

Advisory Meeting 5G Use Cases Lab for BFS

20th April 2021

Agenda

- ▶ Approve minutes from first advisory committee meeting
- ▶ Provide demo of AR/VR and related BFS apps
- ▶ Share our present plan for rural pilots
- ▶ Administrative - Next meeting - cadence

Last meeting minutes (1/5)

1) Open remarks by Prof Janakiram:

- ▶ He thanked members for accepting to be part of Advisory Committee. He highlighted the importance of 5G Use Cases Lab for Banking and Financial Services in terms of rural connectivity, private network and security. Prof Janakiram also mentioned about relevance of Blockchain, IoT and other emerging technologies for Banking and Financial Services in the realm of 5G. He has requested advisory committee members to provide thought leadership on this 5G initiative and Guide on collaboration with global/national academic institutes, mobile device manufacturers/OEMs and collaboration with startups.

2) Opening thoughts from Advisory Committee members

- ▶ a. Dr Aloknath De -
 - ▶ i. Shared that Samsung already has 20+ Mobile device models with 5G support
 - ▶ ii. Samsung is working on private network in US and Korea
 - ▶ iii. Suggested to look at Backhaul, Penultimate/Edge and Last mile while exploring use cases with reference to machine-2-machine communication, high bandwidth and low latency
 - ▶ iv. Suggested to look at “Mobile first” as focus
 - ▶ v. Mentioned Video KYC, Fraud detection use cases that can benefit due to 5G

Last meeting minutes (2/5)

2) Opening thoughts from Advisory Committee members (cont ..)

- ▶ b. Mr. Abhijit Chakravarthy –
 - ▶ i. Use Cases with a) enhanced customer experience b) Mobile bank c) Remote Monitoring of ATM d) Video KYC e) robust last mile connectivity for small medium enterprises
 - ▶ ii. Concern on roll out time
- ▶ c. Mr. Arif Khan –
 - ▶ i. B2B as the first and then B2C use cases
 - ▶ ii. Financial Inclusion to be a focus area
 - ▶ iii. Collaborate on Hackathon, PoC and field trials
 - ▶ iv. NPCI and Banks would join for POC on Networks with VAS for FI/UPI/Mobile Banking/ATMs.
 - ▶ v. Readiness to engage with Startups which is the model adopted for UPI or FasTag.
- ▶ d. Mr. Kulin Thaker –
 - ▶ i. Security, rural reachability and edge computing related use cases
 - ▶ ii. Recommended to start with B2B and then B2C use cases
 - ▶ iii. Reduce redundancy in network because of 5G

Last meeting minutes (3/5)

2) Opening thoughts from Advisory Committee members (cont ..)

▶ e. Mr. Sunil Soni -

- ▶ i. Recommended on B2B and Video KYC related use cases
- ▶ ii. Emphasized on priority of 5G Security

▶ f. Mr Pankaj Pandey -

- ▶ i. Use cases with IoT, HD Cameras that require higher bandwidth for better damage assessment
- ▶ ii. Higher bandwidth for motor and health insurance requirements
- ▶ iii. Virtual branches
- ▶ iv. Suggested to ensure smooth transition. Factor concern on non-uniform spectrum availability at different places.

▶ g. Mr. Saurabh Shukla -

- ▶ i. Rural connectivity for remote banking, security, video KYC, real time fraud analytics as focus areas
- ▶ ii. Ready to participate in field trials

Last meeting minutes (4/5)

3) IDRBT team presented on

- ▶ a. Vertical Use Cases Lab model - Its importance on business model, solution alignment, customer validation and growth trajectory
- ▶ b. Quick update on other verticals involved in use cases such as Smart Grids, Railways, Agriculture, etc
- ▶ c. Vision and Targets of IDRBT 5G Use Cases Lab
- ▶ d. Details of Survey with Banks on 3G/4G and 5G. Banks are looking for enhanced security. Banks are expecting more use cases on video, IoT, VR and AR, etc.
- ▶ e. Major activities at IDRBT
 - ▶ i. Engagement model with Startups and the approach taken to shortlist ideas
 - ▶ ii. Development at IDRBT on Network slicing, rural connectivity, IoT and VR/AR
 - ▶ iii. Test bed with support from CEWiT and IIT-H
- ▶ f. IDRBT presented on two key themes
 - ▶ i. Rural connectivity
 - ▶ ii. Network slicing (INFINET++)
- ▶ The discussion on the above two themes will be continued in the next meeting.

