

# Dashboard Revision

Wednesday, June 17, 2020 4:43 PM

## End to End

### 1. Key Chart

are we reporting what is in-country (but not yet available.. i.e. needs LAT etc.) vs. actual inventory in warehouse(s)



- total available stock by meter type... e.g. are we going to run out of 3P meters?
  - and, then stock by vendor - is there any requirement/expectation to have a spread across vendors since the meters are of different costs etc
2. the table in this old demo could re-ordered, rows opened up etc... but not seen one where we can change the grouping altogether



3. For Meters Supply - does PowerBI tables allow us to toggle the data from grouped by vendor vs. grouped by type (1P, 3P, Cell, PLC)?

# Next demo items

Friday, June 26, 2020 7:00 PM

1. Touch upon the export functionality - custom download only available for 24 hours
2. New portal in place
3. Meter numbers
4. Feedback addressed

# Taskboard

Sunday, November 17, 2019

11:42 PM

1. Map co-ordinates to replace with zipcode or street, etc and delete the other files
2. DOC -
  - a. Data Analysis on 3MS
  - b. Create a latest DOC status deck
  - c. Review with Mr. Anthony
    - i. Inputs on latest dashboard - what's important vs redundant in latest views
    - ii. Discussion on risk assessment - the key data elements
  - d. FSD:
    - i. Plan for next sprint - review with Rashmi
  - e. Cybersecurity -
    - i. Identify gaps from the review with Mel and build slides to address them
    - ii. Schedule a meeting with Azril post discussion with Mr. Anthony and AMI-IT person
  - f. Data transfer
    - i. Data consolidation and transfer
    - ii. Data masking
3. Deployment Status-
  - a. Find if Vishnu has documented the NCNR process and then walk deployment through this to enable them identify what they need like installed list to get the map plots, pre-NCNR status to identify the NCNR status
  - b. Get the latest NC/NR tracker for the list and plot the installations in map: Melaka PLC for NCNR status
4. SMOC
  - a. Come up with first version
5. Reads analysis
  - a. Draw the diagram based on understanding
  - b. Identify sample based analysis to fill in the gaps
  - c. Analyze the reads data - for a sample of meters
  - d. Sit with Nida to analyze the gaps in understanding
  - e. Get the location data from tracker for the sample shared and analyze if the issue is coming from same place
6. DCU-PLC Meter layout:
  - a. Plot for DCU after procuring dataset
7. DOC & SMOC next steps:
  - a. Get Chin's view on the tree based reporting to include in DOC next sprint
  - b. ESL - DOC & WEC - SMOC: review these examples
1. Refine document for training
2. Address questions raised on data
3. Refine logic for estimates in line with Chin's feedback - review the file for the view on what it says: draw some visuals for everyone's benefit and publish it on Power BI server

For today, lets divide and focus like below:

1. UAT: C& R report: HL
2. FSD for Inventory Overview: HL
3. Data mapping for Meter Installed : Rag
4. Data issues: Rag
5. FSD for Executive: Rag
6. Installer team User Guide: HL
7. Refresh wireframes for inventory overview with the dashboard from Ethan: Walk HL through this and ask for the revision
8. Create the daily reporting of dashboards
9. FSD for Deployment status to revise for the current sprint
10. Review the current state of documents, sharepoint, etc.

Jamie's call

1. Plan to resynch on the scope
2. Plan to resynch on the timelines per the holiday, scope, etc.

Send all users to Edison

Monday, July 27, 2020 10:11 AM

356362

356149 removed ones are not included

356030

60340

193

295497

- **Risk assessment pre-requisite**
- **Process flow:** to be created, identify the controls and enlist them in addition to the data flow; also show the business process flow
- Risk and audit logging needs these. Need to socialize with product owner on the review of the project owner
  
- **Manual files** - can be noted at a place and see if that's being managed
- **Individual data** level controls and risks to identify, threat actors to identify at each manual point
- PDPA and even the stuff of liability, responsibility has to go through the legal team
- Options for the data transfer
- Activities to be defined for the project based cybersecurity engagement: refer Shahrin's list
- Audit and risk; penetration testing; CSRA; VA (Vulnerability Assessment)
- Approach legal from the project governance perspective -EULA (End User Legal Agreement)
  
