Comments on Consultation Paper on the review of regulatory framework for the use of USSD for mobile financial services received through MyGov Website

1.   Chandrashekar Rao Kuthyar:

USSD usage - A typical use-case: Father having account in Indian Bank wants to send Rs 2000 every month to his son studying in a hostel in a different city. He would like to create an entry in his address book as *99*58*4*<IFSC>*<AccNo>#. But since IFSC is a alphanumeric 11-character string, this cannot be in Phone Address Book. Can we find an alternative way of substituting IFSC of your bank with a Numeric Code? Changing from Character to Number will reduce timeout and improve Success Rate.

USSD Charging message distracts usage - This is an experience of using BSNL's *99# service. As soon as the service is invoked, the charging message is sent by BSNL. So, there is a notification sound and this distracts the user from completing the USSD session. So, I urge Telcos to explore holding the charging message until the session is completed. This will ensure that the customer is not distracted and will complete the 5 stages of USSD entry and hope to get a successful response

USSD - *99# for buying a Rs 10 Platform Ticket at all Railway Stations - We can go beyond Banking and start using USSD service for Merchant Payments. When the Merchant, Amount and Purpose is fixed, then we can call the entire string at once *99*42*3*MobNo*MMID*10# - To pay Rs 10 from Punjab National Bank to Railways. *99*76*3*MobNo*MMID*10# - To pay Rs 10 from Karnataka Bank to Railways. Timeout problems can be solved by storing string in Address Book or using *99# Mobile App like PNB

On Pricing, USSD Service Provisioning for a large country like India is requires good planning and expertise to configure the GSM Switches to do what it is supposed to do. This requires time and effort. Telcos should be suitably compensated for the effort. So, there is nothing wrong in charging Rs 1.50 per session. However, if there is a failure to reach the end-node, then the charging should be rolled back. Let market dynamics determine if users want to switch providers based on ServiceQuality

Based on extensive testing of USSD *99# services, the following are some observations

1) Vodafone USSD - *99# - works well, consistently across all locations. I have not faced even a single instance of failure on this network

2) BSNL, Airtel, Idea - *99# - Service is very patchy, inconsistent and unreliable. Customers will lose confidence in the Banking industry if the Telecom pipe is unreliable.

I urge all Telecom Service Providers to give highest importance to Service Quality and Uptime

2.   Suresh Rao:

Privacy of individuals and their financial transactions should be assured. Whatsapp kind of services that network individuals based on mobile numbers only may not be secure. Global network architecture for the use of USSD must linkup an individual or corporate primary bankers who have already ensured privacy of financial transactions.

3.   Venkatramana Siddheshwar:

Q1, table 2.1 : we need to minimise the number of data entered. It I suggest we try to lock in IFC bank code to IMEI and mobile telephone number, so any action other than with draw can be automated.

Q2. It should be monthly with a ceiling of 1 USSD transaction per week. More will be charged at actual.

Q3. The actual fixed cost and variable costs need to be taken and total volume of messages be considered.

Q5. If more than 3 failed tries are there, then 24 hour blocks.

Q6. Yes

4.   Rejimon C K

Its good step. USSD or there many services in existing GSM network facility should be made available to public.

To make financial transaction and authentication after due linking account, Aadhar, PAN (KYC Norms) to make this kind of facility for all bank account holders will be of great facility.

The cashless p ayment should be encouraged at all levels not just reduce black money but also help govt in cost of printing Rupee Notes, transport and store security etc.

Security need a review.

5. UP168405383

The expansion of banking and reach of financial services is considered to be vital for the long-term sustainable development of any country. From the standpoint of equity, it is ...

6. Sanjay Kimbahune

Sir The main issue with USSD browsers is they are all in English hence excludes semiliterate / illiterate massses.

1.Government should make local language support for USSD browser a must for all the phones sold in India

2. Still for very illiterate users - Local voice enabled menus would make wonders.

3. Another very important mandate should be recognition of digital certificates of Indian origin in these and all other browsers.

