

VODAFONE SUBMISSION TO THE PRODUCTIVITY COMMISSION



**Review of the Radiocommunications Acts and the
Role of the Australian Communications Authority**

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Executive Summary

- Vodafone welcomes the opportunity to provide our views on the Radiocommunications Acts (RCA) and the role of the Australian Communications Authority (ACA).
- Vodafone broadly supports the overall legislative framework of the RCA and the allocation and management of spectrum by the ACA. However, there are certain key issues Vodafone would seek to address:
 - There is a need for reform of the roles and responsibilities of the ACA, the responsible Minister and the Australian Competition & Consumer Commission (ACCC). The Minister's role should be narrowed to focus on establishing and directing the broad regulatory framework with regard to social and economic policy. The role of the ACA should be expanded to deal with the key technical and operational tasks of spectrum management. The ACCC should have sole responsibility for decisions about whether competition rules are required when spectrum is allocated.
 - There is a lack of consistency between the objectives of the RCA and the management of spectrum in practice. The regulators should have regard to the principles of efficiency, certainty, consistency and transparency in each step of the management process. A key requirement is the need for investment certainty regarding the spectrum charging regime.
 - Industry specific regulations regarding spectrum allocation and management should be removed and replaced with the generic provisions that should apply to all spectrum users. This would promote a consistent approach to the management of spectrum for all users, and minimise market distortions in an environment of increasing technological convergence.
 - The type of licence allocated (spectrum, apparatus or class) should be based upon how the spectrum is to be used.
 - Charging for spectrum should be based upon efficient allocation of spectrum to maximise public benefit, rather than as a means of raising revenue. Spectrum licences are efficiently allocated via a market-based process such as an auction, where the value of spectrum is revealed through bidding. Apparatus licences allocated by an administrative mechanism should cover administrative costs for services provided by the ACA. Class licences should have no charge as applications for licences are not required and hence no administrative costs are incurred.
 - Vodafone supports the auction process for spectrum licences and ex-ante competition rules in auctions where competition law may be ineffective in

yet to be created markets. However, such rules should be transitory in nature and allow for secondary trading.

- To ensure certainty of tenure, licences should have a fixed initial period to justify capital investment and a review period sufficient to explore investment options. A public benefit test could be applied at this review period to determine if reallocation or extension of licences is appropriate.
- Secondary trading should be allowed provided the original licence conditions are not violated by the third party. Capital gains rollover relief is required to enable secondary trading of isolated spectrum lots amongst carriers to achieve more efficient contiguous holdings.

1. Roles & Responsibilities

- 1.1 Vodafone believes there is a need to reform the roles and responsibilities of the key players who manage spectrum policy and allocate spectrum. The key players are the ACA, the responsible Minister and the ACCC.
- 1.2 We consider that the current allocation of roles and responsibilities across the players has led to sub-optimal outcomes. Changes should be made to current arrangements to correctly align functions with the party that is best able to meet the objectives of the RCA.
- 1.3 In particular, we consider that the Minister's role should be narrowed so that it is focused on establishing and directing the broad regulatory framework with regard to social and economic policy. The ACA's role should be expanded to cover off the key technical and operational tasks for the management of spectrum. And the ACCC's role should be clarified so that it has sole responsibility for decisions about whether competition rules are required when spectrum is allocated.
- 1.4 Vodafone considers the ACA has the sufficient expertise to efficiently manage the technical and operational aspects of spectrum management. The current broad discretionary powers of the Minister to intervene have the potential to distort the market and lead to inefficient outcomes. The Minister may also be subject to greater political pressures to operate outside of the objectives of the RCA. Hence clarification and redefinition of the relative roles will provide efficiency of management and improved certainty of regulation.
- 1.5 Vodafone considers that current generic anti-competitive provisions of the Trade Practices Act 1974 (TPA) provide adequate protection. Competition should not be expressly included as an objective of the RCA. However, where the TPA may not be effective in dealing with anti-competitive outcomes, such as in yet-to-exist markets, the ACCC is best placed to ensure that competition issues are taken into consideration, in consultation with the ACA and other stakeholders. Any competition rules should be transitory in nature with an explicit sunset clause prescribing a predetermined period of operation.
- 1.6 Although competition is not expressly stated as an objective of the RCA, the ACA must consult with the ACCC before determining the procedures to follow in allocating spectrum licences. This is appropriate because competition is a means to achieve an end, rather than an objective in its own right. However, we consider that the ACCC should have sole responsibility for decisions about whether competition rules are required when spectrum is allocated.
- 1.7 The use of general competition rules complements Vodafone's approach of regulatory forbearance. Under a generic regulatory framework, the ACA and ACCC provide targeted regulatory intervention only where there is a durable

market failure and where such intervention is likely to result in net benefits to end-users.

