

August 30, 2016

To: Advisor (F&EA), TRAI

RESPONSE TO THE REQUEST FOR CONSULTATION ON THE USE OF USSD FOR MOBILE FINANCIAL SERVICES

Dear Sirs,

In response to the request for consultation, Mistral Mobile is providing our views on the listed questions.

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

1. *Five*
2. *Eight*
3. *Unlimited*
4. *Any other (please specify)*

Please provide justification in support of your response.

Mistral Mobile response: 4. We do not recommend using USSD for mobile financial services for the following reasons:

- USSD was never meant for complex transactions due to session-based nature and need to always enter all the data in the process manually
- USSD will always have a high failure rate at least 20% because of network variances
- USSD usage is a capacity problem for telcos as it consumes capacity away from voice calls, and telcos would configure network for voice and other purposes
- USSD as entirely telco controlled and specific to each network (unlike IP) and will potentially be subject to intentional performance lapses if not compensated, regulated & monitored

Mistral Mobile has developed a technological solution called (UBST) Ultra-Low Bandwidth Secure Transactions, which utilizes patent-pending, encrypted-SMS channel and is already deployed at large scale in India and Africa. The background for the Mistral Mobile solution lies in the years of experience accumulated in the India operating environment with telcos and banks as the Mistral Mobile has its founder roots in Nokia Money service. Mistral Mobile solution overcomes the challenges of USSD:

- Mistral Mobile solution supports all handsets from Java to Smartphone. USSD provides inferior experience to all of these.

- Mistral Mobile solution always provides an application-like interface and can support tens of languages and icons for illiterate population. USSD is purely text based and only single language.
- Mistral Mobile has extremely deep security, all the way at PCI levels. USSD is not secure at all.
- Mistral Mobile solution works anywhere GSM signal exists
- Mistral Mobile enables far lower cost than USSD as it utilizes encrypted-SMS as the channel, with the SMS costs easily subsidized by service providers.

Q2: Which of the following methods is appropriate for prescribing the tariff for USSD- based mobile banking?

- 1. Cost-based tariff for outgoing USSD session for mobile banking; or*
- 2. Monthly (or periodic) subscription fee for the use of USSD for mobile banking services; or*
- 3. Any other method*

Mistral Mobile response: 3. Communication fees for financial services should ideally be subsidized by the service providers whenever possible. From the user perspective any fees should not be punitive towards higher usage frequencies. In order to adapt people using new services as much as possible the usage fees should be kept at minimum, preferably as zero, flat-based monthly service fee at worst.

Mistral Mobile solutions lower the cost of communications substantially, primarily by reducing the need for non-financial transactions such as balance look-up. For those with limited balance and potentially limited financial experience, seeing their balance is very important. It is not uncommon that balance look-ups, last transaction look-up and other non-financial transactions can out-number financial transactions (fund movements) but 300%-400%. For all in the eco-system, paying for these non-financial transactions is a large source of cost. In Mistral Mobile solutions, balances are always up to date but without the cost.

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

Mistral Mobile response: Exceptionally difficult to determine given telco underlying cost structures vary and transaction margin varies. It is Mistral Mobile's view that USSD is simply not a long-term, sustainable technical solution to driving widespread financial inclusion.

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

Mistral Mobile response: Mistral Mobile has developed alternative technological solution which is utilizing SMS channel and is already deployed at large scale in India. Mistral Mobile solution overcomes the challenges of USSD challenges both from user experience and costing perspective:

- Mistral Mobile solution supports all handsets from Java to Smartphone. USSD provides inferior experience to all of these.

- Mistral Mobile solution always provides an application-like interface and can support tens of languages and icons for illiterate population. USSD is purely text based and only single language.
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As Mistral Mobile enables far lower cost than USSD as it utilizes encrypted-SMS as the channel, this enables the SMS costs easily subsidized by service providers.

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?

Mistral Mobile response: To Mistral Mobile understanding, such an arrangement would be difficult or impossible for the telcos to implement. It is Mistral Mobile's view that USSD is simply not a long-term, sustainable technical solution to driving widespread financial inclusion.

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

Mistral Mobile response: Absolutely not. As responses in Q2 we referred to the negative consequences of consumer charges as they will limit the usage dramatically. As in our Q5 response we recommended the charges are allocated to the service provider and they will then manage the cost of service as part of their overall mobile banking business model.

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.

Mistral Mobile response: Refer to our response in Q6 on the recommendation of service charges being borne by the service provider. Users will limit usage if it has additional costs for them. Hence any per transaction costs will reduce the transaction volumes.

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.

Mistral Mobile response: We do not recommend using USSD for mobile financial services for the reasons noted above. Hence we do not see that aiming to fix shortfalls of the USSD solution by doing such mechanisms will be worthwhile. Instead we recommend utilizing encrypted-SMS -based solution as the Mistral Mobile solution.

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.

Mistral Mobile response: We do not recommend using USSD for mobile financial services for the reasons noted above. Due to these reasons USSD is not suitable for extending the services as they will be inherently complicated and unreliable to use for the customers.

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?

Mistral Mobile response: Our recommendation is to discontinue USSD -based approach and instead consider approach based on utilizing encrypted-SMS as the transaction channel and carrying out encrypted data over the channel. Mistral Mobile has developed alternative technological solution which is utilizing SMS channel and is already deployed at large scale in India. The background for the Mistral Mobile solution lies in the years of experience accumulated in the India operating environment with telcos and banks as the Mistral Mobile has its founder roots in Nokia Money service. Mistral Mobile solution overcomes the challenges of USSD:

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- Mistral Mobile has extremely deep security, all the way at PCI levels. USSD is not secure at all.
- Mistral Mobile solution works anywhere GSM signal exists
- Mistral Mobile enables far lower cost than USSD as it utilizes encrypted-SMS as the channel, with the SMS costs easily subsidized by service providers.
- Mistral Mobile solution is market tested in large scale in India and other large markets
- Mistral Mobile solution is built based on extensive multiple years of experience with Nokia Money service in India

All these make the chosen approach of utilizing SMS-based encrypted communications channel far superior to any USSD-based approach.

Respectfully Yours,



Ludwig Schulze
CEO
Mistral Mobile