

UNIVERSITI TEKNOLOGI MARA

INDUSTRIAL TRAINING REPORT

At

**Mesiniaga Berhad
Menara Mesiniaga, 1A, Jalan SS16/1,
47500 Subang Jaya, Selangor
27 February 2016 – 7 July 2017**

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**Report submitted in partial fulfillment of the requirement
for the degree of
Bachelor of Computer Science (Hons.) Data Communication and
Networking**

Faculty of Computer and Mathematical Sciences

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ACKNOWLEDGEMENT

“In the name of Allah, The Most Gracious and The Most Merciful“

Alhamdulillah, praises and thanks to Allah because of His Almighty and His endless blessings, I was able to finish this practical training within the time duration given. Completing 20 weeks of practical training would not have been possible without assistance from various parties. During that time, I learn a lot of things that are valuable in my life. I would like to thank for the assistance from my industrial training supervisor, Mohd Shazrin Bin Saporin for his invaluable advice and supervision at the initial stages of this industrial training. Also to all of my co-workers at Mesiniaga Berhad who have helped and teach me many things.

I would like to thank to Miss Fadzlin Binti Ahmadon for taking her time to visit me during the training period. Her advice and feedback are deeply appreciated as I consider them valuable inputs.

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TABLE OF CONTENT

CONTENT	PAGE
ACKNOWLEDGEMENT	ii
TABLE OF CONTENT	iii
LIST OF FIGURES	v
LIST OF TABLES	vi
ABSTRACT	vii
CHAPTER 1 : ABOUT MESINIAGA	
1.1 Company Background	1
1.1.1 Mesiniaga Information	2
1.2 Mission and Vision of Mesiniaga Berhad	3
1.2.1 Mission	3
1.2.2 Vision	3
1.3 Mesiniaga's Board Of Directors	5
1.4 Mesiniaga's Management Team	5
1.5 Mesiniaga's Products and Solutions	6
1.5.1 Mesiniaga Maintenance Service	6
1.5.2 Mesiniaga Managed Service	6
1.5.3 Mesiniaga Network Services	6
1.5.4 Mesiniaga Security Solutions	6
1.5.5 Mesiniaga Software Development	7
1.5.6 Mesiniaga Software Testing	7
1.5.7 Mesiniaga Workforce +	7
1.5.8 Mesiniaga Partners	7
CHAPTER 2 : TASK AT MESINIAGA BERHAD	
2.1 About Service Delivery Division	8
2.2 Organizational Structure of Service Delivery Division	8
2.3 Responsibilities and Tasks	9

2.4	Preventive Maintenance	9
	2.4.1 Networking Hardware	10
	2.4.2 Preventive Maintenance Procedures	11
2.5	Staging and Installation	12
2.6	System Update for PM and SJ report	14
CHAPTER 3 : STUDENT EVALUATION		
3.1	Productivity	17
3.2	Utilization	17
CHAPTER 4 : CONCLUSION AND RECOMMENDATIONS		
4.1	Conclusion	18
4.2	Recommendations	19
REFERENCES		20

LIST OF FIGURES

FIGURE		PAGE
1.1	Mesiniaga Berhad Logo	1
1.2	Mesiniaga's Board of Directors	5
1.3	Mesiniaga's Management Team	5
1.4	Mesiniaga's Partner	7
2.1	Organizational Structure Service Delivery Division	8
2.2	List of Tasks	9
2.3	List of Network Equipment	10
2.4	Preventive Maintenance Checklist for Switch	11
2.5	Performed Server Preventive Maintenance	12
2.6	Plan for mounting server	13
2.7	Before and After installation	13
2.8	Preventive Maintenance Report	14
2.9	Service Job Report	15
2.10	Servicenow Mesiniaga System	16
3.1	Productivity Graph	17
3.2	Utilization Graph	17

LIST OF TABLES

1.1	Mesiniaga Information	2
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ABSTRACT

This report is an internship report submitted in partial fulfillment of the requirement for the Bachelor of Computer Science (Hons.) Data Communication and Networking at Faculty of Computer and Mathematical Sciences, Universiti Teknologi MARA (UiTM), Jasin Campus, Malacca. I have undergone internship at Mesiniaga Berhad and attained knowledge during the course, after which I was able to compile this report. The report consists of brief study and tasks that I have made during my internship. The report also elaborates the work I had done in order to complete the tasks given to me. I also have gain many experiences on how to overcome problem and hardship during my internship and the objectives of industrial training also have been fulfilled.