- 1.8 In specifying roles and responsibilities, it is both reasonable and practical for the ACA to delegate certain administrative functions to private firms, such as the issuing of licences. The ACA would still have a role in educating private firms that lack the necessary expertise to manage the issuing of licences.

2. Principles for Regulatory Framework

- 2.1 Vodafone supports the broad objectives of the RCA. Our main concern is not that the objectives of the RCA are flawed but that the practical implementation of the RCA is not always consistent with these objectives. For example, the Government recently increased the 900 MHz apparatus licence fees from \$7m per year to \$17.5m per year, resulting in increased investment risk for GSM 900 operators and sending negative signals to the rest of the industry.
- 2.2 The 900MHz (GSM) spectrum was not allocated by auction. Rather, value was established through a competitive licensing process. That value was reflected both in the initial licence payments and in the apparatus licence fees initially set by Government. It was reasonable to expect that fees would be adjusted to keep them at the same level in real terms. However, the recent fee increases were well beyond this expectation. This move was inconsistent with the objectives of the RCA, with specific reference to “providing an efficient, equitable and transparent system of charging for the use of spectrum, taking account of the value of both commercial and non-commercial use of spectrum”.¹
- 2.3 In order to ensure achievement of these objectives, regulators should adopt the following key principles in fulfilling their responsibilities under the RCA.

Efficient allocation and use of spectrum

- 2.4 Efficiency should be the main objective. Where companies acquire more or less spectrum than they require due to uncertain demand for services, secondary trading should lead to the efficient subsequent allocation of spectrum.

Transparency of process and decision-making

- 2.5 This is a fundamental principle of accountable government. Affected parties should have the opportunity to provide input into any decisions. Any decisions

¹ Radiocommunications Act 1992 (Cth) , Section 3(e)

made should be accompanied by reasons setting out the basis upon which the decisions were made.

Consistency

- 2.6 Vodafone supports the principle of consistency in the allocation and management of spectrum, under the regulatory framework of the RCA. For example, a significantly different spectrum charging regime applies to broadcasters than that applying to telecommunications companies. This will increasingly create market distortions as these markets converge.

Certainty

- 2.7 Investment certainty is crucial to the development of communications services. The charges for the allocation and subsequent use should be fixed, with any fee increase mechanisms agreed to at the time of the initial allocation. In particular, clear guidelines are needed for apparatus licence price increases. Furthermore, certainty with regard to the tenure of licences must be sufficient to provide incentives for investment.

Technology neutral

- 2.8 Spectrum licences that are allocated by a competitive process should be technology neutral where possible provided that it is not inconsistent with international standards. This approach provides flexibility regarding the type of technology that can be used when the spectrum is first allocated and also allows flexibility over time as technologies change. This is especially relevant if international standards through the ITU create the need for changes in the use of certain spectrum bands. For example, 2.5GHz band auctioned for MMDS may be able to be used for IMT 2000, as could current GSM 900 and GSM 1800 bands.

3. Generic v Specific Regulation

- 3.1 We consider that the differing regulatory treatment of broadcasters and telecommunications companies create the potential for inconsistent policy outcomes and market distortions. Broadcasters are regulated by the Broadcasting Services Act 1992. The Australian Broadcasting Authority plans the broadcasting service bands of radio frequency spectrum. These are the bands designated by the Minister.
- 3.2 Vodafone considers that industry specific regulations regarding spectrum allocation and management should be removed and replaced with the generic provisions of the RCA. Despite trends in technology convergence, inconsistent regulation has resulted in spectrum prices being lower for broadcasters than

telecommunications companies. Hence, some spectrum users may gain a competitive advantage arising from the differing regulatory environments.

- 3.3 Vodafone recognises that such a move toward generic regulation requires a transition period whereby current legal arrangements can run their course. However, the government should begin the transition process to a generic regulatory environment as soon as possible.

