

Email Server

Oleh:

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Materi Ajar

1. Introduction: Web Server + VirtualHosting
2. DNS + NTP
3. File Sharing: FTP + Samba
4. **Quiz: I**
5. Proxy: Squid
6. NMS: Nagios, Cacti
7. Log Management: Syslog
8. **UTS: Project I**
9. QoS: HTB, Wondershaper, squiddelaypool
10. DHCP: DDNS
11. Email: Postfix, courier, squirrelmail/horde/roundcube
12. **Quiz: II**
13. Email: Mailman
14. Virtualisasi: VMM/Container
15. Webmin
16. **UAS: Project II**

Definisi

- Email: Electronic Mail
- Email = Surel = Surat Elektronik
- Wikipedia: sarana kirim mengirim surat melalui jalur jaringan komputer (misalnya Internet).



Sejarah Email (1)

▶ 1971:

Computer engineer Ray Tomlinson sends the first electronic mail message*.

QWERTYUIOP
SEND

*Tomlinson has since forgotten what the message said...

▶ 1976:

Queen Elizabeth II becomes the first head of state to send an electronic mail message.



▶ 1978:

The first electronically-sent advertisement goes out, over a network of government and university computers.

▶ 1982:

The word "email" is first used.



▶ 1982:

The first-ever smiley "emoticon" is invented by Scott Fahlman.



◀ 1998:

The word "spam" is added to the Oxford English Dictionary.

SPAM.

◀ 1998:

Wamer Bros. releases You've Got Mail, which tops \$250 million at the box office.



◀ 1997:

Microsoft Outlook is released.

◀ 1997:

Microsoft buys Hotmail for about \$400 million.

