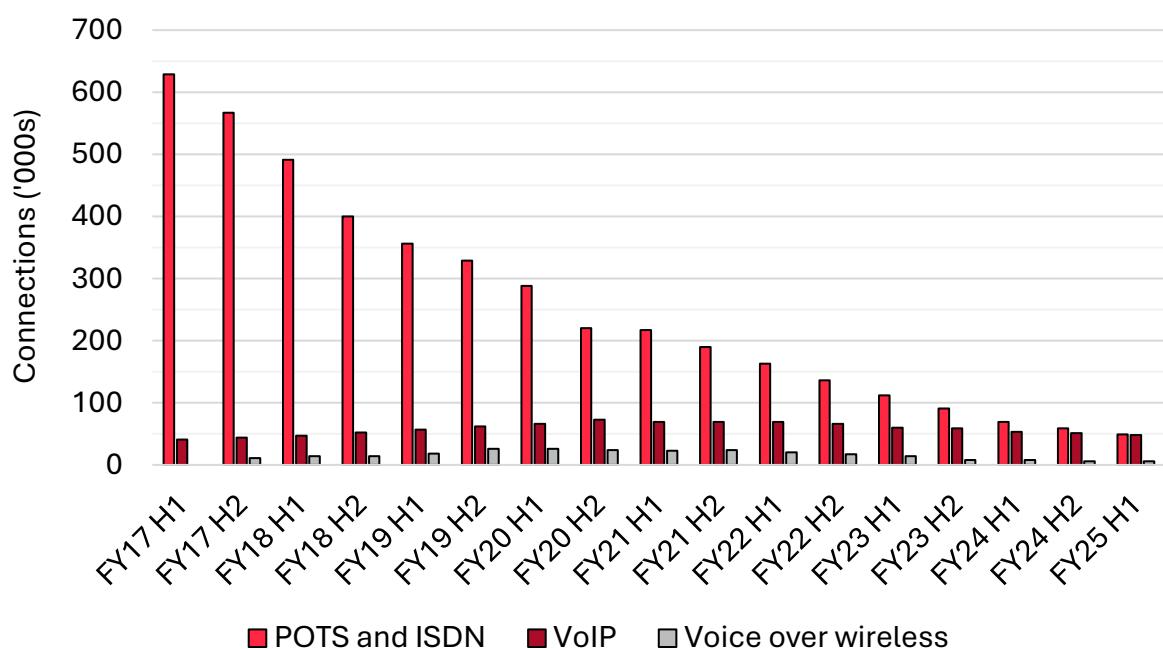
2.53 Overall, most voice alternatives we are considering likely provide a usable service, with variables such as technology, location and geography impacting some user experience at times. Consumer switching data provides additional insight into actual consumer behaviour and what consumers actually find usable.

## Consumer switching

2.54 We have previously highlighted the continued growth in mobile voice minutes and corresponding decline in fixed-line voice minutes indicating that consumers are shifting away from fixed-line services to mobile services (Figure 2.2).

2.55 Figure 2.4, showing Spark voice connections from 2017 to 2025, highlights just how significant this fixed-line fall has been. Most consumers do not appear to be migrating to VoIP and are likely instead using mobile or OTT apps for their voice needs.<sup>43</sup>

**Figure 2.4 Number of Spark voice connections 2017-2025<sup>44, 45</sup>**



<sup>43</sup> This is supported by the only 3% rise in mobile connections despite a 14% drop in landlines (voice reduction from 2025 Annual Monitoring Report, p. 135, mobile rise *ibid*, p13). Many consumers who stop using a landline will likely already have a mobile and are using it as their primary voice service either via cellular or OTT apps.

