



Feedback on the Design of Alternative Voice Service Trials

Submission by the Australian Communications Consumer Action
Network to the Department of Infrastructure, Transport, Regional
Development and Communications

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About ACCAN

The Australian Communications Consumer Action Network (ACCAN) is the peak body that represents all consumers on communications issues including telecommunications, broadband and emerging new services. ACCAN provides a strong unified voice to industry and government as consumers work towards communications services that are trusted, inclusive and available for all.

Consumers need ACCAN to promote better consumer protection outcomes ensuring speedy responses to complaints and issues. ACCAN aims to empower consumers so that they are well informed and can make good choices about products and services. As a peak body, ACCAN will represent the views of its broad and diverse membership base to policy makers, government and industry to get better outcomes for all communications consumers.

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1. General comments

ACCAN thanks the Department of Infrastructure, Transport, Regional Development and Communications for the opportunity to provide feedback on the design of alternative voice service trials to be delivered in areas where voice services are delivered via high capacity radio concentrator (HCRC) or legacy copper networks.

In our submission to the 2018 Regional Telecommunications Review, we cited considerable consumer frustration with the quality of voice services offered over the HCRC network, and with poor service reliability due to HCRC network faults and Telstra's difficulty accessing parts for repair.¹ Clearly, existing arrangements in HCRC areas are unsuitable. Current Universal Service Obligation arrangements will cease in 2032, after which time Telstra will have no obligation to connect and maintain voice services in the NBN fixed wireless and satellite footprints. These factors combined mean that it is increasingly important that government and industry work together to develop quality voice solutions for consumers into the future. Significant cross-sector collaboration and investment is required to deliver this outcome, and the alternative voice services trials are a welcome next step.

¹ ACCAN 2018, Response to the Regional Telecommunications Review 2018, <http://accan.org.au/files/Submissions/ACCAN%20Submission%20to%20Regional%20Telecommunications%20Review.pdf>, p. 41.

2. List of recommendations

ACCAN supports the trials and their fundamental design. We offer a number of recommendations to ensure that the trials run smoothly and effectively, with as little consumer disruption as possible.

Recommendation 1: The Department should clearly explain how the trials' findings are intended to inform future policy development.

Recommendation 2: Alternative voice services should be subject to technical evaluation against established performance benchmarks to assess the viability and suitability of each service.

Recommendation 3: Minimum service assurances for consumers should be developed, and participating CSPs should comply with these.

Recommendation 4: Consumers in HCRC network areas and areas with limited to no mobile coverage should be prioritised for participation in the trials.

Recommendation 5: Additional funding should be allocated to the trials so that they can provide a reliable and sound basis for the delivery of future voice services, and are conducted and evaluated as effectively as possible.

Recommendation 6: The Department should ensure smaller CSPs are incentivised to participate in the trials and encourage innovative solutions.

Recommendation 7: Both the Department and participating CSPs must have a dedicated customer service communication channel for trial participants to flag issues and provide feedback.

Recommendation 8: Participating consumers should be contacted to provide feedback regularly via a variety of methods, including the Mean Opinion Score methodology and surveys during and at the end of the trial.

Recommendation 9: A variety of methods should be used to promote the trials, including CSPs proactively contacting potential trial participants, and leveraging consumer advocates' existing networks.

Recommendation 10: A detailed report that evaluates the trials and analyses their outcomes should be published on the Department's website.

3. Responses to Design of Alternative Voice Service Trials – Request for comments

3.1. Should the Department be seeking to achieve other objectives through the trials? If so, how would this affect the design?

ACCAN supports the trials' objectives: to test the viability and suitability of alternative voice technologies, products, and supply processes. Allowing RRR consumers to test alternative voice services will help to ensure that future services meet their unique communication needs.

The objectives outlined above can only be met if alternative services are assessed against well-established performance benchmarks. The viability and suitability of alternative services must be tested in a technology- and cost-neutral way, grounded in objective performance measures. Further recommendations on this matter can be found in section 3.2.1.

