Vodafone Response to TRAI Consultation Paper on the Review of Regulatory Framework for the use of USSD for Mobile Financial Services dated 2nd August, 2016

A. EXECUTIVE SUMMARY

1. Vodafone supports the national objective of proliferation of mobile based banking/financial services to deliver on the Government's vision of financial inclusion to every citizen.

2. The Authority has rightly recognized in its earlier Consultation Paper dated 20.09.2013 on 'USSD based mobile banking for financial inclusion', that the core relationship in the value chain for mobile banking is that between the bank and the citizens as customers of the banks and that the TSP is the intermediary who needs to be adequately compensated either through bilateral arrangements with banks or commercial tariffs for customers. The Authority also noted in Para 3 of its Explanatory Memorandum in TTO dated 26.11.2013 that the barriers to financial inclusion in India include
    a. poor accessibility of banking services, mainly due to the reluctance on the part of the banks to invest in infrastructure and human resources in remote areas and
    b. when accessible, the high costs incurred by households to access such services.

3. Under these circumstances, we believe that it is the primary responsibility of the banks to deliver on the objective of financial inclusion and the role of the TSPs is confined to facilitating access through the mobile phone alone for provision of mobile based banking/financial services.

4. It is also submitted that USSD based mobile banking is one of the many available channels through which financial services / inclusion can be delivered and the choice of channel by the customer depends on several factors, ease of use, access, affordability, etc. Further, the initiative needs to be robustly supported and promoted by the Banks. Banks also need to supplement mobile banking with a widespread distribution/retail network, infrastructure and back-end support, to make financial inclusion a reality.

5. We also submit that the contentions by the financial sector that USSD based mobile banking is not taking off due to reasons attributable to the TSPs alone, is an incorrect and unreasoned conclusion that is not supported by any data or evidence.

6. In our view, NPCI's service has not seen much of a consumer uptake due to 4 main reasons :

    (i) Consumers need to first open bank account which requires them to visit Bank branch and submit relevant documents for KYC/E-KYC. There are only ~ 200 mn individual bank account holders as of now (i.e. more than 80% of citizens do not hold bank accounts). This means that sufficient number of Bank branches need to be available especially for rural consumers or there need to be sufficient number of agents/distribution-cum-collection centres to facilitate bank account openings and banking services, similar to mobile telecom operators' distributor and retailer centres.

(ii) Then consumers need to register their mobile numbers with the Bank and presently, this process requires the consumer to visit its Bank branch or its bank ATM or undertake online registration on its bank website. This may be a bottleneck (especially in rural areas where Banks may not have its ATMs or branches). [The RBI has recently (in Aug 2016) mandated all banks to ensure mobile number registration through <u>any bank's</u> ATM and other modes such as Phone banking and internet banking – the result of this mandate is yet to be seen]

(iii) *99# service only works in English language at present, which covers less than 15% of total population. Presently, none of the banks or NPCI have adopted vernacular languages w.r.t *99# service, which is one of the **<u>main reasons</u>** why NPCI's *99# service has not been effective in increasing consumer uptake and thereby achieving the goal of financial inclusion. In a country of over 1.2 billion, less than 200 million subscribers (~15%) in India know English language, as per Census 2011.

(iv) Banks have not actively promoted *99# service, but are instead promoting their own mobile banking apps. Also, to avoid customer dissatisfaction and increase customers use of NPCI's *99# services, we believe that NPCI needs to improve its own interface with the Banks, as presently only 70% of USSD transactions are being delivered by NPCI platform to the Banks, as per data provided by NPCI.

Thus, it would be incorrect to presume/assume that USSD access/pricing should be blamed for poor mobile banking adoption. We respectfully submit that without a full examination of the issue, there is a danger that we may be trying to fix something that is not broken and the root cause lies elsewhere, as illustrated above. In a nascent/emerging market, it is important to avoid inappropriate, disproportionate or premature action. Regulatory measures to address concerns that may or may not exist can end up doing more harm than good.

7. We also believe that the Authority's current tariff order w.r.t B2C based ceiling tariffs for *99# service, may be limiting investment in and adoption of mobile banking services, by being overly prescriptive (in terms of mandating the channel viz. USSD, price amount and structure), etc. We had, in response to the previous consultation by the Authority submitted that regulation should not preclude different arrangements, for example, a hybrid B2B/B2C arrangement and that the banks and the mobile operators should be allowed to experiment with different structures of prices to discover which will maximise the use of the platform (it should be in both party's interests to do so). This 'optimal' structure of prices cannot be known beforehand; it requires a degree of trial and error in the market place. We once again request

that the authority allow the flexibility to the banks and the TSPs to arrive at the optimal structure /model for pricing of USSD services.

