

Dr David Robertson  
Commissioner  
Productivity Commission

Dear Dr Robertson

We spoke with you following the hearing on 30<sup>th</sup> October in Canberra and undertook to respond to a statement made at that hearing by another party that they saw no purpose for the certification of devices under spectrum licensing. Broadly, you have been presented with a number of views, both in hearings and by submission, which say registration is necessary and we wish to support this view by providing you with a little more detail. We fully appreciate your comment that the detail of our response may not appear in your final report, but we also share your view that it is important for the conclusions of the Commission to be informed as to the specifics of the science underpinning the different licence categories.

### **The Purpose of Certification**

For competitive reasons the Act offers both apparatus and spectrum licensees the opportunity for either the ACA or external industry operatives, who are accredited by the ACA, to check and certify that a device is operating in accordance with licence conditions. The Accredited Person (AP) scheme has led to the out-sourcing by the ACA of much of their liability in relation to their certification function for apparatus licensing. Similarly, spectrum licensees, who are also now spectrum managers, have found it to be more cost efficient to also out-source their liability in relation to ensuring their devices comply with their licence conditions.

The requirements for being an AP are, understandably, credentialist and do not recognise skills based solely on experiential learning, including propinquity to the development of the technical rules. Marketing and policy persons such as Ian Hayne and Barbara Phi, notwithstanding their wide general knowledge of spectrum licensing, are not able to certify devices, and would probably not be insurable given the specific nature of the knowledge require to actually manage spectrum.

The need for both accreditation and registration, is, in our view, essential especially given community concern over EMR and the use to which fully qualified AP's, properly aware of the full complexity of spectrum licensing, are able to put the data.

Under apparatus licensing AP's and the ACA certify that the manner in which a frequency has been assigned to a standard device complies with coordination criteria specified by the ACA. These criteria allow other identical devices to operate within the same space.

Under spectrum licensing AP's (the ACA decided not to develop a skills base for this work) certify that the characteristics of any type of device comply with the generic conditions of a spectrum licence. These conditions manage the spatial boundaries of separate spaces in an equitable manner.

Put very simply, and respectively, it is a matter of:

- Coordination of devices; as opposed to
- Coordination of spaces.

As we have stated in our main submission, it is possible to have different blends of these two licensing extremes within the licensing arrangements under the present Act, provided always that the specific variations are made known to registrants prior to each auction process. In the case of spectrum licensing coordination of devices will also be required where the geographic area of the licence is such that there are boundaries with other forms of licensing. Typically this occurs where there are point to point services operating just outside the geographic boundary of a spectrum licence.

One party drew a comparison between the manner in which GSM900 and 1.8GHz devices were registered. Their premise was that, with GSM900, the carriers sent only a location to the ACA which was recorded with no certification and they saw no reason why certification at 1.8GHz was necessary.

FuturePace disagrees with the statement that 'there is no certification at GSM900'. We are aware that the location is checked by the ACA to ensure that it has not been already recorded in the Register and the act of recording the location then authorises the operation of that base station. In other words, the ACA have performed the certification, simple though it may be, in this instance. The fact remains that a certification has been performed.

The certification and registration task for both apparatus and spectrum licensing is relatively speaking, an extremely small cost for licensees. For example, the licensee pays \$500,000 or so for a base station and a few hundred dollars for the certainty which goes with certification and registration. The ACA have recently reduced their own costs for data entry from \$40 to less than \$2 per registration.

The liability of checking that the device operates in accordance with the licence conditions is cost efficiently out-sourced and the registration ensures that all adjacent licensees are aware of nearby devices and take them into account in coordination processes. Most importantly, when a number of devices interact in a manner causing interference and one has to be either turned off or modified, each device is date-stamped to define the priority for variation. AP's normally act as independent "honest brokers" in managing interference between licensees. AP's are required by the ACA to carry \$2 million in professional liability insurance for at least 5 years after their last certification was performed.

If the date stamping was not provided by the registration process an alternate means of equitably settling interference would need to be found.

The benefit of certification and registration is that it provides a clear, independently certified, public record of the time, date and characteristics of each device. Because the process is Government controlled there is no scope for manipulation of the database (except of course by the Government), it remains a solid evidentiary base for interference management, provided that all the necessary data is included. This surely must be essential in the resolution of any conflicts where the decision required is based on the openness provided by the publicly available data stored in the register.

### **Differences in the Management of GSM900 and 1.8 GHz Bands**

The manner in which the GSM900 and 1.8GHz spectrum is being managed is rather different, there being quite different objectives.

The GSM900 spectrum is:

- Presently managed under apparatus licensing (a single standard is involved); and
- Does not have geographic boundaries (it covers the whole of Australia);

Whereas, the 1.8 GHz spectrum is:

- Managed under spectrum licensing (a generic standard is used); and
- Geographic boundaries exist and have to be managed.

There is much more flexibility associated with the 1.8 GHz spectrum licences and the prices paid for that spectrum reflect that additional utility.

In relation to the present GSM900 licences we are aware that some carriers are not happy with only the location of GSM900 services being recorded in the register when they have sent the full characteristics of the base stations, including antenna characteristics, to the ACA. The full characteristics are essential if a high level of flexibility is to be efficiently supported in any future spectrum licensing arrangements. The ACA, operating as an essentially non-reviewable regulator with considerable market power, has chosen not to register full details in this instance. This is an example where, by default, the ACA have taken a decision on the future market use of the GSM900 spectrum.

From comments in other documents before the Commission it would seem that the GSM900 apparatus licences are proposed for conversion to spectrum licences at high cost to the potential licensees but that the proposed new licenses will provide only limited utility.

It remains to be seen whether or not the licensees accept limited utility or whether there is demand for a level of flexibility beyond GSM900 as is usual with a fully defined spectrum licence. After all, the licensees are apparently being asked to pay shadow prices based on spectrum sales at 800 MHz/1.8 GHz and should surely be entitled to a similar level of utility and operability, which is what creates value. Otherwise the 150% increase in licence fees recently imposed may make even less sense. That decision is one of the many that are not reviewable.

If the ACA intends shadow pricing, what FuturePace would refer to as an apparatus-based or technology specific spectrum license that is biased towards the operation of nationwide GSM900 services for the next 15 years, then we agree there may be a case for simplified licence conditions. This situation would seem to be akin to that of the 2.3 GHz conversion which also had biased conditions based on pay TV requirements. That spectrum sold for \$26 and \$44 million.

We repeat, just saying a spectrum licence can be used for any purpose, does not make it so. It must be fully defined and unbiased to equitably support the multiplicity of purposes which might emerge over the 15 year period of the licence. The GSM900 spectrum should surely be designed for that level of utility, otherwise comparative pricing with 3G relevant spectrum makes little sense. Increasing the utility also means that there will be a need to coordinate across the frequency and geographic boundaries using a full and complete data set. FuturePace assumes that full tradeability of any GSM900 spectrum licence would presuppose a capacity to break those licenses into less than Australia wide coverage should the licensees wish it.

We have stated consistently, a fully defined spectrum licence product initially put up for sale is far more valuable and cost efficient than requiring licensees to negotiate with their competitors over the term of the licence.

Thank you for the hearing we received in Canberra and we look forward to a continuing interaction with the Commission. This matter is important to us in that we have a strong belief in maintaining Australia's impressive record in spectrum management and would not wish to see it reduced by the pursuit of an ersatz concept of simplification.

Yours sincerely

Michael Whittaker  
Director

Barbara Phi  
Director

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