4. Licence Types

- 4.1 Under the RCA there are three broad classes of radiocommunications licences; apparatus, class and spectrum licences. Each licence type has unique characteristics. Vodafone considers that retention of the three classes of licence for spectrum management is appropriate with allocation based upon how the spectrum is to be used.
- 4.2 Apparatus licences are currently non-tradable and limit the licensee to the operation of specific radiocommunications devices on particular frequencies in a specified location. These licences are appropriate where there is a need to regulate a particular use or technology or if there is some uncertainty about the future use of the band. For example, spectrum used for point-to-point fixed links may be best regulated by apparatus licences in order to minimise interference and maximise the numbers of licensees enjoying full utility to ensure the most efficient allocation and management of spectrum.
- 4.3 Class licences are effective for managing low power, short-range uses of spectrum. They lessen administrative costs and open the market to benefits arising from international standards, such as the rapid delivery to market of consumer products such as mobile handsets.
- 4.4 Spectrum licences are technology neutral, tradable and have no specific restrictions on use. They are appropriate where there is a requirement for flexibility, investment certainty and long-term tenure. Minimising the restrictions on use encourages a dynamic response by licence holders to a rapidly changing market.
- 4.5 Vodafone supports the conversion of apparatus licences to spectrum licences where appropriate, based upon how the spectrum is to be used and upon agreement of the parties involved.

5. Approach to International Allocation of Spectrum

- 5.1 Vodafone supports the retention of a system based on international allocation of spectrum bands, undertaken collectively by governments representing sovereign states. Under the auspices of the ITU, broad international categories of spectrum use are defined and spectrum allocated accordingly. The

development of global standards based on international frequency allocations contributes toward effective competition across global markets, global interoperability and avoids the fragmentation of particular technologies around regional or local standards.

- 5.2 The process of consultation by the ACA in the lead up to ITU meetings is robust but can be improved. Improvements include the ACA proactively seeking the views of parties it suspects will be impacted by a decision being considered, even if that party is not a formal member of the International Radiocommunications Advisory Committee.
- 5.3 Vodafone also considers that reforms should be made to the rules on company representation to reflect the global nature of the industries using radiospectrum. For example, Vodafone has proposed that a technical expert, covering Australia and New Zealand, represent Vodafone on national committees regarding international spectrum allocation and management. However, this proposal has not been favourably reconciled to the ACA's "sovereign state" stance, ie that Australia's position on international spectrum matters should be determined by, and privy to, Australians only. Such constraints on representation are likely to lead to poorer decision-making in the long run.

6. Charging For Use Of Spectrum

- 6.1 Ideally, under a market-based allocation process, no additional administrative pricing mechanisms other than recovery of the Government's administrative costs are necessary. The Government would promote efficiency in spectrum use and would accrue new tax revenues from the actual use of spectrum. The purpose of a market-based allocation process is to determine who values the spectrum the most for efficiency purposes, not how much money can be raised.
- 6.2 However, the reality differs significantly from this ideal state. The plethora of telecommunication specific levies and taxes that carriers currently face divert funds away from the development of services to consumers. The significant increase in GSM 900 apparatus licence fees is one example. The early diversion of investor funds will slow industry development and result in less choice and higher prices for consumers in the longer run. The Government should focus on allowing the industry to develop profitably and seeing social returns through better and more extensive services to customers than through the imposition of ex ante charges.
- 6.3 While spectrum should be allocated and managed in the most efficient manner, it does not follow that one allocation and management methodology can be applied to all spectrum. As discussed, the allocation process should be aligned with the type of spectrum being provided. For example, spectrum best suited to the operation of point to point fixed links requires a more regulated and closely managed process in order to minimise interference and maximise the

number of licensees that can be accommodated within the spectrum band. Allocating this type of spectrum to the highest bidder is not in the best interests of society. However, a different allocation method is appropriate for 'wide area' uses of spectrum, such as that used for mobile or broadcasting services. For these types of spectrum, an auction process is likely to produce the most efficient outcome. With auctions, whoever places the highest value on access to the spectrum is likely to produce the most economic value and make most efficient use of the spectrum.