8. It is submitted that market based solutions are likely to be more superior to imposed regulatory solutions because the latter necessarily ignore market signals.

9. We therefore respectfully request that the premise of this consultation paper that further telecom regulation will support financial inclusion should be reconsidered - the inflexibility of regulated access, bank under-investment, consumer habit/trust, and other factors may be the true barriers to financial inclusion. The need of the hour is to allow market forces to determine the best commercial arrangements which sufficiently incentivise both Banks and TSPs, and remove existing regulations that preclude different arrangements, for eg, a B2B, or a hybrid B2B/B2C arrangement. One of the other reasons why NPCI's *99# service has not worked, is also because of a regulatory mandated B2C arrangement. We believe that if TSPs had been allowed flexibility to negotiate the commercial arrangements with Banks within an over-arching regulatory framework that envisages intervention only in case of market failure, it would have allowed both parties to discover the right balance of charges.

10. It is worth noting that Vodafone's M-pesa business generates 10 times higher USSD sessions than those of NPCI [all banks put together]. This is because the services are being promoted by both Vodafone as TSP and Vodafone as PPI with commercial flexibility to price for the USSD channel while leveraging resources of each entity (such as retail distribution network, mobile recharges via M-pesa etc), resulting in a win-win situation for both entities. Similar flexibility needs to be permitted between TSPs and Banks for NPCI's *99# service.

B. ISSUE-WISE RESPONSES:

Q1. In your opinion, what should be the maximum number of stages per USSD session for mobile banking service :

(i) Five
(ii) Eight
(iii) Unlimited
(iv) Any other (please specify)

Please provide justification in support of your answer.

A1. It is first submitted that regulation should not preclude different arrangements /models whether technically or commercially and the banks and the mobile operators should be allowed to experiment with different models /price structures which will maximise the use of the platform. This 'optimal' structure cannot be known beforehand and it will requires a degree of trial and error in the market place.

We submit that B2B model should also be allowed to be followed for USSD based mobile banking service, in addition to the present B2C model. In the B2B model, TSPs and Banks can enter into arrangements to facilitate varying/unlimited number of stages or transactions of USSD session, SLAs, prices (retail/wholesale) etc.

In view of the above, we suggest that the number of steps per USSD session be retained at five, with a provision that in case any bank/banks are desirous of increasing the number of steps in the transactions, based on their respective menu driven options, the same may be agreed to bilaterally with the concerned TSP.

However, in case the Authority decides that the presently regulated model of B2C is to be continued with, we believe that the maximum number of stages per USSD session for mobile banking service can be increased to Eight (i.e. a maximum of 8 transactions initiated by customer and a maximum of 8 transactions in response to customer's transactions initiated by NPCI's platform) in order to facilitate subscribers to overcome the issues of incorrect entries of bank account numbers and IFSC codes, as mentioned by TRAI in Para 2.7 of the Consultation paper.

Needless to say, such increase in the number of steps would also lead to a concomitant increase in the cost/tariff of the USSD services, which may also be kindly considered by the Authority.

It may however be noted that there can be no case for making the maximum number of stages per USSD session for mobile banking service as 'unlimited' in a regulated B2C arrangement, since this could adversely impact a TSP's signaling network capacity and could lead to a sudden/excess use of USSD channel and TSP's associated signaling network for mobile banking service which, in turn, can directly adversely impact the TSP's ability to handle its most basic and yet most vital telecom operations' viz. voice traffic which also use the same signaling links/network for call set-up purposes (as noted by TRAI on Page 16 of the consultation paper).

It may kindly be noted that the TSP's signaling network is not segregated to specifically handle NPCI's mobile banking traffic (i.e. it is a shared telecom network resource that is used for voice call set up and other services such as SMS, USSD VAS services etc.) and any sudden/excess use of USSD channel would adversely impact our voice and SMS services.

Further, there is no visibility from NPCI w.r.t the expected volumes of USSD transactions and in case the volumes increase suddenly, the TSPs will not be ready to cater to NPCI's traffic with their existing telecom network infrastructure. For this, the TSPs will be immediately requiring capital investment for necessary capacity upgradation of end-to-end network i.e. at radio and core network as well as at Billing/IN/IT end for NPCI's services. For this reason also, it is more desirable that there is a commercial (i.e. B2B arrangement between TSP and Bank), instead of the current B2C arrangement, to ensure that banks share the TSP's risk of investment and actively undertake advertisement and expansion/proliferation of NPCI *99# services.

