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စာအမှတ်။ ၁၅၆၁ /Letter-TIM
ရက်စွဲ။ ၂၀၂၀ ပြည့်နှစ်၊ ဒီဇင်ဘာလ (၃၀) ရက်

ညွှန်ကြားရေးမှူးချုပ်
ဆက်သွယ်ရေးညွှန်ကြားမှုဦးစီးဌာန

အကြောင်းအရာ။ **Draft of Spectrum Roadmap (2020) နှင့်စပ်လျဉ်း၍ သဘောထားမှတ်ချက် ပေးပို့ခြင်း**

ရည်ညွှန်းချက်။ ဆက်သွယ်ရေးညွှန်ကြားမှုဦးစီးဌာန၏ (၉-၁၁-၂၀၂၀) ရက်စွဲပါ စာအမှတ် ၇၀၀-ဆည /ခွဲ (၇) အရင်းအမြစ်/၈၅၄၄

၁။ Telecom International Myanmar Company Limited ("Mytel") ကိုယ်စား ဆက်သွယ်ရေးညွှန်ကြားမှုဦးစီးဌာန ("ဦးစီးဌာန") ၏ ရည်ညွှန်းချက်ပါစာအရ နောင်လာမည့် (၅)နှစ်တာကာလအတွင်း နိုင်ငံအတွင်းရှိ ရှားပါးအရင်းအမြစ်ဖြစ်သည့် လှိုင်းနှုန်းစဥ်များကို စနစ်တကျစီမံခန့်ခွဲနိုင်စေရန်နှင့် စျေးကွက်လိုအပ်ချက်အပေါ်မူတည်၍ နည်းပညာဖွံ့ဖြိုးတိုးတက်မှုများအရ အသုံးပြုနိုင်မည့် လှိုင်းနှုန်းများနှင့် အသုံးပြုခွင့် ရရှိမည့်ကာလတို့အား ကြိုတင်ပြင်ဆင်မှုများအတွက် ဦးစွာပထမ ကျေးဇူးအထူး တင်ရှိပါကြောင်း နှုတ်ခွန်းဆက်သဂါရဝ ပြုအပ်ပါသည်။

၂။ ဦးစီးဌာနမှ ထုတ်ပြန်လာမည့် Spectrum Roadmap သည် မြန်မာနိုင်ငံနှင့်အတူနိုင်ငံအတွင်း ဆက်သွယ်ရေးကဏ္ဍ ရေရှည်ဖွံ့ဖြိုးတိုးတက်မှုများအတွက် များစွာအထောက်အကူဖြစ်မည်ကို အထူးပင် ယုံကြည်မိပါသည်။

၃။ သုံးစွဲသူအများစု၏အမြင်များမှာ နောက်ဆုံးပေါ်စမတ်ဖုန်းကိုအသုံးပြုရန်အတွက် စျေးနှုန်းသက်သာစွာဖြင့် အဆင်ပြေချောမွေ့မှုရှိရန်လိုအပ်ပြီး ၎င်းတို့၏ဆက်သွယ်ရေးကဏ္ဍအတွက် သုံးစွဲရန် သတ်မှတ်ထားသည့် ဒွေကြေးမှ ကျန်ရှိနေသေးသောငွေကြေးအား တယ်လီကွန်းဝန်ဆောင်မှုများနှင့် ယင်း၏ ဆက်စပ်ပစ္စည်းများပေါ်တွင် အသုံးပြုမည်ဖြစ်ပါသည်။ ထို့အပြင် မြန်မာနိုင်ငံတွင် 5G အထောက်အပံ့ပြုမိုတိုင်းဖုန်းသည် တစ်ရာခိုင်နှုန်းအောက်နည်းနေပြီး သိသိသာသာစျေးနှုန်းမြင့်မားလျက်ရှိပါသည်။ ဤအချက်သည် ဆက်သွယ်ရေးဆိုင်ရာမူဝါဒများအရ စားသုံးသူများ၏ အဆင်ပြေချောမွေ့မှုနှင့် စျေးနှုန်းသက်သာမှုများအပေါ် ဦးစားပေးထားသောကြောင့် ၎င်းသည် မူဝါဒချမှတ်နိုင်မှုများအတွက် အဓိကစိန်ခေါ်မှုတစ်ခုဖြစ် လျက်ရှိနေသည်ဟုထင်မြင်ရပါသည်။

