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**COMMUNICATIONS ALLIANCE
SATELLITE SERVICES WORKING GROUP (SSWG)**

SUBMISSION

to the

Australian Communications and Media
Authority's (ACMA)

Proposed area-wide apparatus licence

22 August 2019

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EXECUTIVE SUMMARY

The Communications Alliance Satellite Services Working Group (SSWG) welcomes the opportunity to provide a response to the ACMA's proposed area-wide apparatus licence (AWL) Consultation Paper.

This submission has benefitted from the information provided by the ACMA to the SSWG during the consultation period. The SSWG wishes to recognise and thank the ACMA for its time and commitment provided to industry as a part of the regulatory consultation process.

The satellite services community foresees interest in using AWLs for situations where a number of individually apparatus-licensed earth stations operate in close proximity within a band. The proposed introduction of AWLs does, however, raise issues surrounding the coordination and protection of incumbent satellite services, which we believe require further consideration. For example, what is the impact of area-wide licences on satellite services, are satellite services intended to be included in the classes of services and how will the term 'area' of application be defined?

The current approach of apparatus-licensing the space object and class-licensing earth stations (fixed or in motion) is the SSWG's continued preference where ubiquity of coverage is required. This includes ubiquitous IoT applications served by satellites.

The SSWG recommends that the registration of individual transmitters should be the default arrangement for AWLs.

We would welcome the opportunity to explore the questions raised in this submission and to work on the development of the AWL instruments with the ACMA.

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>.

Introduction

The SSWG acknowledges the ACMA's interest in developing a new apparatus licence that has broader flexibility and can be used in a more technology-agnostic manner, recognising the current limitations on existing apparatus licences for emerging service types.

In the absence of the anticipated fundamental licencing reform proposed by the Australian Government in its spectrum review program, there is merit in the introduction of a licence type that is adaptable to contemporary radiocommunications deployments and which is not tied to a particular service, frequency band, application or use.

The SSWG notes there is a number of overseas regulatory jurisdictions considering similar approaches, as referenced in the consultation paper. Learnings from these approaches may assist the ACMA with the implementation of a new area-wide apparatus licence (AWL) type.

The satellite services community foresees interest in using AWLs for situations where a number of individually apparatus-licensed earth stations operate in close proximity within a band; for example, a satellite park or common site. It is possible that administrative efficiency and/or cost savings may be realised through an AWL to cover a specific band (for example, C-Band) at an earth station facility.

However, issues surrounding the coordination and protection of incumbent satellite services with the introduction of AWLs requires further consideration. Specifically, the default arrangement whereby devices are not individually registered presents challenges for coordinating and/or diagnosing interference issues between an earth station and the operator of an AWL. The SSWG also has a number of questions remaining about the design of the licence (see below) and would welcome the opportunity to work further with the ACMA and industry to resolve these questions.

Discussion

The SSWG believes the concept of an AWL has value, but raises a number of questions for further consideration.

The intended approach for the proposed licence appears to be towards a limited or particular geographical area, but the examples given in the footnote¹ referring to the UK and HK of 5G and IoT go beyond this. It should be noted though that there are many wide area applications, which are not limited geographically, such as Automatic Teller Machines (ATMs) and machine-to-machine (M2M) /IoT - typical examples being freight and logistics tracking.

In line with these examples, the SSWG notes a trend in satellite services towards greater ubiquity. This is the opposite to the notion of limited areas in which radiocommunication devices are authorised and causes a tension to be resolved. As such, the current approach of apparatus-licensing the space object and class-licensing earth stations (fixed or in motion) is our continued preference where ubiquity of coverage is required. This includes ubiquitous IoT applications served by satellites.

However, where ubiquity of coverage is not required - for example, gateway earth stations which are often collocated in a tight geographic location such as a satellite park or the like - we see merit in the AWL approach to allow licensing for a collection of earth gateway

¹ Footnote 8, p.7.

stations and teleports within a band. The advantage of the AWL approach for earth stations is the reduction in administrative cost and burden resulting from individually licensing each earth station. The cost advantages and attractions to the operator are obvious.

