

24 August 2023

Tēnā koutou

Communication to Telco Industry re Data Requests to inform the Rural Connectivity Study (RCS)

Purpose and Introduction

1. The purpose of this letter is to update stakeholders on how the Rural Connectivity Study (RCS) is progressing following the recent workshops with industry and to advise what can be expected from the upcoming information requests.
2. Thank you to everyone that has engaged with us to date. We have listened to the comments and concerns and have attempted to address this feedback while still ensuring we meet our project and monitoring objectives.
3. To summarise our engagement to date, we have:
 - 3.1 replied to and/or met with stakeholders that provided feedback on the Terms of Reference;
 - 3.2 hosted three webinars for WISPs (coordinated via the WISPA Chair);
 - 3.3 hosted one webinar for ISPANZ members (coordinated via the ISPANZ Chair) and attended the ISPANZ annual conference;
 - 3.4 met with all other providers that requested a meeting, including individual RSPs and LFCs; and
 - 3.5 hosted two workshops to update the industry on our progress / position and discuss further prior to issuing final data requests. The slides supporting these workshops have been circulated.
4. We recognise that for some stakeholders, receipt of this letter may be the first communication you have had from us. If you require further information or wish to engage with us directly, you can get in touch with the project team via market.regulation@comcom.govt.nz, referencing 'Rural Connectivity Study'.

Background and context

5. The Commission has a broad role in monitoring telecommunications markets in New Zealand and the RCS embodies several of our key monitoring functions as set out in Section 9A of the Telecommunications Act 2001 (**Telecommunications Act**).

6. We note the following provisions in particular, which empower us to carry out this work:
 - 6.1 Section 9A(1)(a) requires that we monitor the competition, performance and development of telecommunications markets. This is a broad obligation and is not confined to monitoring competition.
 - 6.2 Under section 9A(1)(b) the Commission may conduct studies into any matter relating to the telecommunications industry or the long-term benefit of end-users of telecommunications services within New Zealand.
 - 6.3 Section 9A(1)(e) requires that we monitor retail service quality in relation to telecommunications services.
 - 6.4 Under section 9A (c) and (f) we are required to report on the matters referenced above.
7. The Commission's [levy consultation](#) at the end of 2020 highlighted our intention to:
 - 7.1 become more proactive in our market monitoring;
 - 7.2 position ourselves to undertake studies more efficiently;
 - 7.3 create a base set of information, including national and international data;
 - 7.4 lift our analytical capacity; and
 - 7.5 develop our data tools and storage.
8. For businesses, this means we can look at competition and (de)regulation at more granular geographic levels and our interventions can be better tailored to support competition in a particular market. For consumers, this means they will get more relevant information for their age, culture and living situation to support their telecommunications purchasing decisions. Having received the extra funding that we sought, we are now working to ensure we deliver on our vision.
9. It is clear to us that not enough is currently known about the options rural consumers and businesses have, where they are available and how they perform. The purpose of the RCS is to uplift our monitoring and build a comprehensive picture of the availability and performance of connectivity options for rural end-users of telecommunications services, including copper-based services and alternatives to copper such as wireless broadband, satellite, and mobile services. The RCS therefore aligns with each of the functions outlined above.
10. The RCS is key to helping us establish a baseline view of telecommunications services in areas where UFB fibre is not available. The study will enable us, over time, to strengthen and improve the detail of our routine monitoring of rural connectivity and end-user experience, draw meaningful comparisons and provide outputs that benefit stakeholders and end-users of telecommunications services, which is ultimately what the Act requires us to do.
11. We know that it is important that our monitoring is proportionate and not unnecessarily burdensome on stakeholders – as has been pointed out in feedback to

us. But you can expect to see more detailed, more granular monitoring from us and that does require us to request more information, from a greater number of providers, than we have done in the past.