၄။ ယေဘူယျအားဖြင့် Operating Licenses နှင့် ဆက်စပ် Spectrum လိုင်စင်များကို (၁၅) နှစ်တာကာလအဖြစ်ပေးခဲ့ပြီး လာမည့်ဆယ်နှစ်အတွင်း လိုင်စင်အားလုံးနီးပါးမှာ သက်တမ်းတိုးရန် လုပ်ဆောင်ရမည်ကိုလည်း ဦးစီးဌာနမှ အထူးသတိပြုရန် လိုအပ်ပါသည်။

၅။ ၎င်းသည် မဖြစ်မနေထည့်သွင်းစဉ်းစားရမည့် အချက်များအနက်မှ တစ်ခုဖြစ်ပြီး လက်ရှိစည်းကမ်းချက်များကို လေ့လာသုံးသပ်ပြီးအကဲဖြတ်ရန်နှင့် နောက်ဆက်တွဲအကျိုးသက်ရောက်မှုများအား ကြိုတင်ခန့်မှန်းနိုင်ရန်အတွက် ထွက်ပေါ်လာမည့် Spectrum Roadmap တွင် သင့်လျော်သော လုပ်ငန်းစဉ်များကို ထည့်သွင်းစီစဉ်ရန် လိုအပ်ပါသည်။ ယင်းသည်ဆက်သွယ်ရေးကဏ္ဍ၏ ရေရှည်တည်တံ့ခိုင်မြဲသည့် ဖွံ့ဖြိုးတိုးတက်မှုကိုဖြစ်ပေါ်စေပြီး နိုင်ငံတော်ဖွံ့ဖြိုးတိုးတက်မှုအတွက် အရေးပါသည်ဟု ယုံကြည်မိပါသည်။

၆။ ဦးစီးဌာနသည် MyTel အပါအဝင် အခြားသော သက်ဆိုင်သည့် အဖွဲ့အစည်းများ၏ သဘောထားမှတ်ချက်များကို ထည့်သွင်းစဉ်းစားပြီး အကျိုးသက်ရောက်မှုရှိသော ဆုံးဖြတ်ချက်များအား ချမှတ်ခြင်းနှင့် လှိုင်းနှုန်းတစ်ခုချင်းစီ၏ သင့်လျော်သောအချိန်ကာလအား Spectrum Roadmap တွင် ဖော်ပြခြင်းဖြင့် အများပြည်သူနှင့် စားသုံးသူများအတွက် အကျိုးကျေးဇူးများစွာ ရရှိစေလိမ့်မည်ဖြစ်ပါကြောင်း၊ MyTel ၏ သဘောထားမှတ်ချက်များအား ပူးတွဲပါစာနှင့်အတူ လေးစားစွာဖြင့် တင်ပြအပ်ပါသည်။

ပူးတွဲ - Comments on Draft Spectrum Roadmap

အမှုဆောင်အရာရှိချုပ်(ကိုယ်စား)
ဒေါက်တာနီလာအေး(ပြင်ပဆက်ဆံရေးအရာရှိချုပ်)
Telecom International Myanmar Co., Ltd (MyTel)

မိတ္တူကို -
- ရုံးလက်ခံ

ပူးတွဲ

Comments on Draft Spectrum Roadmap 2020

With reference to the Draft Spectrum Roadmap 2020, MyTel noted that PTD, the Regulator emphasized on Mobile Telecommunication technologies and its applicable spectrum. In conjunction with this, the Regulator viewed as the releasing of more spectrum for future Broadband Services are based on the consideration of the increase in the smartphone penetration in Myanmar.

