Grand Challenge Payments using feature phones

A. Background

India has over a billion mobile subscribers, around half of them now accessing the internet over mobile. A large percentage of these subscribers use feature phones - with and without the internet. In 2018, it is estimated that over half of the 300-350 million mobile phones sold in India were low-cost feature phones - a trend that indicates the continued usage of feature phones, especially among the lower income segments.

USSD based payments has seen huge success in Kenya and other African countries. However, in India, owing to the high cost for acquiring spectrum and building infrastructure in rural areas, mobile network operators often prioritised more lucrative services making it difficult for third party service providers to integrate USSD or STK gateways. With the *99# USSD service, UPI broke the barrier to enable real-time digital payments on feature phones.

B. The Problem

The fintech revolution of the last few years has resulted in a variety of financial solutions being developed in the country. Supported by forward looking regulations, indigenious payment infrastructure and learnings from more advanced markets, many of these solutions have leveraged the smartphone ecosystem to deliver innovative and value adding services. Within only three years, the Unified Payment Interface (UPI) has grown exponentially to even overtake credit card volumes. UPI is likely the best suited to replace the gorilla in the room, i.e. cash.

However, India is also home to half a billion feature phone users. A majority of these users are among the low income segments and aren't being served by the plethora of UPI apps that have been developed. For this segment, feature phones are seen as a greater value for money than lower end smartphones. Usually with fragile screens, poor battery life and slow processing systems, cheaper smartphones are not suited for their lifestyle needs. Unfriendly user interfaces and security related concerns also hinder these users from transacting via their phones.

How can fintechs build solutions that can enable feature phone users to transact easily and securely? What financial needs of the poor can be fulfilled using feature phones and contextualized based on current behavior and usage? What systems can be built for real-time issue resolution in case of transaction failures and frauds?

C. Program Objective

The program aims at identifying promising payment solutions for feature phone users, ensuring

1. Simplified self-onboarding of user on the platform

2. Improved user experience requiring minimum education
3. Highest security standards equivalent to alternatives
4. Instant dispute resolution mechanisms

To accomplish the above objective, some of the solutions that can be built on the *99# USSD service may include:
1. Integrating bill payment using BBPS as has been done with BHIM
2. Incorporating bank related services like cheque book request
3. Merchant payment solutions with both parties on USSD
4. Complete a transaction in fewer steps
5. Enhanced security with end-to-end encryption
6. Use of *99# as the backup channel for UPI apps
7. *99# feature inbuilt on feature phones as the default payment option

D. Target of the program

The program will be extensively looking at solutions for the stated problem from startups, incumbents, R&D teams from corporates, as well as developers from across the world. Though it would be good to have solutions that already have application in any environment or scenario or at the pre-commercialization stage; the innovative and disruptive solutions (irrespective of the stage) would be encouraged.

Some known solutions in the market are:
1. USSD payment service providers in Africa, such as Safaricom and Airtel
2. MissCallPay - Enables remote payments over phone call
3. ToneTag, Microchip payments - Proximity payments using encrypted audio
4. Jiopay - expected to come up soon

E. Program Design

The Grand Challenge will include the format of inviting applications, screening and evaluation of the applications, cohort selection, networking event. The key features for the design of the program are as below:

a) Invitation call for applications
b) Evaluation and cohort selection – The applications will be received and evaluated through an online portal on pre-determined parameters. The panel of evaluators will include a mix of policy makers, startup experts, payments and mobile technology specialists.
The evaluation will be a multi-step process involving
   - An initial screening
   - Online evaluation to arrive at the first shortlist of approximately 10-15 teams
   - Final evaluation (in-person product demonstrations)
c) Engagements and final showcase – The engagement with the cohort will comprise of three major scope, i.e., an event to introduce the sandbox and the partners, the mentoring and guidance to the cohort, and the final showcase as mentioned below.

- API introduction event: Immediately after shortlisting of ~15 people for the cohort, within a fortnight, an event should be hosted at NPCI to introduce the API Accelerator and the partners. The main focus of this event will be the initial technical briefing, discussing the next two months engagement and troubleshooting.
- Mentoring to the cohort: The shortlisted cohort will be mentored and guided by the experts from NPCI during the entire phase of the program.
- Final showcase will be an event comprising of a showcase of the solutions to the jurors for the selection of the winners to the Grand Challenge. The winners will be awarded in a final ceremony bringing the program to a conclusion,

F. Reward

A mix of monetary and non-monetary rewards can be employed to support the top innovations emerging as winners in this Grand Challenge. The rewards can potentially include -
- First Prize - USD 50,000 (*to be finalised*)
- Second Prize USD 25,000 (*to be finalised*)
- Opportunity to work with NPCI to build the solution (can also be extended to 2-3 more startups) (This will be the key incentive.)
- Opportunity to be supported by the relevant Bharat Innovation Inclusion programs

G. Timeline:

Dates	Activities
21st Nov. 2019 – 12th Jan, 2020	Call for Applications (launch and closing of the invitation of the applications)
13th Jan, 2020 – 26th Jan 2020	Screening and evaluation of the applications
31st Jan, 2020	First Shortlist of (up to 15) selected applications
11th Feb, 2020	NPCI API introduction event
11th Feb – 10th Mar, 2020	Cohort engagement and continuous technical support to startups along with mentoring
14th Mar., 2020	Final showcase, winner selection and closing ceremony

H. About program: https://grand-challenge.ciie.co/

I. Application link : Apply Now