- Check with Chin on scope of the DOC deployment to production

Levels of security in Azure:

**Network level**

**Server level and**

**Application level**

**Platform level: Azure: component level**

**CTP layer: Patches to adhere to audit and logging standards (). Provide additional monitoring capabilities**

**RBAC + (Azure Monitor)logging: Application layer**

# Cybersecurity

Tuesday, November 26, 2019

11:39 AM

1. PIA has to be done by TNB Cybersecurity team rather than us
  - a. What's the internal process to get this approved - PIA, who can get this approved in Tenaga?
  - b. From the PoV, what customer data shall be transferred to cloud?
  - c. How much of data?
  - d. Which cloud instance and how long shall it be stored?
  - e. Data flow diagram
  - f. What's their internal process of getting it approved?
  - g. This should be done by the TNB team, we can advise them in certain aspects. Even in Malaysia PDPA, if they store or process on cloud, then it has to be through risk assessment as well as C-level sign-off on this front
  - h. Risk assessment on cloud may be missing
2. MOM (17-April):
  - Evidence - some portion come from MoveIT and Azure: both evidences, e.g, **User Access Matrix for MoveIT: User access logs**
  - **Password Policy: Indra to check if we can share the user knowledge for it**
  - Cloud: Setup on SIM, In terms of NTP - policies to share: Central logging servers evidence - Ridha to double check if this information is needed for the EY managed services; **Indrajit to share the logs for application and list of components;**
  - Vulnerability assessment: reports, certification on compliance of TVA
  - How to protect both system on cloud - DDoS protection is in place
  - SLAs: It is driven by the Azure components [~99.95% in this case]: Front end is covered here and PAAS components enable us to leverage MS provisioning on the same. Alerts and monitoring already in place to notify users of the outage. MS and Azure VM hosted by EY - full and incremental backups are taken for the 5-6 weeks period
  - Application Categorization - which treatment is in place to see if back up or DR is needed; already covered under part of the MS offering

Meeting: 22-Apr

Azure guidelines for Protect and recover: <https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/manage/azure-management-guide/protect-recover?tabs=AzureBackup%2Csiterecovery>

SLAs guaranteed by EY CTP: <https://sites.ey.com/sites/CTPI/SitePages/operations-support.aspx>

SLA for Azure Back up: [https://azure.microsoft.com/en-us/support/legal/sla/backup/v1\\_0/](https://azure.microsoft.com/en-us/support/legal/sla/backup/v1_0/)

MS Cloud adoption Framework: <https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/>

Azure Back up Architecture: <https://docs.microsoft.com/en-us/azure/backup/backup-architecture>

# Team Meeting

Monday, April 20, 2020 10:58 AM

## Call with HL:

1. New email distribution list: pmo.ami@my.ey.com
2. Create rule for the pmo.ami@my.ey.com to DOC mails forwarding and automatic reply to the people with acknowledgement

## Call with Chin, Edison:

1. Review of feedback from Mr. Anthony -
  1. Formula for Overall score (Installer Performance DB)
  2. Have a session with Kalai and team for feedback for Installer Performance DB
  3. A dashboard with big points (KPIs) for top management
  4. Data discrepancies (have to be the same) run these a few times and see what can we do to make the number the same across dashboards
2. Deployment Dashboard - feedback on the revised wireframe
3. Treatment for Deployment Reporting dashboard
4. DOC on TV screen - only AMI Summary Dashboard

## Call with Adrian:

1. Update on James' data science badge

## Call with Edison:

1. Target = actual for the ones that are being deployed ad hoc (ones that Edison isn't providing numbers)

## Meeting with Edison:

1. Agreement with Chin on C&R tree:
  - a. Get data from the raw source rather than reports
  - b. Put inactive in to comments, no need to show on dashboard
  - c. Keep dashboard updated for everyday as of yesterday. Weekly file will anyway be available as pdf under export: Test for data as of Thursday first; then move to data as of Friday
  - d. CCBD agreement doesn't need to reflect in DOC for Melaka Lama
  - e. Further drilldown in to Inactive, etc. can be introduced once SMOC dashboard is live
2. **Discussion on Deployment Status Dashboard and feedback on the area level numbers:** Suppress



the area

Shah Alam  
PJ/CJ  
Cheras  
Bangi  
KL Barat  
KL Pusat  
Petaling Jaya  
Rawang