Request to take last suggestion seriously

7. Mohit Mehral

1. GSM Phone would have pre-equipped of USSD protocol.

2. AAA security layer is part of USSD protocol. Authentication using PUSH based USSD menu driven to subscriber. Authorization can be club with encryption method.

3. Remember service code is easy with pre-loaded menu in SIM toolkit and backend is concatenate USSD String. string e.g (*99*1*<bparty upi>*<amt>*<mpin>#)

4. Cost effective solution for user.

5. Muti-lingual support is one that explicitly targets users in various regions

8. Poornima Rai

USSD reduces subscriber cost for doing a financial transaction as he doesn't have to spend on data. The Telecom sector has used USSD very effectively for giving subscribers a host of services like checking main account balance, buying products like VAS, ratecutter etc and should be explored for financial transactions.

9. Chandrasekharan Nambiar

If Mobile number, Aadhar and Bank accounts are linked One Time Password (OTP) may be implemented for ATM Transactions also. This may reduce malpractices on ATM Transactions. This may also be implimented by banks itself.

10. Ramamohan Rao Dabburi

Link Account number with mobile number. Instead of entering account number, sender will enter recipient mobile number. User can easily remember and can enter without error. For Mass adoption of USSD, make paying of electricity bills through USSD mandatory. People will come to know what USSD is

11. Constantine Stanley

USSD with regional language messaging would be best option, provided that we have to take care of visually challenged and people with poor vision. For them there should be an option for IVR. At the same time to retrieve previous transaction details we can still depend upon sms messaging. So this will basically mean that a mix of appropriate technologies based on individual and technology limitations.

12. Ashok Kumar

The biggest hurdle is insecurity about using mobiles for financial transaction due to lack of education. In the starting small value transactions with limited access to details of bank etc may be tried. Say whenever I am making a transaction the security level depending upon amount can be decided. For high value it may after verification call from bank can be seen as option for time being. Once people become used to the system will run perfectly. Network will not be problem.

13. JIJU K

We need offline money transaction options also, because in India network availability and quality is limited. So if our mobile phone can perform offline transactions(with security) with other mobile phone, that will be a good thing, for security and may be can use low cost additional equipment

14. Ashok Shukla

The main aim to increase the flow of money. But the operators, service portals (paytm etc.) card providers (VISA) etc. and banks charge amounts for this service. Ultimately consumer pays money. This is all business. People are attracted and pay for these services. The rates & service charges may be reduced and a closed monitoring is required.

15. Suvro Biswas

√ Minimum 60sec gap required to activate any pack through USSD.

√ Complete benefit details should be mentioned in 1st page.

√ Customer should check his basic account status through USSD like current tariff, all type of balance, complain/ request status.

√ Customer should get confirmation sms within 30 sec of request.

√ Will appreciate if language be religion or Hinglish.

16. H P AGRAWAL

TRAI continues to remain under a state of confusion. USSD service must be free or a charge may be levied uniformly at Rs. 0.10 per USSD. Network needs to be improved. Currently many USSD calls are returned - as no wrong or network not available.

17. PUNITH KUMAR B

When i used USSD banking services it will be charges Rs.1.50 Paisa per transaction. Kindly please make empty charges, and give us to use this service free.

18. Sathish

Q1 answer. There should not be any limit on the USSD. There may be a customer who will experience connectivity issues especially in rural areas and limiting ussd only puts the service at a disadvantage. USSD message limit needs limiting depending only on security issue like high frequency of transaction (suspicious ones, etc).

Q2 and up: Regarding the cost model, we should not charge customer at their first transaction, you can charge □50/yr after customer realises the fastness of USSD!

19. Ketan Vala

Sir, why not e-kyc for ussd platform like aadhar card, pan card, election card is available on online platform. Above cards having name & address both registered with them and they can be attached with transaction & AML standard can be complied.

20. Sanjay Bhatia

First time I tried using USSD, I was shocked at the cost. Each msg is a sms and cost the same as one. I don't use a SMS pack so cost is 50 paisa or 1 Rs per msg. This is too much.

For such system the cost has to be minimal. In this case, I suggest that USSD for banking should be free.

