

31 January 2018

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ATTN: Ms M Masemola, The Acting Deputy Director-General, ICT Policy and Strategy Department

**Re: Invitation to Provide Written Comments on Electronic Communications Amendment Bill (January 2018)**

Facebook Inc ("**Facebook**") appreciates the opportunity to comment on the draft Electronic Communications Amendment Bill (the "**Bill**"). We applaud the Department of Telecommunications and Postal Services (the "**Department**") for seeking to address the various challenges in the South African telecommunications market and for seeking to transform South Africa into an inclusive, people-centred and developmental digital society. Facebook provided comments on the National Integrated ICT Policy White Paper and we respectfully take this opportunity to refer the Department to those comments here with regard to relevant amendments in the Bill.

Facebook is a strong supporter of efforts to develop an inclusive and people-centred society, and of the very many societal benefits that arise from a connected digital society. A key part of Facebook's mission is to give people the power to build community and bring the world closer together and to "*connect the unconnected*". It's a mission we take very seriously – and one that's reflected in all of our efforts around the world to empower more people to share, give voice to more people, and bring more unconnected people online.

One aspect of our mission is supporting infrastructure projects. For example, Facebook is developing ways to make internet access possible in remote communities around the world. The team is exploring a

variety of technologies, including unmanned solar aircraft or high altitude platforms (HAPS), lasers, and terrestrial wireless systems to provide connectivity for communities with different needs, geographical challenges and population densities.

In addition, Express WiFi also helps to bring people online by empowering local entrepreneurs with the tools and technology to sell WiFi connectivity in small villages. Facebook works with local partners by providing software and initial seed capital to help jumpstart deployment of each WiFi hotspot.

Through partnerships with mobile operators, Facebook's Free Basics also provides people with access to basic services – including health information, job sites, education services, and communication tools – without data charges on their mobile phones. By providing an opportunity for people to experience the value and relevance of connectivity for free, Free Basics acts as an on-ramp, helping to grow the number of people deciding to use the broader Internet. Free Basics is available in more than 26 countries across Africa, with more than 200 services available.

In addition Facebook is a member of the Telecom Infrastructure Project (TIP), an engineering-focused initiative driven by operators, suppliers, developers, integrators, and startups to disaggregate the traditional network deployment approach. Through our leadership and support of TIP this has led some of South Africa's biggest companies, including MTN and Cell C, to join others looking for innovative cost-effective infrastructure solutions that will increase access and affordability for all.

Ensuring universal connectivity and ensuring all of the associated consumer benefits of connectivity is a challenge that can't be solved by any government or one company or one organization alone. And there's no one-size-fits-all solution. It requires partnerships, cooperation, and a range of different approaches. And in particular it requires a regulatory framework that supports the fundamental objectives of reducing barriers to connectivity, supporting innovation, supporting the deployment of advanced network facilities, and promoting competition.

In amending the Electronic Communications Act (the "**Act**"), we believe that it is critical for the Department to take this opportunity to maintain a careful approach and one that fosters competition and innovation. We respectfully suggest that the Department's approach would benefit from seeking to avoid any reduction in incentives for network providers and their partners to invest in next generation networks and services, given the important benefits that connectivity brings for businesses and consumers.

Facebook is concerned about any approach that would negatively impact connectivity efforts. With this in mind, Facebook has concerns about certain provisions in the following sections of the Bill:

- I. Establishment of a Wireless Open Access Network (WOAN) (*section 19A, section 31E of the Act*);
- II. Setting aside of high-demand spectrum to WOAN, spectrum trading (*section 19, section 31, section 31B, section 31E of the Act*); and
- III. Proposals for infrastructure sharing (*section 19A, section 43, section 44 of the Act*).

As a general matter, we humbly believe that the focus of amendments in the Bill should be on fostering an ecosystem in which providers are incentivized to invest in high quality networks and services for all citizens. This can be achieved by multiple operators being assured access to infrastructure (including where appropriate through infrastructure sharing) and to a sufficient portfolio of licensed and unlicensed spectrum for driving broad LTE deployments for multiple operators rather than creating a WOAN. We respectfully urge the Department to revisit the above provisions, and remove or redraft those aspects that risk dampening competition and innovation. As currently drafted, we believe certain aspects of the provisions referenced above seem inconsistent with, and may risk undermining, realization of the fundamental objectives the Department is laudably seeking to achieve, namely transforming South Africa into an inclusive, people-centred and developmental digital society.