CHAPTER 1

ABOUT MESINIAGA

This chapter will elaborate more about the background of the company and what is the company working on.

1.1 Company Background



Figure 1.1 Mesiniaga Berhad Logo

Figure 1.1 shows that the official logo of Mesiniaga Berhad. Mesiniaga was established on 17 December 1981 at a time when the country's IT industry was still in its early stage. The establishment was in response to Malaysia's New Economic Policy (NEP) to increase Bumiputera participation in the technology industry.

A strategic plan was developed to cultivate local entrepreneurial talent. The plan involved utilising a pool of ready talents in IBM and incorporating a company that would serve as IBM's sole dealer and agent in Malaysia. The team was led by the late Ismail Sulaiman, who was formerly the General Manager of IBM Malaysia. Together with a team of 50 former staffs from IBM, Mesiniaga became fully operational IT company on 1 January 1982 with a paid-up capital of RM500,000.

Mesiniaga started as a company selling IBM office products and now evolved into a multi-platform business solutions provider with a paid-up capital of RM60.4 million. Within the last 30 years, the technology landscape has changed tremendously. New trends have emerged resulting in a sea of change in the way companies do business. Across the board, companies these days are constantly on the lookout for solutions that will give them an edge over their competition. As such, Mesiniaga constantly strives for ways to provide customers with an experience that will allow them to achieve their business objectives.

Another important element in enhancing customer experience is in the management of customer satisfaction. To this effect, it has implemented multiple initiatives that are aimed at improving service delivery and understanding of customer's needs. Mesiniaga people are already acknowledged as having superior technical skills, mainly because they actively encourage employee to pursue or update their professional certifications. They also undergo numerous soft skills training session in order to improve their understanding of customer requirements and how best to meet them. The end of the objective for these initiatives is to give customers the least possible worry in their dealings with the company. All of these efforts are undertaken to ensure that Mesiniaga remains a force to be reckoned with in the IT industry.

1.1.1 Mesiniaga Information

Table 1.1 shows Mesiniaga information such as the address, contact number and email address.

Table 1.1 Mesiniaga Information

Address	: 1A, Jalan SS16/1, 47500 Subang Jaya, Selangor.
Phone	: +603-5635 8828
Email	: corpcomm@mesiniaga.com.my
Website	: www.mesiniaga.com.my

1.2 Mission and Vision of Mesiniaga Berhad

1.2.1 Mission

“HELPING CUSTOMERS SUCCEED”

Mesiniaga have their own mission by helping customers succeed. In order to fulfil this, it is authoritative that they understand their customer’s environment and challenges. While Mesiniaga still want to continue to keep a good force on their strong partnership with globally renowned partners to provide customers with innovative technology, the have a perspective towards technology in improvising the customer’s business performance. Mesiniaga main aim is to enhance their value proposition by maximizing the returns on their IT investments.

1.2.2 Vision

Mesiniaga’s vision could be further elaborated into 4 elements which are customers, employees, partners and shareholders.

For customer, Mesiniaga will be the primary reference point for their customer’s IT needs. This can only be achieved by a perfect alignment of Mesiniaga goals with those of their customers. It involves deeply understanding on how customers create business value and deploying technology in its attainment.