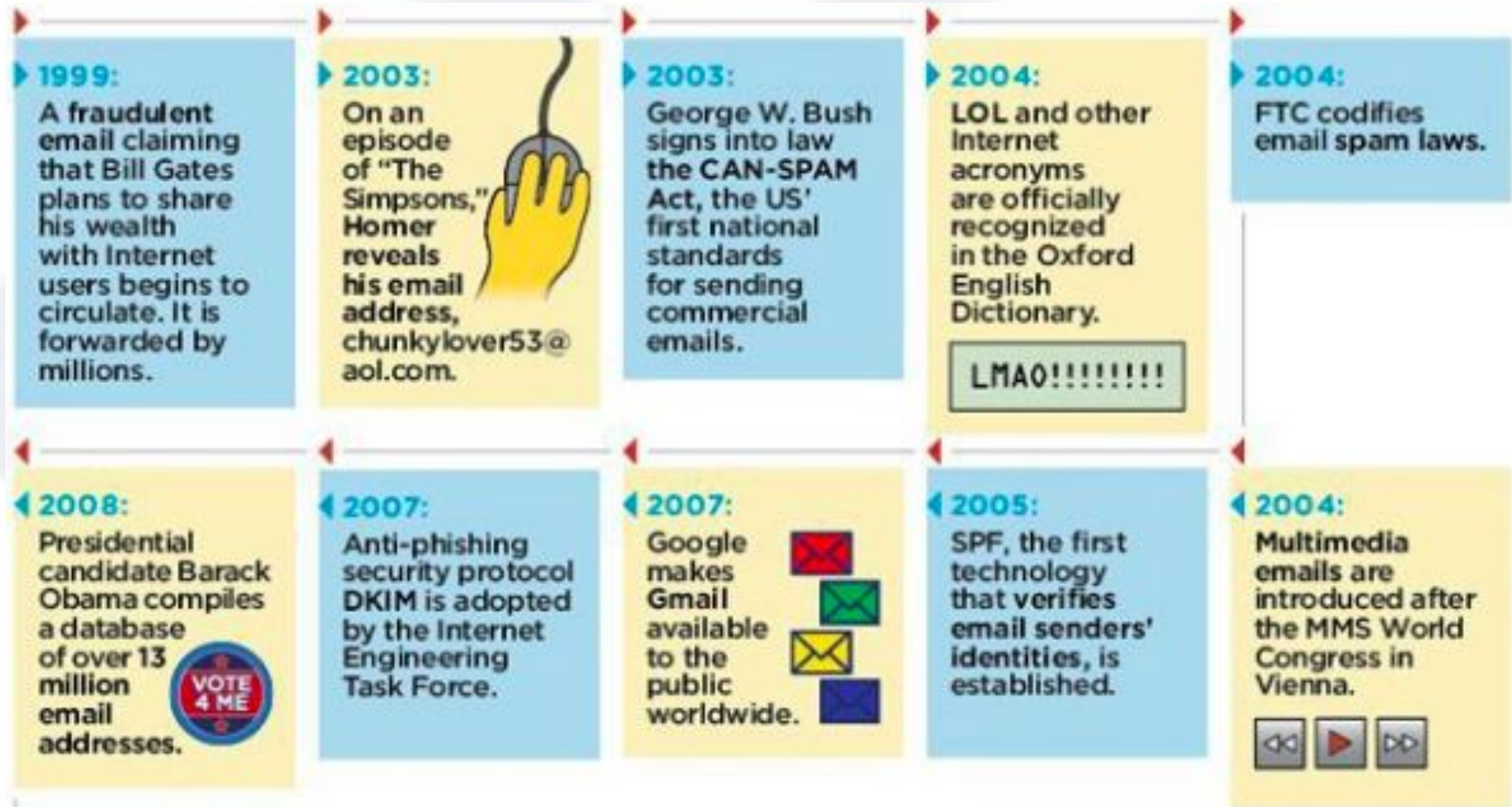


◀ 1989:

Radio man Elwood Edwards records AOL's iconic "Welcome," "File's done," "Goodbye," & "You've got mail!"

