

18/10/2024



AMTA Submission

Australian Communications & Media  
Authority

Proposal to remake the  
Radiocommunications (Interpretation)  
Determination 2015:  
Consultation Paper



## About AMTA

The Australian Mobile Telecommunications Association (AMTA) is the peak industry body representing Australia's mobile telecommunications industry. Its mission is to promote an environmentally, socially and economically responsible, successful and sustainable mobile telecommunications industry in Australia, with members including the mobile network operators and service providers, handset manufacturers, network equipment suppliers, retail outlets and other suppliers to the industry. For more details about AMTA, see <http://www.amta.org.au>.



## Introduction

We appreciate the ACMA's efforts in putting together the draft *Radiocommunications (Interpretation) Determination 2024* ("the I.D. 2024"), and we thank the ACMA for granting the opportunity to provide feedback on it.

We strongly support the ACMA's proposal to re-make the I.D. 2015 with the I.D. 2024, and we are generally supportive of the changes and updates proposed.

However, we do have comments on a number of specific proposed amendments, and offer a suggestion for the I.D. 2024 to also incorporate terminology from spectrum licences and spectrum licensed technical frameworks (SLTFs).

## Specific comments on expressions

### PTS and PMTS expressions

The amendments of greatest relevance to AMTA are those related to the Public Telecommunications Services (PTS) licence type and the Public Mobile Telecommunications Service (PMTS) licence subtypes.

We strongly support the revision to the definition of **PMTS Class B** to clarify that PMTS Class B consist of *one or more* land stations, as opposed to two or more land stations, as is currently the definition. We requested this revision in our response to the ACMA's consultation on the *Proposal to remake the Public Telecommunication Services Licence Condition Determination and the Cellular Mobile Telecommunication Class Licence* ("the PTS LCD consultation"), and we appreciate that the ACMA has addressed this.

We note that the definition of PMTS Class B refers directly to a PTS licence, and that the definition of **PTS licence** has been set up to intentionally cover both public networks (that provide a PMTS) in point (a), as well as other services (e.g. private networks) in point (b). We note that the definition of PMTS in the I.D. 2024 also has additional flexibility (beyond the definition of PMTS in the *Telecommunications Act 1997* ("the TA97")) to also cover services which do *not* have intercell hand-over and also includes services where all users are located at the same distinct place. As such, we are satisfied that the expressions in the I.D. 2024 ensure that PTS licences adequately cover both public and private networks.

### Cellular mobile telephone service

There is another expression relevant to AMTA which is the **cellular mobile telephone service** (CMTS). When the existing definition was created, the ACMA identified the handsets, the base stations, and the mobile switching centres as the three key components of the CMTS. The existing definition is relevant to 2G and 3G networks, in which voice calls were carried over a dedicated public switched telephone network (PSTN), as exemplified by the reference to "*another user of the public telephone network*". The ACMA also sought to describe the process of handover as an important feature of the CMTS.

The replacement of "*mobile switching centres*" to "*redirection stations*" does not adequately update the definition, since "*redirection stations*" is not terminology used in the mobile industry. Also, the term "*public mobile telephone service*" is not defined, neither in the I.D. 2024 nor in the TA97.

We believe that this definition is outdated, and either:

- a) needs to be updated to correctly describe a CMTS in the context of 4G and 5G; or
- b) needs to be changed to refer to the existing definition of PMTS in the TA97; or
- c) needs to be removed if no longer required. We provide further details on the various options below.

### **Update of the definition of cellular mobile telephone service**

We offer the following suggestions for defining the CMTS in an up-to-date and relevant way:

- In point (b) describing the base stations, it should add that each base station may have one or more sectors. It should refer to a radio access network (RAN) instead of a “public mobile telephone service” (which is not defined). Furthermore, it is not clear what is meant by the term ‘restricted’ in the sentence: “*the area serviced by each base station (cell) is restricted*”. It would be clearer to say something like “*each base station sector serves UEs within a limited area known as a **cell**. [The cell’s area is limited by factors such as path loss and network design e.g. the boundaries of adjacent cells].*”
- Point (c) about the mobile switching centres/redirection stations should be replaced by a description of the core network.
- Point (d) needs to be expanded to capture the reality that the handset operator can in fact communicate with:
  - any device, anywhere in the world that is connected to the Internet, in the case of a public network; or
  - another device of the same network, in the case of a private network.
- Regarding point (e), we don’t consider it necessary for the definition of CMTS to describe *how* the handover process has to work, just that it is a feature of the service. In this regard, point (e) should be replaced by a much simpler description, such as that found in section 32(1)(a) and 32(1)(c) of the TA97, to say, for example: “*the operator of the UE can use the service while moving continuously between different cells [on the same network], since the service is supplied by a telecommunication network that has intercell hand-over function*”.

