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**عطوفة الرئيس التنفيذي لهيئة تنظيم قطاع الاتصالات المحترم**

الموضوع : إخطار طلب ملاحظات حول تعديل خطة الترقيم الوطنية

تحية وبعد،

إشارة إلى إخطار طلب ملاحظات حول تعديل خطة الترقيم الوطنية المنشور على موقع الهيئة بتاريخ 2017/1/23، نرفق لكم ملاحظاتنا على تلك الوثيقة آملين أخذها بعين الاعتبار.

وتفضلوا بقبول فائق الاحترام،،،

المدير التنفيذي للشؤون القانونية والتنظيمية والمصادر

د. إبراهيم حرب

شركة البتراء الأردنية للاتصالات المتنقلة – أورانج

## Orange Mobile comments on review of the "National Numbering Plan"

Orange Mobile welcomes the opportunity to participate in this consultation and shares its views on this important matter with the TRC, and hope that its comments taken into consideration.

Orange Mobile comments are structures into two parts; General comments, and Specific comments.

### A. General comments:

Orange Mobile supports the TRC efforts reviewing the NNP. However, the revision of the National Numbering Plan (NNP) shall take into account the following principles:

1. Significant change in the telecommunications market is identified that has implications on NNP.
2. Shortage of the available number capacity is recognized.
3. Numbering capacity is needed to meet growth of telecommunications services, taking into account the characteristics of available technologies, the forecast growth of population and of the market, the geographic distribution of demand and the prospect of increasing telephone density.
4. Does not create unreasonable cost, confusion and/or disruption for end users, including enterprises, and Operators.

For the allocation of MNC for non-mobile operators, Orange Mobile notes that the new ITU recommendation E.212 gives more latitude to National Regulatory Authorities but does not mandate more flexible criteria, where the rationale for having more flexible criteria on such scarce resources globally remains weak, such changes should only be contemplated if all other means have been exhausted to meet the requirements of the market. Orange Mobile would therefore suggest that market demand and alternatives such as those mentioned in the recommendation be thoroughly assessed before contemplating such a change.

The improvement in the infrastructural environment around M2M has led to a rapid growth of applications and services that meet users' business and lifestyle needs. M2M/IoT technologies are being used in a wide range of so-called "vertical industries", including transport, smart homes and cities, energy, payments and e-health.

The current M2M deployments are based on utilizing the existing numbering, a situation that has been sufficient heretofore.

Therefore, given the cost of implementing an additional range or length, Orange Mobile believes that in the short to medium term, the usage of the existing mobile number ranges can be preferred and its growth closely monitored. If the growth of M2M is larger than expected or if adequate capacity does not exist, the new numbering range would indeed be needed, taking into consideration that there is still a space on the current mobile ranges by adding three digits for SN in mobile services, or alternatively reserved mobile ranges for future use could be utilized (i.e. 071xxxxxxx – 073xxxxxxx).

Adding to this, we see complexity in identifying already available M2M subscribers in fixed network since switching of such services is based on E.164 numbers and is not based by a specific service provisioning.

Going forward, Orange Mobile also notes that alternatives exist, including numbering alternatives such as the use of so called global country code (with ITU-T Country Code 883 or Mobile Country Code 901). Further radical changes to mobile network architectures are under way with the advent of so called "all-IP networks" and VoLTE/5G with potentially new opportunities for identities other than numbers such IP addresses or alphanumeric identities ("email-like" formats). As a result rushing into a change of number format when their use for the longer term would not be necessary and may not be desirable. TRC should therefore keep closer look at the development in IPv6 as in the longer term, IPv6 addressing will become important and the target instead of E.164 numbering for M2M communications.

In addition, we would like to point out that technology and standards did not yet define clear services in fixed network or fixed/mobile convergence that would need the use of MNC as part of user identification to allow for service authorization and access. So we believe it is yet an anticipation from ITU-T issued very recently to have fixed networks ready for such potential future use

On the other hand, Orange Mobile believes that addressing the numbering requirement for M2M/IoT services should be reviewed within the general context of developing regulations for such services, especially that different business models would be provided based on the value chain of M2M/IoT services (i.e., connectivity provider, platform, application, and devices provider), which business models could transfer from B2C to B2B or B2B2C.

We see that a special consultation should be conducted by TRC to address M2M/IoT services in which addressing the regulatory requirements in terms of:
1. Definition of M2M/IoT.
2. Numbering resources
3. Spectrum resources
4. Licensing requirements
5. Privacy and cyber security

6. Data ownership, access and liability

More comments are detailed below within the specific answers to TRC questions.

