Q&A Transcript

1. Where there is dual regulation i.e., a mobile network regulator and financial regulator, how do you ensure that both the KPI for DFS and KPI for mobile network quality are synchronized and collectively enforced?

   – *The short answer is collaboration at an industry level. An example is the Digital Regulation Cooperation Forum, UK* **(Response from Fiona Kamikazi, UCC)**

2. How is P2P & Airtime Financial product? What is P2P?

   – *P2P is person to person.* **(Response from Fiona Kamikazi, UCC)**

   – *Airtime Financial Product? Yes - For the case of Uganda, we no longer use scratch cards to load airtime. Airtime is loaded electronically & the airtime purchase is done using mobile money.* **(Response from Abdul Ssebagala, MTN Uganda)**

3. P2P - Person to Person or mobile wallet to mobile wallet?

   – *Abdul and Leah will clarify but the issue with mobile wallet to mobile wallet is even a business will have a mobile wallet.* **(Response from Fiona Kamikazi, UCC)**

   – *P2P (Person to Person) - this can be treated as mobile money transfer from person to person. Mobile wallet to mobile wallet is quite broad and it can include Business to Person or Business to Business etc. since they all hold mobile wallets on the mobile money platform.* **(Response from Abdul Ssebagala, MTN Uganda)**

4. Baseline standardization is required at each stage to assess QoS and QoE and KPIs can be used as variable parameters to determine QoS and QoE. Ultimately end-to-end service is meaningful and logical to measure on the same line.

   – *This is very true and it is through [Question 20/12](#) that we meet to explore the necessary metrics and methodologies that will be able to measure the QoS/QoE for DFS.* **(Response from Fiona Kamikazi, UCC)**

5. Inadequate financial literacy, a long-recognized challenge around the world, has been further compounded by insufficient digital literacy, while new consumer risks emerge from the increasing use of digital financial intermediaries, channels and instruments. How can the security risks in digital financial transactions be averted?

   – *Some resources on the security aspects of digital financial services include: the Financial Inclusion Global Initiative (FIGI) [Security, Infrastructure and Trust Working Group](#) (SIT WG) which developed a series of reports covering various topics including quality of service and security. Please browse the reports at: https://figi.itu.int/figi-resources/working-groups/. Standardization of these security aspects are under discussion in [ITU-T Study Group 17](#).*

6. On measuring QoS, I have taken note that the presentation is only focusing on transactional processes. Why are complaint resolution KPIs left out? I feel complaint resolution mechanisms are equally important especially in enhancing consumer confidence in DFS.

   – *It is through this workshop and similar fora including [Question 20/12](#) that such opportunities can be explored to make sure that we have in place the right metrics and methodologies to measure QoS/QoE for DFS.* **(Response from Fiona Kamikazi, UCC)**

7. USSD is considered to be critical in DFS, are there any KPIs that can be used for the USSD?

    − *In the pilots done so far, we had a USSD test case in the background network testing channel (but using different USSD commands because we did not want to modify the state of the device or trigger other processes)* **(Response from Abdul Ssebagala, MTN Uganda)**

8. When and how does the user cause an SMS delivery failure, is it when the phone is off? Because if the phone is off, the SMS must still be delivered once the phone is switched on. Kindly help me understand

    − *Yes, if the customer's phone is off or they have no network coverage, a failure event will be created on attempt. There is an expiry period for the message after which the message is flagged off as expired.* **(Response from Leah Kyanzi, MTN Uganda)**

9. In the case where the USSD service is not working and had already started a transaction, is there an application or web-based app available for the same service? If so, can you continue with the transaction? If so, how do you measure that QoS?

    − *USSD is session-based so once the session is dropped, that's it. We have an alternative of the app but the customer would need to initiate. We also have redundancy on our USSD gateways to ensure continuity.* **(Response from Abdul Ssebagala, MTN Uganda)**

10. For a user who is not available, is it possible to break down the statistics to network availability/no coverage and the user device turned off?

    − *Yes, this break down is available* **(Response from Abdul Ssebagala, MTN Uganda)**

11. How does airtime become a financial product/service?

    − *It can become a financial product when you are able to purchase the airtime using your mobile wallet.* **(Response from Fiona Kamikazi, UCC)**

    − *Furthermore, for the case of Uganda, we no longer use scratch cards to load airtime. Airtime is loaded electronically & the airtime purchase is done using mobile money.* **(Response from Abdul Ssebagala, MTN Uganda)**

12. The presentation from Abdul indicated that most failures around DFS are attributed to user/consumer errors. With this in mind, kindly provide some clarification or more information on what could be the possible solutions to the failure errors attributed to the users/consumers.

    − *There is not much you can do around user errors. The most an operator can do is maybe, in cases of coverage, coverage expansion to areas where there is none.* **(Response from Abdul Ssebagala, MTN Uganda)**

13. The other thing to consider is putting in place KPIs in the DFS settlement among various players in the DFS ecosystem so that no player disadvantages the other through delayed or failed settlements of DFS credits and debits among players.