Last meeting minutes (5/5)

4) Thoughts from members -

- ▶ a. Factor challenges of connectivity, economies of scale and investments already made
- ▶ b. For Banks to be involved in building INFINET++, rope in IBA as applicable
- ▶ c. SDN, Microservices and API focused banking
- ▶ d. Look at long term and short-term goals
- ▶ e. India stack for Video KYC, a model for rural connectivity
- ▶ f. 5G and Beyond for network connectivity

Open Items

- 1 Share Startup / Fintechs list to Advisory Committee ,
 - ▶ shared by IDRBT along with minutes
- 2 Inputs on 5G Rural set up and to provide more context on Private 5G network related solutions
 - ▶ Dr Aloknath De (proposed for Next Meeting)
- 3 5G Test bed collaboration IDRBT & NPCI
 - ▶ (Pending) for initial collaboration agenda
- 4 Present Demonstration of 5G Use Cases IDRBT
 - ▶ Starting with AR/VR on 20th April 2021
- 5 Exclusive Network Slicing for BFS Vertical ensuring Security, Cost effectiveness and QoS to be explored
 - ▶ Timelines Open - long term effort

Demo of AR/VR and related BFS apps

- ▶ Augmented Reality - remote office / back-office
 - ▶ Experience
 - ▶ Near term - Generalist near customer, specialist at backend
 - ▶ Long term - Simplify devices and experiences so that customers can self service
- ▶ Virtual Reality - banking and financial services in virtual space
 - ▶ Experience
 - ▶ Near term - Avatars for people
 - ▶ Long term - Teleport using three-dimensional (volumetric videos)
- ▶ Platform
 - ▶ Near term - Edge for low latency meeting experiences
 - ▶ Long term - Edge for augmenting the device capabilities and improving trust

Rural pilot tech plan

- ▶ Fixed (branch)
 - ▶ Round 1 - Integrate Frugal Connectivity phase (unlicensed -point-of-sight)
 - ▶ Round 2 - Move banking transaction to secured connection
 - ▶ Round 3 - Explore management through N2IWF of 5G-Core in lab
 - ▶ Round 4 - Explore management through N2IWF of 5G-Core in field
- ▶ Mobile Representatives (BC/Mobile-ATM/doorstep banking)
 - ▶ Round 1 - Deploy 5G RAN - private network - Lab setup
 - ▶ Round 2 - Experiment with mobility / beamforming / targeted reach for BFS end-points
 - ▶ Round 3 - Deployment with experimental license
 - ▶ Round 4 - Running applications through deployment in Round 3
- ▶ Customers - not in present scope

Rural pilot – tentative timelines

- ▶ Target for four sites – one starting each quarter
- ▶ Fixed
 - ▶ TGB branch
 - ▶ Round 1 – April – July 2021
 - ▶ Round 2 – Aug – Oct 2021
 - ▶ Round 3 – May – Oct 2021
 - ▶ Round 4 – Nov 2021 – Mar 2022
 - ▶ Kerala Bank / Other banks – starting from Sep 2021
- ▶ Mobile Representatives (BC/Mobile-ATM/doorstep banking)
 - ▶ Round 1 - Deploy 5G RAN – private network – Lab setup – June – Dec 2021
 - ▶ Round 2 – Mobility / beamforming etc. – Jan – Apr - 2022
 - ▶ Round 3 – Deployment with experimental license – Jan – June 2022
 - ▶ Round 4 – Running applications – July – Dec 2022
- ▶ Customers – not in present scope

