

Threshold Algorithm

Monday, August 5, 2019 1:50 PM

- Data Completeness and procurement
- Bring tasks to trello board
- Map tasks to milestones

Mapping Area to Business Area:

TNB ALOR GAJAH - 6315
TNB MASJID TANAH - 6317
TNB MELAKA BARAT - 6310
TNB MELAKA TIMUR- 6316

No Data for Jan 2019??

BCRM has an indicator of Marginal vs city centre (Daira vs District)
Wrap up on the current set of results with a view on the usage of new algorithms

Real data examples:

1. 30 - Seasonal
2. 25 - Trending

Feature priority:

1. Monthly seasonal - Highest (1)
2. Weekly Seasonal - High (2)
3. Trending - Temporary - Medium (3)
4. Glitch - One-off - Low (4)

Fundamental questions to address

1. Engine to identify more functional features
2. Timelines segregation in the month
3. Usage of algorithm for energy advice
4. Connect with Frank's team on how they are using the patterns
5. Segmentation based approach for the Energy advise or rewards, etc.

Skeleton for Slides

1. Effective sample size and sample selection with categories, etc. showing a map of Melaka broken in business areas, with a picture of premise type as well
2. Algorithm outcome and the use cases for today and tomorrow
3. Algorithm methodology and few results
4. Steps ahead

Report based range for new user and algorithm based number for existing user

Outstanding questions

Wednesday, September 11, 2019 9:37 AM

Readings only possible?

Size - ?

Extrapolation

Duration of data store

Interface - is chunking possible for transfer?

Assumptions to Integration

Thursday, September 12, 2019 2:21 PM

Meeting with ICT

Thursday, September 12, 2019 2:15 PM

1. Outstanding concerns
2. Latest wireframes
3. Microsoft premium support - already covered in EY contract to MS

Feedback from Jamal:

1. **Share the list of items required to close the PoC with Jamal and the rest of team internally not to CReO**
2. **Replace Technical word from the deck** - call tech. agility as agility; replace tech. dependency with something else
3. **Moderate words to be used:** Don't enter in to arguments by use of words like validated by ICT, do such validations but don't state it as it's like demeaning CReO
4. **Speed to deliver:** Replace what it introduces to "Outcome-driven Sprints"
5. **Always-On:** Something on lines of "Delivering features without dependencies on Enterprise Systems
6. Don't take any of the teams head on else they won't support PoC like calling BCRM is down, etc. instead use positive words
7. **Ease the literature** on right with more suited words that can lead to close the PoC, e.g, Replace Blank graph with another suitable word, replace fixes with something suitable, robust & rigid - change words to be more positive; put stress on right words like enterprise systems, calculations, etc.
8. **Replace word demonstrate everywhere with a more suited word**
9. **When we talk about Success Criteria,** it should reflect the outcome as such on the same slide like summarized outcome from testing, people involved in the sign-off(should be relevant like for tech. items should be Jamal, Mawardi, Syafiqah, Nina; for CX and related items it should be Gerald, Arif, Shkib, etc.)
10. **Test Scenario:** Our approach to seek specific sign-off looks inline, we should have details agreed with the team, engage more customers as well along with right set of project people, ref. point above
11. **Speed to Deliver:** We need to go detailed, to the level of showing content planned for each sprint and then what all deviations happened in mid sprint, how user feedback were addressed that reflect agility to take up unplanned changes
12. **Architecture with integration and security plan:** Jamal is more interested to have a look at that picture of architecture which shows end state; even for the current view, he is more interested to see either all interactions or have a caveat that this is just limited to showing how the two use cases shall be delivered
13. Decoupled slide with calculations: Should be in appendix; our proof should have a summarized view of how big is the risk - 2020 view of the Smart meter rollouts translating to the monetary value of the risk and hence how much of the cost shall be eased out
14. Replace word down with something less negative like inaccessible, etc.
15. Scenarios: Should go more detailed with an ideal set of five options for each System going off - like BCRMS is inaccessible due to
 - a. Planned maintenance - BCRM shutdown
 - b. PI Layer down
 - c. Some virus injection
 - d. Some system issue, etc.
16. Also show what happens when DUP goes down, kind of peeling off the architecture showing which component should be HA and which can be less important
17. Service Management agreement should be EY as a responsible candidate, not to transfer risk to

