Dịch vụ email sử dụng phần mềm mã nguồn mở
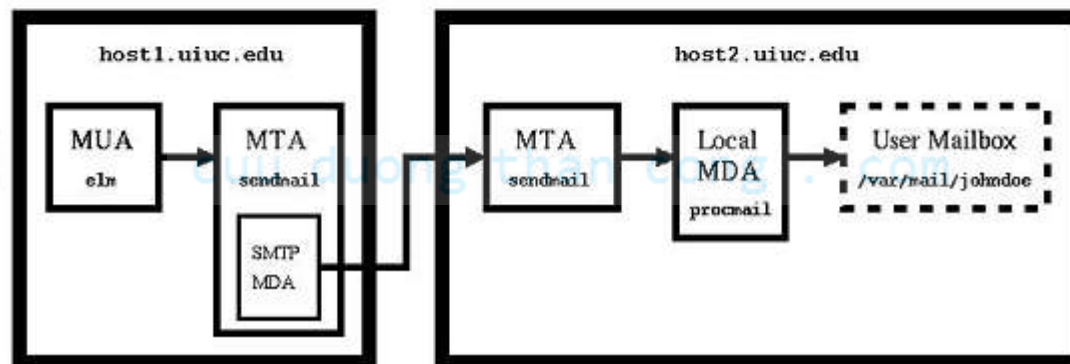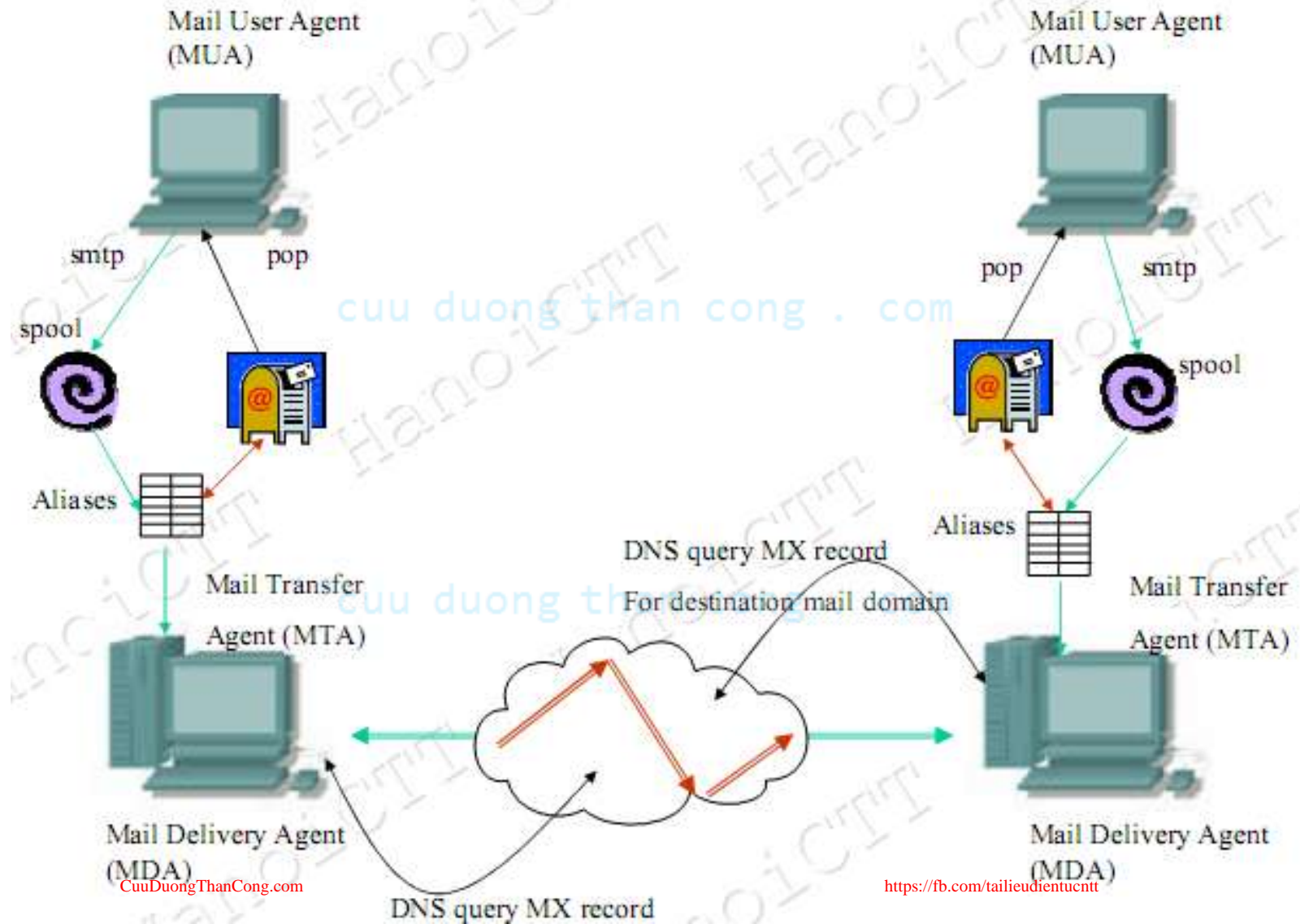
Tổng quan về dịch vụ email

