**📄 SMTP Service Configuration using Postfix & Mailx**

**Project Type:** Linux Server Configuration  
**Tools Used:** Postfix, Mailx (bsd-mailx), tail, chmod  
**OS:** CentOS

**🔰 Objective:**

To configure and test a basic SMTP mail sending service using **Postfix** and **Mailx** on a CentOS-based Linux virtual machine.

**🧰 Tools & Technologies:**

| **Tool** | **Purpose** |
| --- | --- |
| Postfix | Mail transfer agent (MTA) |
| Mailx | Command-line mail utility |
| Nano | File editor for configuration |
| tail | To monitor log files |
| chmod | Permission management |

**🛠️ Installation Steps:**

1. **Install Required Packages:**

yum install postfix

yum install mailx

yum install bsd-mailx

dnf config-manager --set-enabled crb

dnf install mailx

dnf install bsd-mailx

**✉️ Sending a Test Email (Initial Attempt):**

echo "This is a test" | mailx -s "Test Mail" yourmail@gmail.com

**🖥️ Check Postfix Service:**

systemctl restart postfix

**🔧 Configure Authentication:**

1. **Create/Edit Authentication File:**

nano /etc/postfix/sasl\_passwd

1. **Content Format (Example):**

[smtp.gmail.com]:587 username@gmail.com:yourpassword

1. **Apply Permissions & Postmap:**

postmap /etc/postfix/sasl\_passwd

chmod 600 /etc/postfix/sasl\_passwd\*

chown root:root /etc/postfix/sasl\_passwd\*

**🛠️ Edit Postfix Main Configuration File:**

nano /etc/postfix/main.cf

**Make sure the following lines are added/updated:**

ini

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relayhost = [smtp.gmail.com]:587

smtp\_use\_tls = yes

smtp\_sasl\_auth\_enable = yes

smtp\_sasl\_password\_maps = hash:/etc/postfix/sasl\_passwd

smtp\_sasl\_security\_options = noanonymous

smtp\_tls\_CAfile = /etc/pki/tls/certs/ca-bundle.crt

**🔄 Restart Postfix After Configuration:**

systemctl restart postfix

**✅ Final Testing:**

echo "This is a test email from VM" | mailx -s "Hello from VM" yourmail@gmail.com

**🧪 Log Verification:**

tail -n 50 /var/log/maillog

**📌 Summary:**

* Configured **Postfix** with **Mailx** on CentOS.
* Enabled **authentication using sasl\_passwd** file.
* Verified email sending via command-line using Gmail SMTP.
* Applied secure file permissions for authentication files.
* Checked delivery logs using /var/log/maillog.