Microsoft

18. Make the SM deck less sales oriented but more Assurance oriented
19. While proving evidence of success, make it Principle and then outcome, no use of inverted comma words in the deck is preferred
20. Jamal identified two levels of testing
 - a. T1 - Around the system: ecosystem oriented
 - b. T2 - BAU uninterrupted: can be proved through resemblance
21. Messages should be more clear towards outcome not towards the process while talking to CReO, e.g, 24K customers view the Monthly and Daily Usage

CRo Meeting

Tuesday, September 3, 2019 11:19 AM

1. Syndication early with Megat
2. Planned and unplanned outage have to be done both - later though
3. Launch plan to be shared with CRo
4. Customer feedback - should be captured in the background and not on the front end

Experience Testing

Wednesday, August 14, 2019 9:55 AM

Client feedback:

1. Shouldn't be a rush through testing
2. At least one week notice
3. Should identify personas to test in future
4. Flow should be planned in advance

Meeting with Firdaus:

1. Journey missing - can act as pivot for Hj. Megat in his proposals ahead internally to TNB
2. Should the landing page be like Grab with all the flow links listed there
3. Need to provide circular icons on Monthly consumption to toggle among different views?
4. Design principles should be present in the walk through the APP
5. What does a customer do after they reach the threshold?
6. Journey can be separated in to
 - a. Simple &
 - b. Technically prowess user

Success Criteria for PoC

Thursday, August 15, 2019 1:45 PM

1. Discuss plan for this week and beyond with Chin
 - a. DUP integration with staging - a decision
 - b. Next week workshop agenda revision on decisions
2. Review the deck for its usability to anchor conversations
3. Test scenarios -
 - a. Detailed overview for all four scenarios
 - b. Discussion with offshore for success criteria

Simulation details:

1. Product Test/Functional Test:
 - a. **Reads only** - have to be of the format that is from client

For Scenario Testing:

1. Test scenarios shall be listed out
 - a. Assumptions to be listed out clearly
2. Incremental files shall be limited to only one file, i.e, XML reads
3. Consumption should be controlled by onsite

Architecture and roadmap ahead

Tuesday, September 3, 2019 1:29 PM

Integration for Launch plan

1. Need to revise the view for staging vs production integration layer
2. Launch plan for Algorithm
3. Need to handle edge cases
4. Need to handle data queries

Feedback:

1. Current architecture to show the spaghetti and show the interactions how we are getting rid of the Spaghetti in the architecture; Business logic is isolated and can be maintained separately
2. Don't replicate the business logic
3. Scale up and scale down
4. Use the words like decoupled - not today, we do it in future

Algorithm

1. Need to put algorithm in the architecture and show how DUP delivers it

Meeting with DGS Team

Monday, August 26, 2019 1:27 PM

26-8-2019:

1. Data Integration
 - a. CTP model and SLAs - Where shall be the data residing?
 - b. SLAs through Microservices architecture, etc.
 - c. Resiliency through the Microservices architecture - simple Microservices architecture of DUP plus if one of the services can be switched off
2. Data Privacy
 - a. Masking the data at our end

Critical path:

1. Data Integration
 - *Data Catalog* - to come up with the help of Shahrin, Madhu and Jeff
 - *Sample Data*
2. Integration Testing driven by SprintX
3. Services Integration
 - There might be changes in the plan once the integration discussion happens with myTNB architecture

1. Data Catalog
2. Sample Files

Outstanding questions from Data Catalog and other aspects

Questions on the detailed plan

Discussion on RMAP

Discussion on SOW from RMAP

Discussion on Service Management

To put the integration points as an overlay on the detailed plan -

Data Catalog -

Discussion on plan overlaying

1. For the Azure services, the buy is an SLA and not the performance testing of the components
2. How to address client's questions on - 'Why cloud if performance testing is not there?'