The ACMA's development of the AWL is in its infancy, and a number of questions require further consideration in the development of AWLs, including:

- what is the impact of area-wide licences on satellite services and other services in general?
- are satellite services intended to be included in the classes of services which will come under the anticipated area-wide licences?
- what is the definition of the term 'area' of application, e.g. is it a Hierarchical Cell Identification Scheme (HCIS) grid, a locality such as a town, or a radius from a central point?

The SSWG also observes that the instruments are yet to be developed and exist in name only in this document. Further work on the fundamental concepts provided in the Consultation Paper is required to ensure the necessary maturity to form the basis of legislative instruments. We would welcome the opportunity to explore the questions above and to work on the development of the AWL instruments with the ACMA. Perhaps a workshop, 'tune-up', or task group is the answer - the importance is in bringing together an active face-to-face dialogue.

The SSWG acknowledges that the term 'spectrum space' apparatus licence has been amended to remove the term 'space'. This has been a confusing description, given that a Space Apparatus Licence exists already and relies on a completely different legal construct and meaning of the term 'space'. This latter type of apparatus licence suits the satellite industry, but it is unclear if and how this new type of area-wide licence will affect these arrangements and whether the area-wide licence becomes constraining. It is noted that some better idea of the application to the 26 GHz band would be of further assistance.

The ACMA proposes no registration of individual transmitters as the default arrangement for AWLs. This arrangement assumes the boundary conditions stipulated in the AWL will suffice for coordination and interference management purposes. We have concerns that attempting to diagnose interference issues between an earth station and the operator of an AWL in the absence of specific transmitter details within the AWL (including location, centre frequency and bandwidth) will make the task unnecessarily challenging, and we recommend the default arrangement should be for individual transmitters to be registered.

We also note the ACMA proposes that 'should a licensee not be required to register a device, the AWL Licence Condition Determination will nevertheless require licensees to provide information about radiocommunications devices operated under the licence upon written request'². Undoubtedly, licensees will maintain records of the deployment of transmitters within the AWL, and the overhead of uploading that information into the Register of Radiocommunications Licences (RRL) is easily offset by the benefits gained in allowing adjacent operators (geographic or frequency) to understand the deployment within an AWL. We recommend the ACMA reconsider the default position of AWL licensees not having to register individual transmitters.

² Consultation paper, p.9; and draft LCD, subsection 7(1).

Recommendation

The SSWG recommends the ACMA give further consideration to a number of aspects, including the default position of not registering devices and creating a definition for the border/boundary of an 'area'. We also recommend the ACMA provide an opportunity for incumbent licensees - a workshop, 'tune-up', or task group - to work with the ACMA to resolve a number of questions we have in relation to potential impacts and possible unintended consequences to incumbents arising from future AWLs.

Issues for comment

The following responses are to the questions posed by the ACMA in the Consultation Paper.

Question 1

Do you think the proposed characteristics of the AWL type will support your current or intended network deployments? Are there any other kinds of deployments that you believe the AWL type should support?

The SSWG sees merit in the AWL for some deployment scenarios, such as gateway earth stations. However, we see little or no benefit in their use in ubiquitous geographic coverage scenarios (for example, IoT). Further explanation is contained in the body of this submission.

Question 2

Which bands and/or geographic areas do you believe would be conducive to the use of an AWL?

To some extent, a test for the usefulness of the AWL type would be its broad applicability to a range of bands and geographic areas. If the counterfactual were true (i.e., it only has applicability to one or two bands or limited geographic usefulness), then it is questionable whether the limited benefits realised through a reduction in administrative licensing overhead justifies the cost of developing the licence type and increasing the complexity of licence types, with only minor benefit.

From the satellite industry's perspective, we readily see the AWL type applying to a range of frequency bands (certainly, anything over 3 GHz or thereabouts), however, for our purposes, we only see limited geographic usefulness, notionally for earth gateway stations. Further details are in the body of our submission in relation to trends towards ubiquitous satellite services, which are not a neat fit with the AWL.

Question 3

What technical and other matters do you believe the ACMA should consider in deciding to use AWL licensing in a particular band?

We have some concerns in relation to the ACMA's proposal not to register individual transmitters as the default arrangement for AWLs. We are concerned that this may impede interference coordination and/or investigation, and we recommend the default arrangement should be for individual transmitters to be registered on the RRL. Further details are in the body of our submission.

Question 4

Do you have any other comments on the AWL concept?

The SSWG has no further comments.



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