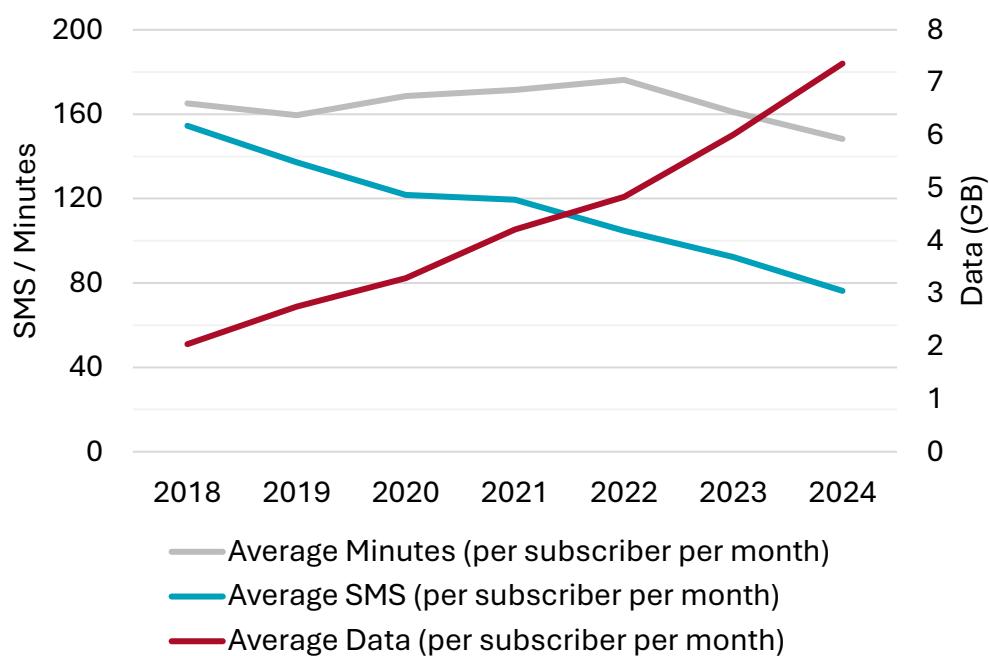
<sup>44</sup> [Spark Financial Results](#), “[H1 FY25 Detailed Financials](#)” (20 Feb 2025), “[FY22 Detailed Financials](#)” (2022), “[FY19 Spark New Zealand Detailed Financials](#)” (2019).

<sup>45</sup> The Plain Old Telephone Service (**POTS**) and Integrated Services Digital Network (**ISDN**) are legacy systems that have been used to provide residential and business voice services for many years.

Source: Spark<sup>46</sup>

2.56 Between 2019 and 2023, the average monthly number of mobile minutes remained reasonably static while average data use climbed (Figure 2.5). This evidence suggests that consumers are not just shifting to mobile for their voice calling, but also to OTT apps (which use an internet connection such as mobile data).

**Figure 2.5 Average monthly SMS, mobile minutes and data usage per subscriber<sup>47</sup>**



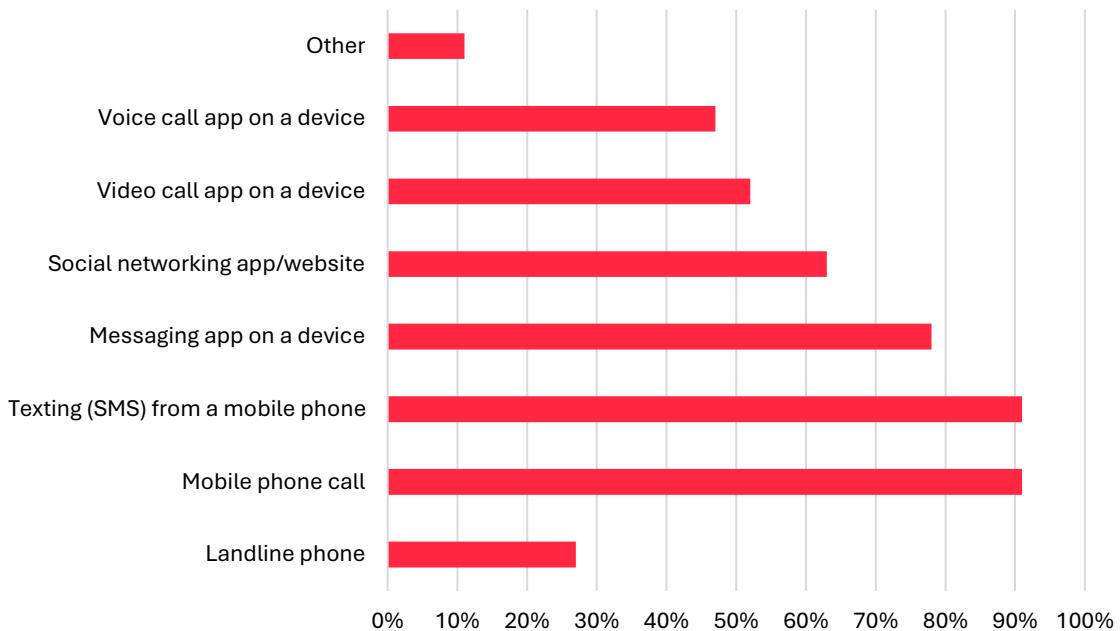
2.57 Finally, recent Commission data from the first quarter of 2025 shows that OTT apps are commonly used to make calls.<sup>48</sup> Figure 2.6 shows mobile calls were used to communicate by 91% of those surveyed. This far exceeds the share who used a landline (27%). Regarding OTT apps, nearly double the share of people used a video call app (52%) or voice call app (47%) than used a landline, highlighting the changing mediums of communication in New Zealand.