- 1.
2. To check with Shahrin on the data catalog is shared across very quickly
3. Beyond PoC - all good for testing tomorrow
4. Cybersecurity - what are client requirements in terms of the cybersecurity? (Need to check with Cybersecurity personnel - Azril from TNB)
5. Discussion on SLAs
6. Sharing of sample files

- Business case
- Identify and understand edge cases

Energy Disaggregation

Monday, August 26, 2019 3:47 PM

1. Energy calculator

Success Criteria

Wednesday, August 14, 2019 2:59 PM

1. Release notes of each release for technical prototype to close technical agility or speed to value - covered under CX Master deck
2. Create user stories and the scenarios to simulate using data

Follow up on approach to testing the integration

Prospects

Sunday, June 16, 2019

10:55 PM

Issues reported by TNB

Complaints: Unstructured data - text not recorded properly; Seek a view on the operations part of the manual interventions

Billing: Due to

- Faulty meter
- Estimate
- Inaccurate readings
- Longer billing period

Other inputs:

- Looking for a proactive approach rather than reactive one
- Han is heading the strategy part while Puan is on Operations

Review on the Chin's PPT:

1. What additional use cases are built on DGS environment?
2. Do we want to host the Azure environment or ask TNB to do it?
3. pain points on current myTNB
 - a. Payment gateway always got issue
 - b. Can they have the In-APP payment: Generally native approach helps here
 - c. Issues on the speed of the APP
 - d. For the myTNB server, APP and DB server are CPU

Inputs sought by Bala:

1. Reply on his email to myTNB team
2. Is the current design on Xamarin - native or Form based?
3. Dummy APP login to share - **need to get it from Syafiqah**

Production design considerations

Wednesday, May 8, 2019 1:50 PM

APP design

- ☐ 1. Technical assumptions to compile based on Bala inputs
 - ☒ 2. Differences from the current APP
 - ☒ a. Registration page? - modify to have threshold as well
 - ☒ b. Payment gateway?
 - ☒ c. Amount due reflects on current and how recent?
 - ☒ 3. How many apps to run in parallel: 2 Apps to be there
 - ☒ 4. Are the version support for PoC only or production as well? Will have an impact on development time
 - ☒ 5. View on how much efforts will it take to design for iOS. Also, there will be a scoping based on CTP architects' input for APP server
 - ☒ 6. Distribution for APP: on stores for public or mem
 - ☒ 7. Client can connect to CT platform or client hosted(C#/.NET in our case)
 - ☐ 8. For the new user (<6 months bill history, we are yet to design on the interface
 - 9. Non-functional requirements:
 - a. Rooted Device detection
 - b. Debug detection
 - c. Integrity checking -Obfuscation controls
 - d. Anti-hooking
 - e. Verifying app's signing certificate at runtime
 - f. Environment checks
 - a. Environment
 - b. Debug detection
- ☐ Crashlytics SDK integration / Tamper detection

Backend design

- ☐ 1. Estimate based on AIA/another Hex implementation on Azure
- ☒ 2. Time to value: lift and shift of the product - 8 weeks to put as the provisioned model
- ☒ 3. User login
- ☒ 4. Can we scale up the existing PoC environment?
- ☒ 5. **3-5 things to keep in mind:** discussed with Adrian - scalability, operating model, integration, security and roll out model
 - ☒ a. Pointing to production or compatible/integrate with production
 - ☒ b. SIT
 - ☒ c. UAT
- ☒ 6. BOT/Devops model to provide for capability gap
- ☐ 7. For the new user (<6 months bill history, we are yet to design on the interface
- ☐ 8. SMS 'ON' by default

Data

- 1. Technical assumptions to compile based on current discussions
- ☒ 2. Segmentation for personalized tips to each persona

- ☒ 3. Review on how the files look for a single day
- ☒ 4. Six Months billing history - once a month load for the 4th of every month
- ☒ 5. Six Months+ Consumption data - one time load
- ☒ 6. Daily Consumption - Once a day set of files
 - ☒ a. One day is off for each month
- ☒ 7. Customer Profile: one time initial load, then incremental feed every day
 - ☒ a. myTNB
 - ☒ b. SSP
 - ☒ c. BCRM: Contract Account - Serial Number mapping
- ☒ 8. Outage Events - near real time
- ☒ 9. Additions to the existing data
 - ☒ a. Persona - assigning methodology to work
- 10. Smart meter account indicator

- Access hours
- Transactions
- Load increase to show
- Other NFRs to finalize with the team
- Recommendation on the best way to solve these scenarios of scaling up so fast
- EDM , summary, etc. for BCRM - draw parallels from there
- Landing slide for playback from the meetings with the teams

1. How data flows from Meter to Billing process?
2. Data flow with timelines to be there
3. Business decision on when is it good to have data from both consumption and billing level?
4. When are things calculated and do they get delayed, etc.?

