

## **ABSTRACT**

*Evolving information technology has increased the complexity of company operations, requiring automation processes to support better company services. For the automation process to function properly, proper Information Technology (IT) service management is required. Information Technology Service Management (ITSM) can be the right solution to support enterprise services with infrastructure management and service automation processes. However, ITSM has shortcomings in network visibility. To overcome the shortcomings of ITSM, it can be done by using additional applications in the form of Network Monitoring Software (NMS) which focuses on network monitoring and analysis. Based on the description above, this research aims to implement and integrate iTop as ITSM with Zabbix as NMS based on the automation process aspect to provide better visibility of Windows system monitoring with CPU utilization and high disk usage. This research was conducted using the Network Development Life Cycle (NDLC) method because it has a structured approach. The result of this research is to produce an automation process from the integration of the two systems in creating helpdesk tickets in real-time. Based on incidents that occurred in the two systems, the average incident response time was 3.1 seconds, which shows that the implemented automation process is able to provide a response in supporting incident handling. The suggestion that can be given in this research is to utilize the reporting feature in ITSM to expand the automation process to incident handling and support more precise decision making in handling the incident.*

**Keywords – Automation, Helpdesk, ITSM, NDLC, NMS, Visibility**