

## **Performance and Management of Infrastructure Mode Based Wi-Fi Technology in the State Universities of Zimbabwe**

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### **Abstract**

The purpose of the research was to investigate how Wireless Fidelity (Wi-Fi) technology based on infrastructure mode in various universities of Zimbabwe (Wi-Fi) performs as well as how it is being managed. The participants of this research were Information Technology (IT) departmental directors, chief technicians as well as students and staff of various departments of the universities. The results of the research indicated that Wi-Fi users at the various universities of Zimbabwe experience wireless connection problems within the Wi-Fi signal range. The signal can either be very weak or it can simply fail to be accessed by the user terminal. The research revealed that it is more challenging to maintain higher throughput of Wi-Fi network than wired networks. In this document, an evaluation of the performance and management of Wi-Fi technology at some state universities of Zimbabwe is reported. Basing on the responses given about the challenges of the of Wi-Fi performance, it was noted that the Wi-Fi technology has not been implemented to the fullest. This comes through lack of signal strength optimisation and incomplete dissemination of information necessary to users for connecting to Wi-Fi. Basing on the results of the research it was noted that appropriate AP placement is required to obtain greater performance of the Wi-Fi.