

University campus network design

Design



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Declaration Declaration I certify that this dissertation does not incorporate, without acknowledgement, any material previously submitted for a Degree or Diploma in any University and to the best of my knowledge and belief, it does not contain any material previously publish or written by another person or myself except where due reference is made in the text. I also hereby give consent for my dissertation, if accepted, do be made available for photocopying and for inter library loans, and for the title and summary to be made available to outside organizations.

The important consideration of the network design should rate a potential support for the future expansions, reliability, scalability and the quality of service. Therefore, the outcome of this network infrastructure design must guarantee the constant availability, load balance and durability. Key words: constant availability, So, reliability, scalability, durability Page | 5 UNIVERSITY CAMPUS NETWORK DESIGN I Introduction 2. Introduction PIT University Campus is built to provide higher education and it is maintained by the private sector.

At present about hundred staff employed at the University while every year about six hundred students following their higher studies. The popularity and the increased requirements of the resources availability the existing system is not very efficient since everything done using manual operations.

Therefore, the University decided to enhance their communication and network infrastructure by implementing a network with the internet connectivity to inter-connect all the departments and faculties.

According to the analysis the physical size of the University Campus, departments, staff and students and their categories, computer labs, servers & databases identified along with their other requirements (Refer project scope). The increasing demand for gig performance (high throughput and low delay, a degree of fairness in accessing available channel bandwidth among active users on the network, and the quality of service provisioning) the network infrastructure design becomes critical part for the University.