- Gửi và nhận các thông báo
- Có thể chứa các dữ liệu đa phương tiện
- Được sử dụng rộng rãi trên thế giới
- Không có xác thực
- Có thể được tích hợp với cơ chế mã hóa, hạ tầng khóa công khai, ….

Thành phần của hệ thống email

Components	Functions	Actual programs
Mail User Agent (MUA)	The MUA is the program which the user uses to read and send e-mail. It reads incoming messages that have been delivered to the user's mailbox, and passes outgoing messages to an MTA for sending.	Outlook, mail, elm,…
Mail Transfer Agent (MTA)	The MTA basically acts as a "mail router". It accepts a message passed to it by either an MUA or another MTA, decides based upon the message header which delivery method it should use, and then passes the message to the appropriate MDA for that delivery method.	sendmail, postfix, qmail
Mail Delivery Agent (MDA)	The MDA accepts a piece of mail from an MTA and performs the actual delivery.	mail.local, procmail

host1.uiuc.edu

MUA
elm

MTA
sendmail

SMTP
MDA

host2.uiuc.edu

MTA
sendmail

Local
MDA
procmail

User Mailbox
/var/mail/johndoe

Hệ thống email

Định dạng thông báo

- Email messages are compose of two parts:

- 1. Headers (lines of the form "field: value" which contain information about the message, such as "To:", "From:", "Date:", and "Message-ID:")
- 2. Body (the text of the message)

- Example:

- From johndoe@students.uiuc.edu Mon Jul 5 23:46:19 1999
- Received: (from johndoe@localhost)
-     by students.uiuc.edu (8.9.3/8.9.3) id LAA05394;
-     Mon, 5 Jul 1999 23:46:18 -0500
- Received: from staff.uiuc.edu (staff.uiuc.edu [128.174.5.59])
-     by students.uiuc.edu (8.9.3/8.9.3) id XAA24214;
-     Mon, 5 Jul 1999 23:46:25 -0500
- Date: Mon, 5 Jul 1999 23:46:18 -0500
- From: John Doe <johndoe@students.uiuc.edu>
- To: John Smith <jsmith@staff.uiuc.edu>
- Message-Id: <199907052346.LAA05394@students.uiuc.edu>
- Subject: This is a subject header.

- This is the message body. It is seperated from the headers by a blank
- line.

- The message body can span multiple lines.

Envelop, email server creates when send/receive mail, added by intermediate mail server

**Mail Header**, user enters it into email message, receiver uses it to reply

Message text

- SMTP and the Message Envelope
- Here is an example SMTP transaction:

- 1. Client connects to server's SMTP port (25). [telnet mail.abc.com 25]
- 2. Server: 220 staff.uiuc.edu ESMTP Sendmail 8.10.0/8.10.0 ready; Mon, 13 Mar 2000 14:54:08 -0600
- 3. Client: helo students.uiuc.edu
- 4. Server: 250 staff.uiuc.edu Hello root@students.uiuc.edu [128.174.5.62], pleased to meet you
- 5. Client: mail from: johndoe@students.uiuc.edu
- 6. Server: 250 2.1.0 johndoe@students.uiuc.edu... Sender ok
- 7. Client: rcpt to: jsmith@staff.uiuc.edu
- 8. Server: 250 2.1.5 jsmith@staff.uiuc.edu... Recipient ok
- 9. Client: data
- 10. Server: 354 Enter mail, end with "." on a line by itself
- 11. Client:

- Received: (from johndoe@localhost)
-     by students.uiuc.edu (8.9.3/8.9.3) id LAA05394;
-     Mon, 5 Jul 1999 23:46:18 -0500
- Date: Mon, 5 Jul 1999 23:46:18 -0500
- From: John Doe <johndoe@students.uiuc.edu>
- To: John Smith <jsmith@staff.uiuc.edu>
- Message-Id: <199907052346.LAA05394@students.uiuc.edu>
- Subject: This is a subject header.

- This is the message body. It is seperated from the headers by a blank
- line.

- The message body can span multiple lines.

- .
- 12. Server: 250 2.0.0 e2DKuDw34528 Message accepted for delivery
- 13. Client: quit
- 14. Server: 221 2.0.0 staff.uiuc.edu closing connection

- The sender and recipient addresses used in the SMTP transaction are called the Message Envelope. Note that these addresses do not need to have any similarity to the addresses in the message headers!
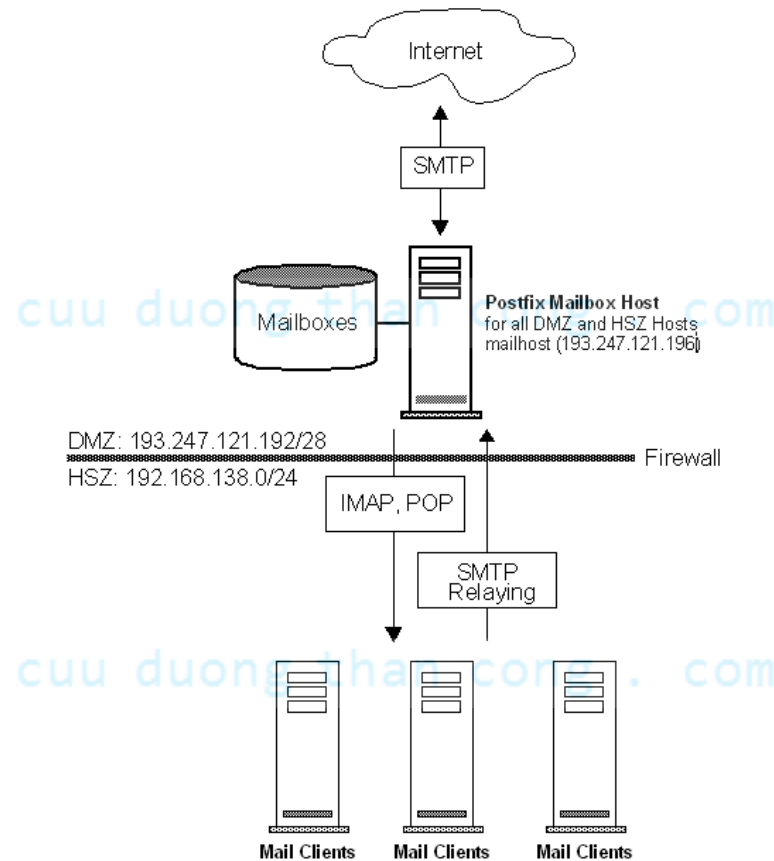
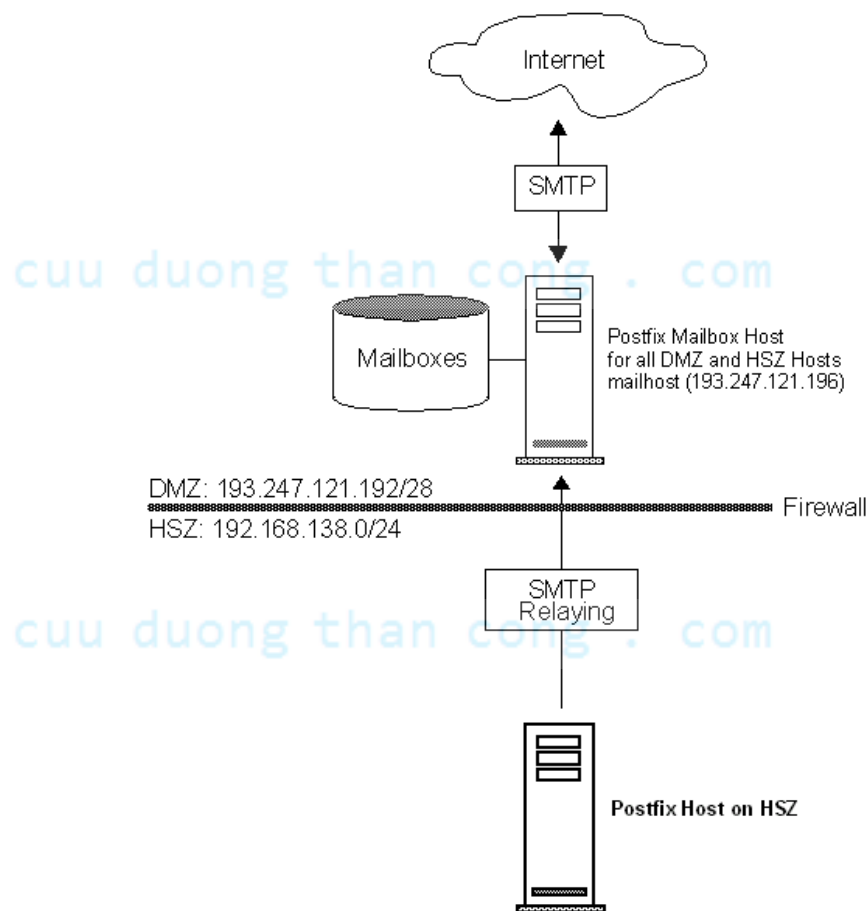**Dịch vụ email (chi tiết)**
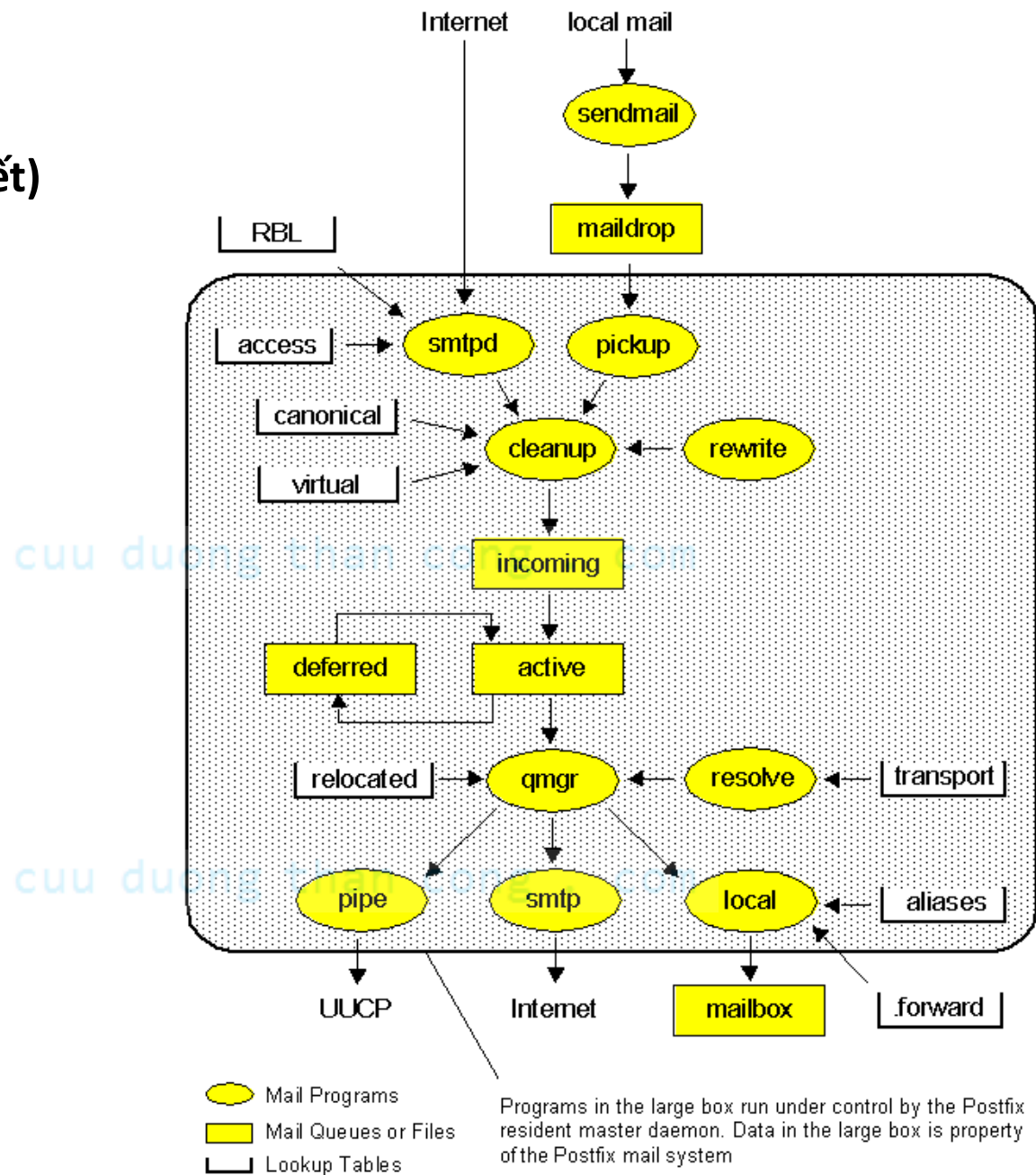
Cấu hình cơ bản của postfix