Mesiniaga admit that employees are their own lifeblood for their business. Therefore, Mesiniaga feels that they must attract the best talent, enable them to exploit their full potential, deploy them to greatest benefit and merit their continued service and commitment. Mesiniaga recognize that success in meeting employee goals is a precondition to meeting organization goal.

Other than that, Mesiniaga also believe that their approach towards customers constitutes deep loyalty that will be reciprocated and mutually benefit their vendors and Mesiniaga itself. Mesiniaga will demand the greatest commitment from vendors whilst offering the same to them, both of whose success is contingent upon that of Mesiniaga customers.

Lastly, Mesiniaga will create the greatest business value for customers in order to enjoy superior returns on the efforts. These returns will compensate Mesiniaga's shareholders for their faith in company itself. Mesiniaga will also promote employee stock ownership which promises congruence between employee and shareholder goals.

1.3 Mesiniaga’s Board of Directors

Figure 1.2 shows the Board of Directors (BOD) of Mesiniaga Berhad.



Figure 1.2 Mesiniaga’s BOD

1.4 Mesiniaga’s Management Team

Figure 1.3 shows the Management Team (MT) of Mesiniaga Berhad.

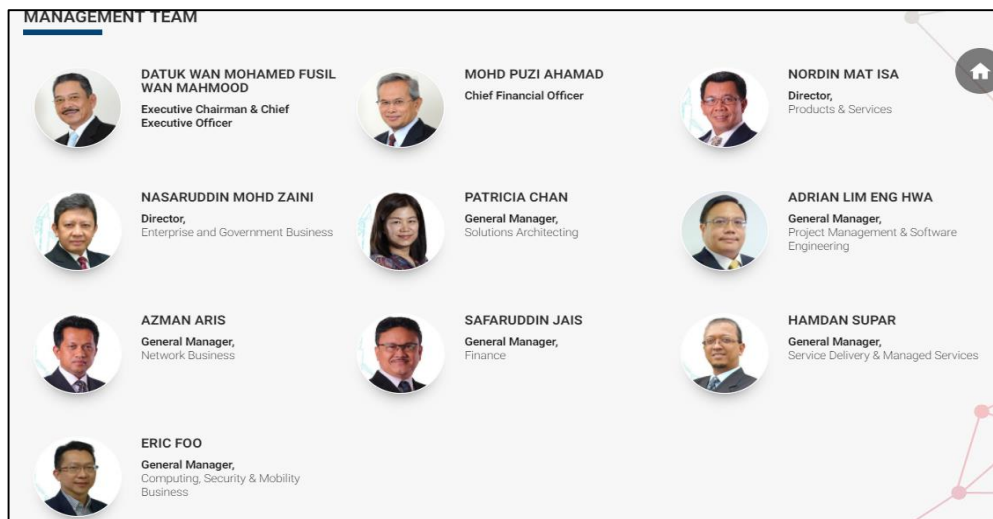


Figure 1.3 Mesiniaga’s MT

1.5 Mesiniaga's Products and Solutions

1.5.1 Mesiniaga Maintenance Services

Mesiniaga maintenance services provide a service which is called NETSYS CARE where the service by Mesiniaga allows customer to design and maintain their desired uptime. It also reduce maintenance cost and prevent unplanned breakdowns.

1.5.2 Mesiniaga Managed Services

Mesiniaga will ensure an optimized IT infrastructure through their comprehensive Managed Service offer such as server infrastructure, cloud and application services, end user computing and network management services.

1.5.3 Mesiniaga Network Services

Mesiniaga Network services manage customer's network challenges by providing an optimized design framework, delivery excellence and customized tools and reporting.

1.5.4 Mesiniaga Security Solutions

Mesiniaga Security Solutions has the highest protection against all cyber security threats.

1.5.5 Mesiniaga Software Development

Mesiniaga Software Development empowers customer's organization with custom built applications.

1.5.6 Mesiniaga Software Testing

Mesiniaga Software Testing addresses all threats and risk of a software development project.