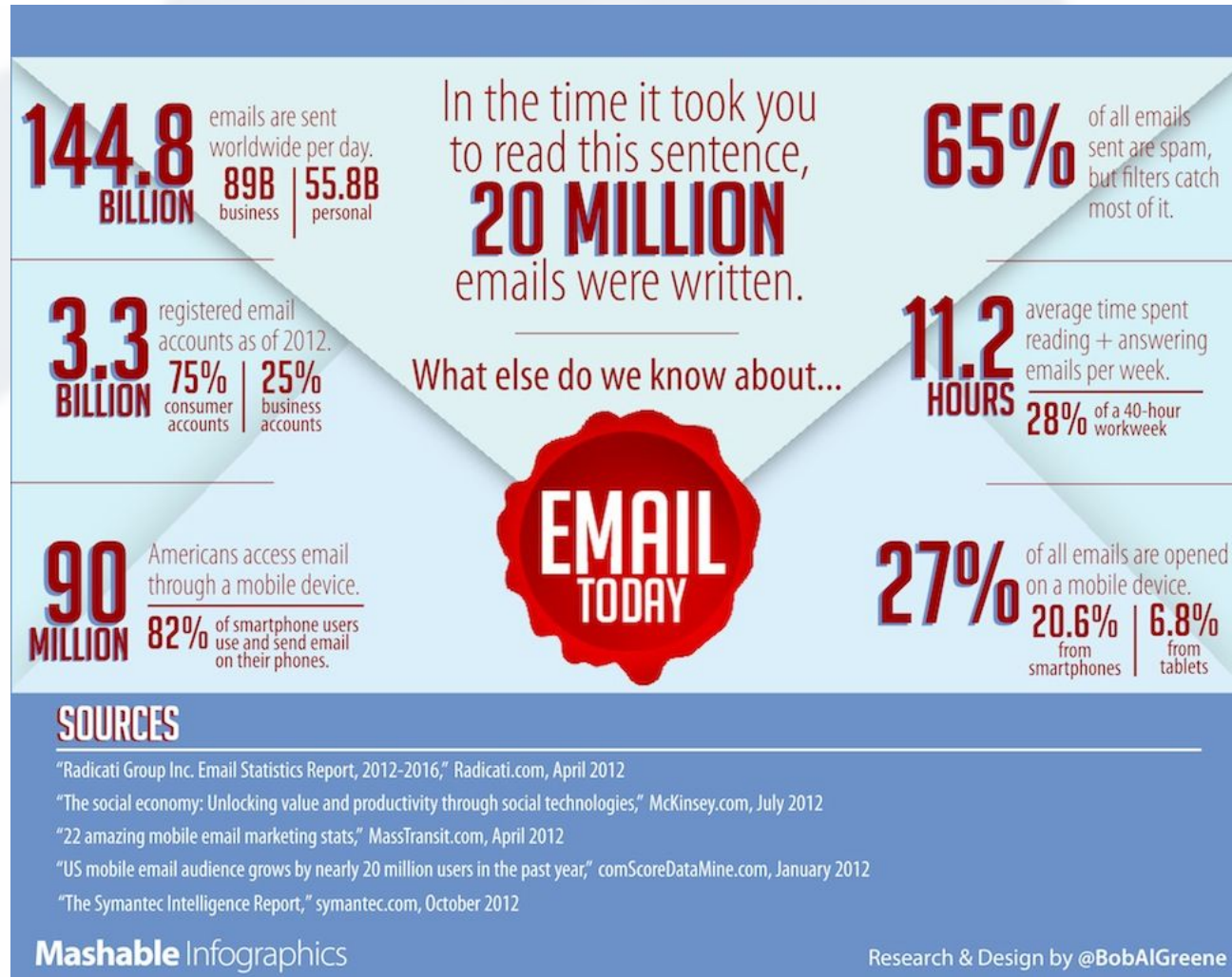
* <http://www.reachmail.net/>

Sejarah Email (2)



Sejarah Email (3)

Lebih dari 40 tahun teknologi Email telah digunakan s/d hari ini



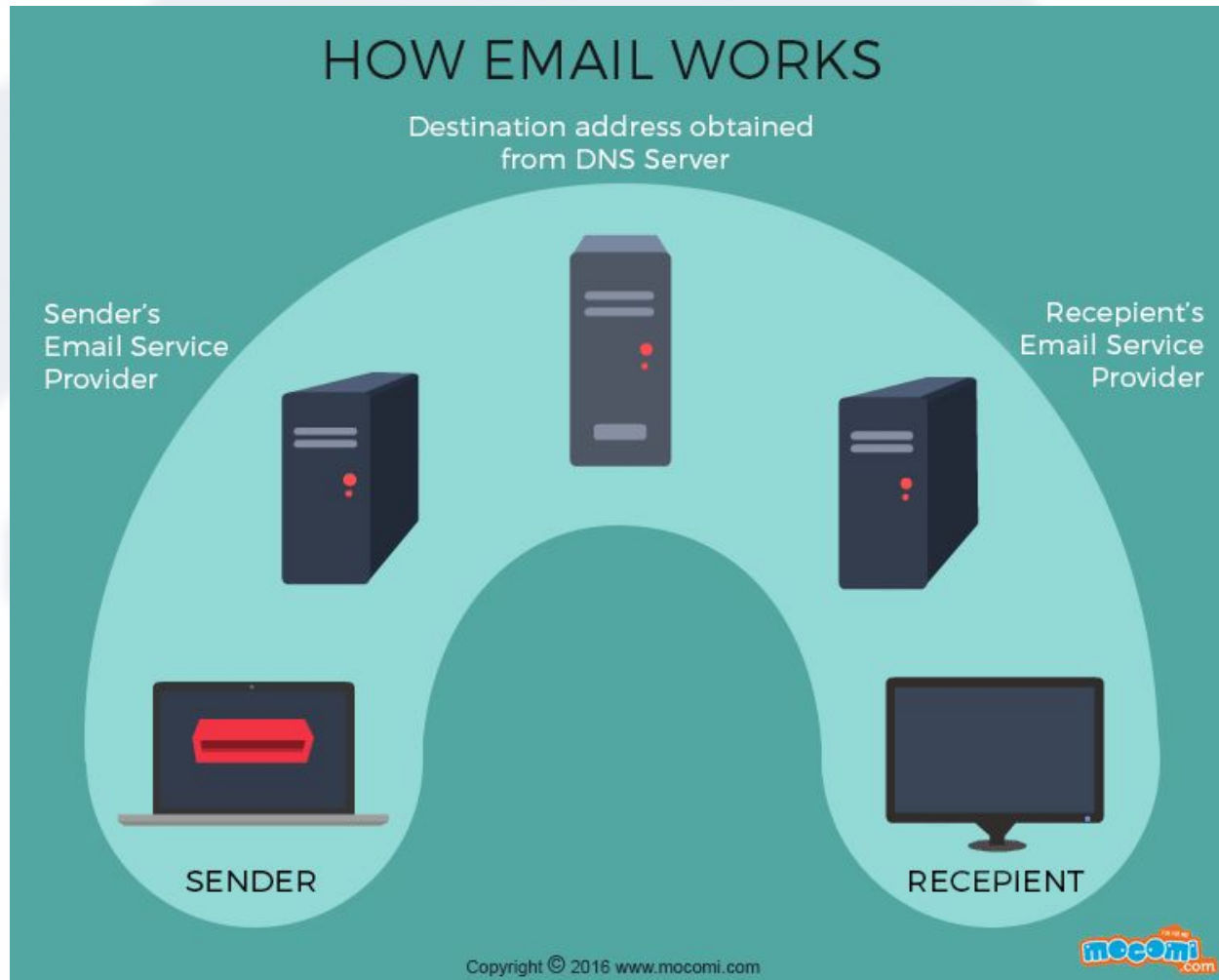
* <https://proswrite.com/2013/03/07/the-genre-of-email-requests/>