## B. Specific comments

| Question | Orange Mobile Response |
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| **Q1/1:** Do you find it suitable to remove the national region prefix (02, 03, 05, 06) to be replaced by unified prefix for all fixed geographic services to be followed by special code for operators and a code for geographic region? In case if disagreement, please state your reasoning. | Orange Mobile would like to emphasize that the TRC should assess the impact of the requested modification in terms of the complexity of implementation, the cost that will be incurred by the licensees, and the potential impact to local and international operators.<br><br>Removing national significance (to a small or larger extent) can be very challenging to Orange Mobile in a number of issues, which may cause an expected costs:<br><br>1. The need for analysis of two new digits to identify and route the call to the fixed destination and apply relevant termination tariffs.<br>2. Modification and upgrading of the wholesale billing platforms, and the need to adapt the current conditions of interconnection with fixed operators and its related additional costs to implement such changes. |
| **Q1/2:** What is your opinion regarding the designation of the unified prefix (01) for this services, where the new format for fixed geographic service would be: 01 AB xxxxxx? In case if disagreement, please state your reasoning. | Orange Mobile would like to note that the proposed modification is not typical of restructuring initiatives which are contemplated abroad.<br><br>Moreover, the above challenges should carefully be reviewed in details, and its impact on the operators' networks prior to any numbering restructuring. |
| **Q1/3:** Would the new format be acceptable and doable? And what be your comments; positive or negative? knowing that the seven digits for the SN would not be changed. | Moreover, Orange Mobile would like to emphasize on the importance that the TRC need to define the exact timing and conditions for change before adopting any restructuring of numbering plan, and all parties impacted by this change would need to coordinate their actions. Similar changes in other countries have typically been planned in terms of years rather than months. |

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| Question | Orange Mobile Response |
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| **Q2/1:** What is your opinion on the need for to designate a numbering range for IoT service including M2M to be provided from all operators (fixed and mobile)? | As stated in the general comments above, various regulatory issues related to M2M/IoT services should be addressed prior to designating of special number for such service.<br><br>Orange Mobile believes that current mobile numbering resources are sufficient to deploy operators' connected devices if remain on standard mobile length. However, If the volumes or forecasts are such that these resources would not be sufficient, TRC may as an alternative increase the SN of the mobile ranges up-to 11 digits, or alternatively use the mobile ranges (071xxxxxx – 073xxxxxx) reserved for future use.<br><br>In principle, Orange Mobile support addressing the issue of designating special numbering range for M2M services given future potential demand for such services. However, given the current low demand for such services, we recommend the following approach:<br><br>1. Allocation of numbering capacities for M2M services should only be limited to licensed operators.<br>2. Continue the current usage of mobile and geographic numbering capacities for M2M services up to the point where high demand for such services that require the usage of the dedicated numbering, or adequate capacity does not exist or may cause depletion to the current numbering resources.<br>3. TRC should ensure that the M2M number range(s) are not used as an alternative to existing number ranges to escape regulatory requirements.<br><br>Orange Mobile would like to note that the M2M number length is an element that has an impact all across fixed and mobiles infrastructures (on mobile core networks but also IT, customer care and backend systems, and fixed networks for such numbers to be routable from third party networks), which has a significant technical and financial implications. |

| Question | Orange Mobile Response |
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| | Orange Mobile believes that a long term solution for M2M shall be IPv6 or numbers/addresses other than E.164 numbers should preferably be used for M2M applications. |
| Q2/2: Do you think that allocation of numbering capacity in blocks of ten thousand numbers for each application is enough, suitable and necessary at this stage? | Allocation of 10k blocks are suitable where connected devices require fewer numbers. However, TRC should take into consideration that this block size have been proved to be too small for larger deployment within large mobile operators; mobile operators have a larger customer base but also a much higher usage rate, which makes a larger block size even more relevant. Therefore, Orange Mobile believes that 100k blocks are more sufficient given the future demand and deployment of such services. |
| Q3/1: What is your opinion regarding that adding of one digit to Location Independent Service numbering range, where the total number of digits would be (10)? | Orange Mobile believes that the current numbering structure for Location Independent Services is sufficient given the current utilization of existing ranges allocated to operators, and due to the fact that VoIP services can be provided using geographic and non-geographic numbers. Therefore restructuring of this numbering range is not justified. |
| Q4/1: What is your opinion regarding amending the text relevant to MNC by allowing its allocation for where all network operators (fixed and mobile) so as to ensure consistency with the new ITU recommendation E.212 which remove the restriction of use of such codes to mobile network operators to accommodate changes in telecom services and respective | Orange Mobile is not supportive of amending the text relating to MNC allocation due to the following:<br><br>1. The new ITU recommendation E.212 gives more latitude to National Regulatory Authorities but does not mandate more flexible criteria.<br>2. The rationale for having more flexible criteria on such scarce resources globally remains weak , where such changes should only be contemplated if all other means have been exhausted to meet the requirements of the market.<br>3. Technology and standards did not yet define clear services in fixed network or fixed/mobile convergence that would need the use of MNC as part of user identification to allow for service authorization and access. So we believe it is yet an anticipation from ITU-T issued very recently to have fixed networks |

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| technologies, and on allowing the sharing of such codes between operators, and if such sharing is justified? | ready for such potential future use. |
| | In essence, there does not seem to be benefits in changing the current policies, and therefore, assignment should remain limited to entities which have an mobile infrastructure, and sharing shall continue to be banned. |
| **Q5/2:** what are your comments regarding the current mechanism to calculate the efficient use of numbers as stated in the instructions for allocation and reservation of numbering capacity? And is there any need to review this formula? | For mobile service, we recommend to reduce the utilization rate from 80% to 60% and to include the per-activated lines as in service for the calculation of the utilization rate so as to accurately reflect actual consumption of the numbering capacity. |
| | Moreover, given the potential demand for fixed and mobile M2M services, a reduced utilization percentage and flexible assignment conditions should be allowed. |
| | Orange Mobile also recommends to reduce the quarantine period from six months to three months to enable more efficient usage of allocated numbering ranges by allowing the operators to reassign the deactivated numbers for new customers more frequently. |