



Diploma in
Electronic Systems

Internship Programme Report

Title:

24 Weeks Internship at Singapore Telecommunications Limited

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Summary

This is the final report of the key achievements accumulated in the past six months as an intern attached to the Project Management Operations (PMO) Department in Singtel Telecommunications Limited.

Acknowledgement

I would like to start off by thanking Nanyang Polytechnic, Singapore Telecommunications Limited for this internship opportunity. I appreciate Mr Chng for guiding me through the 24 weeks internship program. I am immensely thankful to my project management team and colleagues from other departments that has made this internship a memorable and eye-opening experiences. I appreciate Nadia, my direct work mentor, for mentoring and teaching me throughout the internship that had helped me broadened my horizons significantly. Under her, I was able to learn valuable skills that will be relevant in the future.

Introduction

This section covers the background of the company and the roles that I am assigned during this internship period.



1.1 Background

Singapore Telecommunications Limited is a Singaporean multinational telecommunications conglomerate and one of the four major telecoms operating in the country. The company is the largest mobile network operator in Singapore with 4.1 million subscribers and through subsidiaries, has a combined mobile subscriber base of 640 million customers at the end of financial year 2017.

I was assigned to the Business Enterprise Department, under the Project Management Operations (PMO). PMO deals with projects that help the Project Management (PM) Department. While the PM department mainly handles the customers, the PMO department would help the PM department by handling automation and digitalization projects and bonding events. Help the PM Department be more efficient in their work, therefore handling projects to constantly further automate/digitalize tools and platforms.

1.2 Scope of Internship Work

While this pandemic has made my internship to mostly Work from home, I was still able to contribute to my team due to the access of VPN. The main task I was given was to follow up and help execute the automation projects to hit each milestone and dateline. I would also help out with the User Acceptance Testing (UAT) testing. To ensure that the project will be smoothing sailing, I would need to review each milestone before proceeding to the next milestone. Such reviews include UAT testing, UAT Reports, UAT Results and UI Design. I was also assigned to completing weekly and monthly tasks such as compiling data and information for reports to my higher ups. Some examples of such tasks are: BAU Tracker Report, Organisational Chart Report and Engagement Plan Report. I was also given the opportunity to plan out social bonding events for the company like Corporate Social Responsibility (CSR) POSB PAssion Run for Kids, International PM Day and GD Management Carepack.

Objectives

The main objective I had for this internship was to get a better understanding on how I can apply my knowledge in school to the outside world. I was also curious about working in a Project Management team as I've always had a minor interest in this line of work. I also aimed to find out how my diploma could be used in the working world and decide on possible post-graduation plans.

Implementation

3.1 List of Projects

In this section, I will be going explaining more about the implementation of each project.

The following are the list of projects I've helped out during my internship.

- DPATCH Phase 1: iKom eKom Projects
- DPATCH Phase 2: Project Creation
- DPATCH Phase 5: Project Closure
- POL Transformation
- GD Hackathon

Digitalize Project Activity Tracking & Circuit Handover (DPATCH) is an initiative that has a project duration of over a year and is currently ongoing. The objective of this initiative is to digitalize and automate respective platforms to be more efficient. There are a total of 6 phases, of which I helped in 3.

3.1.1 Project 1: DPATCH Phase 1: iKom eKom

The purpose of this is to check if the Project Managers has uploaded meeting minutes and automatically send out internal and external meeting invites upon project creation. When a PM does not respond after a certain period of time, the bot will trigger emails out to remind the PM. The bot will also automatically add the relative project documents to the project document library. The bot will also update the project's information page and update the compliance report. This automation will help to assist the PM for Project Initiation Tollgate with meeting invitations and Meeting Minutes for compliance. This automation will result in reduced manual touchpoint and Manual Upload for Tollgate compliance.

The software used for this automation are MS Flow, MS Projects, MS Automate and Propriety Tools.

3.1.2 Project 2: DPATCH Phase 2: Project Creation

The purpose of this project is to speed up the process of adding projects into the project online platform and to automate the process whilst reducing manual touchpoint. The plan of the project is to create a Bot that will interrogate the POL mailbox for emails from Tower Leads. If it matches the correct criteria, it will create a new project. The bot will automatically update a spreadsheet and Project Online custom lists to match and also update PM, Sector and Sector Leads.