Sejarah Email (4)



* <https://www.quora.com/>

Cara Kerja Email (1)

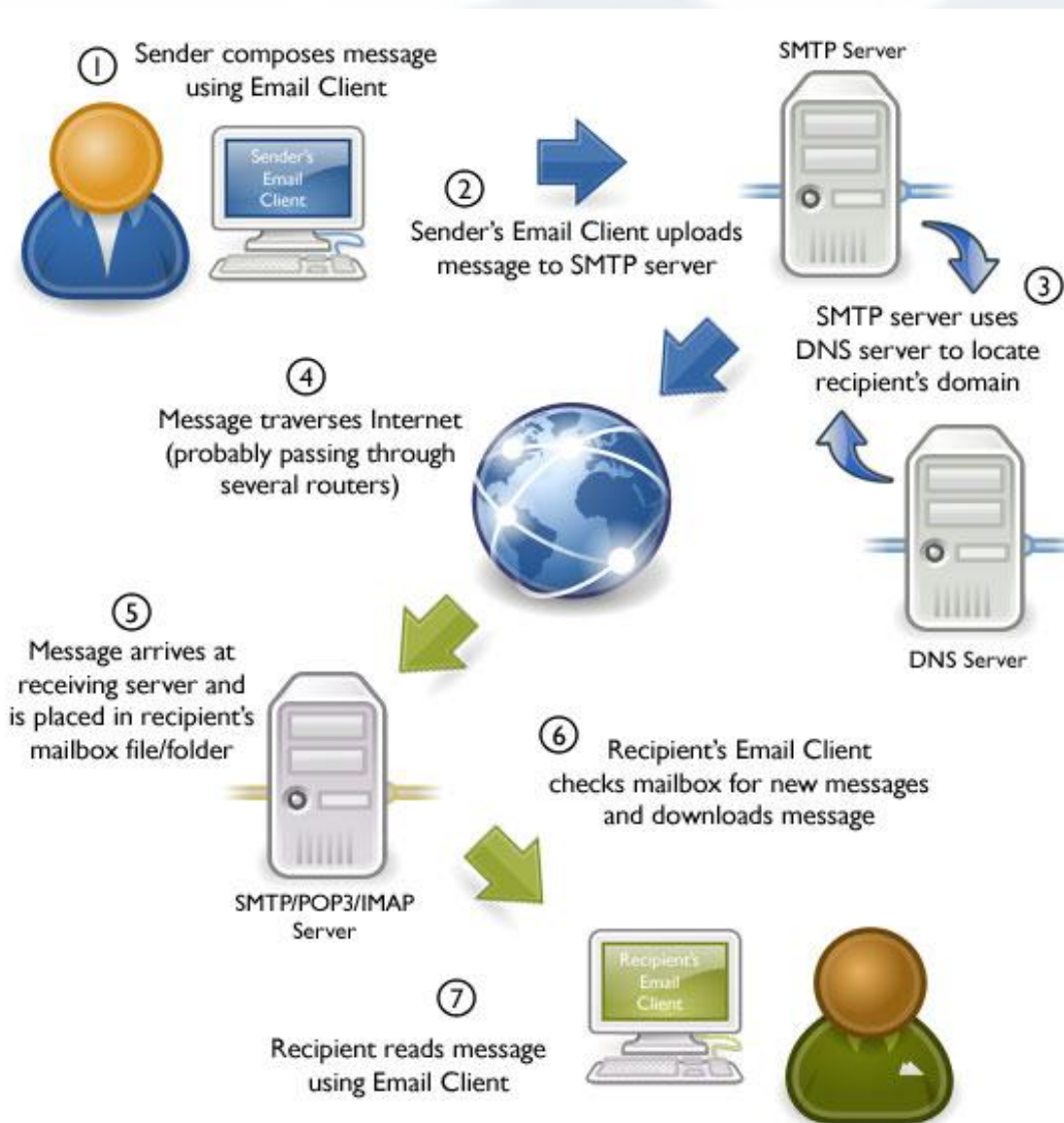


* <https://technic-al.com>

Cara Kerja Email (2)