**I. Establishment of a WOAN.**

Facebook is concerned that fundamental aspects regarding how the WOAN is intended to operate in practice are absent from the Bill. In particular, we respectfully suggest that structural aspects of the WOAN would benefit from being clarified in the Bill. For example, we believe that it would be particularly beneficial to include in the Bill specific details regarding important issues such as how the Department considers open access entity will be structured, proposed investment models for the WOAN, proposed milestones that need to be met in order for the WOAN to become operational and the associated timing for this.

We anticipate that the existence of private investment will be a key factor regarding the success of the WOAN. Regulatory and business experiences around the globe suggest that regulatory certainty and predictability are important factors for private sector businesses when taking investment decisions. We welcome the pro-investment approach taken by the Department in the White Paper and believe that a pro-investment approach is key to enabling South Africa to realize development of an inclusive, people-centred and developmental digital society.

We respectfully urge the Department to give effect to the pro-investment approach in the White Paper by including the necessary certainty and predictability in the Bill regarding the WOAN. We believe a conducive investment climate, with the necessary level of regulatory certainty and predictability, that serves to encourage private sector businesses to invest in infrastructure will greatly drive the Department's objectives to extend internet universality and will lead to overall enhancement in service quality levels, availability of high quality and reliable electronic communications services and the underlying infrastructure build-out needed to support existing and emerging technologies.

We therefore respectfully suggest that the Department could benefit from enabling stakeholders to have sufficient opportunity to input into the above structural and practical issues identified regarding the WOAN, by way of an open consultation. We would also respectfully suggest the Department takes this opportunity to conduct a feasibility study prior to implementing the WOAN. It would be disappointing if, after the laudable efforts that have been taken in South Africa during the last twenty or so years to create an open and competitive regulatory environment, the creation of a single WOAN inadvertently undermines these efforts by creating a monopoly.

In this respect, Facebook is concerned that establishment of a single WOAN – and conferral of significant competitive advantages on this entity alone, such as rights to key spectrum bands that are useful for 4G and 5G services (referred to in the Bill as "**high-demand spectrum**") – will have a detrimental impact on current and future competition and investment incentives in the telecommunications industry in South Africa. And instead replace these with a monopoly access provider.

The WOAN as conceived in the Bill is in stark contrast to the position being taken in many jurisdictions around the globe, where regulators are making conscious efforts to avoid / break-up monopolistic structures e.g., recent decisions of the UK telecoms regulator Ofcom requiring the legal separation of the wholesale activities of the incumbent fixed British Telecommunications plc (Openreach) from the rest of the BT group<sup>1</sup>.

Creation of a single WOAN with preferential access to high-demand spectrum and other advantages (e.g., reduced or waived spectrum access fees, minimum 30% capacity purchase commitment by private sector operators, State funding etc.) risks distorting existing competition in the marketplace and dampening technology and infrastructure competition. Requiring the WOAN to provide cost based access (rather than allowing a stipulated return on investment e.g., reasonable ROCE, or costs plus margin) significantly reduces the incentives for both the WOAN and other providers to invest in broadband roll-out or engage in network upgrades.

We respectfully suggest that rather than establishing a WOAN along the lines proposed in the Bill, the Department takes this opportunity to focus on other ways to achieve its goal of developing an inclusive, people-centred and developmental digital society. To do this, Facebook supports policies that promote both the capacity and coverage of networks. This might include for example, bolstering existing minimum coverage and/or quality of service requirements in licenses, additional universal service obligations on private sector operators to secure a minimum level of functional broadband, and/or retail price caps. The provisions in section 31A and section 31E (universal service obligations on licensees, reviewable every five years) and section 69A (minimum quality of service requirements) are a good starting point with regard to coverage and universal service obligations. We believe that further benefits can be achieved by ensuring that stakeholders have sufficient opportunity to input to regulations made in conjunction with these issues, especially availability and affordability targets and quality levels and technical and commercial feasibility of delivering these. We believe that the Department can achieve real benefit by ensuring that these obligations are reviewed at regular intervals and adjusted to reflect market needs and creative solutions employed. For example, further incentives to promote universal service obligations could

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<sup>1</sup> <https://www.ofcom.org.uk/about-ofcom/latest/media/media-releases/2016/update-on-plans-to-reform-openreach> Ofcom has not ruled out structural separation where legal separation is not sufficient for addressing the competition law concerns identified by Ofcom.

be reduction of license fees on operators, with greater reductions available to those operators who out-perform USO targets.