It may kindly be noted that any overload on the SDCCH may result in voice call and SMS service failures (including both submission and delivery of SMS).

Further, the Authority has prescribed QoS obligations w.r.t cellular mobile voice traffic with concomitant financial penalties in case of non-compliance, which it is further consulting on at present, to make such obligations and penalties more stringent. Therefore, there can be no case for making the number of transactions unlimited for mobile banking services of NPCI in a regulated B2C arrangement, since it can adversely affect the availability and capacity of voice traffic of TSPs.

Q2. Which of the following methods is appropriate for prescribing the tariff for USSD-based mobile banking?
(i) Cost-based tariff for outgoing USSD session for mobile banking; or
(ii) Monthly (or periodic) subscription fee for the use of USSD for mobile banking services; or
(iii) Any other method

A2. It is first submitted that Mobile banking services are in the nature of 3rd party (i.e. non-telecom B2B) services that can be offered by TSPs to facilitate 3rd parties, i.e. the banks, in meeting their business /financial inclusion objectives through utilizing the telecom network. Consequently, **there can be no case for cost-based tariffs** for outgoing USSD session for mobile banking as cost-basis is an approach only applicable in case of Interconnection between telecom networks, which is not the case in the present instance.

Further, we once again reiterate that regulation should not preclude different arrangements either with the banks or with the customers. The banks and the mobile operators should be allowed to experiment with different structures of prices to discover which will maximise the use of the platform (it should be in both party's interests to do so). This 'optimal' structure of prices cannot be known beforehand; it requires a degree of trial and error in the market place. We once again request that the Authority allow the flexibility to the banks and the TSPs to arrive at the optimal structure /model for pricing of USSD services.

It may also not be out of place to point out that there are many Government/citizen centric services which are also provided to consumers on B2B model, notably Chief Minister Helpline, Aadhaar Helpline number, Crime against women Helpline etc. These services are run using various telecom resources of TSPs where the concerned agency of the Government bears the cost of the telecom resources while the consumer is provided these services free of cost/tollfree.

The Authority should thus permit commercial flexibility w.r.t tariffs as well as wholesale arrangements for USSD mobile banking services. Globally also, there are not one size fits all pricing models – in some countries, B2B models are very successful (which allow volume commitment based charges, revenue share, flat/fixed rates, discounted tariffs etc.) which have been commercially negotiated by Banks and TSPs.

Monthly (or periodic) subscription fee for the use of USSD mobile banking service may be beneficial for some segment of consumers who frequently use their mobile banking services and would like to know in advance their fixed monthly outgo/spend for a service. At the same time, some other consumers may prefer per event based tariffs (instead of subscription based) for ease/flexibility of use especially in times of low balance in mobile prepaid accounts.

The Authority should de-regulate both retail and wholesale mobile banking access pricing and allow the TSPs and Banks to offer any or all options to the consumers. Further, the arrangements could be either B2B or B2C or a hybrid of both. Such flexibility will facilitate both the banks and the TSPs to identify the appropriate and optimal price, structure, channel which incentivises both parties to actively facilitate telecom network access and banking services respectively. With this de-regulation, the two-sided market of Banks and TSPs will be allowed to function more efficiently and will result in more beneficial outcomes. The Authority should communicate its preference for fair access and intervene only if it finds any abuse in the market.

Any regulatory mandated retail pricing for subscription based model may result in issues as volumes of USSD sessions may widely vary per customer per month thereby requiring the TSP to ensure adequate network capacity to cater to such volumes in such models. If at all, any model is to be encouraged, we believe, it should be B2B, instead of regulated B2C.

The Authority should be mindful of the fact that Banks extensively use bulk SMS services of TSPs on a B2B arrangement and consequently, there should not be a difficulty is also allowing such model for USSD as well. Notwithstanding the above, it is submitted that any retail pricing for USSD mobile banking service should not be set at such levels that permit arbitrage opportunities to be created between Bulk SMS and USSD channels availed by Banks/NPCI.

An appropriate method for estimation the tariff for USSD-based mobile banking may be to correlate the average time of a USSD session to average voice call tariffs. Detailed inputs on the same are provided in response to Q4 below.

