

BANDWIDTH MANAGEMENT IN THE ERA OF BRING YOUR OWN DEVICE

Abstract

This research was undertaken to investigate the issue of how universities are managing utilisation of bandwidth in the face of increased Internet traffic in the era of 'bring your own device' (BYOD) and increased digital content. In particular, the research sought to find out about what universities in Zimbabwe were doing to ensure efficient utilisation of the limited bandwidth that is experience by most developing countries. A survey was carried out in a sample of five universities to catalogue their experiences. Results showed that most universities in the sample did not have an official Internet Access Policy to assist with bandwidth management. Technical solutions to successful provision of managed network bandwidth within a university involve the application of many network hardware tools, encompassing a number of different techniques, which are often expensive and out of reach of universities. Fortunately a cost-effective solution exists for all universities, which can be deployed regardless of the campus' existing network configuration or installed devices. The authors recommend that using quality of service and bandwidth management policies will enable network administrators to control network traffic flow so that appropriate users and applications get priority during the allocation of network resources. Also, universities must contain in their information technology policies a meaningful Internet Access Policy, which will help universities to develop and refine bandwidth access and usage and allow easy access to network resources.