Many operators offer 5 paisa or lower cost per SMS for bulk users, so if the banks want to save cost and encourage Electronic banking, then they can absorb the cost of Banking USSD or else Telecom Operators

21. Bhansali Bajarang

USSD - As the name implies, all operator should use common codes all over india. The basic needs of the persons who will use USSD should be studied like : Basic transactions a common man who doesn't have access to Mobile data, mobile apps, would like to do is 1) Check account balance, 2) What deduction did the bank do from my account and why, and other enquiries, 3) Payments of bills and services like Crop Insurance, Govt Taxes, Electricity bill, Mobile recharge, etc.

Operators would take more interest if mobile recharge directly from bank account is made available along with other banking services. There should be an easy mechanism for reverting wrong operation of USSD. That should be based on voice calls within specific time limit, say 24 hrs. after transacting.

USSD should be implemented in both methods - a menu system, where user dials a short ussd code and gets a menu, and then keeps replying given numbers for various actions. Secondly there should be long USSD codes for various applications like ex. - dial *567*11# for Crop Insurance, dial *567*22# for Electricity bill, dial *567*33*100# to recharge your number for Rs. 100, etc.

App developers will be encouraged to develop apps for easy USSD handling, but they should get certified somewhere, or rogue app developers will try certain methods to abuse the USSD banking to steal the money of users. Rogue apps should be removed as soon as possible and users should be encouraged to use certified apps only. Users should be confirmed on telephone on unusual transactions, confirmation calls can be subsidised by Govt.

22. Anoop_244

Use of mobile phones for specific purposes like USSD is a difficult affair especially for elderly people in rural and semi urban areas. So I believe some sort of training or education should be provided for school going children (16+ yr) with respect to use of Mobile and Internet, so that these children can help their parents in matters of technology utilization. Only then Digital India initiative will be successful.

23 Shubham Sharma

1. Ussd apps should be in different languages, it will increase the user base

2. ussd technique which can be applied on phones with no app based os, only text based system should be developed

3.   proper guidelines in banks should be made to publicize the system so that people can use it.

4.   may be small screens giving vital information how to use ussd can be fixed under public banks.

5.   see the video, these type of apps will benefit.

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TRAI consultation paper on Unstructured Supplementary Service Data (USSD)

Answers of Q1 to Q10 are;

Q1.

In villages large number of the likely users of this service are either semiliterate or illiterate and they may use service if it is convenient and simple in use and successful in less stages. In unlimited stages they may lose interest and also possibility of failure is more in less stages.

Hence 8 stages are ok to start with which can be reviewed later after service gets stabilise.

Possibility of keeping 5 stages in transactions like balance enquiry etc. may be examined.

Q2.

In my opinion Cost based tariff should be adapted.

Q3.

As SMS message and USSD travel on the signalling channel, the estimated cost for USSD is required to be worked out in the same way as it is done for SMS messages. It can be assumed that tariff for USSD session will not be more than Rs.0.15 per USSD session.

Q4.

NA

Q5.

It is desirable to charge customer for successful transactions.

Normally banks are sending SMSes whenever fund transfer etc are done and that type of message should be taken as successful transaction and charging done based on such messages .

Q6.

Yes, present pricing model of consumer paying for the use of USSD to continue.

Q7.

NA

Q8.

Our primary concern should be on increasing the successful transactions which will increase the confidence level of customers. From the TSPs side they need to takecare the security aspects.

Hence aggregator initiated Push session is required to increase the completion rate of transactions and make the service successful.

Q9.

Objective is to move towards cashless and more digital society and therefore unified USSD platform which can support all payment platforms is required. However this should be done by mutually agreed terms between TSPs and aggregator.

Q10.

In order to make service successful it is necessary that;

i. Public need to be educated and made aware properly in villages otherwise it is likely to remain less utilised.

ii. Tariff has to be kept as low as possible but not more than 50 paise per transaction, this is a very important aspect for its success in villages. Service will be profitable with higher volume.

iii. Banks to take initiatives for promoting the service , apart from sending messages managers can take the help of village panchayats etc. in rural areas.

iv. Transaction failures should be minimum,TSPs and aggregators both have to work very closely to ensure this.

