ABSTRACT

DIKA AGUS SATRIA. Power Monitoring System for Network Operations Center. Supervised by HENDRA RAHMAWAN.

Electricity power events such as power goes off and on can affect performance of a computer, especially a server. Often such power events occurred and noticed, but ignored. Computer intensive activity like servers in Network Operations Center (NOC) should has a power monitoring software. So, an administrator of NOC will have log of power events. Administrator should be noticed also when power goes off.

Network Operations Center Power Monitor (NOCPM) is developed to meet this needs. It was developed using extreme programming (XP) methodology with object oriented approach. NOCPM evolved iteration by iteration in XP lifecycle. Each iteration will be explained using ICONIX process. NOCPM consists of two subsystems: Watch Tower and Data Viewer. Watch Tower concerns about monitoring certain serial port and make log for each data that received. A short message alert for each data that received from serial port will be sent also to an administrator. Data Viewer acts as data log visualizer and make graph from data log.

Watch Tower and Data Viewer were tested using black box methodology. All use cases successfully passed black box testing. Response time when a power goes off signal received until that signal logged successfully at database was no more than one second. Time that notification via short messaging service took from Watch Tower to administrator’s phone was no more than one minute.

Keywords: power monitoring, monitoring system, alert system, log visualizing, Network Operations Center.