

**EXPOSURE DRAFT – TELECOMMUNICATIONS AMENDMENT REGULATION
2015 (No.1)**

EXPLANATORY NOTE

Background

The *Telecommunications Amendment Regulation 2015 (No.1)* (the Amending Regulation) will implement the Government’s response to Recommendation 9 of the *Statutory review under section 152EOA of the Competition and Consumer Act 2010*. This review formed part of the independent cost-benefit analysis and review of regulatory arrangements for the National Broadband Network undertaken by the panel of experts headed by Dr Michael Vertigan AC (the Review).

In its submission to the Review, the telecommunications industry peak body, Communications Alliance, highlighted interference issues that could impact on the performance of VDSL2 services provided over a single cable bundle services. VDSL2 is a recent generation of digital subscriber line (DSL) technology which is capable of delivering up to 100 Megabits per second (Mbps) in both directions simultaneously over a short length of copper. Accordingly, VDSL2 is considered a “next-generation” DSL technology. Other next-generation DSL technologies include vectored VDSL2 and G.fast.

Interference is problematic in the supply of DSL services because it can result in a significant reduction to the quality of fixed-line services received by end-users. Interference occurs when the signals travelling over the individual copper pairs in a cable bundle escape the copper pair and interfere with one another.

The problem identified by the Communications Alliance was that existing industry codes and standards do not, and cannot, address interference caused by next-generation DSL systems.

Currently, interference between competing DSL systems, typically provided from exchanges, is managed by industry through a code, the Unconditioned Local Loop Service (ULLS) Network Deployment Code (C559:2012). The *Telecommunications Regulations 2001* only authorise industry to make codes relating to the ULLS, and not in relation to telecommunications systems that do not use the ULLS. As next-generation networks tend to operate from a street-based node, or a building basement node, they do not operate over the ULLS and therefore cannot be regulated under the regulations.

The Review recommended that interference between competing vectored VDSL systems should, at this stage, be dealt with through industry processes managed by the Communications Alliance and the regulators (i.e the ACMA and the ACCC). However, if suitable arrangements cannot be put in place via these mechanisms, then the Government should take further necessary action.

In its response to the Review, set out in the *Telecommunications Regulatory and Structural Reform* paper, in December 2014, the Government agreed that the issue should be dealt with through existing industry mechanisms to the greatest extent possible. However, the response noted that if it was difficult for existing arrangements to resolve the issue, then the Government will enable the Communications Alliance to put in place appropriate mechanisms, including interim arrangements, to deal with interference. It concluded by

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stating that the Government would consider additional rules as needed for managing interference and co-existence between VDSL2 networks.

Since issuing its response, the Government has discussed the requirements for a new regulation with industry. Communications Alliance advised that a code would need to manage interference between competing next-generation systems (including VDSL2, vectored VDSL2 and G.fast) supplied over the same cable bundle, as well as interference between competing next-generation and legacy systems using the same cable bundle. These are systems that all operate over twisted pair cables within a cable bundle.

In consultation with Communications Alliance, the Government determined that a new regulation would be required. The regulation would establish a head of power to enable Communications Alliance to make a code, or the Australian Communications Media Authority (ACMA) to make a standard. By establishing a head of power in the regulation, the Communications Alliance will be able to develop a formal code (as opposed to a voluntary guideline) that the ACMA can register and enforce. It also enables the ACMA to make an enforceable standard if required.

To this end, the Amending Regulation provides the industry with the power it requires to manage interference between next-generation systems (and some legacy systems) as they are progressively rolled out. This will enable industry experts to develop the code and follows the advice of the Review generally.

Telecommunications Amendment Regulation 2015 (No. 1)

The Amending Regulation inserts a new regulation 4.2 into the *Telecommunications Regulations 2001*. It establishes a head of power to enable either Communications Alliance to develop an industry code or the ACMA to make an industry standard dealing with the design features and performance requirements of customer cabling, customer equipment, networks or facilities relating to:

- interference (including management of interference) caused to a next-generation broadband service by a system providing a carriage service over a twisted pair cable;
 - o this deals with potential interference between multiple next generation systems (e.g. two VDSL2 systems);
 - o the reference to ‘twisted pair cable’ limits the head of power to new technologies deployed over copper;
 - o the regulation provides an indicative list of these technologies;
- interference caused to a legacy service by a system providing a carriage service over a twisted pair cable, if the legacy service is supplied using only facilities that were installed and in operation at the time the system began to be operated (including where those facilities have been changed at a later period as a result of repair, replacement or maintenance);
 - o this deals with potential interference to existing legacy services (e.g. ADSL) from next generation systems (e.g. VDSL2) particularly during the migration to next-generation systems, when both technologies may co-exist;
 - o again, the reference to ‘twisted pair cable’ limits the head of power to new technologies deployed over copper;
 - o the regulation provides an indicative list of legacy technologies;

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- the regulation is only intended to cover legacy services provided over legacy systems in place at the time the next-generation system is installed – it is not intended to deal with interference to new legacy systems installed after a next-generation system is installed (e.g. if someone sought to overbuild VDSL2 with ADSL);
- the health and safety of a person operating or working on such equipment, cabling, network or facility used with a next generation broadband service; or
 - o this replicates existing wording in relation to the head of power for the ULLS Code;
- the integrity of such equipment, cabling, network or facility used with, a next generation broadband service;
 - o again this replicates existing wording in relation to the head of power for the ULLS Code.

Along with the new regulation, the Government is proposing a set of high-level principles to underpin the code. These principles would provide guidance in relation to the Government's expectations of the elements industry should include in a code. The Government's key concern in developing the principles is to optimise both competition and performance to the greatest extent possible. The code envisaged should not prevent the rollout of competing networks where this is technically feasible. However, where competition does develop, the performance of services should not be materially degraded by interference between competing systems.

The proposed principles are:

1. In a multi-dwelling unit, the owner of a cable bundle or cable bundles (whether a carrier, body corporate, strata company, person, or other) determines who can access the in-building cabling. In principle, there is no limit on the number of carriers that can be provided with access to the in-building cabling, however, practical constraints may come into play.
2. The first carrier to install a next-generation broadband system in a building must ensure that it does not interfere with an existing legacy service in the building.
3. If a cable bundle owner grants a second (or subsequent) carrier access to a cable bundle, the first (or any existing legacy service provider) carrier/s must cooperate with the second (or subsequent) carrier to attempt to enable the provision of a second service.
4. The second (or subsequent) carrier must ensure that its services do not result in any material degradation of services supplied by the first (or other pre-existing) carrier/s. Parties must work together in good faith to establish whether a second carrier or subsequent carrier can operate services in accordance with the principles.
5. The second (or subsequent) carrier is expected to meet the capital or other costs incurred in enabling it to operate on the cable bundle.
6. Supply of services by the second (or subsequent) carrier does not have to meet any performance benchmarks in terms of end-user speed.
7. If a cable bundle owner does not confer priority on a single carrier, but invites multiple carriers to install services at once, the carriers must cooperate to optimise the provision of their services, or not provide a service.

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8. Carriers must make information available on their website and when canvassing building owners in relation to access to in-building cabling and potential interference issues associated with access.
9. Carriers should obtain written consent from the cable bundle owner acknowledging the performance outcomes that will result. Owners/occupants should also be consulted by the body corporate in advance of the written consent enabling a carrier to install its equipment.