12. We acknowledge that we are requesting national data, beyond the UFB fibre network. Having a national picture of all services everywhere is beneficial from an overall market perspective, which is essential to enable us to make comparisons. Without national data, we would have no ability to make “like-with-like” comparisons of the choices, prices, speeds, technologies available and used in rural vs urban locations. And, given the potential for changes over time in what is defined as rural, without national data we would lose the ability to make comparisons going forward.
13. Depending on what the data tells us, for example trends we see and any issues that the data highlights, further work may be undertaken to inform where we focus our future monitoring.
14. As noted above, in para 6, we are also required to make available reports, summaries and information about the things that we monitor. As such, there is a clear link to our Annual Monitoring Report (**AMR**), which is our flagship monitoring output that we have been producing for 16 years, and collecting this data at a national level will inform this report. This year the AMR included a rural chapter for the first time and this played an important part in telling the story about rural connectivity in New Zealand. The RCS will inform the AMR in 2022/23 and our routine monitoring in years to come.
15. The data collected for this study will also support the review of regulated copper services, which we will commence in late 2023 and are required to undertake before the end of 2025.¹

Summary of our positions on key feedback received from industry

16. We are grateful for the way that the industry has engaged with us and for the feedback that has been provided, specifically on the draft data requests. This section outlines how we have responded and specifically addressed that feedback.

National data set vs rural only

17. With a national data set, we can ‘cut’ the data according to the current definition of ‘rural’, i.e. where UFB fibre is not available. This removes the burden on providers to do this, ensures consistency and means that we can re-cut the boundary if different definition parameters need to be applied. In addition, the data will be used in the urban/rural chapters of the AMR and allow for comparison, as explained above in paragraph 14.

Outcome: availability and connection information that we request will be at a national level.

Disaggregated location data

18. We have specified that we want location by land parcel. The geographic location of end-users is essential because we want to compare availability of services and

¹ See section 69AH of the Telecommunications Act.

availability of technologies. Aggregation into meshblocks, for example, reduces resolution and when you then compare two datasets, where that type of aggregation has been applied, you lose accuracy and are in danger of inaccurate conclusions. We will complete aggregation of data after we have done the analysis to ensure accuracy.

19. Collecting at this level of granularity also means that we can rework the numbers if the current fibre network footprints were to change. It gives us flexibility to change our analysis and look at things from different points of view.
20. In relation to requesting the plan and price associated with the end-user location, we will no longer require the price, but will require the connected plan name. We will also request a list of the retail plans available and coverage areas for these plans as at 30 June 2023. Collection of coverage maps of available services will inform us of the choices of retail plans available to end-users, which is an important element of competition analysis, as well as being an input to our copper review.
21. We need disaggregated geographic data to assess competition, as this will allow us to see whether other networks (such as 4G/5G FWA) overlap with the copper footprint and therefore represent a potential competitive alternative for customers currently on copper-based services. Aggregate data will shed no light on this. For example, in this year's AMR we reported that 49% of connections in areas outside the UFB footprint are copper, with the remainder served by wireless or satellite. But if those alternatives are in completely different geographic areas from the copper footprint, they are unlikely to exert much of a competitive constraint on copper. Having more granular geographic data should help answer questions around what other options copper customers have, which is also fundamental to the copper review.

Outcome: connection location of end-users will be requested.

Usage data

22. It is our view that usage of services provided is an indicator of the fitness for purpose of available services and technologies. We see this as being an important indicator of the degree to which these technologies meet the expectations of end-users, which in rural settings is an important indicator of the development of the market.
23. Usage information is also important to assess competition. Information on actual usage by copper customers will help us assess whether capped rural FWA services, for example, are a good alternative to copper-based services. Copper-based broadband services typically are 'uncapped' or 'unlimited', with no explicit limit on the amount of data that can be downloaded each month. In contrast, rural FWA plans often do have a limit and this could affect the attractiveness/suitability of FWA. For example, a plan with 300GB/month, with either excess charges or throttled speed once that limit is surpassed – if copper customers in rural areas use, 200GB/month on average, FWA might be a good option. But if they use 500GB/month, FWA may not be so attractive.

Outcome: usage data will be requested. If this information is not held, this will need to be specified as part of your submission.

Legacy Plans

24. Some RSPs have asked us whether we need details of legacy plans when we ask what plan the end-user is connected to. We are happy for these to be designated 'Legacy', but we still want the technology they are provided over to be specified. We do not need installation costs, but we may come back and ask for more detailed information depending on how many legacy plans there are.

Outcome: If plan is 'legacy' this should be specified together with the technology provided over.

