

Nokia response to the Exposure Draft of the Radiocommunications Legislation Amendment (Reform and Modernisation) Bill



About Nokia

We create the technology to connect the world. We develop and deliver the industry's only end-to-end portfolio of network equipment, software, services and licensing that is available globally. Our customers include communications service providers whose combined networks support 6.1 billion subscriptions, as well as enterprises in the private and public sector that use our network portfolio to increase productivity and enrich lives.

With an end-to-end portfolio that is unique in the industry, Nokia can work in partnership with operators to deliver "real 5G". Nokia's in house 5G mmWave Small Cells and AirScale BTS provide in-building and outdoor coverage, while our Microwave Anyhaul, Cloud native RAN, antennas, and 5G cloud-native core are part of approximately half of our agreements to date. Beyond our mobile networks portfolio, Nokia has excellent FP4 network processor-based IP routers and PSE- 3 chipset powered optical networking - our customers can use the Nokia Network Services Platform to make this into full-5G-strength software defined connectivity 'smart network fabric' secured by Nokia Security Orchestration, Analytics and Response (Nokia SOAR) to ensure resilient 5G.

Nokia has been selected by both Optus and VHA as a key supplier for the network deployments of 5G, including the required radio modules. Nokia is also a supplier to various enterprises which have deployed private wireless networks deployed using apparatus licenses. Globally Nokia has been selected by more than 65 operators to supply 5G networks.

Through our research teams, including the world-renowned Nokia Bell Labs, we are leading the world to adopt end-to-end 5G networks that are faster, more secure and capable of revolutionizing lives, economies and societies. Nokia adheres to the highest ethical business standards as we create technology with social purpose, quality and integrity.

For more information: <https://www.nokia.com/networks/5g/>

Disclaimer: This response is based on Nokia's current understanding of the market dynamics and various standards bodies; these dynamics are changing and hence our views may update with these changes

General View

Nokia welcomes the opportunity to comment on the Exposure Draft of the Radiocommunications Legislation Amendment (Reform and Modernisation) Bill (the Bill) and the objective of the government to amend the Bill in 2020 after years of consultation. As a leading player in the global communications sector, and contributor to the Australian market over many decades, Nokia is well placed to provide insight on market and technology trends, including industry structure and regulatory practice.

Communications, encompassing the broadcasting, telecommunications, radiocommunications and internet responsibilities of the Australian Communications and Media Authority (ACMA), is an increasingly dynamic and essential component of society and the broader economy.

Technology is becoming more capable, ubiquitous and connected. This trend is producing significant opportunity for productivity, innovation and growth in all sectors of the economy, and also raising new considerations about how to best ensure countries like Australia can take advantage.

Having a balanced, flexible and forward-thinking regulatory environment and regulator will be key to unlocking these opportunities, and this review is a timely opportunity to consider how Australia may appropriately design the future objectives, functions, structure, governance of its communications regulator.

Nokia participates in the ACMA's consultation processes around its work program (i.e. Five Year Spectrum Outlook) and believes that there is a well-established process for stakeholder consultation embedded in the ACMA's current planning and prioritisation processes. The Current cycle of consultation is working well, and an annual review is not necessary.

We understand that Ministerial policy statements will play a key role in the regulatory framework and suggest that there should be a consultation process embedded in the development the policy statements. Nokia and the industry stakeholders would be keen to play a key role in supporting the work of the policy statement form the Ministry. More specifically, in terms of the Bill, it would be helpful to have visibility of draft policy statements that will be needed to enable the transitional arrangements for the legislative changes.

Regulation and public policy should always keep in mind both legacy public-good and emerging business objectives to achieve a subtle and effective equilibrium. In Australia this has manifested as a strong regulation on access with a clear objective to apply competition law principles when possible. This review may well offer the opportunity for further reform to a more self-regulatory approach as new fields of services and application are emerging.

The credibility and effectiveness of a regulatory framework – and hence its ability to facilitate private investment and competition – varies globally according national political and social institutions. Political and social institutions not only impact the ability to restrain administrative action, but they also have an independent impact on the type of regulation that can be implemented, and hence on the appropriate balance between commitment and flexibility, monopoly and competition.

As ICT is becoming a vital element to any country growth and competitiveness, the work of a regulator should be aligned as much as possible with policy objectives set up by the minister. A

strong statement of objective for a future Australian regulator may be a good starting point for such an outcome.

Considering that the 4G networks are the foundation of the 5G infrastructure and that 5G will encompass services for both consumers and business, including vertical sectors, the spectrum policy and regulatory framework needs to be upgraded to the 5G era by aligning the regulation applicable to most applications running on terrestrial networks, but also to the wireless component of transport, audio-visual, health, energy, and Internet of Things/M2M services. Consistency in spectrum management between the different spectrum users should be achieved.

While licensed spectrum will continue to be essential for the development of the networks of the future, a balanced spectrum management should be kept between the licensed and licensed-exempt schemes.

In regards to the licensed spectrum use, the regulatory framework provides certainty of the legal framework and the investments in the networks of the future. However, considering the future use of high frequency bands and the ultra-dense network architecture of 5G, regulation should evolve to adapt to the technological and architectural evolutions.

A balanced pricing policy for licensed spectrum should be favoured to avoid hampering the investments required in the networks. As such, long licenses durations, accompanied by transparent renewal conditions, would give operators the necessary timeframe and incentives to continuously invest and upgrade their networks to be 5G-ready. Transparent renewal conditions would justify continuing investments at near license end-dates, avoiding investments gaps until the license renewal.

While we welcome the evolution of the duration of the apparatus license to 20 years, this decision needs more clarifications. We understand that the intent of the amendments is to bring some aspects of apparatus licences and spectrum licences closer together but distinctions have to be clearer.

The proposal is bringing a lot of flexibility and greater power to ACMA such as on direct allocation or allocation of unencumbered spectrum, we believe that decision should be made in consultation with the industry and in a complete transparent approach.

ACMA duties is to investigate and acts on regulatory non-compliance and issues such as interference, non-standard devices and breaches of licence conditions. Under the proposed amendments, ACMA would have access to a range of tools and powers that really need to ensure a gradation and clear guidelines on applications of the tools. We understand that the objective is to ensure several tools to address quickly a situation nevertheless clear rules of application are needed.

Finally, the consultation paper develop a set of possibilities for ACMA to gather information in performing only its spectrum management functions, or is otherwise relevant to the operation of the Act and the equipment rules, or the operation of radiocommunications devices. The industry has always transparent and open in order to cooperation with the relevant regulators. ACMA should be able to develop some public hearings or technical groups in a transparent way with the industry. Nevertheless, issuing writing notice with potential civil penalties should not be considered a necessary mean as soon as the dialogue and cooperation is implemented.