The software used for this automation are MS Flow, MS Automate and Propriety Tools.

3.1.3 Project 3: DPATCH Phase 5: Project Closure

The objective of this project is to allow Orion to be accessed in POL in a speedy manner. The plan is to create automate the platform used to inform stakeholders when circuits and projects have been completed. The automation will also be able to provide stakeholders with notifications about key indicators.

The software used for this automation are SQL, Azure, Microsoft Project and Propriety Tools.

3.1.4 Project 4: POL Transformation

The objective of this project is to automate the Project Online Platform to reduce manual touchpoint. With reduced manual touchpoint, there will be lesser likelihood for errors and fasten the process of the project run through. With this tool, standard reports will be automatically produced by capturing certain information about the project.

The software used for this project are Microsoft Project, Azure, CDS, SQL, PowerApps, Orion and Propriety Tools.

3.1.5 Project 5: GD Hackathon

The objective of this project is to create a PM Dashboard that extracts data from different excel sheets as there is no single view to show the various projects and work order for each customer / account. Project Managers have to manually create project reports and have to reference to multiple systems (i.e.: Project Online, ORION and SharePoint).

This will be done by creating an automation that compiles information from multiple systems such as Project information (Project Online), work order status (ORION), Risk/Issue Status (Attention Required Report via SharePoint) into a single platform. The software used for this automation are Power BI and Microsoft Excel. For a simpler overview, please refer to Figure 2.0.