Privacy, commercial sensitivity of data, Official Information Act requests for information and retention of data

25. Concerns have been raised that we are seeking personal or private information. While it is our preliminary view that the location and usage data we are requesting is unlikely to constitute personal information as defined in the Privacy Act 2020 (**Privacy Act**), we do recognise that this information is sensitive and that you may have committed to your customers that you would not share this type of information.
26. We now intend to collect a lot less information about individual connections. With that said, location-based information is crucial to our analysis, although we will not publish connection-specific data in our maps or analysis. We expect that our outputs will display relative coverage of technologies (not providers) and that you will be able to zoom into addresses to see what is available in that area. However, connection information will be aggregated to statistical area or meshblock level and the actual connection at an address will not be visible.
27. Should we receive an Official Information Act 1982 (**OIA**) request for information, we cannot commit to never releasing that data under the OIA – as all information we receive is subject to the principle of availability under the OIA and subject to review from the OIA ombudsman. There are relevant reasons that the Commission may withhold information requested under the OIA from disclosure, including where:
- 27.1 release would unreasonably prejudice the commercial position of the supplier or subject of the information;
 - 27.2 withholding the information is necessary to protect the privacy of natural persons;
 - 27.3 we received the information under an obligation of confidence, and if we were to make that information available it would prejudice the supply of similar information to us (by any person) where it is in the public interest that such information continues to be supplied to us.
28. If we think that any of these potential reasons for withholding apply, we must still consider the public interest in release. This 'balancing exercise' means that in some cases information can be released where nonetheless there is a reason that might appear to justify withholding it.
29. We want to provide assurance that the way we use the data to inform our study will be aggregated, and no individual information will be proactively released – including

to government departments. Should there be an OIA request, where practical, we would consult with the source of the information first before providing our response.

30. With regards to retention of data, we have obligations to retain data for specific periods of time under the Official Records Act and have a deletion schedule aligned to that. We are therefore not able to delete information immediately.

Approach to gathering the required data

31. Section 98 of the Commerce Act 1986 (**Commerce Act**) provides that the Commission can issue notices (**s98 notices**) to require information from market participants where it considers that information is necessary or desirable for the purpose of carrying out its functions and exercising its powers under the Telecommunications Act. We will issue s98 notices for the purpose of carrying out our functions set out in section 9A of the Telecommunications Act and are clear that the information being requested is necessary for these purposes.
32. Having listened to industry feedback however, we have taken the decision to issue s98 notices in respect of the highest priority information only. This is the information that has been identified as the most critical to our analysis, and we require a consistent and complete set of this data to meet the objectives of the study. Table 1 below shows a summary of the data fields being sought and the relative priorities.
33. While, as explained above in paragraph 25, it is our preliminary view that the information is unlikely to be personal information according to the meaning in the Privacy Act, we have taken on board these concerns and note that, under section 24(1) Privacy Act, our compulsory notice overrides any obligations not to disclose or to get permission to disclose based on the principles under the Privacy Act. It will equally help you with any commitments you have made to your customers regarding data since it overrides any contractual commitments you may have not to disclose customer information.
34. We recognise that we have an obligation to use these powers in a reasonable and proportionate manner and, based on industry feedback, have designed a staggered approach to data collection. This is supported by categorising providers into two types:
 - 34.1 Type A Providers – refer to large and/or established providers that have historically provided information to the Commission for the AMR and/or partake in the Telecommunications Development Levy (**TDL**). The Commission could not credibly conduct the study without the information held by these recipients.
 - 34.2 Type B Providers – refer to providers who we believe to be smaller or less established providers, who may not part of the TDL and that may not have provided information to the Commission before. It is not clear to what extent the Commission needs detailed information from them to conduct the study, but at the very least it is important that the Commission understands the size and scope of these industry participants as part of the Study.
35. We will issue s98 notices for priority 1 data to Type A providers. At the same time, we will also issue a short scoping s98 notice to Type B providers. This will enable us

to determine whether we need to obtain the priority 1 data from them. If we do, then they will subsequently receive the s98 notice for the priority 1 data.

36. Priority 2/3 data will be sought via voluntary information requests, will have a longer submission period and will be issued approximately a week after the compulsory notices for priority 1 data.² These requests will be issued to Type A and 'in scope' Type B providers. The usual AMR industry questionnaire data will be part of this priority 2/3 request.

