ABSTRACT

The efficiency of server monitoring systems is a crucial aspect in maintaining the operational stability of PT Indo Trans Teknologi (TransTRACK), a company engaged in technology-based transportation and logistics solutions. This final project aims to design and implement an intelligent monitoring system based on the Elastic Stack and Netdata, integrated with Discord as a real-time notification platform. The system was developed to address the limitations of previous monitoring approaches, particularly slow log searches, the absence of automated incident detection, and delays in notifications to the operations team. Implementation involved integrating Filebeat and Metricbeat for the automatic collection of log and metric data into Elasticsearch, as well as utilizing Kibana for visualization and full-text log search. Netdata was deployed to strengthen real-time anomaly detection using artificial intelligence. Incident and system status notifications are automatically delivered to the Discord platform via webhooks, thereby enhancing the team's responsiveness and collaboration in addressing operational issues. The results demonstrate that this latest version of the monitoring system accelerates incident detection, simplifies troubleshooting processes, and reduces the risk of downtime. Furthermore, the system has proven to be easy to operate, adaptable to operational needs, and scalable for future development. Thus, this monitoring solution makes a tangible contribution to supporting the efficiency, and security of TransTRACK's services.

Keywords: Elastic Stack, Netdata, server monitoring, anomaly detection, real-time notification, Discord integration.