Alphabetical

- ☒ 1. Meter Enabled numbers: why they are different from SITREP
- ☒ 2. Targets for network and customer within network coverage
- ☒ 3. Numbers for network to be sourced from ZY
- ☒ 4. Targets to be put in footnote
- ☒ 5. Plan for the network sites need to be taken from daily file in the logic shared by ZY
- ☒ 6. Meet with Najah to sort out data issues
- ☐ 7. Meters installed in tree don't look in line with Summary DB
- ☒ 8. Dashboard level report for data refresh with reasons for the same
- ☒ 9. Put a footnote on the KIV dashboard - the visits here don't include DO numbers and an explanation of the widgets in the guide for each dashboard
- ☒ 10. Line chart in the weekly plot for the cumulative KIV trends
- ☒ 11. Mapping for KKB to be refreshed with the latest view from Luqman / Raudhah
- ☒ 12. Agreement on scoring and then communicate with KKBs, etc.
- ☒ 13. Sorting the vendor companies by number only

**Work plan for transition:**

- 1. Guide
- 2. PIC and frequency
- 3. Dashboard report

Meters that are reporting reads but are not in commissioned set are actually commissioned but some issue with HES to report them

Reporting meters should be a subset of installed meters or take the register reads as of day as the base

Enabled can be derived directly from the sqvi and take the base as meter installed if required, but the sitrep is refreshed weekly

New file for package type information

1. Number of meters installed in the file vs SITREP same day ?
2. Possible to have distribution by states and BACs - relevant to C&R Tree?
3. Possible to tie back to service orders (check with 3MS file as well)? Come with a distribution of how many overlapping vs how many are not?
4. Come with an analysis of how many meters in meter installed are actually non-TECO in 3MS
5. Can we identify DO number from here?
6. Can we identify NC>10 days and <10 days from this file?

# Client Meeting

Friday, April 24, 2020 12:21 PM

1. Walk through BCP DRP document
2. Current approval status - any concerns on provisioning the SFTP Component
3. Current timeline in sight, will the legal be approving soon?
4. Catch up time on Tuesday for the PMO group on the user guide and status, etc. ?

With Simon:

Why so much time? Manual lookups

How we can help in the process? Automate or some suggested way

Can follow the cadence as there is a strict requirement?

What is the source for NC numbers?

NR: 1. From HES file

NC: 1. From BCRM install date

# Daily Calls with DGS team

Tuesday, January 28, 2020 3:47 PM

1. UAT Status
  - a. **E2E: In QA, need to redeploy and then in UAT by 5-6th May**
  - b. **Deployment Status: In QA expected to finish on 7th May**
  - c. **Teams Level: QA on 11th May**
2. Need to take weekly pdf snapshot of the reports: Hui Ling
3. Capturing feedback format: Hui Ling's Google form
4. Review discussion on Maps
5. Access mechanism concerns on My EY Portal: Madhu to follow up with CTP;
6. Bring out the picture of data catalog from perspective of first go-live and second go-live: Identify dates for the same
7. Number of users for the access: 100-125 can have good capacity
8. Drop an invite to the data providers
9. Update link shared by Zhungyi
10. Feedback on the items raised by Deployment team - check with Hui Ling first on the rest
11. Training guide: finish the first draft, include known issues, compatibility, etc.

## To ask:

1. Any minimum requirements to run the portal - web browser, etc. ? Works best for Chrome; Someone worked on tabs and mobile?
2. Interface looks slow for UAT, does Prod have similar performance ? Will be much faster to run there and UAT can be ramped
3. Can we keep original headers when going to details through Show as table? Done
4. Why map shows low area covered and %age looks misaligned - need to look at the derivation logic?