The Department should clearly explain how the trials' outputs and findings will be used to inform future policy decisions, to support an accountable and transparent policy process. This should be communicated in a final report delivered once the trials have concluded.

Recommendation 1: The Department should clearly explain how the trials' findings are intended to inform future policy development.

3.2. In terms of the deliverables for customers, do you have any concerns about the proposed design of the trials or suggestions to improve it, for example, locations for the trials, how best to recruit consumers to take part, requirements on CSPs, and service requirements?

3.2.1. Alternative services should be assessed against established performance criteria

Alternative voice services should be subject to technical evaluation, either by the Department or an independent third party. This evaluation could be done by a research organisation responsible for collecting and collating consumer feedback throughout trials, or by another party.

The technical evaluation should assess the performance of alternative voice services against clearly-defined criteria. These criteria should address the following aspects of the user experience, as well as any others identified by the stakeholder reference group.

Audio quality

Audio quality refers to overall quality or performance of the voice service from a user's perspective. There are many different things that influence voice-service quality, especially when it comes to VoIP services. The method known as the 'R value' is a well-established way to assess overall audio quality.

This metric weighs up the different factors that influence quality and provides an overall quality rating.² The R value, often used in conjunction with the Mean Opinion Score discussed in section 3.7.1, could be determined by interviewing consumers about their user experiences, and by analysing technical information given by the provider.

In 2013, ACCAN developed a report about measuring the quality of VoIP services that sets out a number of performance benchmarks. We have provided this report as a separate attachment with this submission for your information. Detailed information about the R value, as well as reference to relevant Communications Alliance technical Codes, can be found in that report.

Other factors to be considered when evaluating voice service performance

- **Network congestion:** This is the extent to which the number of users on the network and volume of use impacts service performance. Successful alternative services should experience minimal network congestion.
- **Network software and hardware:** Different types of software and hardware can create audio delays and interrupt the fluency of communication delays – this is seen particularly in satellite technologies. Communications Alliance Code 519:2004 sets out technical performance benchmarking for fixed voice services, and may act as a useful guide to assessing service performance.³
- **Tones and user signalling:** This refers to the extent to which the VoIP service gives a ‘standard’ telephone user experience, for example through providing dial tones or engaged tones. Failure to simulate a ‘standard’ phone service may cause consumer confusion, and undermine the user experience.

Recommendation 2: Alternative voice services should be subject to technical evaluation against established performance benchmarks to assess the viability and suitability of each service.

3.2.2. Service assurances should be provided for participating consumers

The Department should develop minimum service assurances for consumers participating in the trials, to make sure no consumer is left worse off or without service. CSPs should agree to comply with these service assurances as a condition of participating in the trials.

Guarantees for repair

ACCAN understands that the proposed trial arrangements in no way replace or undermine the USO. However, we understand that trial services will temporarily become the primary service for participating consumers, and their calls will be redirected to this service. For this reason, guarantees should be in place to ensure that if there are faults or problems with the trial service, the consumer bears no cost, and issues are dealt with quickly.

² More information about the R value can be found here: <https://www.voicehost.co.uk/help/call-quality-r-factor-and-mos>

³ Communications Alliance 2004, ‘C519:2004: End-to-end Network Performance For The Standard Telephone Service’, <https://www.commsalliance.com.au/Documents/all/codes/c519>.

This Code outlines minimum performance standards for Standard Telephone Services over fixed telecommunications networks, but not over VoIP services. This Code is still valuable as a performance benchmark for VoIP.

This could be addressed by the adoption of minimum timeframes for issue resolution consistent with the Customer Service Guarantee (CSG). For example, where there is a service fault, there could be a minimum timeframe for fault investigation and repair, and for transferring the participating consumer back to their existing service. The Department should ensure participating CSPs comply with service assurances.

