

## The Next 50 Hours

During my internship I had the opportunity to delve deeper into Active Directory (AD) and expand my knowledge, in network management and user authentication. Over the course of 50 hours, I explored features and functionalities reflecting on my experiences and what I learned. In the week of my internship, I focused on Group Policy Management within AD. By utilizing Group Policy Object (GPO) settings I was able to streamline system configurations and enhance domain security. Group Policy Preferences (GPP) proved to be a tool for managing user and computer settings with precision allowing me to tailor configurations based on specific requirements.

Moving into the week I delved into Active Directory Certificate Services (AD CS) and Public Key Infrastructure (PKI). This involved deploying and managing certificates within the domain while gaining insights into certificate templates, trust hierarchies and certificate revocation. Understanding AD CS laid a foundation for securing digital communications, within the network. In the week I got introduced to Active Directory Lightweight Directory Services (AD LDS) and Active Directory Rights Management Services (AD RMS). AD LDS is a solution, for applications that need an AD instance while AD RMS plays a crucial role in securing sensitive data through protection rights and access control policies, which enhances the organizations data protection measures.

During the week my focus shifted towards Active Directory Domain Services (AD DS) replication. This component is essential for keeping data consistent across domain controllers. By understanding replication topologies, intervals, and site link bridges I was able to optimize AD replication and ensure data synchronization.

In the week of this phase my attention turned to Active Directory maintenance and monitoring. I learned tools and techniques to ensure the health and performance of the AD infrastructure. Regularly checking event logs monitoring performance counters and conducting system audits became integral to ensuring an operation within the domain.

Overall, these next 50 hours of my internship in Active Directory brought about growth. As I tackled challenges and explored advanced techniques for managing and troubleshooting AD systems my expertise expanded. This experience further fueled my passion, for network management and cybersecurity motivating me to pursue a career in this field. After spending 50 hours learning I now feel confident, in my ability to make contributions towards enhancing the security and stability of network infrastructures. As I eagerly anticipate the phase of my internship, I am excited to develop my skills and continue my journey towards becoming an expert, in managing Active Directory.