1.5.7 Mesiniaga Workforce+

Mesiniaga was very confident and guarantee that the highest mobile productivity through end-to-end automation and intelligence capabilities.

1.5.8 Mesiniaga Partners

Figure 1.4 shows the organization that is part of Mesiniaga which is their partners.



Figure 1.4 Mesiniaga's Partner

CHAPTER 2

TASK AT MESINIAGA BERHAD

This chapter will introduce the Service Delivery Division where I have been assigned to for industrial training in Mesiniaga Berhad as well as further explain the job scope and tasks an industrial trainee done in this department.

2.1 About Service Delivery Division

Service Delivery Division placed at 5th floor of Menara Mesiniaga. I was assigned to help project team with their task on technical things. Mostly I have been send to customer site to do the task or job around Klang Valley, Putrajaya and Cyberjaya.

2.2 Organizational Structure of Service Delivery Division

Figure 2.1 shows the organizational structure of Service Delivery Division.

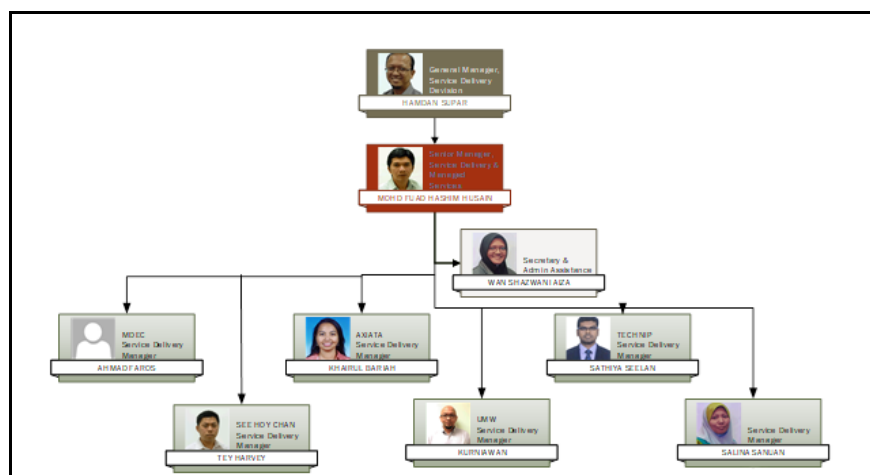


Figure 2.1 Organizational Structure Service Delivery Division

2.3 Responsibilities and Tasks

At Menara Mesiniaga, my workplace was at 5th floor together with the project team that I assisted. The project team which are led by En.Khairul Anwar has assigned me tasks or project during my industrial training. Figure 2.2 shows the list responsibilities or tasks that I have been assigned:

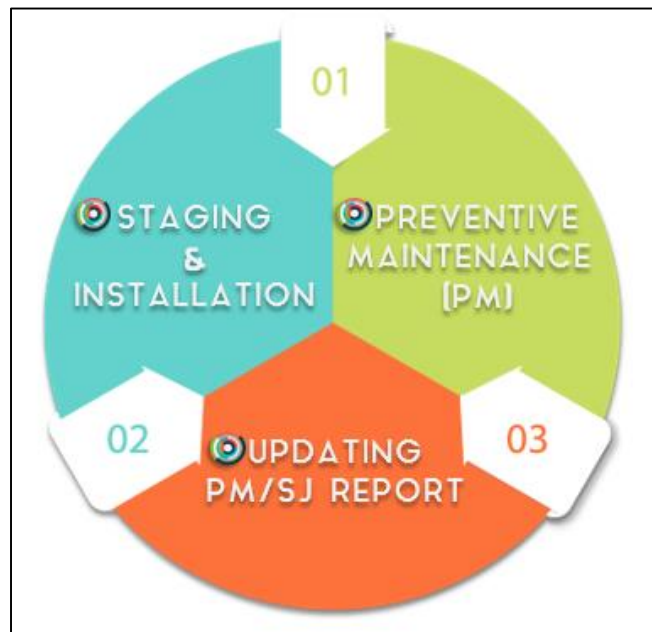


Figure 2.2 List of the tasks

Based on Figure 2.2, show the list of the tasks that I have been assigned which are preventive maintenance, staging and installation and updating PM and SJ report.