## Estimates:

1. 4-5 days for Connected & Reporting DB + 2 days of QA + 2 days of UAT
2. Hui Ling is going to clarify on the information icon for individual boxes
3. Ragh to confirm on the current release scope and the next release date
4. 4-5 days for Deployment Status DB + 2 days of QA + 2 days of UAT
5. Come up with a release plan for the next few weeks
6. Review the FSDs and data added for the latest review

## Items outstanding:

1. FSD to revise according to the items changed
2. Share the sample files
3. Decommission-able files

1. Quite heavy since a lot of filters
2. Static donut instead - not so heavy

# Requirements phase discussion

Monday, December 16, 2019 9:21 AM

1. Supply side: [Distribute by supplying vendor, technology and phase type]
  - a. Delivered
  - b. Ordered but Pending delivery
  - c. Yet to order
2. Stock position:[Distribute by supplying vendor, technology and phase type]
  - a. Warehouse
  - b. Office
3. Distributed meters: [Distribute by supplying vendor, installation vendor, technology and phase type]
  - a. In hand
  - b. Returned
4. Demand side: [Distribute by supplying vendor, installation vendor technology and phase type]
  - a. Number of service orders outstanding
  - b. Planned deployment for next one week, month, etc.

# Data requirements

Tuesday, November 26, 2019 11:40 AM

**Data Preparation:** We shall need to do below:

1. Data masking:
  - a. Take all the contract accounts from ZBCRM and ascending order them in a separate excel
  - b. Assign a number starting from 1, 2, 3... to each one of them
  - c. Use the new number to replace Contract account in the original file
  - d. Use this file as the master lookup for all the files that have contract accounts and replace CA with the new value
2. **Data reminders** to send out for every Friday 9:30 AM: Afiqah/Ragh
3. **Data status report** to send out every Friday: Afiqah
4. **Share data formats with individual team mates**
5. Timeframe for the data -
  - a. Data as of Thursday EOD every week
  - b. Data send reminder to be scheduled for Friday 9:30 AM
  - c. Data should be obtained by Noon Friday
  - d. Data Status report shall be sent out by 3 PM Friday. Any missing dataset shall be escalated to AMI PMOs

Lookups:

1. Labour to Vendor Mapping table: 3MS (Installation)
2. SLOC to State mapping: ERMS (Inventory)

Team updates from Kalai meeting:

Installations: Masterlists (Sakina for Melaka, Luqman's name for PJ and SA)

Teams: Sakina for Melaka, Luqman's name for PJ and SA: December till date

Maintenance and Logistics	Saedah, Azhan or Nabil
---------------------------	------------------------

Aliya Azlan, Hafiz & Nazir: For installaton data queries

If no Labour, discard from the list of Completed; If still duplicates, take the one with latest status date

To update in mapping:

1. If there are duplicates with COMP – TECO status, then check for below in sequential order:
  - a. If any of them have labour field as blank, drop it
  - b. If both have labour field populated, then pick only the one with latest status update date
2. If there are duplicates in other categories – KIV, In progress, etc., keep only the one with latest status update date

To update in Catalog:

1. Check the formats shared by Afiqah on the new files like Meters and tools, etc.

2. Check the format of data which is more comfortable with the teams, in the meeting with them

Hi Mr. Yazid,

By the way of introduction, I am Raghvender, leading the implementation of a reporting solution (DOC) for AMI PMO on Azure cloud.

As part of our project, we are responsible as the PMO to manage the smart meter deployment activities. To support this we are setting up a set of digital dashboards to improve reporting and monitoring - this will require the hosting of TNB data in the Microsoft Azure public cloud.

We have been working with TNB ICT to ensure our dashboard solution meets ICT cloud policies and presented to the ICT DARAB committee on 12th March where we got an approval on architecture.

**Request to TNB ICT:**

As a final action – we were requested by DARAB committee to confirm with TNB ICT if a TNB SFTP server can be provisioned to transfer data extracts to cloud.