### **Definition of cellular mobile telephone service refers to the definition of PMTS**

Alternatively, and noting that the definition of PMTS in section 32 of the TA97 also includes the feature of intercell hand-over function, we wonder whether the definition of CMTS can simply refer to the definition of PMTS and avoid repeating the description of these features. For example:

**cellular mobile telephone service** has the same meaning as “public mobile telecommunications service” defined in section 32 of the Telecommunications Act 1997, where the telecommunications network referred to in that definition consists of one or more base stations, each of which may have one or more sectors, and where each base station sector services end-user equipment (UEs) within a limited areas known as a **cell**.

### ***Retirement of the definition of cellular mobile telephone service***

Beyond the comments above, we note that the term **cellular mobile telephone service** does not appear in any legislative instrument currently in-force, other than the I.D. 2015 itself. Within the I.D. 2015, it is only used to assist in the definition of cordless telephone service, where:

***cordless telephone service*** means a radiocommunications service that:

- (a) consists of one or more land stations, each of which:
  - (i) does not form part of a cellular mobile telephone service; and

...

We suggest that perhaps the definition of *cordless telephone service* (CTS) can refer to a *public mobile telecommunications service* instead of the *cellular mobile telephone service*, thereby allowing retirement of the term CMTS altogether.

### ***Retirement of the definition of cordless telephone service***

The ACMA could go a step further and retire the term CTS since it is only referred to either:

- in the context of a **PABX cordless telephone service**, which is being retired; or
- in the *Radiocommunications (Cordless Communications Devices) Class Licence* 2024 (“the CCD CL”), in which it is only used to define the term “**handset**”.

We believe it would be simpler and clearer for the CCD CL to have a self-contained definition of *handset*, and for the two redundant definitions of CMTS and CTS to be retired altogether.

### ***AWLs***

We are slightly concerned about the way in which the area-wide licence (AWL) licensing framework is growing in increments by apparent ‘patches’; with each ‘patch’ being added to the framework to address a new problem—presented by the next frequency band being designated for AWLs—that was not previously considered.

Firstly, it’s clear that, in the draft I.D. 2024, the references to **area wide licences** (and **area wide stations**) are in reference to the AWLs, for which the geographical area is defined by HCIS blocks. This is in contrast to a second type of licences for which the geographical area is a pre-defined area specified on the licence, and which include, for example, Australia-wide radiodetermination licences or NSW-wide ambulatory system licences. This second type of licence is typically referred to in the radiocommunications industry as an “*area-wide licence*”.

Referring to this second type of licence as an “*area-wide licence*” is in contradiction to the definition in the proposed I.D. 2024. As such, we propose that all references to the first type of licence—i.e. with user-defined areas defined by HCIS blocks—be limited to the acronym

**“AWL”**, to avoid confusion with the second type of licence. Considering that there are AWLs which can be as small as a single HCIS Level 00 tile, the term *area-wide licence* really isn’t the best description for this type of licence anyway, so we suggest that it simply refer to the acronym **“AWL”**.

The latest ‘patch’ to accommodate earth station receivers (ESRX) under the AWL framework has further complicated matters, since they have their own type of receive-only licence, an **“area-wide receive licence”** (AWLRX). However, the equivalent transmitter licence which also authorises transmitters is still referred to as an AWL, but the definition of the AWL in the I.D. 2024 includes both transmitter and receiver licence types. So, for any reference to an AWL, it’s not clear whether it’s referring to AWL transmitter licences *and* AWLRX, or to only AWL transmitter licences.

For this type of AWLRX, the ACMA also created the term **“area-wide receive station”** in the I.D. 2015, defined as *“a radiocommunications receiver that is operated for an area-wide service”*. We believe that the ACMA’s intention is for this to refer specifically to a receiver station under an AWLRX, however the definition itself could also apply to a receiver that is operated for an AWL service under AWLTX, e.g. a base station receiver operating as part of a terrestrial wireless broadband (WBB) service.