- 6.4 Apparatus licence charges should just cover administrative costs for services provided by the ACA. Apparatus licences are appropriately allocated by an administrative mechanism, where allocation to the highest bidder may not be in the public interest, and charging should reflect this. As class licences do not need to be applied for, allocation by pricing is not necessary.
- 6.5 Auctions should be structured to produce efficient outcomes and not be used to generate the highest level of revenue. The government should not consider high prices to be an indicator of success. Revenue generated that is in excess of administrative costs should be fed back into the industry to further promote telecommunications networks and services.
- 6.6 Thus, licence fees should be designed to encourage investment in a high risk industry with rapidly changing markets and rapidly changing technology. The licence fee system must be transparent and provide certainty for investment. Without this, there is a risk that licence fees will distort industry outcomes.

7. The Auction Process

- 7.1 Vodafone supports the principle of pricing of spectrum to encourage efficient allocation and use of spectrum, which can be achieved through a market-based auction approach. The auction process can be effective in promoting efficient use of spectrum and revealing market values as those players who value access the most will make the highest bids to obtain spectrum. The market value of spectrum is driven by anticipated and/or evident customer demand for services using that spectrum. The electronic simultaneous ascending bid multiple round auction process used is transparent, not open to manipulation and proven to be reliable. In addition to the auction process, Vodafone supports public management of spectrum for community development, such as science and medical research, to maximise the overall public benefit.
- 7.2 In limited circumstances, it may be sensible to impose ex-ante competition rules in spectrum auctions. This is because competition law is best suited to deal with competition in existing markets. However, such rules should be transitory in nature and enable secondary trading. Where markets do not exist there may be a case for the imposition of competition limits on the amount of spectrum that can be purchased by any one player.

- 7.3 Hence, Vodafone supports competition rules such as spectrum caps – but only in circumstances where competition law cannot sufficiently deal with potential problems. One example where spectrum caps have been appropriately applied has been in the recent 3G spectrum auctions. Given the uncertainty that currently exists about how the 3G market will develop in the future, it was prudent for the Government to apply a competition rule ‘up front’ to protect against one player foreclosing the 3G market by purchasing all available spectrum.
- 7.4 Vodafone considers that the ACCC is best placed to judge when spectrum caps should be applied. This should be done in consultation with the ACA and other stakeholders. However, there should not be restrictions on use of spectrum licences once obtained. Licence holders should be able to maximise return on investment either through use of spectrum or through trading with a secondary person who has a better use for the spectrum.
- 7.5 The amount of spectrum allocated should be enough to meet reasonably anticipated demand and not a tool to create artificial scarcity of spectrum with a view to maximising revenue. Spectrum allocation where there is insufficient demand may result in inefficient allocation and speculative purchases or hoarding. At times, this will result in the Government deriving a greater return, and in other times a reduced return. Government should not see high prices as an indicator of auction success. Spectrum as a public asset has many benefits above direct revenue raising and seeking to maximise revenue can come at the cost (possibly considerable) of other public benefit.
- 7.6 The size of spectrum lots to be auctioned is influenced by technology requirements of spectrum bidders. Such issues should be resolved before the auction and are not a characteristic of the auction mechanism itself but may equally arise from an administrative allocation. For example, for GSM spectrum, lots of 2.5MHz may be adequate, whereas for UMTS a minimum spectrum lot of 5MHz is required.
- 7.7 The reserve price should not be set so as to prevent an auction from revealing the market value of the spectrum. For example, in the 3G spectrum auction, the final price paid was only marginally higher than the initial reserve price. The excessively high reserve price prevented the market value emerging.

8. Licence Tenure

- 8.1 Licences should be of sufficient duration and have sufficient certainty of duration in order to provide incentives for investment. Vodafone recommends that spectrum licences should have a fixed initial period of sufficient length to justify capital intensive investment. For mobile networks this would be a minimum of 15 years. The licence would be reviewed a certain number of years before expiry, say 5 years. This would give the business greater

certainty to make the necessary initial investment and sufficient notice to consider relocation options if required, while also allowing spectrum to be released for new use where appropriate.