The objective of this Consultation Paper (CP) is to examine the need of mobile based financial services in the country from a public perspective, discuss the issues in its proliferation and to explore solutions for the same.

Submission:

India is the largest consumer base(about 1 Billion active user) of GSM network. Majority of users having basic phones and Smartphone, feature phones penetration are less than 39% in India. It growing @32% in a year and if the trend remains same than in 2020 smartphone coverage will touch 70% base. . . . Information source GSMA

Corresponding to the above analysis, Financial services will be touch around 70% bases by 2020. Mobile APP and Website will require for smartphone league.

However, we can reach to almost **+96% GSM users on day one** with USSD based solution along with collaborative approach of TRAI and Fintech. How **USSD** is the right way?

1. GSM Phone would have pre-equipped to generate USSD Req. Every phone have reserve channel to communicate over GSM network with USSD protocol. **No additional efforts require for app/web based portal. Banks just require to enable there API access to telecom operators.**
2. This GSM Channel / Protocol is secure mode to transferring data in between subscriber and bank. AAA layer is part of USSD protocol. Authentication can be measure by **PUSH based USSD menu** driven to subscriber. Authorization can be club with **encryption method**.
3. Remembering the USSD code is major challenge to promote the service in every level. **TRAI can mitigate this adversity by regularized SIM embedded OTA based menu. Complete menu will be pre-loaded in SIM toolkit, user will easily traverse and use the options and the backend call will be generated over USSD concatenated string e.g (*99*1*<bparty upi address>*<amt>*<mpin>#)**
4. **Cost effective solution for subscriber.** Even on international/national roaming, user request will land to home hlr(home location register – telecom node).
5. **Muti-lingual support is one that explicitly targets** users **in various** regions in India

Submitted by :

Mohit Mehral,
10+ Year USSD Protocol experience (USSD2 Page Founder)

My answers for Q1 to Q10 are as follows

Q1: Maximum number of steps should be eight or else it can be different for each type of transactions like five for balance checking, eight for fund transfer etc. If no limit is prescribed for number of stages, then TSPs may keep more steps due to which people may lose interest in using

Q2: Any other method

Q3: A new method can be used like per month "x" numbers of transactions are free as TSPs are already providing free USSD service for mobile balance checking and many other services. Authorities shall convince TSPs and this method will surely increase the number of users.

Q4: It is better to give this choice to customer than authority deciding the method for prescribing the tariff. Some person may do more transactions in a month and some may not depending upon their need.
Any person subscribes to monthly subscription only if he/she is doing more transactions in a month. Considering semi-literate and poor class of people, it is doubtful that they do more transactions in a month. Hence choosing between cost per transaction or monthly subscription should be left to customer. In monthly subscription too, it is better to have slabs like 1-100 transactions "x" is the cost and 101-200 "x+y" is the cost and so on, which attracts people to do at least few number of transactions in a month using USSD.

Q5: Yes it is appropriate to mandate for charges only for complete/successful transactions.
Method to implement is
a. Based on banks confirmation (it might be tedious for banks to confirm) or
b. There will be a message sent to the phone number for successful transactions like fund transfer, balance enquiry etc. Based on this message, it can be called as successful and charged for the same.
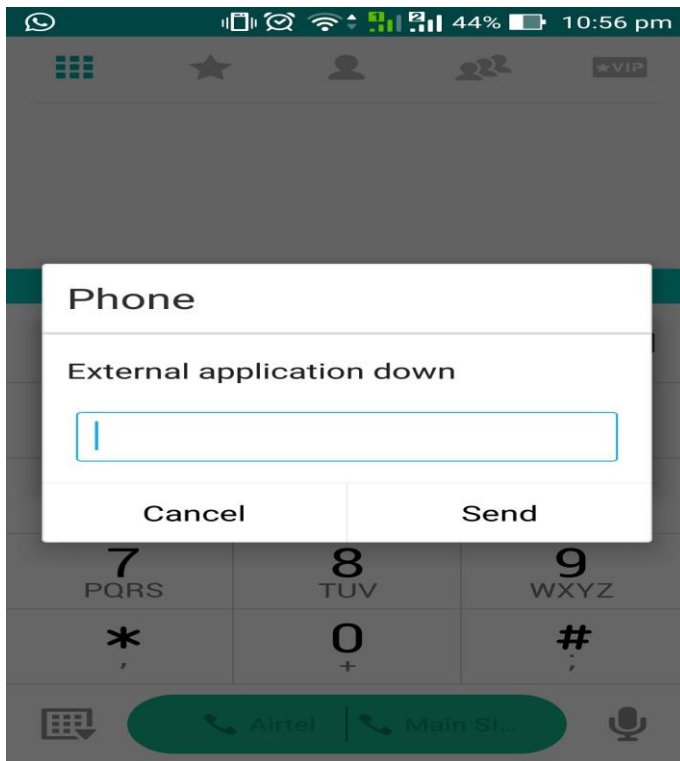
Q6: No, it should not continue.