Safety net

ACCAN is concerned about what 'safety net' may exist for participating consumers if their trial service fails, and there are complications associated with transitioning back to their existing service (for example, lengthy timeframes). It is especially important that consumers that are more vulnerable in emergency situations are not left without service, for example premises with no alternative service (such as mobile coverage), Priority Assistance customers, people with disability and older people. More thought should be given to the need for possible compensation if small business activity is interrupted by service faults and lack of connectivity.

The discussion paper alludes to complications caused by a consumer cancelling their existing service during the trial. Arrangements should be put in place to prevent inadvertent service cancellation, and trial participants should be fully informed of the consequences of doing so.

Suitable service at no cost to consumers

No cost should be incurred by consumers participating in the trials. This includes call redirect charges, and instances where the trial technology interferes with the existing phone service and there are costs associated with fault repairs.

In order to mirror the status quo for home phone services, consumers should have access to unlimited and untimed local and national calls on their trial service.

Recommendation 3: Minimum service assurances for consumers should be developed, and participating CSPs should comply with these.

3.2.3. Participant selection

It is essential that consumers using HCRC services are prioritised for participation over areas served by the copper network. Consumers from areas with no mobile coverage should also be prioritised, to test how services perform where there is no mobile fall-back. Section 3.8 outlines further recommendations for participant recruitment.

Recommendation 4: Consumers in HCRC network areas and areas with limited to no mobile coverage should be prioritised for participation in the trials.

3.3. In terms of the needs of CSPs, do you have any concerns about the proposed design of the trials or suggestions to improve it, for example, information required, capping of customer numbers, timeframes, level of funding available, and the approach to payment?

Our recommendation surrounding contracting CSPs can be found in section 3.6.

With regards to program budget, we are concerned that there is insufficient funding available to both run the trials and evaluate their results effectively. The \$2 million allocated to the project is likely to impose constraints that will limit the effectiveness of the trial, especially considering the various costs imposed by industry (for example, call redirect charges), and the resources necessary for undertaking a legitimate technical evaluation of the trial service performance.

It is concerning that given the limited funding, in order to meet budget the government is likely to contract with the incumbent provider (Telstra) because it will be in a position to run the trials more cost effectively than other providers with less local presence. The trials must allow for genuine competition between providers to test a range of technical options, with a view to supporting longer term competitive outcomes in the regional and remote voice services market.

Additional funds should be made available so that the trials are as meaningful as possible.

Recommendation 5: Additional funding should be allocated to the trials so that they can provide a reliable and sound basis for the delivery of future voice services, and are conducted and evaluated as effectively as possible.

3.4. Do you have suggestions on what should happen at the end of the trials, noting that Government funding will cease?

We support the Department's proposed approach with regards to the end of the trials. In addition, the Department should consider what oversight is necessary regarding how CSPs may charge consumers for the alternative service once the trial is complete, should trial services transition to a permanent offering. Given the higher costs of providing services in rural and remote areas, there needs to be a mechanism in place to ensure national pricing equivalency for voice services regardless of the technology used for delivery.

3.5. Do you have any comments on the stakeholder reference group? What stakeholders should be represented on the groups? Would you like to nominate anyone as a possible member?

We strongly support the development of a stakeholder group to advise how the trial runs, and particularly in the evaluation stage. A stakeholder group is vital for transparency, and it will provide the Department with an additional feedback mechanism. The group should be made up of technical experts and RRR consumer advocates.

It is important that representatives of the communities affected are represented on the reference group, as well as trial participants and technical experts. ACCAN would be happy to participate, as the peak body for consumers of communications products and services, and as a member of the Regional, Rural and Remote Communications Coalition.

3.6. Do you have any comments regarding the criteria for assessing proposals and contracting CSPs?

3.6.1. The need for competition and technical diversity

The criteria for participating in the trial should support competition, technical diversity and innovation by contracting CSPs, as well as the ability to provide services that comply with performance benchmarks. The trials would benefit strongly from the involvement of a diverse range of voice service technologies.

