Project 2

Group: 404 Name not found *(Daryoush, Dylan, Steven, Matthew)*

Abstract:

This report includes information about our project two network and its various components. Along with the components, it will also overview how they were implemented and include the logic, reasoning, and strategy behind their use in this fashion.

To start, we determined that the hardware and software requirements for this large of a project would be numerous, including no less than nine routers, seven switches, and 12 PC’s, as well as an ASA, one server, and one frame relay. The way that the ASA was implemented in the network was used to separate the dedicated communications between each branch as the inside network, the internet as the outside network, and the web server as a host in the DMZ. VLAN’s were implemented on all branch routers in order to encapsulate the data flow through the individual branches. ACL’s and static NAT’s were used on the firewall to help with network translation and network restriction between the outside, inside, and DMZ, allowing for outside and inside access to the web server in the DMZ, but no access from the outside to the inside directly. The frame relay was implemented between the international branches in order to simulate the international connections between ISP’s.

In an effort to conserve IP’s, all of the local branch IP’s were set to the same class B range, with the connections between branches remaining on a separate class B range. This IP setup allows for future growth locally in the branches by having each branch operate off of its own class C section of the class B local range, as well as growth of more branches by the same usage of class C on the interconnecting class B range to be added to the network. In order to achieve proper packet transmission, implementation of EIGRP on the inside network was crucial to avoiding routing issues throughout the network across both the local and interconnecting ranges.

