

Lab Assignment 3 (Part I) – Deploying a Certificate Authority Server

Lab Objective

The objective of this lab is to provide students with hands-on experience in deploying a **Public Key Infrastructure (PKI)** using **Active Directory Certificate Services (AD CS)**.

By the end of this lab, you should be able to:

- Deploy a **Standalone Root CA** in an **offline** environment.
 - Deploy an **Enterprise Subordinate CA** that integrates with **Active Directory**.
 - Configure the **Root CA to issue a certificate** for the Subordinate CA.
 - Enable secure **certificate issuance and management** in an AD domain.
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Lab Environment Requirements

- **DC1XX** → Online **Enterprise Subordinate CA** (Domain-joined)
 - **DC2XX** → Offline **Standalone Root CA** (Not domain-joined)
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Tasks

Task 1: Deploy an Offline Standalone Root CA on DC2XX

1. Demote **DC2XX** and remove it from the domain.
2. Rename **DC2XX** to **RootXXCA**.
3. Install **Active Directory Certificate Services (AD CS)** on **RootXXCA**.
4. Configure **RootXXCA** as a **Standalone Root CA**.
5. Configure the **Server Registry keys**.
6. Modify the **CRL Distribution Points (CDP)** and **Authority Information Access (AIA)** settings from **DC2XX** to **DC1XX**.
7. Copy the **Root CA Certificate**, **Certificate Revocation List (CRL)** and **CA private key** to **DC1XX**.

Task 2: Deploy an Enterprise Subordinate CA on DC1XX

1. Install **Active Directory Certificate Services (AD CS)** including all **AD CS features** on **DC1XX**.
 2. Configure **DC1XX** as an **Enterprise Subordinate CA**.
 3. Configure **AD CS** other roles on **DC1XX**.
 4. Secure **Root CA** and take it offline.
 5. Verify that **Enterprise Subordinate CA** is working fine.
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Lab Assignment Deliverables

You should submit a **lab report** in **PDF** including **screenshots** covering your work.