

**COMMUNICATIONS
ALLIANCE LTD**



**ACCC Superfast Broadband Access Service
(SBAS) declaration inquiry**
COMMUNICATIONS ALLIANCE SUBMISSION
JUNE 2015

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INTRODUCTION

Communications Alliance welcomes the opportunity to provide this submission in response to the ACCC discussion paper for its *Superfast Broadband Access Service (SBAS) declaration inquiry* (SBAS inquiry).

About Communications Alliance

Communications Alliance is the primary telecommunications industry body in Australia. Its membership is drawn from a wide cross-section of the communications industry, including carriers, carriage and internet service providers, content providers, equipment vendors, IT companies, consultants and business groups.

Its vision is to provide a unified voice for the telecommunications industry and to lead it into the next generation of converging networks, technologies and services. The prime mission of Communications Alliance is to promote the growth of the Australian communications industry and the protection of consumer interests by fostering the highest standards of business ethics and behaviour through industry self-governance. For more details about Communications Alliance, see <http://www.commsalliance.com.au>.

About Working Committee 58

Communications Alliance Working Committee 58 on **VDSL2 and Vectoring** (WC58) was formed to revise industry codes and standards to align with international developments in VDSL2 technology including ITU-T Recommendations G993.2 and G.993.5. Aligning the appropriate codes and standards with these Recommendations is necessary to facilitate deployment of Very high speed Digital Subscriber Line (VDSL2).

WC58 is the most qualified group in Australia to advise on the technical aspects of delivering superfast broadband services in Australia using twisted pair cables. Its membership includes representatives from:

- The largest carriers and service providers delivering both broadband and superfast broadband services to all types of end users, in both wholesale and retail markets;
- Numerous designers, manufacturers and suppliers of the equipment used to provide both broadband and superfast broadband services; and
- Regulators of telecommunications services.

SECTION 1 – SUMMARY

Communications Alliance Working Committee 58 on **VDSL2 and Vectoring** (WC58) was formed to revise the relevant industry codes and standards to align with international developments in Very high speed Digital Subscriber Line (VDSL2) technology and therefore allow deployment of VDSL2 (either vectored or unvectored) broadband services throughout Australia. As the group most qualified to comment on the technical aspects of deploying superfast broadband services using twisted pair cables, it makes this submission on the technical aspects of a service description for a superfast broadband service delivered using twisted pair cables.

The terms of reference of WC58 specifically preclude it from addressing competition or commercial aspects of deploying DSL services. Accordingly, this submission only provides commentary on the appropriate technical aspects of a service description, should the Australian Competition and Consumer Commission (ACCC) consider such a declaration appropriate.

WC58 believes the appropriate description of the technical aspects of a Superfast Broadband Access Service (SBAS) delivered using twisted pair cables is:

A SBAS is a service that:

- has a normal download data rate at Layer 2 of at least 25 Megabits per second (Mbps);
- is supplied to an end-user by using metallic twisted pair cable; and
- makes use of spectrum above 2.2 MHz on the metallic twisted pair.

This description is 'technology neutral' in that it captures superfast broadband technologies that are currently commercially available for deployment (such as VDSL2) over twisted pair cables as well as technologies (such as G.fast) that will become available for deployment over twisted pair cables in the future.

WC58 would welcome the opportunity to discuss any aspect of its submission with the ACCC in more detail.

Communications Alliance and its WC58 submits comments on question 5 in the discussion paper for the SBAS inquiry but is not in a position to comment on the other questions in the discussion paper.

SECTION 2 – SERVICE DESCRIPTION (SBAS INQUIRY QUESTION 5)

Communications Alliance submits the following response to Question 5 in the ACCC discussion paper for the SBAS inquiry.

Q5: If the ACCC were to declare a superfast broadband access service:

- (a) What would be an appropriate description?
- (b) Should the service description be technology neutral?
- (c) What specifications, if any, should the service description include? For example, should the service description include specifications as to quality of service (for instance, speed)?
- (d) Which types of services should be captured and/or excluded by the service description? Please give reasons, referring to the implications for competition, any-to-any connectivity (where relevant) and the efficient use of and investment in infrastructure.

The *Carrier Licence Conditions (Networks supplying Superfast Carriage Services to Residential Customers) Declaration 2014*¹ (CLCs) was introduced to address concerns that carriers could use the exemptions from Part 7 and Part 8 of the *Telecommunications Act 1997*² (the Act) to operate Fibre To The Basement (FTTB) networks contrary to the intention of the Act, namely:

*"The decision by the Minister to consult on a new carrier licence condition declaration reflected concerns that carriers could use the exemptions under the Act to extend networks previously servicing business customers to service residential customers, contrary to the intention of the Act. This could allow them to operate FTTB networks on a vertically integrated basis, meaning they would have the ability and incentive to favour their own retail operations. This would re-introduce the competition issues that the rollout of the NBN and the structural separation of Telstra were meant to address."*³

WC58 understands that *"the key consideration for this declaration inquiry is whether there is need for regulation of networks that are capable of supplying superfast carriage services following the expiry of the carrier licence conditions"*⁴. Given this background, WC58 understands the intention of declaring a SBAS, if considered necessary, would be to ensure that carriage services provided by carriage service providers using FTTB technology are regulated under Part XIC of the *Competition and Consumer Act 2010*.⁵

Accordingly, WC58 considers that if the ACCC was to declare a SBAS, the service description should provide that the SBAS:

- has a normal download data rate at Layer 2 of at least 25 Megabits per second (Mbps);
- is supplied using a metallic twisted pair cable to an end user; and
- makes use of spectrum above 2.2 MHz on the metallic twisted pair.