Our current proposed data flow looks like below -

# DnA Catch ups

Wednesday, April 8, 2020 8:45 AM

1. Exam date to fix; make sure James also does it as well



# Discuss with Edison, Azahari

Friday, November 22, 2019 12:38 PM

1. Cyber: Who should be the project owner from TNB side?
2. Who should be preparing mockup dashboards?

# Dashboard designing concept shared

Friday, November 29, 2019 12:38 PM

What's the usual distribution of time on such a project towards these activities?

1. Process & requirements understanding
2. Dashboard designing
3. Dashboard operationalization - data preparation here takes around 60 % of the time
4. Optimization

# Meter Events

Thursday, December 5, 2019 10:17 AM

1. Meter runs out of synch then the estimates are sent
  2. Power down is an event that can be reason for the readings to get missed
  3. Get the SoP from SMOC team
  4. Get the last gasp history also for such meters
- 12-December

# Data Validation

Monday, December 30, 2019

3:34 PM

1. Explore Area or NC-NR tracker as the source for installations till date numbers
2. Plan to flow in from the Deployment team's master tracker
3. Defaults to confirm with the Deployment team
4. Need to leave blanks for Edison and Azhari to fill in when back
5. What shall be the default values, how shall PTD values come from?
- 6.

Data Validation to complete & hand over to Brandon: Validate Data with new files from Siti Hajar  
Review PPT from Rashmi & upload to sharepoint

1. SITREP
2. MDMS
3. BCRM
4. 3MS
5. Project Team

Data Catalog to revise for:

1. Customer Complaints

# UAT

Tuesday, March 10, 2020 5:07 PM

## Observations:

1. Meter installation data is sourced from MDMS, not 3MS
2. Daily Installation Performance should show only till the last date of installation

# Data mapping

Monday, December 30, 2019

4:04 PM

## **Executive View -**

### *Overall:*

1. Default filters to be discussed by Brandon with Edison

### *Network deployment:*

1. Targets (actual and %) to get from source for PMO team - Brandon
2. Installation Status: source as it is
3. QC Audit failures and safety Incidents: Brandon to consult Edison

### *Meter deployment:*

1. Targets (actual and %) to get from source for PMO team - Brandon
2. Installation Status: source as it is
3. QC Audit failures and safety Incidents: Brandon to consult Edison
4. Status mapping to follow Sprint 1 & 2. Brandon to collate the two together as the one from Sprint 2 doesn't have details on delayed. Logic to be simplified as KIV just requires one status field to be checked and so is closed
5. Area level completion: To be calculated based on the planned dates. Driven by default selection and filter being used by the user. % age is the number of successful installation vs overall in the area. Area being higher level like Shah Aalam, Putrajaya and boundaries shall be used from direct bing map. If not available, then shall be shared by Brandon

## **E2E View -**

### *Overall:*

1. Default filters to be discussed by Brandon with Edison

### *Network installation:*

1. Installation Status: source as it is; if required need to bring in the type of network installed/planned

### *Customer Engagement:*

1. Source as it is

### *Meter deployment E2E:*

1. Source as it is
2. Batch information shall be shared by the deployment team. It's a rollover for the package information

### *Daily Performance:*

1. Mapping to be changed for KIV
2. Source as it is

### *Meter orders (No. of SOs):*

1. Source as it is

### *Legacy meters RTU & Meter Certification Status:*

1. Source to be confirmed with PMO/Deployment team onsite

1. Data Business logic: Data mismatch/reconciliation kind of report
2. Footnote mentioning the source of data
3. Data mapping to be update in FSD and share it with Rana

# Taskboard

Wednesday, January 29, 2020 5:01 PM

## 1. Data Collection

- a. Refine data transformation logics with Hui Ling

## 2. Go-live:

- a. Publish plan with the teams so that they are aware

3. Follow up to Naabil's discussion
4. Follow up with Pn. Saedah on the dashboard users
5. Follow up with Edison on device for display
6. Check with Liew on the daily files
7. Finish Inventory Overview DB design
8. Finish data analysis for daily files
9. Revise mappings from daily files and Meter Installed to numbers on the dashboard and bring in to FSDs
10. Brown bag slides skeleton to be put together



# Key information

Wednesday, July 8, 2020 11:50 AM

Melaka phase II package I start date: 27 - Sep - 2019 (from Azahari)

