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NCS 490
Project Proposal

I will be setting up a local DNS server to use internally. The purpose of this is to build a DNS server that will be used to reach domains within the local network for testing purposes or just internal use. For example if you set up a web server or media server to use internally instead of using the IP address you can just assign a domain of your choice which will ale it much easier to use. The DNS server will also be able to reach other DNS servers like Google's if they still want to reach a domain outside of the LAN. I will be using BIND for my DNS server. BIND is an implementation of the Domain Name System (DNS) protocols. We will create test servers like a nginx web server and a media server like Plex and give them a domain name to be used on our LAN. For security features I will be implementing DNSSEC, which stands for DNS Security Extension. DNSSEC makes sure that the DNS record is authentic and helps fight DNS spoofing or also known as DNS Poisoning. DNS Poisoning is when someone would replace the original IP address of the domain name with a different one which would cause you to go to the wrong cite.

Equipment needed:
• One VM for the BIND DNS server
• One VM to run other server for testing purposes.
• Clients to test the DNS Server on the same network.

Timeline:

- ~3 Weeks: Setting up BIND DNS
- ~1 Week: Setting up test servers
- ~2 Weeks: Testing and troubleshooting