Questions from the MDMS team:

1. **Head end data:** Interval read, register read and events
 - a. Interval - 30 minutes consumption
 - b. Register - reads at the point in time
2. Frequency of data collection from meter to head end systems
3. What format of the data is available at each points in data?
4. What data is there in the 5 AM input to MDMS and what does percentage of data mean here?
5. Does billing happen on register reads or interval reads?
6. What's the continuous transfer content? - Till one hour before or last day only?
7. Exact fraction of the data transferred at 5 AM?
8. The extracts of 5-17 - are they validated before exposing to API?
9. What's the 4 hours process?
10. Why data drops from 99.8 % in Network to 96 % in MDMS?
11. Validations happening in MDMS + estimations in MDMS?
12. NFS - how often is it getting the data in?
13. Energy Budget - needs to be agreed upon during the working group on how recent shall be the data?
14. Need to frame a picture of which screens are possible today and what's possible from the recommendations?
15. Need to map the individual action for each team to make the aspirations possible
16. End block read - register read is available in TNB MDMS today?

17. Why four hours data is being filled in?

For self:

1. Create view of screens to list the current issues
2. Plan to solve these issues
3. Scalability of the solution to future rollouts

Jeffery Feldman:

1. CCTV as a weight bridge - also discussed already
2. Jetty was a point of installation
3. Accuracy to be very high
4. Number plates on the side of the truck
5. Need to check with Adrian on this and see what
6. Using computer vision to do the Sinarmas thing - more of object detection; but what may need to happen...dump track characteristics - field volumes and other things that may vary
7. Truck types vary
8. Size and shape of actual beds
9. The time of day also plays a role
10. Compression characteristics, etc. of coal side -density to mass conversion
11. Camera characteristics
12. Climate characteristics
13. Context features, etc.
14. Sinarmas example
 - a. Fruit bunches are single layer - 90 %
 - b. When they are big piles - 40 %
15. Manually can you look at the pic and can come up with an idea of the solution - if it's possible
16. In case of Sinarmas - 102 were counted as 22
17. Orientation of the truck is another crucial assumption

Taskboard

Thursday, April 4, 2019

4:30 PM

Work -

1. Review the query tracker from project link
 2. Review on Timeseries functionalities to detect seasonality in SQL Server and Python
 3. Sort folders on engagements and bookmarks to synthesize and reconcile together
 4. Identify on how to overcome the sample size problem for variations across the categories
 5. Send an update to Pn. Noraini post analysis on the data shared by Pn. Nurul on complaints -
 - a. Pn. Noraini analysis and create visuals in PowerBI
 - b. Review the document from Chin on Complaints management
 6. Show some view in Kepler.gl and then demo how we can use this to better manage the workforce deployment for MFFA and also for TNB as a whole
 7. To Ho-
 - a. Tariff block in the output bill
 8. Outstanding questions and tabulate the data findings
 9. Hourly may not go live given the complicated the
-
1. Finish the PPT for DGS discussion
 - a. Combined diagram for integration
 - b. Data flow diagram in myTNB and SSP
 - c. Data flow diagram for DUP
 2. Complete the table and map it to the PPT for Hj. Megat
 3. Confirm with Madhu on services down demo and put a slide on resiliency accordingly
 4. Success Criteria - need to review slides

Saturday, October 12, 2019 12:02 PM

<https://find.ey.net/discover/sitepages/home.aspx#eyddetailview>

Success criteria testing:

Involve -

1. Arif
2. Syanina
3. Syafiqah
4. Razmin
5. Someone from Andrie's team

MDMS Integration with DUP

Steerco. Meeting on Thursday

Questions for architecture

Friday, October 4, 2019 1:56 PM

1. Check if MDMS consumes the readings in real time

Product Testing Log

Friday, October 4, 2019 6:13 PM

1. APP is crashing unusually
2. Energy Budget feature looks too busy

Inputs from Meetings

Wednesday, July 17, 2019 9:20 AM

1. Future state architecture
2. Create one of the pattern dummy for CReO demo
3. Customer voice on working prototype

To close the PoC:

- 2 things that Adrian noted
 - o Voice of customer for estimates
 - o Algorithm for default threshold