KIV 1 & 6 are key issues in Melaka: these are non technical ones; 1 is gate locked, 6 is customer not co-operating, 5 is appointment asked for later when installer team turns in

Mapping for Meter deployment status:

1. Completed: COMP - TECO - Not blank
2. Closed/remove: With Status CLSD in BCRM Business Status
3. KIV: KIV - Not CLSD
4. In Progress :Rest
5. Delayed: Check if the date of batch planned deployment has passes and job is still in neither of KIV/COMP/CLSD

Steps to productionization:

1. UAT sign-off
2. Approval for data transfer to the cloud
3. Process understanding on data generation and identify systems involved in generating the extract
4. Change request completed for extract generation in the systems
5. Develop Data Integration with the systems
6. System integration testing
7. Release in production

**Link for the latest refresh status:**

<https://teams.microsoft.com/l/file/345A907B-ED44-475A-958B-A70AA962FD5D?tenantId=5b973f99-77df-4beb-b27d-aa0c70b8482c&fileType=xlsx&objectUrl=https%3A%2F%2Fsites.ey.com%2Fsites%2FDOCDDataProcurement%2FShared%20Documents%2FGeneral%2FGo%20Live%2FMilestone%20II%2FData%20File%20Status.xlsx&baseUrl=https%3A%2F%2Fsites.ey.com%2Fsites%2FDOCDDataProcurement&serviceName=teams&threadId=19:dc21b069a7fb44c2a9736e5f828de811@thread.tacv2&groupId=ca7b1362-0877-41f1-8818-a45a039e5709>

1. Overview
2. Walk through Deployment Dashboards
3. How can we use DOC?
4. What next?

# Troubleshoot meeting

Thursday, January 30, 2020 4:25 PM

## UAT feedback:

1. Map not visible
2. Data queries
3. Date to target for UAT completion

## DOC Feedback:

0. Define a data owner
1. Legend on first page
2. BAC level drilldown on the map
3. Month level view of performance on first page
4. Enlarge maps

# DOC Demo

Friday, January 31, 2020 6:16 PM

UAT URL: <https://tnb-uat.uwave.ey.com>

PROD URL: <https://tnb.uwave.ey.com/>

# Ontology

Tuesday, April 28, 2020 9:19 AM

## Script for AMI Deployment reporting

1. Combine area and batch in both the files: old and new
2. Create full outer join to bring in any additional data (old: LHS, new: RHS)
3. Fill na with zeroes only for numerical columns
4. [AMI] If RHS greater than LHS for the installed numbers, then copy the numerical values from RHS else leave as it is
5. [DO] Copy all values from RHS...populate installed value as well (Connected + Not Connected)
6. Subset for required columns - rename them to match data catalog
7. Check if this will create inconsistency for the Installation Tree or not

## Team File

1. Team Active: Active
  2. Active + "Not Active" + "Stop Work": Trained
  3. Trained + "Team not Started" : Planned
- 
1. Drop a note to revise the go-live date
  2. Showcasing work to client and team
  3. 30 mins showcase to the broader AMI team

# DOC Updates

Wednesday, February 12, 2020 2:40 PM

Feb 6 - 12

What has been achieved:

1. Data Cadence communicated with respective teams
2. Go-live approach narrowed to go live with the UAT version first with manual updates
3. Liaised with Global PMO to identify data owner and classification for DOC

What's Next:

1. Sprint 3 deliverable due on 18 Feb, 2020 having E2E Operations dashboard, realignment on Executive with the feedback from TNB PMO & KIV Drilldown dashboard
2. Sprint 4 Mockups are being finalized & Data Classification agreement on identified data sources is being sought
3. Data transfer Cadence to kick start from Friday 14 Feb, 2020

Feb 13 - 17

What has been achieved:

1. Data transfer Cadence kick started from Friday 14 Feb, 2020
2. Sprint 5 Mockups have been reviewed and edited for Sprint planning discussion
3. Data mapping and catalog have been prepared for next sprint

What's Next:

