Integrating Samba with Microsoft Active Directory

LPIC-2: Linux Engineer (202-450)

Objectives:

At the end of this episode, I will be able to:

1. Describe the advantages of integrating a Linux server with the Microsoft Active Directory.
2. Join a Linux server to a MS AD domain and configure Samba to use AD authentication.

> Additional resources used during the episode can be obtained using the download link on the overview episode.

- Integrating Samba with Microsoft Active Directory

    - Joining a Linux server to an Active Directory
    - Configuring Samba to use AD Authentication
    - Configuring a User Map

- Why use Microsoft Active Directory?

    - Common enterprise user directory
    - Broad commercial support
    - Tight MS Windows client integration
    - Advanced features

        - Group policy objects
        - Logon scripts
        - Dynamic group management

    - Linux integrates using SSSD

        - System Security Services Daemon
        - Allows a Linux server to join an AD domain
        - https://ubuntu.com/server/docs/service-sssd
        - Replaces the older *winbindd*

- Preparing to join a domain

    - Add DC to hosts file

        - `sudoedit /etc/hosts`
        - `10.222.0.52 windc01 windc01.lab.itpro.tv`

    - Install basic tools

        - `sudo apt install sssd-ad sssd-tools realmd adcli`

    - Test connection and identify missing packages

        - `sudo realm -v discover lab.itpro.tv`

    - Packages should already be installed

- Joining a Linux server to an Active Directory

    - Join the domain

        - `sudo realm join -U administrator@LAB.ITPRO.TV lab.itpro.tv`

    - Registers the Linux server as a "Member Server" in the AD
    - Allows user authentication lookups
    - Allows expanding group membership

- Configuring Samba to use AD Authentication

    - Enable AD authentication in Samba

        - `sudoedit /etc/samba/smb.conf`

            - `[global]`
            - `security = ADS`

- Configuring a User Map

    - Windows user names can have spaces in them
    - Typically only an issue in Workgroups, but can affect domains as well
    - User maps allow us to correct that
    - Configuring a username map

        - `sudoedit /etc/samba/smb.conf`

            - `username map = /etc/samba/username.map`

        - `sudoedit /etc/samba/username.map`

            - `jdoe = johndoe`
            - `dpezet = "Don Pezet"`