Q3: What methodology should be used for estimating the cost per USSD session for mobile banking service?

A3. Does not arise in view of response to Q2 above.

Q4: If your response to the Q2 is 'Any other Method', please provide full details of the method.

A4. It may first be noted that comparing the tariffs of outgoing calls, SMS and data charges in isolation, without look at the corresponding volumes for the respective transactions would be an unfair and incorrect comparison. The Authority would appreciate that volumes play an important role in the end price structures. The number of USSD transactions are less than a fractional percentage of the voice call volumes. To compare the price of these two transactions, and conclude that tariffs of USSD need to be reduced, would, in our view be an unfair conclusion.

As mentioned in response to Q2 above, we believe that an appropriate method for estimate the tariff for USSD-based mobile banking may be to correlate the average time of a USSD session to average voice call tariffs.

(i) Average time the USSD session is open = 3 minutes* = Average voice call time
[*3 minutes taken on the assumption that NPCI keeps a USSD session open for 3 minutes ; same as NIC for various Ministries' USSD driven projects]

(i) Retail tariff for USSD mobile banking = Average voice call time * Average voice call tariff (Rs. 0.50 per minute)

It may also be noted that USSD services even work when the subscriber is on roaming (intra-circle, national and international roaming), thereby resulting in use of local/national/international signalling links of home network operator and/or other operator's network, and hence, Average voice call tariff should be suitably taken.

It may be also be kept in mind that the average time may increase if the number of steps are increased and that may also be considered by the Authority.

Q5: Whether it would be appropriate to mandate the service providers to levy charges for USSD session for mobile banking only if the customer is able to complete his/her transaction? If yes, please describe the method to implement such an arrangement technically?

A5. It is technically non- feasible for a TSP to charge the customer only on successful USSD transactions/sessions. The TSP does not have visibility of the success/failure of the USSD session initiated by customer (these details will only be available with NPCI platform which make any reconciliation difficult between TSP and NPCI).

Moreover, the customer is charged by the TSP at the beginning of the USSD session before USSD content is delivered to him/her, thus rendering it technically unfeasible to charge only for a successful USSD transaction/session.

Internationally too, in Kenya and Tanzania, the mobile operators charge the customer for the USSD transaction/session regardless of success/failure.

Q6: Whether the present pricing model for USSD-based mobile banking in which consumers pay for the use of USSD should continue?

A6. The Authority should permit flexibility in choosing other business models viz. B2B or part B2B and part B2C instead of the presently singly regulated B2C model for USSD-based mobile banking services.

For e.g. it is possible that some banks may choose to absorb the cost of USSD transaction messages sent by them via NPCI or some banks may prefer a monthly subscription based retail USSD model. The allowance of such flexibility will result in a more efficient market outcome.

This would be similar to the Phone Banking (IVR) and SMS services offered by Banks where some banks offer Domestic Tollfree/UAN/shortcode numbers to enable customers to dial the banks at tollfree/local voice and SMS tariffs, whereas other banks offer regular landline/mobile numbers to enable customers to dial the banks at local/STD voice tariffs, depending on what they perceive as reduction in their banking transaction costs.

The regulation of retail access charge for USSD based mobile banking is unique in the world. Other countries' regulators do not regulate, rather they require fair access without specifying more, or prescribing a wholesale charge.

Moreover, a separate retail charge for USSD access and a separate one for the transaction may undermine price transparency. Customers have to manually combine the access charge with their bank transaction fee to understand the total price of the mobile banking service. It also results in sub-optimal market outcomes, as the retail charge serves as a price floor, whereas banks could otherwise opt to absorb it.

Finally, banks derive cost savings from promoting mobile banking. It may therefore be fair that banks pay, rather than stipulating the cost of such access being imposed on consumers. As per some estimates, as referenced in RBI speeches, mobile banking based transaction costs about 2% of the branch banking cost, 10% of the ATM based transaction cost and 50% of the internet banking cost. http://www.iibf.org.in/documents/Bank-Quest-July-September-2715.pdf

Q7: In case your response to the Q6 is in the negative, what should be alternative pricing models? Please provide justification in support of your response.

A7. Kindly refer response to Q6 above.

Q8: Keeping in view the concerns raised by the TSPs, whether there is a need for allowing USSD push sessions when customer-initiated USSD session is dropped due to some reason so that the customer can complete his/her unfinished transaction? Please support your response with justifications.