2.4 Preventive Maintenance

Preventive maintenance is a maintenance that is performed on equipment to reduce the possibility of it failing. Preventive Maintenance is performed while the equipment is still working so that it does not break down unexpectedly. Besides that, the preventive maintenance is scheduled based on

time for example the preventive maintenance need to be done every 6 month based on the contract. Preventive maintenance usually will be performed by network engineer.

2.4.1 Networking Hardware

Networking hardware, also known as network equipment or computer networking devices, are physical devices which are required for communication and interaction between devices on a computer network. Specifically, they mediate data in a computer network. Preventive Maintenance basically performed on network equipment since Mesiniaga Berhad only covered on network equipment. Figure 2.3 show the list of network equipment.



Figure 2.3 List of Network Equipment


Based on Figure 2.3 shows the list of network equipment which are switch, router, server, VoIP and printer.

2.4.2 Preventive Maintenance Procedures

In this section will explain about the preventive maintenance procedures. Every type of network equipment the preventive maintenance procedures will be different. To perform the preventive maintenance, engineer will refer to the checklist given. Figure 2.4 show the example of the preventive maintenance checklist.

PREVENTIVE MAINTENANCE CHECKLIST 2017

Equipment Type : Access Switch
Location/Precinct : Conference Room (Level 2 - Hall)
Equipment Model : Cisco Catalyst 3550
Hostname : p03a02-hall211
IP Address : 10.15.20.26



PART A:

Item	Type	Serial Number	Description	Status		
				Red	Amber	Green
1	Chassis	CAT0740X0XQ				
2	IOS Version	C3550-ipbase-mz122-35.ses				

PART B:

Item	Description	YES	NO	Remarks
1	Labeling			
2	Check LED Status			
3	Cable Inspection & Tighten			
4	Check/Clean Fan Status			
5	Backup Configuration			
6	Check System Log			
7	Check CDP Neighbor			
8	Check Access Authentication			
9	Check FastEthernet No Logging Event Link Status. Add if not available.			
10	Check & Update Topology			

PART C:

CPU Utilization (%)	Memory Utilization (MB)		
	Total	Used	Free

Circle Free Ports (1-24)

1	3	5	7	9	11	13	15	17	19	21	23	LX/SX/STK	LX/SX/STK
2	4	6	8	10	12	14	16	18	20	22	24	LX/SX/STK	LX/SX/STK

Port Utilization		
Total	Used	Percentage (%)

Figure 2.4 Preventive Maintenance Checklist for Switch

Based on Figure 2.4, the preventive maintenance checklist is for switch at customer site, Putrajaya Corporation where network engineer need to perform the preventive maintenance based on the checklist. Example of the task is check the LED status of the switch, check and clean the fan of the switch and console the switch by doing specific command line to backup the configuration.



Figure 2.5 Performed Server Preventive Maintenance

Figure 2.5 shows that while I am performed preventive maintenance on HP server in customer's Data Center where I need to follow the step by step based on the checklist given.

2.5 Staging and Installation

Staging and installation usually will be performed on PC and server where staging is the first phase and installation is the second phase. For staging and installation on PC, the staging phase is where the PC will be setup by perform image recovery and perform windows update. Then, installation phase will take over where the PC will be install at customer work station or work place.

Next is staging and installation on sever, the staging phase is where the server will be configured by perform basic configuration and perform testing software. After that, the installation phase will take over where the server will be mount on rack at customer's data center or room server.