It’s suggested that the ACMA use this as an opportunity to clean up all these definitions:

- use **“AWL”** to refer to any type of AWL, including both transmitter and receiver licence types
- use **“AWLTX”** to refer to an AWL transmitter licence
- use **“AWLRX”** to refer to an AWL receiver licence
- Use only these acronyms and not the *“area wide licence”* and *“area wide receive licence”* terms spelt out.

We note that this wouldn’t be the first acronym to be used as an expression itself, for example **ARQZWA** or **ASMG**.

As part of such a cleanup, there may be consequential revisions required to the *Radiocommunications Licence Conditions (Area-Wide Licence) Determination 2020* (“the AWL LCD”), to the tax determinations, and to RALIs MS 46 and MS 47.

### ***Expressions related to fixed licences***

In its *Proposal to remake the Radiocommunications (Interpretation) Determination 2015—Consultation paper* (“the consultation paper”), the ACMA points out that the change to the definition of the **900 MHz studio to transmitter link station** is to *“refer to radio programs provided as part of a broadcasting service”*, beyond the existing reference to *“sound broadcasting program material”*. While we don’t object to that change, we notice a more significant change which is the removal of the specific description that the transmission is *“from a broadcasting studio to a broadcasting transmitter”*. This appears to be a significant

part of describing what a “*studio to transmitter link*” does, so it’s not clear why that would be removed, and what the unintended consequences of that being removed are.

With respect to expressions related to point to multipoint (P-MP) licences:

- **point to multipoint station** includes a condition that it is “*principally for communications with more than one other fixed station*”. While this is true for the base or hub station, it’s not necessarily true for the remote stations; they may only be communicating with the one hub station.
- **point to multipoint system** includes a condition that the P-MP stations operate “*in an area specified in the fixed licence*”. P-MP licences don’t normally define such an area; rather they define the location of the base station which communicates with nearby remote stations.

This is not solely relevant to fixed licence types, but we note that a *communal site* is defined as one where there are “*more than 2 fixed transmitters*”. Why is the threshold a total of three co-sited transmitters? If the threshold was intended to be two co-sited transmitters, then the definition should be revised to say “*two or more fixed transmitters*”.

## Other comments

### Section 10 Interpretation—parts of the spectrum and frequency bands

A similar section is already in the existing I.D. 2015, but it states that a frequency band or range, e.g. from X MHz to Y MHz, “*includes all frequencies that are greater than but not including the lower frequency, up to and including the higher frequency*”. This really does not make sense from a practical perspective; band edges are just infinitesimally-small edges, they don’t ‘include’ or ‘exclude’ anything.

### Comments on general definition style

We note that for definitions of several different types of stations, the ACMA has sought to expand the definition of stations:

- from the station itself being a transmitter/receiver and/or the station itself being able to transmit/receive,
- to definitions where the station *incorporates a transmitter/receiver* that transmits/receives.

However, we note that this wasn’t undertaken for all definitions of stations, e.g. ***ambulatory station***.

The ACMA has also made efforts to change definitions of different types of licences to refer to “*a transmitter licence that authorises the operation of a transmitter than is, or is part of, a*



*station that...*”. As we previously commented on in response to the PTS LCD consultation, this appears to be intended to address the ACMA’s view that apparatus licences don’t ‘authorise’ receivers that may also be part of / incorporated in the same station. In our response to the PTS LCD consultation, we expressed our view that this often complicated definitions, and asked the ACMA to carefully consider whether this is necessary. In any case, we note that this revision wasn’t undertaken for all definitions of licences, e.g. **defence licence**, **maritime ship licence**.

References to **earth stations** are now interpreted as being earth *transmit* stations, and therefore references to earth stations now need to be accompanied by **earth receive stations**, where appropriate. However, we note that this revision wasn’t applied for all relevant definition, e.g. missing from definition of **aeronautical station**.

We generally support not duplicating descriptions across multiple definitions, and to instead refer to other expressions which have already been described in detail, e.g. as was done for the definition of **ambulatory system**. However, such a clean-up was not performed for other definitions, e.g. **paging exterior**, **fixed receive licence** and **fixed receive station**, **fixed licence** and **fixed station**, or **land mobile licence** and **land mobile service**. The ACMA should decide whether the details should typically be included in the detail of stations, licences, or services, and then the other definitions should refer back to the defined expression containing the details.