The 5G is most probably the ambitious mobile technology envisage to-date. Expectation on what 5G will deliver are new levels of performance, efficient and connectivity together with user experiences. The alignment in the industry on the potential solutions for the 5G and its impact will have effect on all aspects of industry, society and economy as a whole.

On the other hand, the road to **5G could clearly defined by the impact and success of 4G/LTE in the mobile industry and the growth in mobile devices and networks**. New spectrum for 5G will bring in massive capacity and capability to deliver bandwidth intense services to meet the ongoing explosion of data usage.

In mature telecom markets, the imminent 5G smartphone upgrade cycle could prove to be mixed blessing. This smartphone migration and 5G electronic devices are necessary to enable expansive 5G network experiences. This will be more expensive than previous consumer hardware shifts. Given this dynamic, **ensuring consumer affordability is almost certain to become a costlier proposition for Operators**.

Global ecosystem of 5G devices according to Global Mobile Suppliers Association[1], there are **approximately 64 handsets** that are now commercially available including 3 phones that can be upgradeable using 5G adapter. Only **14 CPE devices** are now believed to be commercially available. **5 laptops** and **5 industrial grade CPE, routers, gateways** are now believed to be commercially available. Only **73 operators in 41 countries that have launched one or more 3GGP compliant commercial 5G services**, some with smartphones, some with 5G routers, some with device and/or customer availability. A total of **54 countries have announced plans and approximated allocation of 5G suitable frequencies by the end of 2022 where the majorities of countries are developed countries**.

In Myanmar, availabilities of **5G support handset are less than ONE percent** where it is **significantly and noticeably expensive**. This is also one of the major challenges for the Regulator since the telecom policies is in favors on the affordability of the consumers.

Perspectives from the majority of the consumer is that access to the latest smartphone should become more affordable and seamless, and they can use their remaining position of their wallet on telecom services and its accessories.

[1] https://gsacom.com

The need of improving scalability, resource utilization and the economics of Radio Access Network Operation means the mobile industry is considering ways to reduce network operating expenditure. Ensuring the capital to invest in improving the network services while closely monitoring the needs of 5G. **All stakeholder should reap major benefits as a result of technologies evolvement and the appropriate timeline of upcoming spectrum releasing plan with most suitable frequencies.**

Therefore, Regulator should consider to release new frequency for increasing 4G network capacity in order to facilitate the growing 4G Data demands. Hence, MyTel views that the Regulator need to focus on the release of ***2300MHz band in 2021*** to cater the increasing data consumptions in urban areas and ***2600MHz together with Band C only in 2023***. This will **create confidence to ensure the long term investments in network infrastructure with the knowledge of sufficient IMT spectrum to sustenance of 4G, and 5G services in the future.**

In terms of 5G deployments in Myanmar, MyTel estimated the timeline of **5G ecosystem readiness may not be earlier than 2025**. The **effectiveness of allocating the spectrum for most efficient use of 5G deployments** to best serve the people of Myanmar: ***Low Band 700MHz, 900MHz, 2300MHz and 2600MHz could aim for 5G network coverage purposes*** and ***High Band 3500MHz and its mmWave could aim for capacities purposes of the 5G network***.

In order to manage the National scarce resources in most effective way particularly on 2.6GHz band plans, MyTel propose the **Regulator to consider on releasing in 2023 in two Steps: 1) *to increase 4G capacity by planning contiguous blocks from 20MHz to 40Mhz bandwidth*, and provision for each operator at step 2) *to deploy 5G network by planning contiguous blocks minimum of 60MHz to 100MHz bandwidth***.

Therefore, MyTel's view on the **potential planning for the release of 2600MHz for regional based licensing is *UNTIMELY***. This offer should only be given to the concerned Nationwide Mobile Operator ("NMO") and assign with most reasonable terms for the benefit of the people of Myanmar.

In terms of 700MHz proposition, NMOs could require the view of the timeline for 700MHz full band availabilities which is also interlinkage with essential part of the transition to terrestrial digital television and broadcasting. Therefore, the 700MHz clearance program is an important part of the spectrum roadmap and its strategy.

