

Submission to ACCC

Report on Effectiveness of

Broadband Speed Claims Guidance

and

Consultation on Further Enhancements

Submission by
Communications Experts Group Pty Ltd



INTRODUCTION

This submission has been prepared by Communications Experts Group Pty Ltd who are Telecommunications consultants and who have provided engineering and consultation services to a number of West Australian organisations and persons. They also have a knowledge of the Telecommunications industry in Western Australia.

The case studies cited in the submission are drawn from research and experiences overseas and in Western Australia.

Dr Green was a Director of ATUG and has been a member of a number of committees providing Telecommunications Policy advice to the WA State Government and Federal Senate.

Dr. Green receives a number of enquiries and requests for advice on telecommunication services from a wide range of persons and is familiar with the telecommunication issues affecting Western Australian organisations and the community.

Dr Green and CEG have been responsible for the design of fibre services since 1989 and have substantial experience in the design and operation of other network technologies such as copper cable, coaxial cable and wireless networks.

The information given in this document is based on events that have occurred in Western Australia. Speed measurements and end-user feedback given to CEG confirmed the improvement in Broadband performance and the ACCC's claim that the Guidelines have improved both the quality of service and competition.

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Response to Selected Questions.

Q 1. Do RSP's require Further Information for Wireless Services

RSPs do require further information because the way internet traffic is transmitted over wireless links are significantly different to either copper or fibre cables.

A little known problem in Telecommunications occurs when one protocol is super-imposed on another protocol. An early example of this phenomena was the super imposition of the internet protocol on the frame relay protocol. Users purchased a 64 kbit/s frame relay link but the internet protocol was transmitted at speeds between 30 kbit/s to 35 kbit/s.

The same issue occurs when the internet protocol is super-imposed on radio or wireless protocols. Some wireless protocols are more efficient than others. Further problems arise when one link uses one type of wireless protocol and a second link uses another type of wireless protocol e.g. a fixed point-to-point wireless link followed by a 4G or WiFi wireless link protocols.

RSPs need to be aware of the additional parameters such as link speed, delay, and packet loss for each type of wireless link.

The packet loss measurements should be for each carrier of the end-user to RSP link e.g. Wireless, Carrier 1, Carrier 2, and RSP network. Packet loss measurements need to be made during periods of low lightning levels and high numbers of lightning occurrences.

Q 3. and 4 Requirements for Specific Labels for Wireless Networks

For reasons given in Question 1, RSPs should provide specific labels for wireless retail offerings because of the different characteristics of transmission.

Q 5. Need for Default Methodology for Wireless Connections

There is a need to develop a new Guidance which outlines a default methodology to provide a more accurate assessment of link speeds of wireless links using the additional data outlined in Question 1. The impact of packet loss and increased "ping times" are more significant with wireless networks. The existing guidelines covering times, number of measurements, etc are sufficient for wireless services.

Q 6. Proposed Changes to the Guidance for Principle 3

The current speed tests are incomplete measures of user expectations especially where the purchased link speed is insufficient to give a good quality service e.g. the minimum data rate for voice calls, suppliers correctly claim that bandwidths of 50 kbps are adequate, however links with speed tests of 2 - 3 Mbps still give an unreliable voice quality due to congestion, impact of other services, etc.

It is recommended that consumers be made aware that many factors affect the quality of service and that allowance for interference from other services should be included in their assessment.

Q 7 and 8. Improvements or Refinements to the Guidance

The proposed changes described in the draft guidance and the Appendix D are sufficiently clear for persons with a wide range of skills and understanding of internet services. They also provide a reasonable foundation for expert witnesses when preparing and giving evidence.

Q 9 Other Enhancements to the Guidance

Additional information regarding the performance of wireless links is required. Refer Question 1. For fixed wireless link the impact of lightening should be included, and for mobile links, clear statements on the number of channels (30Mbit/s) that the end-user can access. There are instances where speed tests indicate data rates of more than 100Mbit/s can be achieved, but end-users are limited to only one 30Mbit/s channel after a short period of time.

A number of customers are unwilling to change RSPs because of problems of using a new email or web address. Few RSPs advertise or inform customers that they can keep the email addresses (for a small fee) and be able to move to a new RSP. The ability to download all emails stored on the RSP server will also improve competition.

Case Study. Factors limiting further substitution between Wireless and fixed-lines

The following are experiences with the installation and effectiveness of installing Wireless and Mobile Links.

Clients with internet problems have been offered fixed wireless and 4G internet modem links, however the take up has been very low for the following reasons.

Initial Cost or Capital Outlay

The high price of \$170 for customers with good 4G signals and up to \$1,000 for customers with poor 4G signals. Fixed wireless links cost more than \$1,000 but can offer link speeds up to 400Mbit/s.

Ongoing Download charges and Maintenance Costs

High Cost or limited download quota's. Mobile carriers have a range of products ranging from \$80 per month for 50Gbytes to \$525 per month for unlimited download quotas.

Bandwidth Limitations

While speed tests indicate download speeds of more than 90Mbit/s mobile carriers restrict customers with long call times to one channel which has a maximum speed of 30Mbit/s. For customers with poor 4G signals the download speed can drop to 15Mbit/s.

External Antenna's

Some clients do not want an external antenna on their property.