Use Case 1: Smart card for cities

Description: Urban life has caught up with digital payments as a lifestyle. But the hassle of handling multiple wallets, credit cards, debit cards and public transport card (metro card) is becoming a problem. We need one integrated smart card which can be used for all payments across the urban day. The smart card solution should have both physical and digital components to it.

Use Case 2: Uber for logistics fulfiling payment needs

Description: We need innovative solutions in the space of logistics to provide Uber like functionalities and experience to meet cargo movement requirements through an on-demand model. The solution should also be able to manage the payments involved during cargo movement, trade finance, truck driver payment requirements (toll, fuel, food etc.)

Use Case 3: Merchant lending basis flow data (UPI/GSTN)

Description: Currently merchants are assessed for their creditworthiness based on their bank statements, P&L statements and transactions done over a period of time. Banks want to explore UPI and GSTN (GST Network) to assess the creditworthiness based on the transactions made on the UPI and GST Network. We seek solutions to develop the analytical models with UPI and GSTN data of merchants to gauge their creditworthiness.

Use Case 4: Integrated billing at Merchant

Description:Currently the billing system at merchant outlets is not integrated with merchant's banking system. We need solutions which integrate the billing systems to the merchant's banking system for real time ledger updates.

Use Case 5: Risk & Fraud Management solution for UPI system

Description: Banking industry is looking forward to apply security checks in real time on each UPI transaction. The system should be able to identify in real time if the transaction hitting the bank doesn't fit into a customer's normal transaction pattern. This system analyzes transaction data across all channels to develop patterns and match the conducted transaction with these patterns in real time for validity. There is a possibility that customer is actually transacting with parameters outside of earlier pattern, so the system should be capable to allow the transaction but with one more level of authentication from the customer.

Use Case 6: Tap and Go payment- Low cost Contactless payment solution for smart/non-smart phones

Description: We have seen a substantial rise in real time payments through mobile wallets for small amount. A big challenge in such transactions is the internet connectivity and the performance speed of the smartphone. Thus it had not been used as a quick tap and go payment mode like in public transport – metro and buses – where the processing time has to be very less. The need is for a quick tap and go payment mode using smartphones (without NFC) which takes very less time for conducting the transaction.

Use Case 7: Internet of things for tracking agricultural assets

Description: India is yet to see wide adoption of IoT based solutions in agriculture. The IoT based solutions (e.g. tracking assets, survey drones, tracking weather / Crop conditions) can track an abundance of insightful data for farmers. Data analytics tools can help interpret this data into actionable intelligence for the bank through which bank can provide better loan support

and financial services to the farmers. Bank wants to assist their rural customers to adopt precision farming practices and build better relationships with the customers.

AREA 1 – Precision Farming With Satellite Data

- **Aim:** It aims a process using satellite imagery and other technology (such as sensors) to observe and record data with the goal of improving production output while minimizing cost and preserving resources.
- **Product:** Today's farmers face a set of difficult challenges—an increasing worldwide demand for food, a changing climate, and a limited supply of water, fossil fuels and arable land. To surmount these hurdles, the agriculture industry is adopting an array of digital solutions including: Robotics, GPS Technology, and Computer Imaging.
- **Use:** This IoT Product can bring broad efficiencies to the agricultural space, and create a virtuous cycle that makes food products more readily available to consumers, saves farmers time and money, and decreases the environmental impact of farming by driving sustainability into the process.
- **Benefits:** Farmers will prove the efficiency of smart agriculture techniques

AREA 2 – Smart Farming With IOT

- **Aim:** The IoT is set to push the future of farming to the next level. IoT has made possible the invention of Hydroponics and Aeroponics. The agriculture community at large sees this as a game changer for the future course of farming with higher yields in lesser space.
- **Product:** IOT systems are made up of many sensors, pumps, mixers and humidity controllers which send in a lot of data at regular intervals. This data is processed by algorithms and machines and the future course of action is defined in advance. All these Hydroponic systems and Aeroponic systems are fully automated and connected to one another by IoT Product creation around below trends will be new wave in Agri-Technology.
    1.
        1. IoT sensors to report weather conditions and monitor soil moisture and acidity while animal farmers track the movement and behaviour of livestock remotely via embedded devices.
        2. Industrial IoT applications for monitoring indoor agricultural facilities such as silos, dairies and stables.
        3. IoT agriculture application areas include farm vehicle tracking, livestock monitoring, large and small field farming, and storage monitoring.
        4. Use of Drones has become an invaluable tool for farmers to survey their lands and generate crop data.
        5. Farmers can use their smartphone to remotely monitor their equipment, crops, and livestock, as well as obtain stats on their livestock feeding and produce.