Q7: There can be a new model as follows
It is better that banks bear for initial few numbers of transactions; for example cost for initial 10 or 20 transactions per month is beared by banks and more than that can be charged to customers. It shall be charged only for complete/successful transactions.

Q8: Yes, it is required to have USSD push sessions too. First thing is TSPs shall not have authority to decide it and they should establish all securities for push sessions.
As the motto of USSD use is to help poor and needy people, if he/she has to pay for unsuccessful transactions and again pay for another transaction even without knowing whether it is successful or not, it will not attract poor and needy people and hence reduces the usage rate.
The below screenshot shows that I was charged as soon as I dialled *99# and I got reply as "External application down". Why should I pay for the error of TSPs? Hence it is required to have USSD push sessions

Q9: Yes it would be appropriate.

This will surely lead to less cash society since people draw money more, to pay for something.

It is also desired to have an option for fund transfer to a mobile number using USSD. It shall work like mobile number shall be associated to a bank account and when we send amount to that number using USSD platform, fund get transferred to account directly. This saves lot of time for customers and attracts people to use USSD.

Even merchants can have a mobile number displayed on their shop and people can easily pay using the above said method. This method is already being followed by Paytm and other companies.

I also suggest to include RBI's new initiative which is Person to Person (P2P) transfer using Unified Payment Interface (UPI) app in USSD based platform. Just if we enter Virtual Payment Address (VPA) given to a person in USSD, fund gets transferred so that big task of adding new beneficiaries each time is not required. As I already said people draw money more to pay for something, payment from P2P becomes easier and use of hard cash can be drastically reduced.

Q10:

a. Government should have an incentive scheme for TSPs for few years in which TSPs are awarded or incentivised in any manner for less unsuccessful transactions. They can be awarded as "BEST USER FRIENDLY TSP FOR USSD". This will surely raise the competition between TSPs.

b. It is also better that authorities study in detail about the TSPs problems in USSD and assures them of solving it if possible.

c. Banks can also be awarded by considering its % of users using USSD. This will make banks to promote USSD more. As of now, I have not seen any bank promoting or sending SMS about USSD.

Apart from the answers to above questions, my views on USSD for mobile financial services are as follows:

- USSD is simple to use and not dependent on internet for its usage. Hence this can be very successful if it is highly advertised and usage cost is less.
- USSD has not gained popularity due to unawareness. As a graduate, even I did not know about it until I went through this consultation paper. Even my friends were not aware about it.
- Another reason for less popularity is its current cost per transaction. Rs 1.5/transaction is really too high when average tariff for outgoing voice call only is Rs 0.47/minute. Hence cost per transaction has to be in few paise may be 10 paise/transaction.
- New initiative of P2P payment using VPA has to be incorporated in USSD for which the same model which I mentioned in answer to Q7 can be considered.
- Banks shall take responsibility of promoting USSD with display boards on their branches and by sending SMS to its all customers about USSD.
- TSPs shall have time limit for reply to each feedback given by customer during USSD transactions.
- Unsuccessful/failed transactions to be reduced from its current level, then only people believe on it and start using USSD.