- 8.2 A public benefit test should be applied before reallocation or extension of a licence. The holder of the licence should have right of first refusal if the licence becomes available upon review. Alternatively, a licence could be allocated for a fixed initial period of say 15 years with rolling periods thereafter. However this rolling review mechanism may not provide enough certainty if the rolling periods are too short. For example, should a licensee, after an initial 15 year period, decide to deploy a next generation system or an entirely different technology then it would do so within an environment of great uncertainty if it could only be sure of, say five years future tenure. The duration of the reallocation or extension would be influenced by this public benefit test.
- 8.3 Apparatus licences and spectrum licences should not necessarily have the same duration. Licence tenure should be linked to the use of spectrum. Shorter duration apparatus licences are appropriate where the government needs to closely regulate a particular use or technology or where there is some uncertainty about the future use of the band. For example, point-to-point fixed links may be best regulated by a shorter tenure period subject to rolling review, as greater co-ordination of frequency is required to minimise interference and maximise the number of licensees operating efficiently. Spectrum licences are more appropriate where capital intensive investment is necessary or where wide area coverage is required.
- 8.4 Allocation of licences on an indefinite basis may create disincentives to use spectrum efficiently and lead to delay in the roll out of new infrastructure or services. The licence holder may be able to artificially increase the price of the spectrum in secondary trading by controlling the supply and timing of release. A “use it or lose it” condition would not necessarily be useful as it would inevitably result in definitional issues regarding “use” of spectrum.

9. Secondary Trading of Licences

- 9.1 Vodafone supports the promotion of secondary trading of licences to promote efficiency of allocation and use of spectrum. Licences should be tradable provided the licence conditions are not violated by the third party. As such, spectrum licences are more amenable to secondary trading as they have fewer restrictions. Secondary trading would be subject to the competition rules of the TPA to prevent anti-competitive outcomes.
- 9.2 In relation to the Government's sale of spectrum in 1998 and 2000, a significant factor constraining the development of secondary trading to achieve contiguous spectrum lots is the capital gains tax (CGT) provisions of the Income Tax Assessment Act 1997. A suggested specific solution to the problem is the

introduction of capital gains tax rollover relief where a spectrum licence is exchanged for another spectrum licence and no other consideration (ie. money or property) is given.

- 9.3 The spectrum auction process has resulted in some of the major telecommunications companies (Carriers) acquiring spectral lots that were isolated from each Carrier's more substantial contiguous spectrum holdings. The problem with isolated spectral lots is that it is far less efficient compared to contiguous spectral lots. This is because contiguous spectral lots allow the elimination of guard bands and the ability to offer new technology.
- 9.4 The Carriers examined the possibility of swapping or exchanging spectrum licences amongst themselves to eliminate isolated spectral lots and realign their spectrum holdings to facilitate the most efficient use of the spectrum. However, the capital gains tax provisions present a major barrier to the Carriers achieving this outcome because the swapping or exchanging of licences could result in prohibitive multi-million dollar CGT costs. The Carriers have proposed the rollover relief solution so as to achieve the most efficient use of spectrum for provision of services.

10. Standard Setting

- 10.1 Mandatory emission standards are advantageous as they create a clear reference point for industry and the community in relation to safety, and facilitate rollout. Vodafone supports the current process for establishing standards through the Australian Radiation Protection and Nuclear Safety Agency and public consultation through the ACIF Code for Deployment of Radiocommunications Infrastructure.

11. Non-Commercial Use of Spectrum

- 11.1 Vodafone advocates the broad principle that spectrum should be allocated and managed efficiently with regard to international standards. This should include non-commercial uses of spectrum.

12. Spectrum Interference

- 12.1 In order to facilitate interference management, emission levels at the band and area edges should be specified. These emission limits should not be specific to any technology (e.g. GSM, CDMA etc) or services (e.g. mobile, fixed etc.). This will facilitate interference management regardless of the technology. However, it is necessary that the interference limits reflect the technologies that are likely to be used. When problems do arise, the ACA should ensure that there is a timely, certain resolution mechanism. However, there should also be a means to settle interference issues by commercial agreements.

13. Conclusion

- 13.1 Vodafone broadly supports the overall legislative framework of the RCA and the allocation and management of spectrum by the ACA. This includes the retention of the three classes of licence for spectrum management with allocation based upon how the spectrum is to be used. For spectrum licences, Vodafone supports the principle of pricing to encourage efficient allocation and use of spectrum, which may be achieved through a market-based auction approach.
- 13.2 However, there are a number of reforms that can be made to the current regime that will improve outcomes for industry and society. In particular, Vodafone considers changes should be focussed on promoting a stable and predictable environment where firms are free to develop their businesses to meet the demands of a dynamic and competitive market. This is best achieved for all spectrum users through the efficient allocation and management of spectrum, via transparent processes and decision-making, under the one certain, consistent regulatory framework.