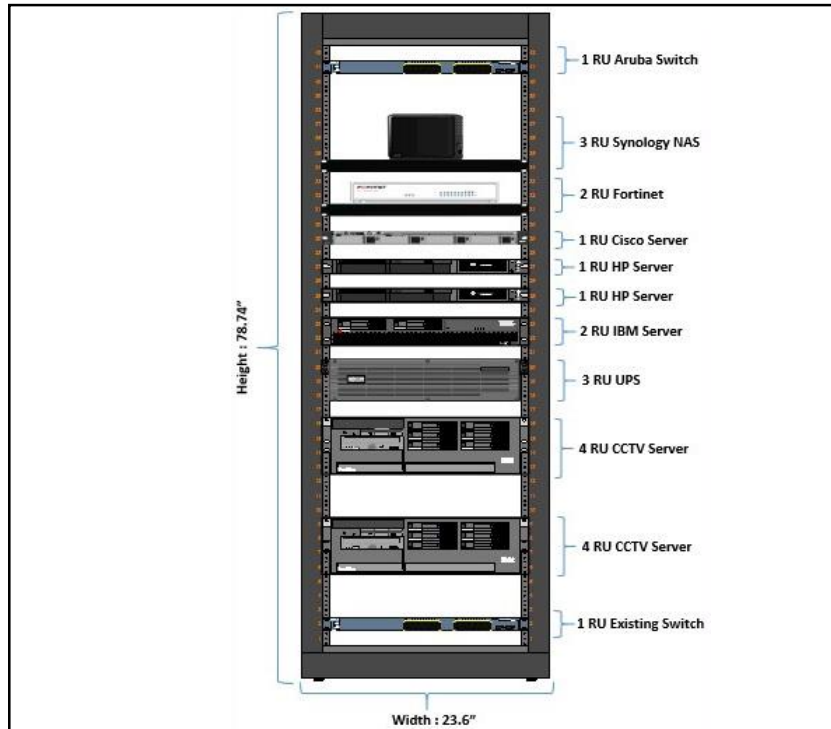


Figure 2.6 Plan for mounting server

Figure 2.6 shows the plan for performing installation on server where basically I need to follow the plan that will be given to mounting the server at customer's data center or server room. Figure 2.7 below shows the before and after the installation of server that has been done.



Figure 2.7 Before and After installation

2.6 System Update for PM and SJ report

In this section will explain about system update for PM, preventive maintenance and SJ, service job report. Every PM or SJ that already completed or performed by engineer, they need to write down all the details of the task on PM or SJ report. Then, the PM or SJ report need to be sign by customer's person in charge for proving that the task already complete. Figure 2.8 below shows the example preventive maintenance report.

The image shows a 'Mesiniaga' Preventive Maintenance Report form. The form is titled 'Mesiniaga' and 'MESINIAGA PREVENTIVE MAINTENANCE REPORT'. It contains fields for customer name ('Pty. Suk Penang'), location ('Lvl. 24 / Server Room / Kantor'), and equipment details. The form is filled out with handwritten information, including a list of equipment with serial numbers and descriptions like 'HP Storage Works P2999', 'Brocade Fab sw report (switch) SAN', and 'HP ProLiant P1500 G7'. There are sections for 'ACKNOWLEDGEMENT OF SERVICE' and a signature area for the technician and customer representative.

Figure 2.8 Preventive Maintenance Report

Figure 2.8 shows the preventive maintenance report that has been done by engineer. Details that need to be collect is the customer's company, location, date, time, duration, serial number of the equipment and the model. Figure 2.9 below shows the example service job report.