As mentioned above, ACCAN is concerned about Telstra’s monopoly advantage in RRR areas of Australia, and its ability to provide trial services at least cost. The Department should investigate ways to compensate or better encourage smaller and more innovative CSPs to join the trials. It should also make sure participants are spread evenly between service types and CSPs.

3.6.2. Adequate customer service support is essential

Customer service support for consumers participating in the trials is of the utmost importance. If consumers are left without a functioning service in the event of a fault, there could be devastating consequences.

Participating CSPs must have a dedicated support channel for trial participants; an example of this could be a dedicated phone number and email address for a special assistance team or person. This support channel should proactively monitor the connection status of trial services, and intervene when issues are detected. The Department should also have a dedicated communication channel or helpdesk for consumers struggling with their alternative service, contactable via phone and email.

Recommendation 6: The Department should ensure smaller CSPs are incentivised to participate in the trials and encourage innovative solutions.

Recommendation 7: Both the Department and participating CSPs must have a dedicated customer service communication channel for trial participants to flag issues and provide feedback.

3.7. Do you think regular surveys of trial customers would be useful? Do you consider there are any particular matters that should be monitored and evaluated during the trials in addition to those identified (e.g. service outages, quality issues and customer turnover?)

Direct feedback from consumers participating in the trials should be collected routinely and used to evaluate trial services, along with performance information outlined in section 3.2.1. Direct

consumer feedback would complement a technical evaluation of the viability and suitability of alternative voice services.

ACCAN recommends that a mix of structured and unstructured feedback collection is undertaken by an external research organisation. We propose two methods of feedback collection: a monthly phone survey based on the Mean Opinion Score (MOS) method, and a detailed online or phone survey partway through and at the end of the trials.

3.7.1. Monthly feedback and the MOS

The MOS is a well-established method of measuring users' experiences of call quality that allows participants rate their overall opinion of a voice service's quality from 1-5.⁴ An external research organisation could run monthly MOS testing via phone with participants, and then provide them the opportunity to give additional unstructured feedback.

3.7.2. Detailed feedback

Consumers involved in the trials could participate in a detailed online or phone survey both partway through and at the conclusion of the trial. This could be delivered by the external research organisation contracted for the monthly phone survey. In addition to number of service outages, the survey should also measure the level of customer support and fault repair timeframes offered by the CSP where applicable.

Recommendation 8: Participating consumers should be contacted to provide feedback regularly via a variety of methods, including the Mean Opinion Score methodology and surveys during and at the end of the trial.

3.8. How would the trials be best promoted to rural and remote customers by both the Department and CSPs? How would the results of the trials be best communicated once they are complete?

ACCAN expects there will be considerable consumer interest in the trials if they are promoted widely enough. The following promotion tactics could be used:

- Participating CSPs proactively contact consumers in HCRC and other rural and remote areas,
- CSPs and the Department advertise the trials using social media and their respective websites,
- Consumer groups like ACCAN, BIRRR the RRRCC could leverage their networks and encourage participation via online mailing lists and social media.

⁴ More information about the MOS can be found here: <https://www.mushroomnetworks.com/blog/what-is-mos-mean-opinion-score-for-voip/>.

Information about MOS testing can be found in the relevant International Telecommunications Union standard ITU-T PESQ P.862, found here: <https://www.itu.int/rec/T-REC-P.862>

A comprehensive evaluation of the trials should be published in report form on the Department's website. This report should include:

- Granular data about the reliability, performance and cost of each trial service,
- Detailed findings from consumer-provided feedback,
- The extent to which the trials met their objectives,
- Information about the Department's next steps after the trials.

Recommendation 9: A variety of methods should be used to promote the trials, including CSPs proactively contacting potential trial participants, and leveraging consumer advocates' existing networks.

Recommendation 10: A detailed report that evaluates the trials and analyses their outcomes should be published on the Department's website.