<sup>46</sup> Spark has decommissioned almost 65% of its legacy copper-based PSTN switches and notes that that on average around 3,200 customer lines migrate off that PSTN every month.

<sup>47</sup> OECD Questionnaire on Broadband indicators (December 2024), Commerce Commission “[2024 Telecommunications Monitoring Report](#)” (30 June 2025).

<sup>48</sup> Commerce Commission “[Customer Satisfaction Tracking – Messaging Apps Quarterly Report Jan – Mar 2025](#)” (30 October 2025), page 7.

**Figure 2.6 Communication types used in the first quarter of 2025<sup>49</sup>**



2.58 Looking forward, few consumers expected they would reduce calling via messaging or calling apps in the future. While the majority expected to make the same number as they do now, nearly 20% of consumers expect to make more calls via these OTT apps in the future.<sup>50</sup> This use of OTT apps is primarily driven by the low or no cost to use and the international connectivity they provide. While these apps will need some form of internet connection to use, consumers likely see mobile data and/or a home broadband connection as for separate purposes and using them for voice is a ‘free’ bonus.

#### **Close substitutes and competitive constraint**

2.59 Mobile offers ubiquitous coverage in urban areas with the majority of New Zealanders in mobile coverage. Services are available for a similar or lower monthly price and the number of consumers who are migrating to mobile for their voice calls highlights its appeal, usability and acceptable quality. Wi-Fi calling acts as an extension of mobile, improving coverage in some cases.

<sup>49</sup> Commerce Commission “[Customer Satisfaction Tracking – Messaging Apps Quarterly Report Jan – Mar 2025](#)” (30 October 2025), page 7.

<sup>50</sup> Commerce Commission “[Customer Satisfaction Tracking – Messaging Apps Quarterly Report Jan – Mar 2025](#)” (30 October 2025), page 14.

2.60 Our view is that mobile (including Wi-Fi calling) is a close substitute that provides a medium-strong competitive constraint on fixed-line voice services that use the PSTN Interconnection service. This is consistent with our position in our Copper Services Investigation final report and Fibre Voice deregulation draft reasonable grounds assessment.<sup>51</sup>

2.61 OTT app-based substitutes voice calling, such as Facebook Messenger and WhatsApp do not use a PSTN and thus represent an alternative. That nearly twice as many people use OTT apps for calling than a landline highlights their popularity, especially among younger age groups. Our view is that they are a close substitute for fixed-line voice services for some groups of consumers and provide a medium level of competitive constraint.

2.62 However, these alternatives are only close substitutes where they are available or appropriate. There will be a section of fixed-line users for whom these alternatives may not be close substitutes and competitive constraints may be reduced. These include businesses which rely on additional features not available on a mobile or OTT application, consumers who require specific attributes of landline handsets (like familiarity or access), and remote consumers where mobile coverage is limited.

2.63 Since our last review in 2021, we have seen the use of these alternative services grow, while the number of fixed lines and voice minutes has fallen significantly.

### **Competition summary**

2.64 We consider that in most areas of the country, there is likely effective retail competition, and thus competitive constraint on fixed-line voice services, from close substitutes such as mobile and OTT apps.

2.65 The presence and popularity of these voice calling alternatives, and in particular the ability to substitute calls to fixed numbers with calls to mobile numbers or with OTT apps, means most access seekers are now less dependent on interconnection with a fixed PSTN. Even though each provider has a monopoly on termination, the declining base of fixed-line customers adds to this becoming a diminishing risk.<sup>52</sup>

2.66 As such, access seekers in urban areas and many rural areas, have a number of retail alternatives to calls that rely on the PSTN Interconnection service. Therefore, if providers were to exercise excessive pricing or denial of access, most access seekers could switch to an alternative.

---

<sup>51</sup> Commerce Commission “[Copper Services Investigation under section 69AH of the Telecommunications Act Recommendation to the Minister for Media and Communications on the future of copper regulation – final report](#)” (21 August 2025) and “[Fibre Deregulation Review under section 210 of the Telecommunications Act Draft recommendation to the Minister for Media and Communications on fibre Voice services](#)” (30 October 2025).