- mail.cf
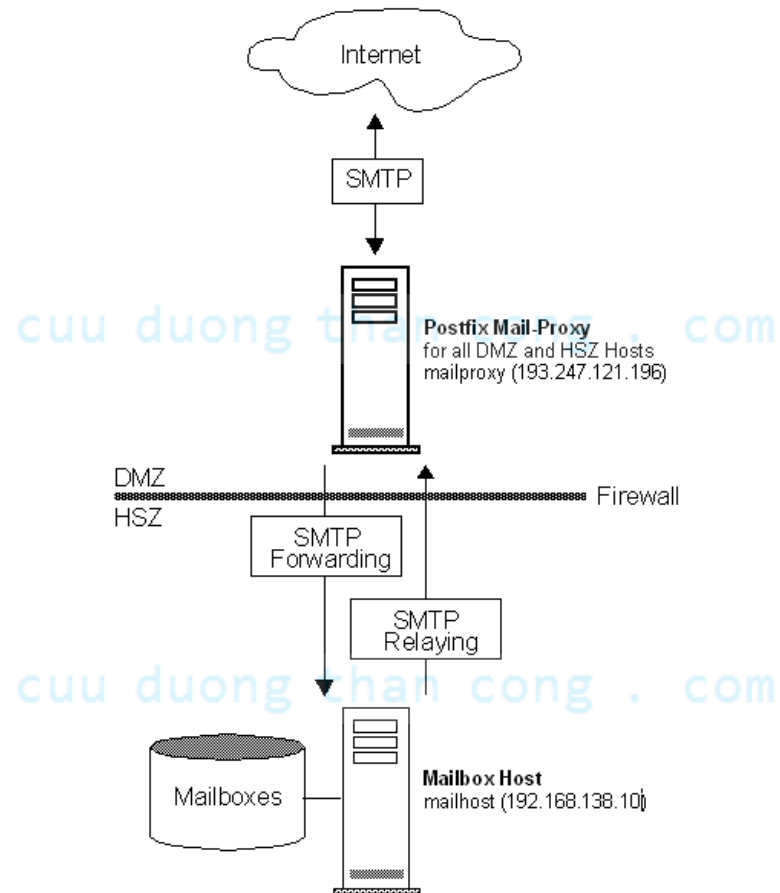- Thư mục spool mail
- Smtd daemon
- Myorigin
- mydomain
- mydestination

Postfix Mailbox Host in the DMZ

Postfix Host inside the Intranet (on HSZ)

Postfix as a Proxy Mailhost in the DMZ

Postfix as a Multi Domain Mail-Host (for ISPs)