1. Sprint 3 deliverable due on 18 Feb, 2020 having E2E Operations dashboard, realignment on Executive with the feedback from TNB PMO & KIV Drilldown dashboard
2. Data Classification discussion with DN Data Governance on identified data sources
3. Data transfer agreement to cloud

Feb 18 - 26

What has been achieved:

1. Sprint 5 Mockups have been discussed with Hj. Ghous and feedback taken for refinements
2. Sprint 3 dashboards - E2E Operations dashboard, realignment on Executive with the feedback from TNB PMO & KIV Drilldown dashboard are in Staging environment
3. Data Classification discussion with ICT and Cloud practice has been started and guidelines for data classification and risk assessment shared

What's Next:

1. Data classification and cloud platform approval to be obtained
2. Go-live plan for the dashboards to be communicated
3. Mock up dashboards for the next sprint to be discussed with Hj. Ghous

- a. Integration mechanism with the manual uploads
- b. Location of the cloud,
- c. Data validation checks
- d. Categorize the structure as IAAS, PAAS, SAAS, etc.

Data upload:

- 1. MoveIT UK/US: Instant
- 2. MoveIT Singapore: 3-4 Weeks
- 3. Media shuttle: quick and on Azure EY hosted instance (~1 week)
- 4. Azure bucket: Not possible due to infosec restrictions
- 5. Schedule for the file upload

Fail safe:

- 6. Validation of the data: Row and column specific
- 7. Transfer triggered validation check
- 8. Checks at a stage post upload
- 9. Define validation rules with Rana

# Data Procurement

Wednesday, February 19, 2020 4:00 PM

<https://mycloud.tnb.com.my/userportal/#/shared/public/2CoKhNcqCrDKKgqe/NR%20&%20NC%20Tracker>

Passcode: 2,3JHRGe



Thursday, February 20, 2020 12:20 PM

**TNB Consultant:**

tnb\amiey.raghvender  
qwer@1246

**MoveIT:**

Username: p.uw.tnb.02  
Password: N{58ry[lhMadzB:

**DOC on screen:**

[myeyeygs.user0164@eymbispoc.onmicrosoft.com](mailto:myeyeygs.user0164@eymbispoc.onmicrosoft.com)  
t7T8vgC6wD

Monday, August 17, 2020 3:07 PM

We await a confirmatory mail from you on:

- a) Acceptance of the offer (within 1 working days)
- b) Your current employer's acceptance of your resignation and last working day
- c) Your joining date with us

From <<https://ey.taleo.net/careersection/careersection/offers/myOfferListView.jsf?lang=en&csNo=10241&portal=8240131673&reqNo=2041551>>

Different type of methods:

1. Data oriented,
  2. network oriented
  3. Hybrids.
- Network oriented methods make use of network resources such as grid topology or RTU (Remote Technical Unit) data
  - Data oriented methods are network agnostic and only require consumer related information (such as energy consumption measurements, demographic data etc)
    - Further divided in to supervised and unsupervised

Theft categories:

1. Persistent theft
2. Non-persistent theft

To check for :

1. Base rate fallacy

Meeting 09-03-2020

Attendees: Siti Sara, xxx, xxx

1. MIT cases - mostly they occur outside(before) meters [95 % of the times]
2. List of theft cases can be found in SOA
3. Few issues highlighted
  - a. Potential theft is estimated
  - b. Accuracy differences are observed
  - c. There is a team that monitors theft but no follow up actions
4. SMOG doesn't interact with the other teams on day to day basis
5. Today, AMI is missing on analysis of the theft cases
6. Also, there is a monitoring of LPC customers today that incorporates
  - a. Use of metering events & consumption profiles
  - b. 50% success rate currently
  - c. Onsite team prepares some analysis
7. Siti Sarah exhibited interest of having some clustering or prioritization for the MIT cases
8. 20% of tampering is detected in voltage but rest 80% is not
9. Tampering events are currently validated with an observed drop in consumption profile to validate MIT
10. Another pain point today is - the events directly flow to people's mailboxes and hence hard to analyze
11. They are in midst of a data lake implementation (Cloudera based, slated to be up by June) and going forward all analytics needs to be done on the same
12. They seem to have algorithms for LPC (C&I) customers for Smart and OPC in non-smart profiles
13. Dr. Harxxx has done some work in this area. He is from AMI, had been away for DNA training. He currently holds the majority of information in this regard from AMI domain

