

Universiti Teknologi MARA

**Auto-Check Network Reporting Tool (ACNR):
Network Monitoring**

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“By the name of Allah, the Most Gracious and Most Merciful”

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Abstract

A network commonly experience their error or problem. They are depending on their size of the network. Increase in the size of the network; increase the chance of experience error and problem. Indirectly, the user or technician is hard to find out the source of the problem when they got them in the large company such a large network. Main objective is to automatically identify if there are error in terms of physical and virtual problem such as routing loop problem, cabling error and device error which not function properly. Main component used in this development is python programming language. Python is one of the powerful programming languages to create a network tools. Besides that, this project use Qt software as GUI tool development. As a result expected, the tool can detect end and internetwork device in a network. It can list information about the end and internetwork device. For example, the user can know what kind of the OS used by the computer and what kind of switch and router.

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CHAPTER ONE: INTRODUCTION

1.1 Background of study

The phrase network monitoring describes the use of a system or tools constantly monitors and checks a network components and their performance and that notifies the network administrator in case of outages. The servers, network connections or other device is a division of the functions involved in network management. For instance, it is to determine the status of end and internetwork device like checking available pc and access point. Other than that, the tool of network monitoring intended to check the performance of the network like bandwidth speed and usage. It usually produces an action from the monitoring system.

1.2 Problem Statement

A network commonly experience their error or problem. They are depending on their size of the network. Increase in the size of the network; increase the chance of experience error and problem. Indirectly, the user or technician is hard to find out the source of the problem when they got them in the large company such a large network.

There are certain common problems faced by them. Upgrading physical topology in network need a lot of change devices. We consider here the problem of detecting changes in the status of switching devices, circuit breakers in particular, and in distribution networks (Sharon et all, 2012). A routing loop is formed when an error occurs in the process of the routing algorithm, and as a result, in a group of nodes, the path to a particular destination forms a loop. It is common problem with a variety of types of networks