A Zabbix Network Monitoring Model for Thanh Hung Company

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***Abstract*—This thesis studies a Zabbix network-monitoring model for Thanh Hung Company. The report introduces network-management concepts and SNMP, then documents installation, device discovery, monitoring views, graphs, and historical reports. The author says the exercise helped establish a limited business-network monitoring model and a plan for responding to device faults. Configuration and IP addressing were difficult in practice. The conclusion proposes extending tests to routers, embedded devices, branch networks, and additional server services. Those extensions are future work. The source does not provide a quantified reduction in outages, a measured alerting delay, or evidence of long-term company operation. The contribution is a documented monitoring setup and a record of its practical constraints.**

***Index Terms*—Zabbix, SNMP, network monitoring, device status, Thanh Hung**

I. Introduction

A business network can fail in ways that are hard to see without centralized monitoring. This thesis uses Thanh Hung Company as a case for studying Zabbix. It reviews SNMP, monitoring concepts, and the role of graphical status and historical records. The objective is to construct and inspect a monitoring model for selected devices. The report does not establish a measured baseline of outages or administrative workload before the project [1]. Earlier ICTU student work on related designs is included here for context [2]. Related published studies provide context for the subject and methods [3], [4], [5], [6], [7], [8], [9], [10]. These contextual works were selected for this English summary; they are not asserted to appear in the original thesis bibliography.

II. Methods

The author studies Zabbix and SNMP, configures a monitoring server, and documents device and agent settings. The practical chapter presents network diagrams, monitored items, dashboards, and history or report views. The setup process includes addressing and recognition of devices in the test environment. The manuscript does not describe a sustained company-wide rollout, an independent alert-accuracy study, or controlled incident-response measurements [1].

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III. Results

The source illustrates a network-monitoring model with graphical status information and historical reporting. The conclusion says the author learned to plan for device faults and to inspect overall network activity. It also notes difficulty with configuration and IP addressing. No verified reduction in downtime or quantified improvement in incident detection is shown. The observed result is a technical setup and selected monitoring views [1].

IV. Discussion

Zabbix can make device health and events more visible, but monitoring quality depends on correct discovery, thresholds, notifications, and maintenance. The author proposes testing in additional router and embedded environments and extending coverage to branches and server services. Those ideas are not documented as completed deployment. A later evaluation should record alert delivery, false alarms, device coverage, and staff response during actual failures [1].

V. Conclusion

The thesis documents a Zabbix monitoring model for Thanh Hung Company, including configuration work, dashboards, and historical views. It records implementation difficulties and suggests wider monitoring as future development. The source supports a student technical demonstration; it does not establish measured operational benefit or prolonged production use. Further testing in real environments would be needed to evaluate reliability and usefulness [1].

References

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