

# 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.

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- 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"`