For the industrialization:

- TCO is being sought for the entire pipeline

Meeting with Jamal:

- DUP suitability for TNB:
 - o Visibility on go to production - future architecture covering just the two use cases with a future state as well as demonstrating other capabilities possible post go live

UAT

Monday, July 15, 2019 10:17 AM

UserName	Email	Password	Account Numbers
Alif	alif1@gmail.com	Password_123	21000000,85000000
DemoSP6	demosp6@gmail.com	Password@234	81000000,52000000,44000000,96000000
Derrick	derrick1@gmail.com	Password@123	50000000,10000000
Gurmit	gurmit1@gmail.com	Password_234	86000000
Soraya	soraya1@gmail.com	Password@Soraya	23000000

Meetings with TNB teams

Monday, August 19, 2019 10:03 AM

BCRM -

- Billing Repository- Ho to check with his team
- myTNB - consumes live from BCRM
- Some program shall be involved to change from BCRM
- Infosec may not be a big challenge if it's SFTP
- Has to be txt;

Demo to Hj. Megat

Monday, May 13, 2019 11:10 AM

1. Should combine the two outage notifications in one for ideal
2. Start with the ideal scenario and then tell what's the change involved for that (considering 10 minutes SLA - GIS, TOMS, etc. system dependent)
3. Demo the current possible scenario (non- combined flow)

Type of data for testing the algorithm and way to present the results

1. APP designing to happen
2. Algorithm

APP portability to the

Put controls in place

Put a disclaimer on first page of the APP - calling it simulation, etc. signed-off by Gerald

- **Customer Journey:** Separate for -
 - New user vs Existing user
 - Few scenarios over the rest of features - may be persona specific
 - Cover scenarios to show different type of outages and alerts demonstrating their presence when it matters to customers
- **Direct the customers -**
 - Key differentials like energy deals, fav. Deals should be highlighted in myDeals
 - Simplified view on each screen and additional information should only be visible post directed journey.
Few examples are:
 - 1) Threshold line, tariff block colour should be introduced later in the journey
 - 2) Limit weekly view for each month to 4 weeks only (it means the last week shall have 7-10 days depending on whether the billing cycle is 28-31 days long)
 - Relevant selections like threshold setting shouldn't follow from weekly or daily consumption view
 - When the consumption is reaching/has reached the threshold, guide them to myEnergy or another relevant page
- **Provide relevant information** like
 - On weekly/daily consumption views, there should be an explanation of the separator due to billing cycle change
 - On the Monthly view, there should be a mention about Billing month instead of just putting month names (Jan, Feb, etc.)
 - Relative scaling of amounts on monthly, weekly and daily views so as to correspond each other (not literally though) so that the breakdown from Monthly to daily view shows some transition
 - While setting the threshold, explicitly tell the customer that it's going to alert on monthly consumption only
 - Pop up from "Consumption reached" or "Service disruption" alert (on accounts dashboard) should be "calling for action" rather than reiterating the same information
- **Link the information on myEnergy** to the draft report circulated on whatsapp group titled "A Guide to your Electricity Lifestyle"

Notes for Hj. Megat preview

Wednesday, July 31, 2019 10:10 AM

1. Slide for timeline post Adrian's first slide
 - a. Milestones signed off and date for the last milestone
2. Last meeting date and feedback
3. Gerald to present the vision statement
4. Remove the slide with 4 success criteria
5. Last 12 weeks - TNB should do this
6. Consistency on the success criteria
7. No need to put scrum on the slide for last 12 weeks
8. Design thinking word shall be taken out
9. Team A vs Team B to be written instead of A-B Testing
10. Customer feedback first then the features
11. Put subtitles in the video for Melaka
12. The feedback slide to replace without greying out
13. The first slide should be the complete slide
14. Include downward trend
15. Don't call out four scenarios
16. First segment of one
17. Heard customers
18. Features last
19. Put the KNIME screenshot in the customer feedback slide

From G and Razmin:-

1. Numbering in the tech prototype playback to be made consistent across slides
2. View my Tariff - should be blue
3. Change messaging for the restoration time to be included in the first message for the outage
4. Put milestones in timelines and remove the word milestones

Text Analysis

Monday, July 8, 2019 12:16 PM

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5912726/>
<http://ejournals.ukm.my/apjtm/article/view/21974>