    They can even use this technology to run statistical predictions for their crops and livestock.

- **Benefits:** Smart agriculture is already becoming more commonplace among farmers, and IoT Based high-tech farming is quickly becoming the standard thanks to agricultural drones and sensors. The future of farming is in collecting and analyzing big data in

agriculture to maximize efficiency. Thus all in all, the growth and consumption of IoT plays an in integral part in shaping the future of agri-tech in India, and with the government coming up with incentives and programs, the scope of growth in the industry is massive.

AREA 3 – Water Manaegment

- **Aim:** Water scarcity is increasing at an alarming pace in India. Although many countries have found solutions by way of utilizing existing water sources and connecting them, India still lags at connecting rivers and transporting water from abundant rainfall areas to drought hit areas
- **Product:** A technological innovation like drip irrigation has definitely helped in water management, however, there needs to be more done to ensure the crops get the plants when they need the most. Automated valves, fertilizer solution mixtures, pump switches connected to the system and automatic balancing of water pressure within lateral pipes is something that can be achieved by IoT and inter-connected systems. There is immense scope in this space and the market for this is huge.
- **Benefit:** A perfect water management system will save a lot of costs for the farmers and more will adapt to them.

AREA 4 – E-GAON Marketplace

- **Aim:** To enrich millions of households
- **Product:** It will use web and mobile applications to provide below services
    1. Financial (credit, savings, remittance, insurance, investment and mortgage on mobile phones),
    2. Agricultural (Interactive Voice Response System, Voice Recognition in Hindi, Telugu and Gujarati on mobile phones and weather information on web) and
    3. Government-related services (awareness of government programmes and services entitled to farmers through web).
- **Use:** E-Gaon, a marketplace which provides “Direct from Farmer Produce” to urban customers. This Technology platform to provide financial assistance through mobile phones. It ensures that farmers are selling their produce at an appropriate rate. It helps in linking farmers, traders and agribusiness companies
- **Benefits:** E-Gaon to work with the motive to provide One Village and One World Network platform where mobile technology is used to encourage sustainable development of Self Help Groups and small farmers across India.

Use Case 8: Multi-funding of Loans

Description: Avoid scenarios where one customer is funded by multiple lenders at the same time.

- **Challenge:** Same customer is funded by multiple lenders as one file has been passed on more than one lender at the same time. Bureau is not updated real-time and thus it is impossible to catch multi-funding unless there is a real-time feed.
- **Solution:** Build a real-time loan disbursal platform which bankers can refer to prior to disbursal.

Use Case 9: Mandate failures

Description: Repayment mandates submitted by customers – NACH registration failures.

- **Challenge:** A good portion of NACH mandates submitted by customers, get rejected/fail to get registered leading to EMI bounce. This again is manually collected until when the repayment becomes irregular.
- **Solution:** Build a tool to ensure NACH mandates are right the first time. And if registration fails, there is a faster/digital mechanism to re-obtain a fresh mandate. Tool is to work with NPCIs e-Mandate plan.

Use Case 10: Social Listening Platform

Description: Building a social listening platform which should be capable of recording/registering anything and everything said about the bank.

- **Challenge:** With social media becoming an important channel for customers to engage and express, it is critical for the bank to know the pulse of its existing customers and prospects.
- **Solution:** It should be able to create a sentiment on these statement and generate a social score of the bank. This will help the bank to align our communication channels to the masses and gauge effectiveness of a particular channel w.r.t. negative/positive PR and brand perception of the bank.