In addition, access to spectrum in urban areas could be made contingent on meeting build-out obligations in rural areas, or spectrum auctions could award bidders committed to speeding build-out to rural areas. And other wholesale models could be explored in rural areas where providers have yet to deploy. In such a model, we respectfully suggest the Government could support multiple rural infrastructure providers and help to broker agreements between such providers and existing mobile network operators for spectrum access in rural areas. Finally, ensuring that spectrum is available on a technologically neutral and flexible basis would allow it to be used to support a range of innovative access and backhaul solutions, such as solar powered aircraft (HAPS) or higher-throughput satellite capacity, which may help to expand broadband to rural and remote areas more affordably.

We respectfully urge the Department to benefit from taking as its guiding principle an approach which will ensure the right legal incentives for providers to invest in high quality innovative services.

## **II. Setting aside of high-demand spectrum to WOAN, spectrum trading.**

### Licensed vs unlicensed spectrum

As a general principle Facebook considers that spectrum management should support both licensed and unlicensed spectrum allocations.

Licensed spectrum can promote the build out of large and densely populated areas while facilitating global roaming for a given service, and also lead to economies of scale for chipsets and devices. Unlicensed spectrum drives innovation and investment in a range of technologies that can complement and support networks and expand broadband access at low cost. Key use cases include last mile access, backhaul and Wi-Fi / small cells. The appropriate allocation between licensed and unlicensed spectrum will depend on existing utilization, deployment, device availability and user adoption, but co-existence of licenses and unlicensed spectrum should be present. For example, sixty percent of global mobile

data traffic was offloaded onto the fixed network through Wi-Fi or femtocell in 2016.<sup>2</sup> As mobile data traffic continues to expand so will the need for unlicensed spectrum for offload. And new technologies, like Facebook's Terragraph project, are being developed for unlicensed access in other higher frequency bands, like the 60 GHz band, that can expand the reach of fiber networks through wireless links that offer multi-Gigabit speeds.

While the Bill clearly addresses licensed spectrum allocations, there could be greater clarity with regard to unlicensed spectrum and licence exempt devices. We respectfully urge the Department to confirm permissibility of unlicensed spectrum within the broader spectrum management framework for South Africa and provide for its use by all operators (subject of course, to any necessary regulations regarding maximum power to be emitted by devices and/or to avoid unintended or harmful interference) alongside licensed spectrum.

The mix between licensed vs unlicensed spectrum could usefully form part of the spectrum utilization reports envisaged in section 30.

Facebook considers regular evaluations of spectrum use envisaged under section 30 to be a useful and important way for the Authority to assess efficient use of spectrum resources. And where necessary spectrum refarming to ensure more efficient use of spectrum particularly low frequency spectrum (e.g., to drive LTE deployment and/or support network upgrades), as envisaged under section 31D. It is important that there is sufficient opportunity for stakeholder input into the proposed regulations for spectrum refarming in section 31D.

### Sufficient portfolio of spectrum rights

Access by multiple operators to a sufficient portfolio of the 'right' mix of spectrum is critical for operators to enable long term network planning. An abundant supply of spectrum in low (sub 1 GHz), medium (1-12 GHz) and high (above 12 GHz) frequency bands will reduce service provider barriers to entry and increase competition and innovation across a wide range of broadband use cases.

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<sup>2</sup> Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2016-2021 White Paper, <https://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/mobile-white-paper-c11-520862.html>.

The Bill provides an important opportunity for the Department to ensure multiple operators have sufficient amounts of spectrum needed to service citizens' needs across South Africa including those in more remote locations, and to develop new and innovative services.

Facebook is concerned however, that high-demand spectrum (defined in section 1h as spectrum where demand exceeds supply or the radio frequency is fully assigned) will only be available to WOAN.

Other operators will therefore be deprived from accessing key spectrum bands (including but not limited to 700 MHz, 800 MHz and 2.6 GHz bands) and will likely have to reconfigure their networks accordingly. This will likely have a detrimental impact on operators' ability and plans to serve existing customers as well as their incentives to seek to reach un-/underserved citizens in more remote locations. The negative impact of the provisions in this section is further exacerbated by the fact that the Minister is able to add / reclassify certain categories / bands of spectrum as high-demand spectrum (section 31E). If the WOAN is to exist in the proposed form, there should in any event be sufficient opportunity for stakeholder input into any proposed reclassification of spectrum as high-demand spectrum. The threshold for proving reclassification would result in a more efficient use of spectrum than what can be achieved by use of the spectrum by multiple operators must be high.