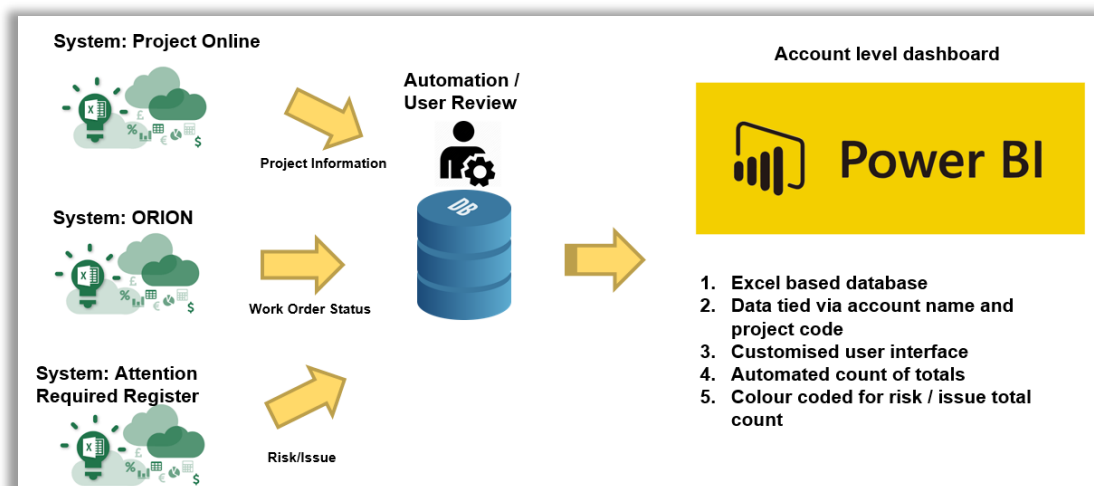


Figure2.0: GD Hackathon Storyboard

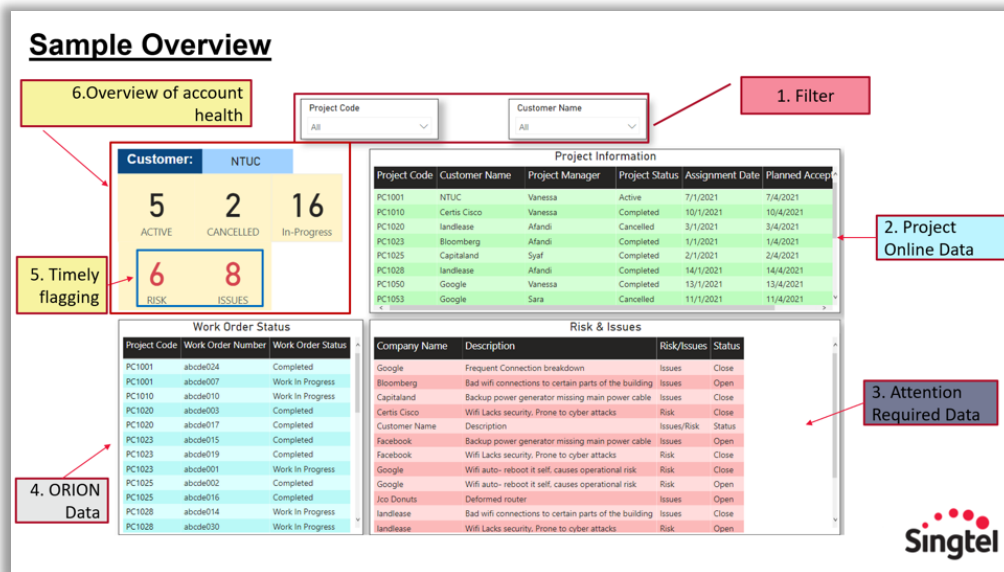


Figure 3.0: PM Dashboard UI Interface

As a result, this automation will reduce the need for Project Managers to create project dashboard from scratch and will be able to easily view and review project information from a single source as seen from Figure 3.0.

3.2 Software Development

As you can see, the software mainly used for our projects are Microsoft applications as the vendor we have partnered with is partners with Microsoft. There are also tools and software used which are propriety tools. The main software used for many of our Projects is Microsoft Projects due to the user-friendly interface. Microsoft applications are also highly customizable and widely favored throughout our department. Another main reason is the partnership our vendor has with Microsoft (Figure 4.0) In Figure 5.0, you will see a brief overview of the software's I've touched on during my internship.



Figure 4.0: Logo of Partnership with Microsoft

3.4 Key Technical Issues and Solutions

As a practical learner, there were not many physical or technical items I could use at work. I could only hear about the technical items from the vendors during meetings. Therefore, I would say that I have gained Technical Knowledge during this program.

The main technical issues faced was when the Wi-Fi went down and we could not continue milestones like UAT testing or running of the platforms and tools. The solution for that was eventually prioritizing other milestones or using the other available internet access servers.

Another struggle I had was also finding it hard to communicate with both local and foreign vendors or Project Managers. There were also many unfamiliar terms that I've never heard before, especially terms like software names that I've never heard of. This became an issue for me as I had to keep up and understand others during meetings. I was also unsure of how to proceed thereafter. The solutions used to counter this issue is by jotting down every term I didn't understand and doing my own research to better understand the whole meeting and project. This would also help better equip myself for future meetings. Not understanding the terms vendors use, therefore, making me unsure of how to proceed.

Through this internship, I have gained organizational skills that has immensely helped me. Organization was one of the main issues I had to deal with as I very disorganized. During the internship, I had learnt tips from my teammates to help me better manage all my tasks and project such as incorporating time scheduling and notepad tracking methods.

Conclusion

In a nutshell, the past 24 weeks has definitely broadened my horizons on what it was like working in the outside world. This internship has not only given me perspective of the working world, it has also helped better hone my skills. It has given me insight on how I was able to use my diploma to get started on my career and how I could progress further in the future. I would say that my view has changed due to getting a better understanding of the real working world, meeting other co-workers and hearing their perspective, and from interacting with people who have had successful careers such as managers and teammates through meetings organized by Singtel. This internship has taught me valuable lessons that can't be taught in classes. My views have changed from focusing to just doing well in class or exam to focusing on being able to apply the knowledge to real world applications and learning how the concepts may affect me in the future. My vision has been expanded to see the big picture instead of just focusing on the short-term goal of doing well academically. This internship has helped me better understand myself and decide on my post-graduation plans.

Interning at Singtel was an eye-opening experience for me, where I was able to learn and get an insight of the engineering world and project management, of which both I was curious about. I was introduced to many new ideas and concepts with how projects are executed and how the objectives are attained. Singtel has invested ample time and energy into us with training and guidance so we could develop the proper skills for the job. When I think back on my internship journey with Singtel, I am very thankful and blessed to have had the chance to intern with them.