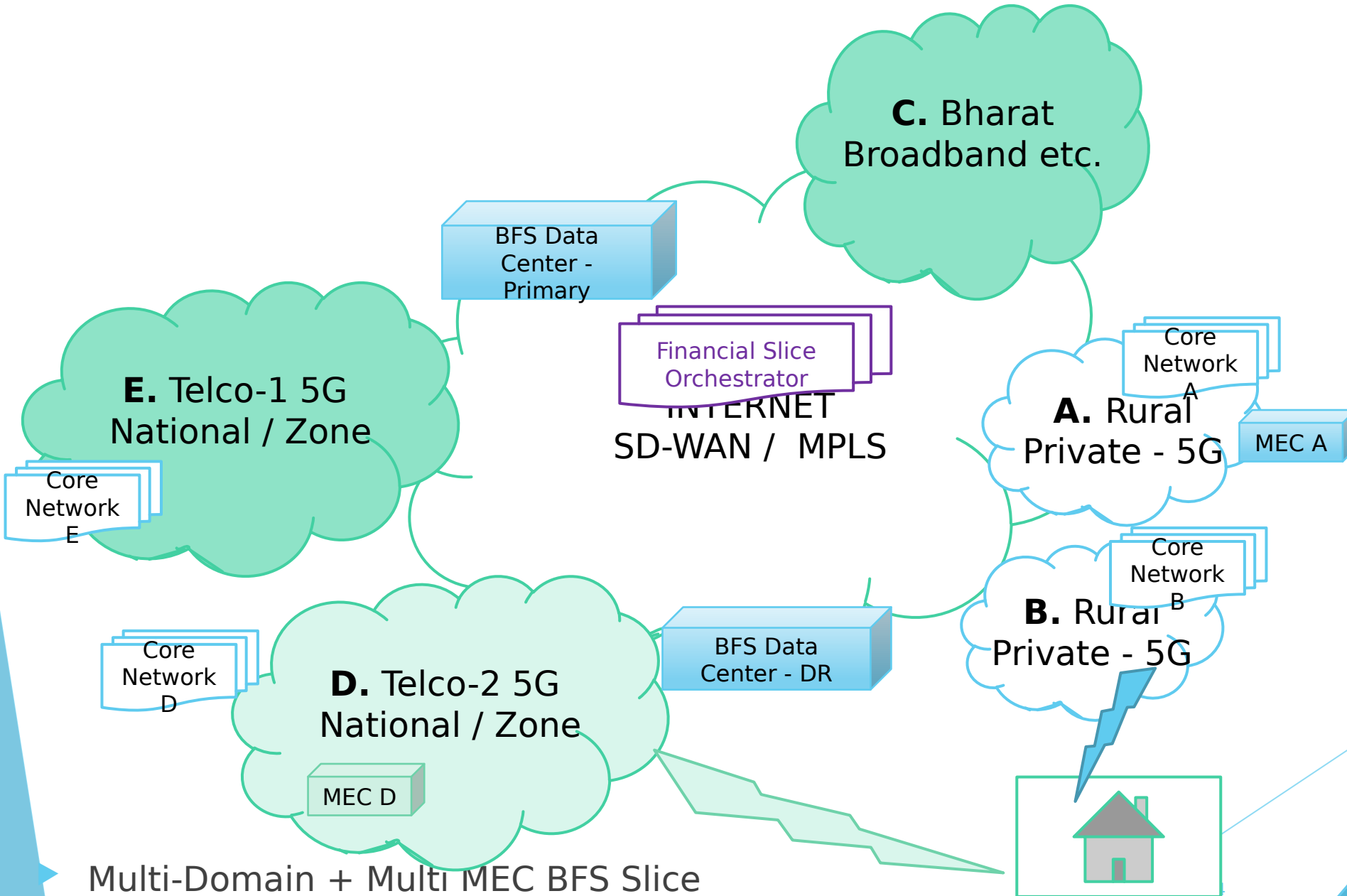
Administrative

- ▶ Meeting schedule / rhythm
 - ▶ Third Tuesday / Wednesday of every quarter?
 - ▶ 90 minutes ?
 - ▶ Start at 3 PM?
- ▶ Should we have smaller working groups for actual experiments in the field?

Thank you !!



MEC + Multi-Domain Orchestration + Branch



Multi-Domain + Multi MEC BFS Slice

