

Title: Public Wi-Fi Set-Up to Complement Existing Campus Internet Access Provided by the University of Ghana

Abstract: Public Wi-Fi can be found in public places such as airports, coffee shops, University campuses, etc. The ease with which people can access the internet using public Wi-Fi is comparatively the preferred internet access technology and provides comfort to many of its users. The major issues that characterize the public Wi-Fi networks at the University of Ghana especially the School of Engineering Sciences are slow internet speeds, low bandwidth, and weak Wi-Fi signals. Wi-Fi accessibility during peak hours for serious academic work has always been a problem. There is therefore the need to provide improved wireless communication technology with improved internet speeds, higher bandwidths, and stronger signals to complement the Wi-Fi services provided by the University of Ghana. To achieve this, a Wi-Fi network was implemented to provide an alternative to the existing campus Wi-Fi. This was done using fiber optics backhaul, two Altai super Wi-Fi access points (antennas), and a Mikrotik 8 port router. The results showed a significant improvement in performance as compared to the Wi-Fi services provided by the University in terms of strength, signal bandwidth, upload, and download speeds respectively. This will help students and lecturers at the University to conduct their research work smoothly without any disruptions. © 2023 Newswood Limited. All rights reserved.