¹ <http://www.comlaw.gov.au/Details/F2014L01699>

² <http://www.comlaw.gov.au/Series/C2004A05145>

³ Explanatory Statement, *Carrier Licence Conditions (Networks supplying Superfast Carriage Services to Residential Customers) Declaration 2014*, p.2.

⁴ Page 13 of the ACCC discussion paper for the SBAS inquiry.

⁵ <http://www.comlaw.gov.au/Series/C2004A00109>

Download Data Rate or Downstream Data Rate

There are existing legislative definitions for a **superfast carriage service** that include “the download transmission speed of the carriage service is normally more than 25 megabits per second” (refer to the Appendix A for more information).

An important clarification in the description proposed by WC58 is the addition of the Layer specification for a data rate is necessary to avoid ambiguity. A “Layer 2” data rate is preferred over, say, a “Layer 3” data rate because it gives an unambiguous definition for assessment, compliance or enforcement purposes.

Supplied using a metallic twisted pair cable to an end user

WC58 recommends a service description for a SBAS should include that the line to an end user is provided over ‘a metallic twisted pair cable’. VDSL2 technology is used to provide a service to an end user via ‘a metallic twisted pair cable’.

A ‘metallic twisted pair cable’ is an effective way to exclude services delivered via optical fibre to end users e.g. Fibre To The Premises (FTTP) services. This would be consistent with the CLCs, which effectively excludes FTTP by excluding the national broadband network from the definition of a *designated telecommunications network*.

WC58 recommends the ACCC not use the popular term “copper wire” as a descriptor in a service description for a SBAS instead of “metallic twisted pair cable” because although copper is the most common conductor used to provide a service using VDSL2 technology, such services can also be provided over aluminium cable.

A service description for a SBAS that includes “twisted pair cable” will include services delivered using VDSL2 technology and effectively exclude services delivered via Hybrid Fibre Coaxial (HFC) technology where the fixed line to the end user is coaxial cable i.e. not twisted pair cable.

Therefore the inclusion of reference to ‘a metallic twisted pair cable’ in a service description for a SBAS would be consistent with the purpose of the SBAS inquiry, which includes “*competition concerns that may arise as a result of the technical limitations of vectored VDSL2 technology*”⁶.

The inclusion of reference to ‘an end user’ is an effective way to exclude backhaul services, which are not part of an access service.

The use of spectrum above 2.2 MHz on the metallic twisted pair cable

WC58 recommends that a service description for an SBAS include the use of spectrum above 2.2 MHz on the metallic twisted pair cable.

If a service description for an SBAS includes the use of spectrum above 2.2 MHz on the metallic twisted pair cable then it will effectively exclude existing broadband services provided via technology such as ADSL, ADSL2+ and SHDSL. The correct test for use of spectrum above 2.2 MHz is that the system causes Unacceptable Excess Power as defined in the Communications Alliance **Unconditioned Local Loop Service (ULLS) Network Deployment Rules** Industry Code (C559:2012)⁷. New superfast broadband systems such as VDSL2 and G.fast exceed the Unacceptable Excess Power mask in C559:2012, whereas legacy systems that meet the requirements of C559:2012 do not cause Unacceptable Excess Power.

The inclusion of ‘makes use of spectrum above 2.2 MHz’ will simplify the assessment of whether or not a service is a SBAS. This contrasts with the uncertainty that can arise from

⁶ Page 1 of the ACCC discussion paper for the SBAS inquiry.

⁷ <http://www.commsalliance.com.au/Documents/all/codes/c559>

defining a superfast carriage service only in terms of “normally more than 25 megabits per second” e.g. whether or not it includes a ‘bonded DSL’ service.

Broadband (and many other) services that operate only below 2.2 MHz on metallic twisted pair cable between the boundary of a telecommunications network at an end-user’s premises and the end-user side of the customer access module at a potential point of interconnection are regulated via C559:2012, which is included on the ACMA register of industry codes⁸, and by the declaration of the Unconditioned Local Loop Service⁹.

Technological neutrality

WC58 recommends that a service description for a SBAS should be technology neutral where possible although, as noted above, there are reasons for describing a SBAS with certain technical characteristics.

