Response to Consultation Paper No. 13 / 2010 on Quality of Service requirements for delivery of basic financial services using mobile phones

Preface

Nokia is a pioneer in mobile communications, and one of the world's most trusted brands. Nokia brings together advanced mobile technology with personalised services and is ideally positioned to connect the un-banked and the banked worlds – converting cash transactions to mobile and bringing electronic payments to millions of people for the first time.

Nokia Money is being rolled out in partnership with operators, banks, retailers, agents, and local service providers – with an open approach to new business collaboration that offers a broad range of opportunities.

Nokia Money can empower people in their everyday lives and delivers on the Nokia promise of connecting people in new and better ways.

We warmly welcome the progressive Consultation Paper issued by the Telecom Regulatory Authority of India

We believe that this approach being considered by the TRAI along with the recommendations of the Inter-Ministerial Group will play an important role in driving / achieving the objective of financial inclusion that is a key agenda on the UPA Government.

The appended document details our responses to the Consultation Paper. We look forward to continuing engagement with the TRAI on this important initiative.

Sincerely,

For Nokia India

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2.1 What method(s) of communication on mobile network (GSM and CDMA) would be suitable for enabling financial transactions using mobile phones? Please explain your answer

Response:

- Data connection using IP would be ideal, but due the lack of low cost devices support, network support and user awareness, SMS as additional communication method with adequate SLA is required.
- Many phones are currently GPRS enabled, but users might not have full GPRS plan. Operators and aggregators should support the provision of shared data plan subscribed by financial services provider. The use of shared data plan should be free of charge for the user. The approach is same as operators providing free of charge access   to their web sites for their own subscribers.
- Instead of "WAP protocol" it should be thought of as utilization of the IP as bearer. IP enables phone browser as client for mobile banking services. IP could also work as a bearer between application (in the mobile device) and mobile banking back-end.
- IP and SMS should be utilized & driven as communication methods when standalone applications are available. When IP is not available SMS/IVR together should be used.
- IVR is not intuitive from a user's perspective and resource-inefficient. Combining SMS and IVR would better utilize resources, improve user experience and give better security than either IVR or SMS alone

2.2 What in your view would be appropriate time frames for delivery of messages and responses with respect to the method(s) suggested by you? What parameters need to be defined to ensure timely delivery of information to support financial transactions using mobile?

Response:

- No single bearer would serve all requirements. We need to have:
  - A bearer for fast delivery of messages and responses (IP), in use cases which are time-critical (e.g. physical POS payments). In these cases, the E2E transaction should be completed in < 2 seconds.
  - A bearer available for all users. For non-critical transaction, the E2E transaction should last under 25 seconds. Transport reliability is key parameter in this.
  - TCP/IP solves the basic problem in IP transport. For SMS the MNO needs to perform QOS.
- Reliability: The % of the messages with guaranteed delivery. Target should be 99.95% service availability
- Latency: Message delivery time is bearer-dependent. With SMS the latency (time to deliver message E2E, both MO & MT) should be < 10sec. With IP, latency < 1 sec.

2.3 In the method suggested by you would it be possible to prioritize the transaction messages over other messages on the network? If yes what would be the cost implications? Please also reply this with reference to SMS as means for financial transactions.

Response:

- Yes, MSP's should prioritize the financial services transactions SMS messages
- Proposal to utilize shortcodes to enable interoperability and prioritization? One National shortcode to be used for financial services, promoted by all ecosystem participants – regulators, banks, MSPs. Service Providers can append to / modify this shortcode for their services.
- Currently plain SMS messages using have to user pre-fix and it is not possible to respond to the message without manually removing the pre-fix. Mobile user satisfaction studies are implemented using short codes in order to provide free of charge reply. It should be possible to respond in plain SMS to messages using short code without pre-fixes

2.4 What do you think would be the security requirement using the method proposed by you for the five basic transactions i.e. no-frills account opening, cash in, cash out, checking balance, and money transfer?

Response:

- Standalone applications should enable the security in application level
- Relaxation of velocities or other regulatory limitations should be given to services where end-to-end security is guaranteed
- In bearers which do not allow the use of service-provider built security mechanisms, MSPs should guarantee security of the transport layer from mobile device until Service Provider
- Additionally for SMS/IVR channel, risk management tools in mobile banking back-end are required
- If the transaction communication method is fast and reliable, it allows real-time fraud/ risk-management by the service provider.

2.5 What would be measurable QoS parameters for such networks? Please specify both network and customer centric parameters.

Response:

- Overall customer service experience, parameters should be usability and affordability, from Network perspective, reliability and availability
- better user experience, security and cost efficiency. These should be seen as growth path in future.
- Affordability: Communication method pricing should be affordable for consumers and service providers
    - SMS MO and MT messages should be reasonably priced. National short codes should enable MO SMS for mobile financial services with reasonable price or potentially for free to avoid limitation of usage through missing prepaid minute funds.
    - Regulators should also consider subsidizing costs for these messages through sectoral funds e.g. USOF / RBI's fund for promoting financial inclusion
    - MSPs should drive penetration of affordable data services on low-end handsets to enable delivery of m-banking services in a secure and user-friendly manner
- Reliability: Quality of transport reliability & transport time should be set (bearer dependent)
- Availability: Communication method should be ubiquitous. There might be other communication methods which do not meet the availability requirements but offer

2.6 Please list any other issue that you think is important and your comment thereon to finalise QoS parameters for facilitating financial transactions on mobile network?

Response:

- Interoperability: Getting adequate coverage with reasonable integration effort
- Performance reporting and minimum availability for financial services should be monitored by an independent agency. Data to be shared with all market participants.
- SLA 's offered by MSP's should be neutral to nature of Service Provider – whether the Service is provided by the MSP or by a 3rd Party