Mesinaga
ENGINEER TRAVEL BACK
TRAVEL TIME: HR: MIN. MILEAGE: KM
Update Call Centre Update System

Mesinaga Berhad (78244)
SERVICE CALL CENTRE UNIT: MESINAGA BERHAD, NO. 1A, ALAN 52 161, 47500 SUBANG, JAYA.
SERVICE TEL: 1300 88 8856, CALL CENTRE FAX NO: 03-8938 2015 / U/L OFFICE FAX NO: 03-8923 4809

MESINAGA SERVICE JOB REPORT

CUSTOMER DETAILS
SERVICE JOB NO: W050911/W0195640
CUSTOMER REF: _____
TEL NO: 04- _____

CONTACT PERSON
NAME: _____
PHONE: _____

DATE OF SERVICE 21 / 02 / 2017
MODEL NO: C291111K9
SERIAL NO: F4415901328

LABOUR SERVICES
WARRANTED BY: PRINCIPAL / UNDER CONTRACT / RELIABLE / INTERNAL EXPENSES / PHONE SUPPORT

FAULT DESCRIPTION 2016 04 PM
JOB DONE Done PM for 1 unit of Cisco Router.

PARTS REPLACEMENT
REPLACEMENT PART NO. DESCRIPTION QTY.

ENGINEER SIGNATURE Mhd Fird
NAME: Mhd Fird
EMPLOYEE NO: 221022

CUSTOMER SIGNATURE/NAME
DATE: 02/02/17

COMPANY STAMP
PETIR CAWANGKOT FEEDBACK UNIT
BUKU PELAJIAN BANGSAH PULIS
SEBERANG PERAI SELATAN
PULAU PINANG

Figure 2.9 Service Job Report

Figure 2.9 shows the service job report that has been done by engineer. The details that need to be collect is similar to the PM report but the different is the tasks that need to be perform by engineer for example like to validate serial number of network equipment.

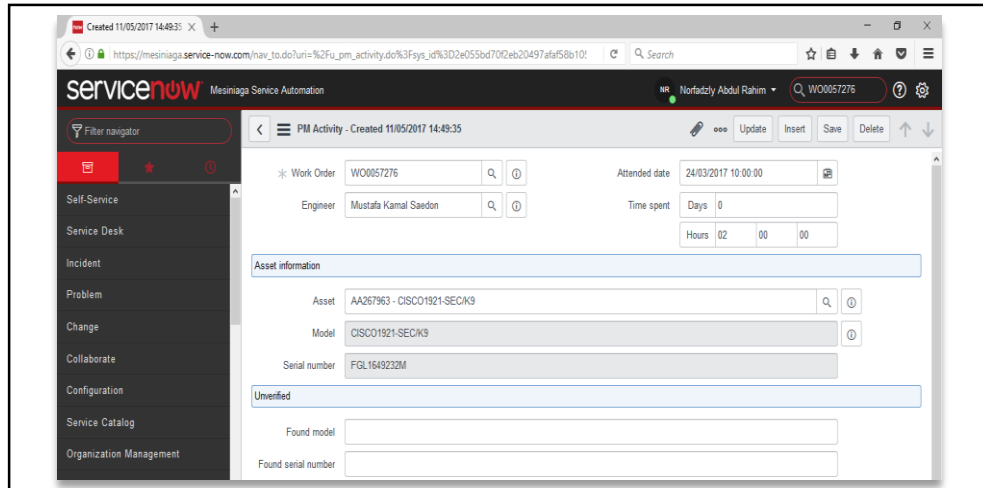


Figure 2.10 ServiceNow Mesiniaga System

Figure 2.10 shows the ServiceNow Mesiniaga System where the PM and SJ report need to update in the system. The details that need to be update is the the customer's company, location, date, time, duration, serial number of the equipment and the model.