    − *This is true. Through industry collaboration and having defined redress mechanisms for consumers. By sharing experiences in* Question 20/12*, we can discuss these opportunities.* **(Response from Fiona Kamikazi, UCC)**

14. With such QoS and monitoring solutions, what level of proactive alert monitoring is available to display if there is an issue within the flow or issue with the service before it is impacted by the customer?

    – *Depending on how frequent the tests are scheduled, we can have proactive alarming with a resolution of approx. 5 minutes.* **(Response from Vlad Bratu, Mobileum)**

15. To Vlad, I noticed before beginning the QoS test of the DFS, you closed all other apps on your device. Is this the best practice as most users do not close all apps before trying to send money? Did you choose this procedure to ensure that incase of any service degradation, it is solely the responsibility of the mobile network provider and not the RAM of the device?

    – *Yes, that is correct. We focus the test on the network service / app. Closing all other apps before the test ensures an accurate measurement. It is true that there might be device related issues that cause transactions to fail, but that is something that we do not measure at the moment.* **(Response from Vlad Bratu, Mobileum)**

16. Making KPIs in matrix format and KPIs may be assessed as numerical values in the matrix and making combination QoS and QoE. Here customer experience feedback is required for QoS also.

    – *You are right. We look at both QoS and QoE at Question 20/12.* **(Response from Fiona Kamikazi, UCC)**

17. For Ghana, in case the MFS response time exceeds 5 sec, do you hold the network operator accountable or the MFS operator. Because the delay can be on the network or on the MFS systems.

    – *We measure both the underlying network throughput and latency and the end user app experience. So, by correlating the two we can identify where the potential issue is.*

    – *In the case of Ghana, the MFS operator is a subsidiary of the parent network operator brand. Suffice to say that our trial testing outcomes were informational and not for compliance enforcement purposes although Mobile Operators were encouraged to meet the KPIs. A sanction or directive that goes to the MFS operator (who is the subsidiary in variably also goes to the parent operator and need to be complied with.* **(Response from Samuel Agyekum, NCA)**

18. User experience is not considered, how can QoS be measured? Practically system, infrastructure and person interface to complete a task DFS transactions.

    – *In our test methodology, we capture the QoE by replicating the user to smartphone interaction and capturing the KPIs at the application layer. This provides KPIs that reflect the experience of the user.* **(Response from Vlad Bratu, Mobileum)**

19. Questions to NCA and Mobileum, is the testing possible to classify the results under 2G, 3G, 4G and 5G?

    – *Yes, the test methodology allows to test over any technology that is supported on the Smartphone.* **(Response from Vlad Bratu, Mobileum)**

    – *In the case 0f Ghana, we did not lock to any technology (i.e., 2G/3G/4G etc.) or channel during the MFS testing. Normally, a technology-agnostic approach to assessing such services is encouraged.* **(Response from Samuel Agyekum, NCA)**

20. Does MTN have mobile clients who just use the MTN network to deliver and receive SMS? If yes, does MTN measure SMS delivery for those SMSs?

    – *No, we are currently doing trials for national roaming.* **(Response from Abdul Ssebagala, MTN Uganda)**

21. How can we manage the QoS and QoE for the global OTT Mobile Financial Services (MFS) because they do not belong to our national territories?

    – *The solution and methodology I showed can be used to test any OTT app, regardless of geography.* **(Response from Vlad Bratu, Mobileum)**

22. To MTN, does the SMS KPI measure SMS delivery to both sender and receiver on one of them?

    – *Yes, for P2P success rate considers both sender & receiver. A2P - its success rate to the receiver.* **(Response from Abdul Ssebagala, MTN Uganda)**

23. USSD are considered to be critical in DFS, are there any KPIs that can be used for the USSD?

    – *Both MTN and Ghana presentations shared some KPIs that would be of interest. In addition, testing "generic" USSD functionality can be integrated into the scenario for background testing of the mobile network (as described in P.1502). It is restricted, though, to USSD commands which do not alter the state of the phone or trigger unwanted processes. DFS-specific USSD is tested implicitly in the flow of events during a DFS transaction.* **(Response from Wolfgang Balzer, Focus Infocom)**

24. Time slots for measurement may be busy hour, medium and low traffic on application and networks, may be more appropriate for classification please, isn't it?

    – *Yes, the time zones are best defined by the app owner by looking at historical trends of traffic on both the network and app.* **(Response from Chandrasekar Ramamoorthy, Mozark)**

25. I think the transfer success rate should be 100% because any minimal loss will lead to someone losing money.

    – *I think technically a 100% success rate for mobile network based is difficult. I would however agree that the overall rate must be 100%, so including conflict resolution in due time. Also, the reliability of feedback about success/failure is essential. It is in my view a task for the implementation because it would have to work with different inputs (single point of observation, integrating direct feedback through USSD and from SMS.* **(Response from Wolfgang Balzer, Focus Infocom)**

26. How many countries have DFS QoS regulations in place? Could you please give reference to some prominent ones and their features?

    – *We should have a response in Question 20/12 soon. Kindly join us and feel free to keep in touch.* **(Response from Fiona Kamikazi, UCC)**

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