## Terminology relevant to spectrum licences and spectrum licence technical frameworks

We note that in the consultation paper, the ACMA acknowledges that the I.D. acts as a repository for definitions of expressions used in other legislative instruments made by the ACMA, “*primarily in relation to apparatus licences, class licences, licence tax, spectrum planning and equipment regulation*”.

The other type of licence—spectrum licences—is a notable omission, especially considering that there are multiple legislative instruments dealing with spectrum licences, including Spectrum Marketing Plans, and the three instruments that typically make up a spectrum licence technical framework (SLTF): radiocommunications advisory guidelines (RAGs) made under s262 of the Act—one RAG for spectrum-licensed transmitters and one RAG for spectrum-licensed receivers—and an unacceptable levels of interference (ULOI) determination made under s145 of the Act.

We note that there are many definitions in spectrum licences and in SLTF instruments that are defined repeatedly across many licences and/or across several different SLTF instruments, making it difficult for spectrum licensees, vendors, service providers and Accredited Persons (APs) to keep track of the various different definitions. Unlike for

apparatus licensing, there is no one reference for definitions used in spectrum licences and SLTFs like the I.D..

One potential solution could be to make a separate instrument similar to the I.D. for definitions used in spectrum licences and SLTFs, but there is an emerging problem which means that this might not be such a neat solution. Specifically, there are apparatus licences with associated licence conditions and/or coordination requirements which are intended to mirror spectrum licence conditions and/or provisions from the SLTFs. For example:

- RALI MS 34 specifies out-of-band emission limits for 1800 MHz PTS licences using terms “**Radiated maximum true mean power**” and “**Radiated peak power**”. The definition of these terms, however, cannot be found in RALI MS 34 or in the proposed ID 2024.
- The ACMA has (in its recent consultation<sup>1</sup>) identified that recently-reviewed 1800 MHz and 2 GHz SLTFs would likely be relevant to the PTS apparatus licensing framework. They sought views on what other aspects of RALIs MS 33 and MS 34 could be considered as part of a future review, including to potentially better align with the relevant SLTFs.
- RALI MS 47 requires that Device Boundaries be calculated for AWL transmitters in the band 3400-4000 MHz in the same way that they are calculated for spectrum-licensed transmitters registered under 3.4 GHz spectrum licences.

As such, for these apparatus licences, it may not be clear that the definitions of expressions applicable to them would be found in a spectrum-licensing equivalent of the I.D.

The 1800 MHz and 2 GHz spectrum licences include terms like **peak power**, **radiated peak power**, **total radiated power** or **TRP**, **radiated maximum true mean power**, **mean power**, **true mean power**, **maximum true mean power**, **occupied bandwidth** and **AAS** (short for adaptive antenna systems). Some of these terms are defined in the spectrum licence itself, others are not. Some are used across multiple spectrum licences and/or legislative instruments such as ULol.

We believe that the current state of definitions is rather disorganised; the definitions are defined repeatedly across multiple documents, potentially different definitions depending on the document, and some terms not defined in any document (e.g. radiated maximum true mean power). For spectrum licences and SLTFs there is no comprehensive ‘dictionary’ of terms which users can refer to in order to be certain of the interpretation of an expression. Therefore, we would suggest that this is something which the ACMA could seek to address

---

<sup>1</sup> ACMA, June 2024, *1800 MHz and 2 GHz bands outside of spectrum licensed areas – review of arrangements*, available at: <https://www.acma.gov.au/consultations/2024-06/1800-mhz-and-2-ghz-bands-outside-spectrum-licensed-areas-review-arrangements>

with the remaking of the I.D. 2024, noting that the I.D. 2015 doesn't sunset for another 6 months.

Since technical licence conditions are structured around a reference technology such as 5G NR technologies (as is the current situation), we believe there is also scope for some definitions to be updated so that they are appropriate for the technologies being used. For example, the ACMA's definition of **mean power** in the ULol document is *"the average power measured during an interval of time that is at least 10 times the period of the lowest modulation frequency"*. We don't believe that this can readily be applied to a transmitter compliant with 3GPP 38.141 Operating band unwanted emissions (section 6.6.4).

Australian Mobile  
Telecommunications Association

PO Box 1507, North Sydney, NSW 2059

50 Berry St, Suite 504, Level 5, North Sydney NSW 2060

[www.amta.org.au](http://www.amta.org.au)