WC58 notes that a service description that is too technology specific runs the risk of requiring amendment, or of not covering newer technologies that emerge after the original drafting of the service description. For example, a service description that focused exclusively on VDSL2 technology would omit the alternative technology for metallic twisted pair cable of G.fast. The service description recommended by WC58 is technologically neutral in that it captures current and future superfast broadband technologies that are delivered using metallic twisted pair cables.

Should the ACCC determine that declaration of a SBAS should be more general than technologies delivered using metallic twisted pair cables, WC58 does not consider itself the appropriate group to provide advice.

⁸ <http://www.acma.gov.au/theACMA/Library/Corporate-library/Forms-and-registers/register-of-codes>

⁹ <http://www.accc.gov.au/regulated-infrastructure/communications/fixed-line-services>

APPENDIX A – SELECTED LEGISLATIVE AND REGULATORY DEFINITIONS

In Appendix C of the ACCC discussion paper, the ACCC declaration of the *Local Bitstream Access Service (LBAS)* references Section 152AC of the *Competition and Consumer Act 2010*¹⁰ for its definition of each of the:

- Layer 2 bitstream service; and
- superfast carriage service.

Section 152AC of the *Competition and Consumer Act 2010* includes:

"Layer 2 bitstream service has the same meaning as in the *Telecommunications Act 1997*." and

"superfast carriage service has the same meaning as in section 141 of the *Telecommunications Act 1997*."

Then in the *Telecommunications Act 1997*¹¹:

Section 7 (Definitions) includes:

"Layer 2 bitstream service means a carriage service that is:

- (a) either:
 - (i) a Layer 2 Ethernet bitstream service; or
 - (ii) a Layer 2 bitstream service specified in a legislative instrument made by the ACMA for the purposes of this subparagraph; and
- (b) a listed carriage service; and
- (c) supplied using a line to premises occupied or used by an end user.

For this purpose, Layer 2 has the same meaning as in the *Open System Interconnection (OSI) Reference Model for data exchange*."

And in 'Part 7—Layer 2 bitstream services', Section 141 (Supply of Layer 2 bitstream services) includes:

"superfast carriage service means a carriage service, where:

- (a) the carriage service enables end users to download communications; and
- (b) the download transmission speed of the carriage service is normally more than 25 megabits per second; and
- (c) the carriage service is supplied using a line to premises occupied or used by an end user."

This definition is identical to the definition in 'Part 8 — Superfast fixed line networks', in Section 142A (Definitions):

"superfast carriage service means a carriage service, where:

- (a) the carriage service enables end users to download communications; and
- (b) the download transmission speed of the carriage service is normally more than 25 megabits per second; and
- (c) the carriage service is supplied using a line to premises occupied or used by an end user."

¹⁰ <http://comlaw.gov.au/Series/C2004A00109>

¹¹ <http://www.comlaw.gov.au/Series/C2004A05145>

The Carrier Licence Conditions (Networks supplying Superfast Carriage Services to Residential Customers) Declaration 2014¹² includes the definitions:

"designated telecommunications network" means that part of a fixed-line telecommunications network made up of local access lines or parts of local access lines which:

- (a) is used, or is technically capable of being used, to supply superfast carriage services; and
- (b) is not:
 - (i) subject to either sections 141 or 143 of the Act; or
 - (ii) the subject of a ministerial exemption in force under section 141A or section 144 of the Act; or
 - (iii) any of the following:
 - (A) the national broadband network; or
 - (B) a specified HFC network; or
 - (C) local access lines that are used to supply carriage services to business customers, public bodies or large charity customers; or
 - (D) fixed-line network (or any part of such a network) in existence immediately before 1 January 2011 which is situated in a real estate development project that is extended on or after 1 January 2011 to an area that was developed as another stage of the project;
 - (E) fixed-line network (or any part of such a network) in existence immediately before 1 January 2011 which prior to that date was used to supply carriage services to residential customers and which has not been extended on or after 1 January 2011;
 - (F) fixed-line network (or any part of such a network) in existence immediately before 1 January 2011 which prior to that date was used to supply carriage services wholly or principally to residential customers and which is extended on or after 1 January 2011 by less than 1 kilometre from any point on the infrastructure of the network (as it stood immediately before 1 January 2011); and
 - (G) fixed-line network (or any part of such a network) which is:
 - (i) by a carrier that is also the primary universal service provider; and
 - (ii) (including any extensions made to such a network of less than 1 kilometre from any point on the infrastructure of the network) between 1 January 2011 and 31 December 2014 to enable the primary universal service provider to fulfil the universal service obligation; and
- (c) is situated anywhere in Australia."

and

"specified HFC network" means:

- (a) a telecommunications network that is used to supply carriage services and the line component of which consists of optical fibre to connecting nodes, supplemented by coaxial cable connections from the nodes to the premises of end-users; and
- (b) which was in existence prior to 1 January 2011. For the avoidance of doubt, any extensions to such a network made on or after 1 January 2011 are to be treated as forming part of a 'specified HFC network' for the purposes of this Determination."

¹² <http://www.comlaw.gov.au/Series/F2014L01699>



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