A8. We have already raised the security concerns on providing signalling link connectivity to 3rd parties for USSD push sessions vide our letter dated 27th October 2015 (copy enclosed). Our telecom licenses mandate us to ensure network security with heavy financial penalty upto Rs. 50 crores per circle for any network security breach.

We believe that as per view of some technology vendors, allowing signalling link connectivity to 3rd parties where 'ghost sessions' can be created which will not get 'closed' resulting in continuous usage of the TSP's signalling link/channel thereby potentially adversely affecting use of the signalling link/channel for other activities such as voice call-setup and other USSD channel related activities.

In addition, the push USSD interface on different protocols like SMPP is also not recommended as there is no control on the USSD content, number of transactions and the duration of session. This is typically controlled by the source application (NPCI) in this case and may result into increase in overall telecom resource usage. Such type of pushed USSD sessions are also not charged resulting into higher cost to the operators.

Q9: Whether it would be appropriate to allow all variety of mobile payment services apart from the mobile banking services on the existing USSD Aggregation platform(s)? Please support your response with justification.

A9. All variety of mobile payment services **cannot** be considered to be a part of mobile banking service as they are outside the scope of presently regulated mobile banking service meant only for financial inclusion for citizens.

We understand the need for facilitating a cashless economy and mobile payment services along with mobile banking, however, any regulated approach towards enabling mobile payment service on regulatory prescribed commercial, structural and channel models will only result in missed market determined opportunities and approaches, which would regrettably be a sub-optimal outcome of the noble intention of financial inclusion.

It is reiterated that market forces should be allowed to determine the approaches on such opportunities, rather than regulatory intervention. Till date, NPCI/Banks have not directly approached the TSPs to discuss these new opportunities/cases but have pursued directly with the Authority for a regulatory mandated/prescribed approach, which is not a correct approach and should not be encouraged by the Authority.

As stated earlier, different business requirements/use cases/models would demand different access regimes/prices, hence, any effort to apply a one-size-fits-all approach increases the prospect of market distortion and market failure, as is being witnessed today w.r.t NPCI's *99# service.

Lastly, like in any other B2B model, the TSPs and respective Banks should enter into commercial arrangements for mobile banking where Banks can have flexibility to choose to nominate NPCI as their aggregator for interfacing with TSPs' telecom network.

Q10: Is there any other relevant issue which should be considered in the present consultation on the review of regulatory framework for the use of USSD for mobile financial services?

Q11. Any other issue related to the matter of Consultation

A11. The following are some of the endemic issues regarding USSD mobile banking services:

(i) There are approximately 51 banks offering NPCI's *99# service. TSPs have allotted 51 multimodals (uniquely) for each bank. But most banks are not even promoting/ communicating about these services and multimodal USSD codes. HDFC bank (one of India's largest private bank in retail) is not even registered with NPCI for its *99# USSD service.

(ii) Use of NPCI's *99# still requires most consumers to first get their mobile number registered with their Bank for mobile banking – current process of mobile number registration typically requires consumer to visit the bank or bank ATM/undertake online registration on bank website. This may be a bottleneck (especially in rural areas where Banks may not have ATMs or branches).

(iii) Medium of communication/menus in USSD mobile banking is presently English, whereas with the intent of 'financial inclusion', the medium of communication should be vernacular, given that English language penetration is very low in such areas. No effort has been made by NPCI on this front.

(iv) Banks are already offering E-KYC for paperless opening of bank accounts by consumers. Banks are also offering SMS banking and their own banking apps and now UPI (Unified Payments Interface system) which enable consumers to undertake various banking activities. These are gaining popularity especially as smartphone and internet penetration is increasing on account of declining costs of smartphone devices and affordable data tariffs with additional data quotas being offered by TSPs. None of these channels (i.e. SMS/internet) are regulated in terms of retail telecom tariffs and are still gaining popularity.

(v) Payment wallets are becoming popular for financial transactions. Such is their popularity that mobile wallets are now considered an alternative to debit or credit card payments.

(vi) The NPCI *99# service expects the customers to know and enter their IFSC code. We believe that very few customer would know the IFSC code for their banks. There would need to be more education and creation of customer awareness on this front by NPCI.

On the point raised in the discussions in Para 1.15 of the consultation paper that USSD session timer should be increased, there is network time limit of 60 seconds for sending the response in a menu. If response is not received in 60 seconds, the USSD session will be disconnected. We believe that this session time is sufficient for a consumer and should not warrant any increase.

New Delhi
14 September 2016