Data Collection and Security

37. Priority 1, 2 and 3 data for the RCS will be shared using box.com, a cloud-based content management system. If we identify any issues with the raw data, for example missing records, we will follow up with providers, otherwise they will flow into the data platform. From box.com, the data will be ingested into a secure, cloud-based data platform (Snowflake), which allows data warehousing and query processing and manages the encryption of data. Transformations will happen in the Snowflake environment using different programming languages, depending on data quality. The outputs will be derived from aggregated tables – which means that published outputs will also be aggregated, for example in tabular, chart or spatial map formats.
38. Security of data is ensured through robust processes and internal controls which mitigate risk. Both box.com and the raw data will only be accessible to a small group of project team members to check that the data was received and to complete loading of the data onto the data platform. All transformations will occur on Commerce Commission-managed devices. Work with any data in the Commerce Commission is governed by several policies which are in line with Privacy Act and which Commerce Commission staff must adhere to. Further to this, Commerce Commission has a [Transparency Statement](#) available online, which outlines how we use information when it is shared.
39. Security is underpinned by use of certified and accredited IT systems and tools. The Commerce Commission operates an assurance program for IT systems to ensure the tools used are secure and resilient. We may also engage external specialists to assess IT system design, implementation, and configuration.
40. We prefer IT services from providers that have their IT systems certified to international standards such as ISO-27001 and NIST 800-53. In these cases, an independent certification body has conducted a thorough assessment of the service provider to ensure standards compliance. This is evidence of service provider maturity and IT system security. We also prefer IT services that are available via whole-of-government arrangements where a lead agency has performed a detailed security assessment. For box.com we rely on their industry certifications: <https://cloud.app.box.com/s/o4l3stzm9sbywyiiwtkk2o4anhjep09x>.
41. Snowflake is a component of the commission's Data Platform, which also includes several Microsoft Azure components. The Data Platform has undergone an internal

² Although not compulsory, we still have a strong desire to receive this data, and we will be asking providers to indicate if they propose to respond to the voluntary requests once they are issued. This will allow us to assess whether additional s98 notices may be required.

risk assessment and certification process. Snowflake also has a number of industry certifications: <https://www.snowflake.com/snowflakes-security-compliance-reports/>.

Data for final requests

42. Table 1 below is a summary of the data fields being sought. S98 notices will be used to gather the priority 1 (P1) data. Voluntary requests will be issued to gather the priority 2 (P2) and priority 3 (P3) data, for which there will be more time allocated to gather and submit the data. Full details will be in the requests including data format information. There are three 'types' of requests: Chorus, mobile network operators (**MNOs**), and 'other' (the rest).

Table 1 - Data priorities

Priority	Data element
P1	Connection location – including plan, if Legacy (and if so, technology), usage, cabinet ID, Regulated services (Chorus), TSO (Chorus)
P1	Coverage – geographic area for cellular, fixed network, non-cellular wireless and satellite and associated plan(s) (retail / wholesale)
P1	Plan information (retail / wholesale) - technology, price, peak information rate, committed information rate, data caps
P1	Equipment location: <ul style="list-style-type: none"> - Cellular – cell site location, stop sell (y/n) - Fixed network cabinet – cabinet location, technologies available, wholesale plans offered, cabinet ID - Non-cellular wireless – non-cellular location, stop sell (y/n)
P2/3	Connection location – voice/broadband, residential/business, bundle(y/n), voice minutes, number of faults, fault duration
P2/3	Equipment information for cellular, fixed network, non-cellular wireless and satellite: <ul style="list-style-type: none"> - backhaul type - backhaul capacity - solar (y/n) - backup power - number of faults For fixed network only – active cabinet (y/n) For satellite only – ground station location

Next actions / timeline

43. Our approach has changed in that we are staggering the notices and information requests based on the priority of the data.

Table 2 - Indicative timeframe

Activity	Indicative Timeframe / Notes
Issue s98 notices for P1 data (Type A providers)	In week of 28 August 2023
Issue s98 notices for scoping data (Type B providers)	In week of 28 August 2023
Issue s98 notices for P1 data (in scope Type B providers)	In week of 11 September 2023
Issue voluntary requests for P2 and P3 data (Type A Providers)	In week of 4 September 2023
Issue voluntary requests for P2 and P3 data (Type B providers)	In week of 18 September 2023
Receive P1 data from Type A providers	Early October 2023
Receive P1 data from Type B providers	Mid October 2023
Receive P2 and P3 data from Type A providers	Early November 2023
Receive P2 and P3 data from Type B providers	Mid November 2023

44. Finally, I would like to thank you for your continued engagement. We appreciate that this is a shift in our monitoring to better meet our statutory obligations, and we are willing to work with providers to achieve and meet the requirements of the s98 notices where possible, in particular with the smaller providers for who this will be the first time they have received a s98 notice.
45. If you have any questions, please direct these to market.regulation@comcom.govt.nz.

Ngā mihi,

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