14. They are interested to know how such solution can be applied to big data and hence can be ported to the future analytics platform built up on data lake
15. Few other examples shared:
  - a. People create outages to do bitcoin mining. Hence, this needs to be validated with TOMS data
  - b. Deloitte is already building analytics for NTL in Non-AMI domain
16. Current OPC hit rate is 5% (25,000/450,000) - based on one month BCRM data
  - a. 12 % for LPC customers (basis data lake)
  - b. 233 M has been recovered from both LPC & OPC customers
  - c. Current Opex is at 52 M. Today, if they increase it, it's beneficial as it acts like an investment but the ultimate target is to bring up the hit rate so as to get them away from any future limiting factor from Opex

#### Action Items

1. [Ragh] 8 weeks plan to bring it all together [Business value driven through monitoring and platform provisioning/local built up for a selected sample] detailing Scope, platform, timeline and cost
2. [Lynette, Chin] Engage Zamin to identify the right stakeholders in AMI for way forward

Estimates to generate for -

6 weeks - 8 weeks

Manager, Senior and Associate - 50%

# Slideshow feature - key points of note

Tuesday, June 16, 2020 1:53 PM

1. The screen gets stuck if we lock and unlock the screen
2. The screen gets

# DOC Feedback

Tuesday, May 19, 2020 9:15 AM

## **Feedback:**

### **Chin -**

few minor things... next phase of changes:

- can the team look at 'brnading' like the home page calling it the "Deployment Operations Center Management Hub"
- at the top... can do EY and TNB logo together? etc.

and the tiles.. maybe red and blue tiles, based on category - rather than green

minor things - but i think that gives TNB better sense of ownership and probably better impression, especially if we want to take it to CDNO later

### **Azahari -**

One more thing. Not sure if it's in the pipeline, but are we able to change the look and feel of the background look and feel so that it reflects TNB's look and feel? For example, instead of EY logo, we change it to TNB logo. also instead of the name "EY UtilityWave", we call it whatever Hj. Ghous wants. but of course we can put somewhere on every page to say its powered by EY's UtilityWave

Not sure whether its my connection, but the dashboard is pretty slow to load

[11:03 AM] Azahari Hamid

Is the data in DOC production up to date?

## **BCP document:**

Forgot password

Can't connect to internet

AD down needs to be another slide: what error message will be coming? How will this reflect on the dashboard?

Liew to check on the network blocking thing: bing and ey.com

Executive DB - how to refine this one further

10-06-20

1. Installer Performance Dashboard
2. Data inputs for the RAG status to be reviewed with project teams and socialize the cut offs accordingly
3. No Data Available to change to 'Yet to start'/'Not Started'
4. Title to reflect the selection
5. UI related feedback: can we have the more zoomed in view and clearer messages like %age is bigger, etc.

Tuesday, March 10, 2020 2:22 PM

TNB has engaged EY as AMI PMO. As a part of this engagement, EY is bringing a set of robust tools & frameworks to better manage the reporting

The tools are based in cloud and thus the AMI team seeks approval to upload the data in cloud.

# Data transfer to cloud

Thursday, February 27, 2020 2:17 PM

[12/3]

For legal, need to connect with Rida from AMI who shall be driving it and Maimun shall be the one who shall be connected from legal

1. PenTest is going to be done?
2. Is there a test that we are going to do?
3. Password management - who will set it? How long is it going to?



# UW Meetings

Friday, March 6, 2020 2:07 PM

[16 - March]

1. UAT Findings -
  - a. To discuss and close out quickly
  - b. Share logic on the UAT File
2. Datasets
  - a. Network readiness - what if we share a subset of columns that are relevant only

# Legal

Tuesday, April 7, 2020 9:07 AM

1. Liability clause - already covered; Lynette to share this: Liability is already covered in the contract signed right now, so no need to add new clause - refer them to the section

# SMOC

Tuesday, April 7, 2020 9:26 AM

1. Licensing vs Cloud usage difference