<sup>52</sup> We note that Chorus has announced its intention to retire the entire copper network by 2030 which would likely lower the number of fixed-line connections further.

2.67 However, we note that there is likely still an element of residual demand where specific groups may still rely on interconnection with a fixed PSTN. Competition in the retail market for these consumers may be limited due to several barriers identified above. As such, these groups may be vulnerable to the exercise of substantial market power (**SMP**) by a network provider which could cause consumer harm. In our view, these groups are sufficiently small that it is unlikely that any holder of SMP would target them. The effort required would probably never justify the likely return, but we are interested in hearing from submitters about any issues associated with the characteristics of customers who remain on fixed services. If our final decision is to open an investigation, we anticipate this would form part of our analysis at that stage.

## Testing alignment with the section 18 purpose of the Act

2.68 Under the section 18 purpose, we must consider whether the regulation best promotes competition in telecommunications markets for the long-term benefit of end-users.

2.69 We have considered whether an investigation is warranted on an objective basis. We have had regard to the purpose in section 18 and whether there is at least a realistic possibility that continued regulation of the Interconnection with a fixed PSTN service under Schedule 1 of the Act is no longer necessary to best promote competition in relevant telecommunications markets for the long-term benefit to end-users.

2.70 PSTN Interconnection has historically functioned as an essential input to allow competition between service providers to provide end-users 'better' voice services. However the steep decline in fixed-line telephony, technology changes and the popularity of mobile and OTT apps means that PSTN Interconnection (and regulation of it) is less essential now.

2.71 While our view is that there is likely a number of competitive constraints on PSTN Interconnection from the retail voice market (eg, mobile, OTT apps), there is the risk that some groups experience less competition and may be more vulnerable to market power. Such groups are more likely to continue using a landline and thus be susceptible to an increase in termination and/or origination rates were regulation removed.

2.72 However, while PSTN Interconnection will likely remain a natural bottleneck and in theory any operator terminating traffic on a fixed PSTN has market power, our view is that there is reduced market power for providers to act on and therefore, the risk of harm to those end-users who continue to use a landline is reduced.

2.73 There are currently many commercial interconnection agreements between providers for fixed-line services. This means it is unlikely that a single provider could unilaterally refuse to interconnect or to significantly inefficiently differentiate pricing (ie, exercise market power). If a provider raised rates with another network, some traffic would likely be re-routed via a different interconnected provider.<sup>53</sup> The market has changed since we responded to Spark's submission in our 2021 report, saying that re-routing of traffic did not address the monopoly that a service provider has over its customers for termination.<sup>54</sup> The diminishing importance of fixed voice as a service, coupled with the reducing market share of the previously dominant provider and the increasing use of OTT services all reduce the effect of this monopoly to the point that we no longer regard it as significant.

2.74 In theory, an operator with SMP could attempt to increase termination rates above cost, which may be then passed through to the retail market. However, such a price change would risk driving calling parties to use alternatives such as calling the mobile number of the called party, or using OTT apps.

2.75 Even though our current view of the PSTN service description differs from our previous reviews of this service (regarding VoIP being captured by the description and not an alternative), we still believe that the market forces and the reduced market power discussed above would mean any residual market power is unlikely to be acted upon.

2.76 Retaining the PSTN Interconnection service in Schedule 1 provides a regulatory backstop should commercial negotiations fail. In the absence of potential regulatory intervention, it is possible that anti-competitive behaviour could lead to increased transaction costs for negotiating parties and / or service disruption for end-users. However, we agree with Network Strategies that this type of behaviour is unlikely to occur given the relatively minor importance now of this service to both access providers and access seekers. This will form part of any investigation that occurs, should our final decision be to open an investigation.

2.77 Our previous reviews of this service identified that the 2002 Determination (despite it expiring in 2003), may have acted as a backstop or anchor for commercial interconnection arrangements. To the extent it has acted as a backstop, despite having expired, it is still able to do so in a deregulatory setting by providing an indication of what re-regulation looks like, should the Commission be forced down that path by anti-competitive conduct.

---

<sup>53</sup> It is not clear that the discriminatory provider would be aware of how and by whom the call was routed.

<sup>54</sup> Commerce Commission, "Review of Services in Schedule 1 of the Telecommunications Act", 12 May 2021, at para 70.