Use Case 11: Universal Plug & Play Loyalty Program

Description: Building a simple yet effective Loyalty Program for any & everyone to participate in.

- **Challenge:** Loyalty & discounts are primarily driven by large retail chains whether it is Quick Service Restaurant or a departmental chain. However, there is significant sales happening through standalone outlets, merchants and restaurants. These standalone outlets by virtue of their size are not able to effectively run loyalty and promotional programs even though willing to.
- **Solution:** A simple plug and play mobile based application for retail stores to participate in offers and discounts for Bank customers at large. The participation of merchants should be seamless with digital signups, ability to relay the same to all customers including ongoing and adhoc campaigns. Geo Tagging, Instant CashBack (based on Loyalty Membership Card), Offers around.

Use Case 12: Real time survey for Property related underwriting and claim

Description: Accepting risk for property insurance and settling claims for property insurance requires inspection of the property and surroundings. Personal presence may not be possible in some cases or in some referred risks (typically high risk, high value). We need a solution that will allow personnel to survey the risk location, property and surroundings without physical presence.

Use Case 13: Low cost accident detection IoT device

Description: Seeking an ultra-low cost (less than 5$) accident detection IoT device which can just give an alert whenever a vehicle meets an accident.

- Cat 1: Major crashes
- Cat 2: Frontal / Back impact

- Cat 3: Small dents that can spoil the look
- Cat 4: Scratches or small grazes one can ignore

It should be able to detect at least Cat 1 and 2 accidents and preferably Cat 3 as well. However, at the same time it shouldn't result in false positives. For e.g. in case of jerks and jolts due to bad road conditions. The focus of the problem statement is to accurately determine an accident event on the Indian road conditions where average speed is not high and thus just the "g" value threshold would not give accurate results. You can also consider leveraging some of the functionalities (such as GPRS, GPS) from driver's mobile phone rather than building it in the device. The device can be battery powered (Preferred) with 1 year battery life or can derive power from vehicle itself if that improves the accuracy.

Use Case 14: Tapping digital information sources in lieu of physical documents (or scans etc.) for customer origination & assessment

Description: Paper application forms and documents are common across financial institutions. A handful of electronic solutions exist, but at a high cost and do not cater to original documents. Financial institutions also use several electronic portals for information collection but are governed by unique processes, tokens and passwords.

Use Case 15: Promote financial literacy through gamification

Description: Promoting financial literacy is a common goal of the government as well as financial institutions. However, this is proving to be a challenge due to the vast diversity of our indigenous populace. In the modern era, mobile games are highly popular and have been used for effectively promoting various products. They are even used as training tools by organizations. Channelizing games as a means to help people learn about various products such as loans, investments, etc. in an interesting and engaging manner would be highly beneficial.

Use Case 16: Credit Underwriting

Description: Existing credit underwriting models do not leverage new sources of qualitative and quantitative information, both for individuals and small-and-medium enterprises ("SMEs"). A more refined method based on relevant parameters that could be correctly captured and analyzed would result in a significant increase in accuracy.

Use Case 17: Digital Signatures

Description: Digital signatures are being accepted in businesses and financial institutions, though their validity in the legal court of law is yet to be determined. We look forward to innovative solutions in this space which can authenticate the content and sender information with low cost and universal applicability. The solution should be able to identify key person/ signing authorities/ customer details plus post sanction documentation execution with them. This will include Digital acceptance and signing of agreements. The customer here can be an individual, multiple partners or a partnership concern, directors of a Pvt. ltd company.

Use Case 18: End-to-end Assessment of a SME

Description: There are solutions available to financial institutions for assessing the SMEs on different parameters like Bank Statement, Social presence, location of business etc. But there is no single solution which assesses the SMEs exhaustively through all such information sources. We look forward to solutions which can provide holistic reports on assessment based on all the information sources.

Use Case 19: Digital Marketing solution

Description: Digital marketing is an imperative focus area for all financial firms. We seek solutions around digital marketing which manages the complete lifecycle of communication including internet, emails, phone calls etc. It should also be able to manage marketing databases to increase CTR and run the campaigns effectively. The performance of these digital marketing campaigns should be visible through a live dashboard.