Network addressing design essay sample



1. Provide an IP addressing plan for the existing campus and the new campus. (70 points)

The internal network will use private ip addresses, while the external network will use a public ip addressing scheme. The modems for all sites will use static public ip addresses. This will help to keep the ip address the same at each site and to make it possible to for the sites to connect to one another. All of the computers attached to the network will be using dynamic ip addresses in which will be automatically obtained based on availability. Any networked printers should have dhcp reservations created within the network to hold that ip address and prevent any other devices from obtaining this same ip address.

Instructor's computers will have their own separate vlan to prevent students from accessing sensitive information. The wireless access points will have ip ranges assigned to each type of network, the guest network and student network will be on their own respective vlans. Each device on both of these vlans will automatically obtain an ip address. The internal servers will also be on separate vlans, and will be assigned static private ips. This will make the resources easily accessible. The student portal is being used on the internet through an external website; this will use a public ip address in which will be statically provided by the host.