Team Meetings

Monday, May 13, 2019 11:43 AM

With MS team:

1. Status of SMS functionality

12-June-19:

1. Acceptance criteria
 - ▶ Separate what's needed from POC perspective and how it will be modified for production perspective: separation on the P and N is for the ones excluded from PoC perspective
 - ▶ CI/CD pipeline: Shouldn't be a blocker for PoC approval
 - ▶ The minimal requirement for the PoC on the components listing

13-June-19:

Billing issues:

1. Incorrect readings
 1. Due to the meters being very hard to read
 2. BCRM being down - made billing period longer
 3. Peak due to the seasonality
 4. The ones on the edge of Mesh network - not sending right signals
 5. Service tickets not classified properly
-
1. Out of 80K issues, what's the distribution, etc.?
 2. **Were there any early signs to identify the issues? - not restricting to smart meters only**
 3. **Service tickets** - Issue between when TNB thinks it's closed and the customer thinks it's closed ?
 4. Idea on analysis of service ticket trends of the early signs
 5. Understand the consumption disaggregation
-
1. Leading indicator or early signs of the issue
 2. Some correlation on characteristics of the households in Melaka who faced issues to those in KL
 3. Start with the complaints data first

DGS India:

1. **Status of MS:**
 1. UC1-FT2 - Done
 2. UC1-FT1; UC1-FT3, UC1-FT8 - Can be done today; pending testing
 3. UC2-FT5 - Design change is to be made and get it reviewed by Madhu
 4. The trigger based on threshold decrease - in demo
2. **UI:**
 1. MMC - persistent pop up - still pending; minor UI related stuff pending
 2. Energy Insights module - correction to be made from UX side
 3. Lifestyle issues
3. The three APIs
4. Bala's concern on UAT and all - book a resource or how?

On PoC closure:

- Multi user
- 3 Microservices and then API endpoints

Success criteria

- **Adhere to Mawardi's requested items**
 - i. Add some phrase mentioning the clear spelling of objective of the PoC - CReO should be guided to understand in that direction
 - ii. Bring in considerations slide - Mawardi to share Jamal's view on point 2
 - iii. Build up on the table of success criteria - already being done by Madhu
- **Address concerns on risks from PoC productionization in the same**
- Redraw UML as this may form the basis of discussion at some point
- Idea on the integration of the PoC environment with TNB source systems
- Idea on the proposed approach of integrating with the existing myTNB app
- Azril's mailed points:
 - o The DFD/PFD document and EY's Cyber Risk Assessment Documentation for the PoC
 - o A presentation with TNB Cybersecurity focuses on current PoC strategies to address the security challenges, threats and vulnerabilities towards microservices, and TNB CSOM alignment

Review of WP

Friday, June 21, 2019 11:21 AM

Review with Alun

Tuesday, June 18, 2019 2:54 PM

1. Sizing of the environment:
 - a. Usability driven
 - b. System driven
2. Go-live policy:
 - a. Monitor provisioning - to scale up later
 - b. Provision for agreement review
3. Design review
 - a. Agreement on system interface with TNB and within services
 - b. Sizing of the components
4. SIT and UAT should be sequential
5. Performance test, HA test post SIT should be there: Put a non-functional testing bracket shall help here
6. Post go-live data load strategy

Checkout Week 5

Wednesday, May 8, 2019 4:01 PM

1. **Architecture components** - description
2. **Architecture - updated with the progress:** Highlight layers prepared for the sprint

Initial Information

Thursday, March 14, 2019 2:30 PM

Use cases:

1. High usage alert
2. Fault alert

Role:

1. Manage GDS delivery of DGS
2. Interface between the client and DGS impl. Team - to enable BA kind of role
3. Manage how the communication happens, focus on microservices

In Scope for DGS:

1. Implement DGS post MDMS
2. Implement changes in the prototype app

Inputs sought from TNB

Tuesday, April 2, 2019 6:43 PM

Session with Yuvanraj:

1. Can we draw the event flow for CIS, SOA and MDMS ? Faezah on it
2. How CIS is sending it (Frequency, WebService format to get it) ? Discussed already, near real time means less than a minute
3. How to get only these two messages from all CIS messages ? Will get it from MDMS messages through SOA
4. Format of XML, an XSD for the same or WSDL ? XSD to be shared by Yuvanraj
5. Is this data with codes under Category that can be used consistently ? Is the description always consistent and can be used instead?.....Category are Outage and Restoration
6. Check on sizing question from mail.....Parked for productionization