- 2.78 The Network Strategies report identified that the extent to which stakeholders rely on the 2002 Determination was unclear – indeed, some noted that it was largely irrelevant today. For example, not all stakeholders appeared to be certain of the exact terms and conditions it encompassed.
- 2.79 No current dissatisfaction with the PSTN Interconnection service was raised by respondents to Network Strategies. While some credited that to the service being in Schedule 1, others emphasised its irrelevance in today's market and lack of incentives or scope for one operator to behave anti-competitively.
- 2.80 Our preliminary view is that there is at least a realistic possibility that continued regulation of PSTN Interconnection under Schedule 1 of the Act is no longer necessary to best promote competition in relevant telecommunications markets for the long-term benefit to end-users, therefore we should investigate whether to omit PSTN Interconnection from Schedule 1 of the Act.
- 2.81 Although this reasonable grounds assessment has focused on termination, any investigation will include the origination service since this is a component of the PSTN Interconnection service.

## Draft decision and next steps

- 2.82 Our draft decision under clause 1(3) of Schedule 3 of the Act is that there are reasonable grounds for commencing an investigation into whether PSTN Interconnection should be omitted from Schedule 1 of the Act.
- 2.83 We are seeking views on our draft decision. We consider it to be possible that origination and termination services should be subject to deregulation and therefore welcome views on this matter.
- 2.84 We are cognisant of the fact that PSTN Interconnection in New Zealand is not as clear cut as it appears on its face. We therefore specifically welcome interested parties' views on the questions set out in **Attachment A**.
- 2.85 After considering submissions, we will publish our final decision under clause 1(3) of Schedule 3 of the Act on whether to investigate omitting PSTN Interconnection from Schedule 1 of the Act.
- 2.86 If our final decision is not different to our draft decision, we must commence the investigation no later than 15 working days after making that decision.<sup>55</sup>

---

<sup>55</sup> Clause 1(5) of Schedule 3 of the Act.

## Attachment A Specific feedback sought on this draft paper

A1 We welcome submissions on any aspect in this paper by 5pm on 10 March 2026. However, we are particularly seeking submissions on the key points below to inform our final reasonable grounds decision.

A1.1 **Question 1:** Do you agree with our interpretation of the definitions of 'fixed PSTN'; and 'Interconnection with a fixed PSTN' in the Act? If not, why not, and how do you interpret it?

A1.2 **Question 2:** Do you agree with our position that VoIP requires the PSTN Interconnection service and thus is not an alternative? If not, why not, and how do you interpret it?

A1.3 **Question 3:** Do you have views on the deregulation of PSTN origination (a component of PSTN Interconnection). Origination is used mostly for free calling services such as 0800. Do you see problems in this market, and if so, what are they?

A1.4 **Question 4:** Do you agree with our finding of reasonable grounds to investigate the PSTN Interconnection service? Please be clear where your view differs from this paper, and include any relevant evidence supporting your views.

A1.5 **Question 5:** Are there any issues associated with the characteristics of customers who remain on fixed services?

## Attachment B Summary of the Network Strategies Report

- B1 Network Strategies has provided a report to inform the Commission's assessment of PSTN Interconnection.
- B2 The report finds that the market for PSTN interconnection in New Zealand is functioning efficiently, with no evidence of industry dissatisfaction or anti-competitive behaviour reported by large or small industry players. While the natural bottleneck of the PSTN Interconnection service is unchanged, the communications market has transformed since the Act was put in place. Stakeholder consultations revealed that opinions are divided: some believe regulation should remain to protect residual fixed PSTN users and maintain a regulatory backstop, while others argue the service is now obsolete and incentives for anti-competitive conduct are minimal.
- B3 Network Strategies considers that deregulation would not be likely to have significant consequences for competition. PSTN usage has declined sharply as most consumers have migrated to mobile and OTT services, and Spark's legacy PSTN is nearing end-of-life with a continuing decommissioning program. However, Network Strategies notes that in the short term, segments of the market still using the PSTN service could face a risk of increased wholesale changes or discriminatory practices.
- B4 Internationally, Australia has extended regulation for five years due to rural reliance on PSTN, whereas most European countries have deregulated fixed origination and termination following the introduction of an EU-wide termination rate, with exceptions in Italy, Latvia, and the Netherlands where structural market concerns persist. In the United Kingdom, fixed termination remains regulated because of limited substitutes and potential for anti-competitive behaviour.
- B5 Overall, the report concludes that deregulation in New Zealand is unlikely to significantly harm competition, though some residual risk remains for small segments still dependent on PSTN services.