While reflection of these new policies in the Bill could potentially enable broader access to spectrum, as indicated above in Section I of our comments, there is concern that the WOAN will be unworkable, will fail to attract investment, and in general will create a government-operated monopoly. We respectfully submit that rather than allocating high demand spectrum to the WOAN the Department could usefully seek to award future spectrum rights on the basis of an open and transparent processes. Structured correctly and with the right protections e.g., minimum spectrum rights / maximum spectrum caps, minimum spectrum access and ongoing license fees, minimum roll-out and coverage obligations etc. this can inject additional competition into the market and contribute to the overall economy. We believe this would be useful for the Department.

Spectrum sharing and trading

Section 31C enables the Authority to establish rules for spectrum sharing. Facebook supports policies that promote the flexible use of spectrum and sharing across users and platforms, such as mobile, satellite, and new technologies like HAPS. In addition, Facebook supports the use of sharing technologies to allow non-interfering spectrum sharing.

Spectrum trading can be a useful tool to enable voluntary arrangements aimed at more efficient use of spectrum. It is unclear why the Bill proposes to restrict spectrum trading to non-high-demand spectrum (section 31B) i.e., spectrum trading for high-demand spectrum would no longer be possible. There is a real risk of inefficient allocation of high-demand spectrum to the WOAN, which will be exacerbated in the event that trading of high-demand spectrum is prohibited. We respectfully urge the Department to take the opportunity in the Bill to ensure that spectrum trading applies to all spectrum rights and that there is an open, transparent and non-discriminatory trading process in place.

#### Withdrawal of spectrum rights

Facebook supports the principle of *'use it or lose it'* provisions in section 31(8) and the ability of the Minister to grant waivers to the *use it or lose it* principle as per section 31(9) of the Bill. Facebook respectfully urges a flexible approach under section 31(9) with regard to new entrants and new service models. It is often difficult to anticipate the likely commercial success of services and the one year period should not be applied strictly or in such a way that does not grant businesses sufficient time for testing / trials of services. Rather than proceeding outright to invoking *'lose it'* provisions under section 31, we believe benefits could be achieved for the market by assuring that sufficient opportunity has been explored for spectrum sharing as an alternative.

### **III. Proposals for infrastructure sharing.**

Facebook supports, a matter of principle, efforts designed to enable more efficient use of infrastructure particularly on an *"open access"* basis. Non-discriminatory infrastructure sharing can lead to increased incentives for providers to invest in new networks and services. Infrastructure competition, in turn, incentivizes increased competition at the service level, one of the Department's stated objectives in section 2(cB). Services competition should not however not occur at the expense of infrastructure competition.

There is a concern however, that mandated access on all providers i.e., not just on incumbent monopolists / those designated as having significant market power and/or WOAN, coupled with the cost based pricing model for infrastructure sharing envisaged in the Bill will actually disincentivize providers from investing at the infrastructure level, and will stifle competition (including price competition) at the services level. A lack of investment at the network level will greatly restrict the ability and incentives for providers to attract investment from partners like Facebook to develop further connectivity projects that could be used to reach the un-/ underserved communities of citizens in South Africa, and help the Department realize its USO targets.

We respectfully urge the Department to enable sufficient opportunity for stakeholders to input into the proposed wholesale open access regulations referred to in section 44 and proposed reference offer (section 43) and rates (section 47).

We applaud the proposals in section 20E – 20P inclusive which seem to us generally useful in seeking to ensure more effective and timely access for providers to passive infrastructure e.g., land, buildings, utilities, roads, trenches etc. to lay cables for providing broadband and other services. Facebook welcomes efforts that will remove unnecessary administrative and regulatory burdens, and which will facilitate rapid deployment of infrastructure. We respectfully suggest that the Department might further realize its objective of more timely and efficient access to passive infrastructure by putting in place sufficient safeguards to avoid potential anti-competitive effects arising from active sharing (section 43(1B)(a)).

#### **IV. Conclusion**

Facebook appreciates the substantial work that has gone into producing the Bill and the Department's current invitation to provide written comments on the Bill. We reiterate our respectful request for the Department to take this opportunity to maintain a careful approach and one that fosters competition and innovation. We believe the Department's approach would benefit from avoiding any reduction in incentives for network providers and their partners to invest in next generation networks and services, given the important benefits that connectivity brings for businesses and consumers. We are concerned that failure to do so risks undermining, realization of the fundamental objectives the Department is seeking to achieve, namely transforming South Africa into an inclusive, people-centred and developmental digital society.

Facebook appreciates the opportunity to submit these comments and the Department's careful attention to these important topics. We would be happy to discuss any of these issues in more detail as needed.

Respectfully submitted,

EMILAR GANDHI

31 JANUARY 2018