Meetings with TNB team

Wednesday, May 8, 2019 11:08 AM

1. Meeting with myTNB and SSP PIC
2. Meeting with Jamaal
 - a. Working Prototype demo discussion - data (5 users) and any other expectations on speed, load, etc.
 - b. Cybersecurity alignment - involve Amirul
 - c. Changes on the SSP side - discuss on what goes in to the same and how ? Involve Mawardi for this

Discussion over Lifestyle concept

Thursday, May 9, 2019 10:23 AM

Morning catch up:

1. Sponsor meeting: Future proof architecture
2. Sponsor meeting: Cyber security
3. Sponsor meeting: Simulate data for the features that can't be catered to given current data state; have a view on how to go ahead for the data collection in this case
4. Suggest and incorporate user inputs in to the default threshold - like Garmin app; can extend this to identify personas as well

Lifestyle Concepts:

1. Logos shouldn't be there (like Maevi), make slide for myTNB generic
2. Design principles from retail strategy for lifestyle goals / value - To check with SK on this
3. Refine lifestyle goals and then the personas
 - a. Fall back to the segmentation from retail strategy
 - b. Either the headers should be goals or change it to value
4. Feedback from the retail strategy workshop to incorporate for goals/values
 - a. 6 Values now - need to be aware of the 6th value added today
 - b. Lenses other than value being looked from
5. Ask a series of questions and then come down to a personality - may be avengers, etc.
6. Shouldn't ask the customers to select a segment, limit to questions only
7. Could we arrive at a segment based usage and then send personalized messages to the one who are under consuming
8. For the over consuming, probably send messages with Marketplace link
9. Think of ways to capture the data for individual appliances - Bidgely example shared
10. Landed property identification need to be checked from the existing data
11. Personalized message to be there. Need brainstorming for Green Conscious guy
12. For green conscious, need to put the table or a link for ways to save trees, quantify it
13. Connection to smart devices/ smart home concepts
14. An app that can connect to any smart device
15. HEC is proposed to be an energy usage calculator VAS in the myTNB app/portal where in they can enter to calculate the usage and hence store the data for appliances
<https://hec.tnb.com.my/>
16. Segment based threshold suggestion for new customer (Min-Avg-Max); for old customer it has to be calibrated with the bill history
17. Appliance based Energy Saving Tips: <https://hec.tnb.com.my/>

CX Inputs:

1. Evaluate options on parameters
2. Options on:
 - a. Set the threshold
 - b. Personalized Notification
3. Parameters:
 - a. Clear enough
 - b. Enables TNB to know customer lifestyle
 - c. Enable TNB to know customer usage potential

Demo from working prototype

Friday, May 10, 2019 5:00 PM

- ☒ 1. Can become multiple users ? - Can be routed from backend as well
- ☐ 2. Functionality from multiple user perspective - Need to check on next week
- ☐ 3. Screenshots to share by Wednesday EoD
- ☐ 4. Dashboard - can remove the subscription pop up

Initial setup

- 1. Should be ON
- 2. The pop up should go away

Pending from Mobile APP:-

- 1. The flag has to be setup at the back-end
- 2. The user settings has to be changed for first time not. Settings
- 3. Subscription issue
- 4. Energy Consumption pending
- 5. Details page for notification pending

Pending from Microservices core/Data Ingestion:-

- 1. Testing pending
- 2. Integration pending - issues on twillio

Time for demo to be shared with mobile team, microservices team

Number of days to reach threshold

Sharing the account with issues in daily data

Demo queries

Friday, May 17, 2019 3:08 PM

- ☒ 1. Is there a bracket for the threshold ?
 - a. Below 1000
- ☒ 2. Why SA can't be set on ?
 - a. This is from backend and hence needs to be checked there
- ☐ 3. Why the popup can't come on the home page for first time login ?
- ☒ 4. Why there are random numbers populated for Gurmit, Alif, like his average monthly consumption is 53 but the default threshold is 61 ?
 - a. Dilip needs to answer on the data part
 - b. Need to do the one time load once for the same
- ☒ 5. Back button taking to account page from notifications page?
 - a. Flow missing on home screen
- ☒ 6. Check on the version and mobile compatibility ? Is there any other file that needs to be deleted?
 - a. V 7, 8, 9, 6
- ☐ 7. How can I see the notifications coming in?
 - a. Push notification page - Bala is going to push it manually
 - b. Can ask for the notifications - in advance
- ☐ 8. Concern from Sooraj: None of the APIs is working with Token
- ☐ 9. Keyboard doesn't go away even after enter
- ☐ 10. Can't turn off with zero as the threshold?