Despite the importance of 700MHz, networks will only be able to cater the growing data consumptions and offer great services if there is a mixture of bands that extend coverage and improve capacity available to MNOs. The 700MHz can also help enhance the mobile coverage.

However, based on the ***principals of the essential elements for the allocation and provision of scarce resources, by focusing only on Universal Service Obligation purposes could lead to market destructions and its ecosystem where it will also challenge the level playing fields***

among MNOs. Especially those who are entitle to deploy 700MHz under the Universal Service category and those who are not. To harmonize from this potential circumstance, ***Regulator should consider the best secure optimal use of the spectrum***. Consequently, the releasing timeline of 700MHz band for MNOs could be planned when it is practicably possible whilst minimizing disruption to the market and without compromising ***Regulator's objectives to enable the safeguard and to maximize the benefits of 700MHz***.

In terms of the Regulator concerns on mobile network coverage in rural areas and its development beyond the reach from MNOs, the ***incremental growth of Universal Service Fund is retained in order to accommodate this requirement***. With that and **superintend by the Regulator**, MNOs will be able to deploy more base stations with more efficient network rollout plans. This will also create the job opportunities in those rural areas. For example: civil works for tower constructions, fiber cable deployment, maintenance and monitoring the basic infrastructure.

In conjunction with this, exclusively Licensed spectrum should remain the core 5G spectrum management approach. The aim of the 5G is to create hyper connected society by more comprehensively and intelligently integrating 4G/LTE. It is crucial to harmonious the cross technology to coexist in the Radio Access Network. The ***complementary role of Unlicensed spectrum*** will play particularly by **allowing Operators to guarantee a certain Quality of Service using Licensed spectrum**. These approaches could **maximize the benefits of Unlicensed spectrum**.

On the other hand, the Regulator needs to consider on ***regulating the business entities and its operations were beneficially profiting from serving to the consumers with Unlicensed spectrum*** which ***determined as the commercial purpose usage***. Thus, ***policy harmonization measures are needed to be put into place***.

The Regulator needs to adopt National Spectrum Policy measures to encourage long term heave investments in 5G networks. In order to do so, the longer terms of Operating Licenses and its related Spectrum Licenses as well as ***clear renewal process*** are in need for considerations. The Regulator should avoid inflating 5G spectrum prices as this will put risk on limiting the network investment and driving up the cost of services. This includes excessive reserve prices and/or annual fees, excessive obligations and poor auction designs.

Moreover, Regulator ***generally awards Operating Licenses and it's associated Spectrum Licenses for a 15year period*** where it is ***imperative to note that almost all licenses are up for renewal in the next ten years***. Thus, this becomes one of the ***essential factors*** were Regulator required to assess the existing terms and ***layout the appropriate processes*** in the upcoming Spectrum Roadmap in order to foresees aftermath. This will ***generate sustainable consistence development of Telecommunication sector and vital for the National development***.

Given the relative rates of increase in spectrum supply and mobile data demand, MyTel consider that, even allowing for the use of other techniques for meeting capacity requirements, there will

be standstill for additional spectrum demand. Contribution insofar that it needs to be based on an understanding of the value attributed to the National development. The impact assessments could provide a valuable way of assessing different options for regulation and exposing why the preferred option and its spectrum releasing timeline were chosen. These form parts of the best practices in policy making. The **repurposing of the band to the industry as a whole may result to the socio-economic and socio-culture impact of any spectrum policies**.

Regulator may anticipate that demand for the other candidate use cases that can be satisfied in other aspects. Regulator may consider the arguments for and against delaying the point at which an allocation of the frequencies comes into effect. Regulator could consider the arguments primarily with respect to that entities. Hence, Regulator should not persuade of the case for such a deferral. Regulator should **take into account relevant responses to set out the conclusions for an impactful decision and the appropriate releasing time for each frequency to deliver the net benefits for the general public and the consumers as a whole**.