CHAPTER 3

STUDENT EVALUATION

3.1 Productivity

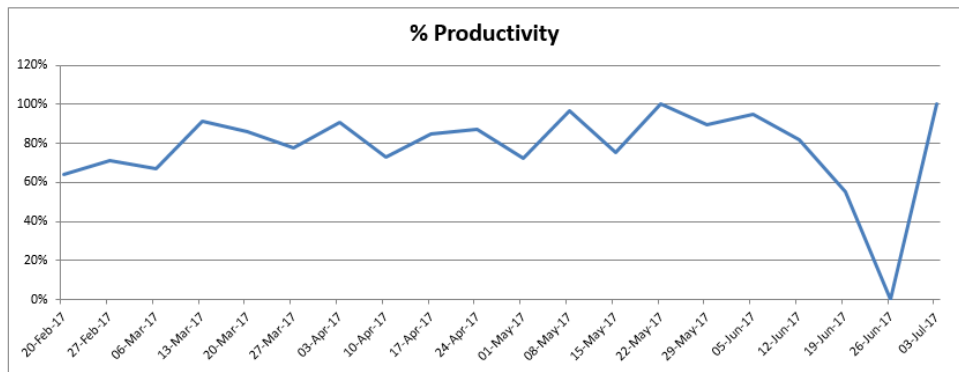


Figure 3.1 Productivity Graph

3.2 Utilization

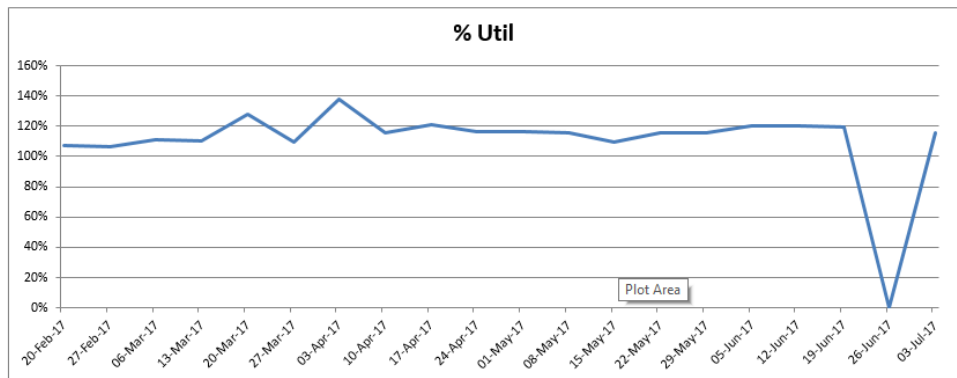


Figure 3.2 Utilization Graph

CHAPTER 4

CONCLUSION AND RECOMMENDATIONS

This chapter put an emphasis on the conclusion of the industrial training at Mesiniaga Berhad as well as the recommendations that could be made.

4.1 Conclusion

As a conclusion, for about 20 weeks I executed my industrial training in MESINIAGA BERHAD, I was able to learn many lessons whether it related to education or not. Students who attend industrial training will get skills not only in technical side but also humanity skill like leadership management skill, time management skills, critical thinking skill, communication skill and interpersonal skill.

During practical period, I am able to learn on how to work with a company in terms of working with the different levels of staffs and to deal with other people regarding the task that assigned to me. This phase also give me the opportunity to learn the situation that consists of multiple types of people.

Other than that, teamwork is one of the important key as well. I got a chance to work as a team with other people. As what I mentioned before, teamwork is very important, it can determine the successful of the given tasks. In real world, it is impossible for us to work alone. We might need help from other

to accomplish our job. Hence, teamwork is one crucial part to complete the task successfully.

Last, industrial training program is important to help student to understand more about the working environment and prepares in term of physical and mental to face the real working world when student finished their studies. The industrial training program allows me to understand more about my fields of study and gives a clearer view to move a step forward in future.

4.2 Recommendations

I would like to make some recommendations that an industrial trainee may be given a chance to do various tasks not only within the department but also related to their courses. So that they can utilize their 20 weeks industrial training very well. This is to ensure that the working experience that they get is very helpful and can give them imagination that this is how it works in a real life works.

REFERENCES

Mesiniaga Berhad. (2015). *Annual Report 2015*. Subang Jaya.

Mesiniaga Berhad. (2016). MESINIAGA BERHAD | Menara Mesiniaga. Retrieved from <http://www.mesiniaga.com.my/about-us/menara-mesiniaga.aspx>

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