Test Strategy

Wednesday, May 22, 2019 5:41 PM

1. For APIs, use below :

Postman -

<https://chrome.google.com/webstore/detail/postman/fhbjgbiflinjbdggehcddcbncdddomop?hl=en>

Guide -

<https://medium.com/bugbountywriteup/exploiting-apis-with-postman-and-google-chrome-ade13ce74e2b>

2. For Demo, scenarios are at the link:
3. For Data, the curation strategy is at:

Functional Specifications review

Friday, May 24, 2019 4:44 PM

To touch in addition to the existing FDD features:

- Messaging excel
- Data for Let's Help you!

Functionality side:

1. Finalize an algorithm to get the default threshold - Sprint 5

Checklist from Hari Raya week:

10-6-2019 -

1. Scrum call
 - a. Review items listed to be covered before Raya break
 - a. **Functional testing of application:** review scenarios for testing with Zainab/Rashmi on Tuesday afternoon with critical acceptance criteria for each user story
 - b. **UI side to review by Tuesday, 11th June KIV VP2.0**
 - c. **Route to send notifications**
 - d. **Data Flow Diagrams**
 - e. **Status of SMS functionality**
 - f. List of mobile models to KIV
2. Sprint 5 planning
 - a. Timelines for individual activities like API agreement, internal review
 - b. Sprint review: Internal to be evaluated on user stories acceptance criteria

myTNB discussion

Friday, October 18, 2019 10:04 AM

1. The SSO method is used in both portal and APP
2. For every request, the token is passed for validation; this is stored in the SSP DB, not on client??
3. For the APP, token is generated when CA is passed to MDMS.
4. The myTNB data for device Id shall be ported through a webservice
5. Changes needed in the APP shall be on Authentication, notification, screens and data sourced to DUP
6. Visibility on the timelines to ask from Gerald/Andrie

Maxis: Download from Star hub

Monday, June 17, 2019 5:30 PM

Complex Event Processing (CEP):

- Contextual marketing - works well for prepaid but not for postpaid
- Trigger is: to get the users top up at the moment the balance drops down
- Incentive can be: gifts at online store, gigs, calls, point

Datasets -

Top up

CDR:

- Voice
- SMS
- Data

VAS purchases

Profile:

Data comes from IN(Intelligent network) or NGIN (Next Gen): ZTE/Huawei, etc. in around 15 minutes
(Got few servers for Malaysia - stores one file each for every 10 minutes; need to aggregate this one)
Comes in <10 minutes (10 MB)

CEP: (Novasis)

Ingestion (kafka)

Function

Storage (important; huge volume so in-memory processing)

Important parameters: Fault tolerance and recovery rate: couch DB (in-memory)

Business logic: stores all information on contact frequency, suppression, etc. (contact framework)

Channel integration: Outbound channel (SMS/Push);Inbound (APP/Contact Centre)

How does a top up work in this case when an offer is provided?

A: With a latency of few minutes, the extra benefit is provided like in Digi

Uplift: when the user picks up the offer at the same time of offer shown (9x observed)

MS workshop

Monday, May 27, 2019 11:07 AM

Fun:

- Angoor Movie
- Comedy of errors by Shakespeare

Demo:

- Web App
 - o Hosting plan is what we use for auto scaling: App service plan
- Logic App
 - o 3 concepts
 - Connector to an app (around 200+)
 - Conditions
 - Action
 - o Can write our own connectors using https endpoints
 - o Can write scripts as well
- Azure functions
 - o Server less functions can be written
 - o Create using function app
 - o Consumption plan to use here
- CI/CD demo:
 - o Using the CI, we can automate the build once changes are committed
 - o If the build is successful, using CD, the same can be deployed to the environment (preferably dev/test)

Hands-on:

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