

Building an SMTP Server with Postfix

LPIC-2: Linux Engineer (202-450)

Objectives:

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

1. Describe the Postfix MTA and its uses.
2. Install and configure Postfix on Linux.

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

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- What is Postfix
 - Message Transfer Agent (MTA)
 - Uses the Simple Mail Transport Protocol (SMTP)
 - Moves email between mailboxes and servers
 - Does not provide client access
 - Send, not receive
 - Postfix is not one program
 - Made up of a number of executables and services
 - Postfix history
 - <https://www.postfix.org/>
 - Originally developed by IBM
 - Designed to replace *sendmail*
 - *sendmail* is a legacy MTA
 - Postfix provides
 - Better performance
 - Enhanced security features
 - Actively supported
 - Installing Postfix
 - Installing the binaries only
 - `sudo apt install postfix`
 - Installing the binaries and starting the configuration
 - `sudo DEBIAN_PRIORITY=low apt install postfix`
 - Can be run later
 - `sudo dpkg-reconfigure postfix`
 - Initial Configuration
 - Very important to complete configuration
 - Improperly configured MTAs can become open relays
 - Responsible for a good portion of SPAM on the Internet
 - Installation choices
 1. Determine the type of MTA you are configuring
 2. Define the default domain name
 3. Assign someone to receive admin emails
 4. List authoritative domains
 5. Enable/disable synchronous mail processing
 6. List allowed client IPs
 7. Assign maximum mailbox size
 8. (Optional) Define a local extension character

- Creates dynamic aliases

9. Select desired L3 protocols to support

- Postfix configuration

- Configuration file

- `/etc/postfix/main.cf`

- Configuration utility

- `postconf`
- `postconf -n` to list all non-default values
- `sudo postconf -e 'home_mailbox= Mail/'`

- Mapping users to email addresses

1. Create an alias mapping table

- `sudo postconf -e 'virtual_alias_maps= hash:/etc/postfix/maps'`

2. Define the mappings

- `sudoedit /etc/postfix/maps`
- `don@lab.itpro.tv dpezet`
- `support@lab.itpro.tv dpezet`

3. Apply the mappings

- `sudo postmap /etc/postfix/maps`

4. Restart Postfix

- `sudo systemctl restart postfix`

- Firewall access

- `sudo ufw allow Postfix`
- `sudo ufw allow 25/tcp`
- `sudo ufw allow proto tcp from 10.222.0.0/24 to any port 25`