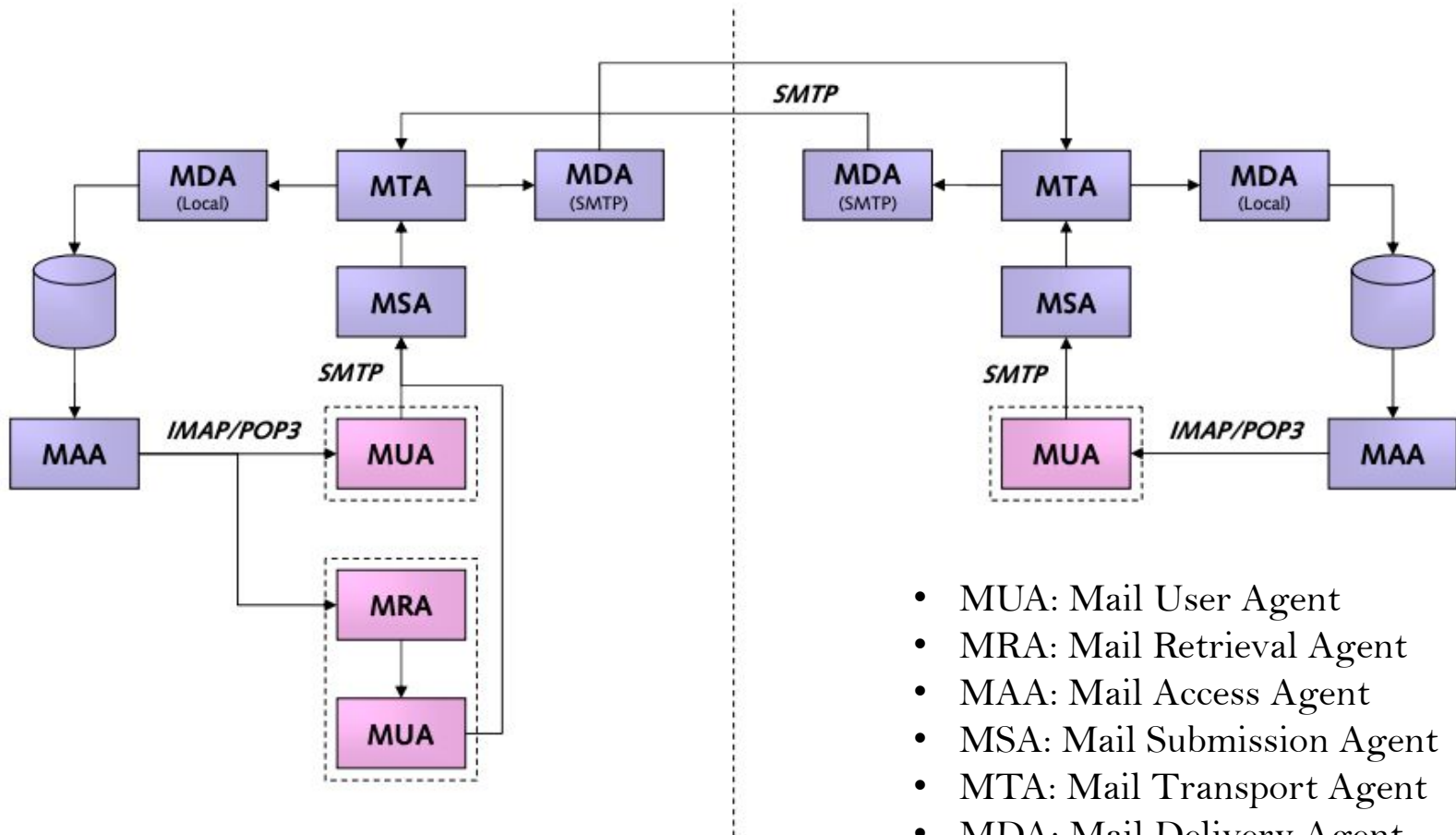
- Penerimaan Mail : MX Record
- Sebuah mail address berisi
(contoh : agus@yahoocom)
 - Username : agus
 - Host address (FQDN) : yahoo.com
- Mail server dihubungkan dengan host yang berbeda-beda oleh record MX (mail exchange), dalam konfigurasi DNS
- Sebuah host dapat memiliki bermacam-macam mail exchange dengan perbedaan prioritas

Cara Kerja Email (3)

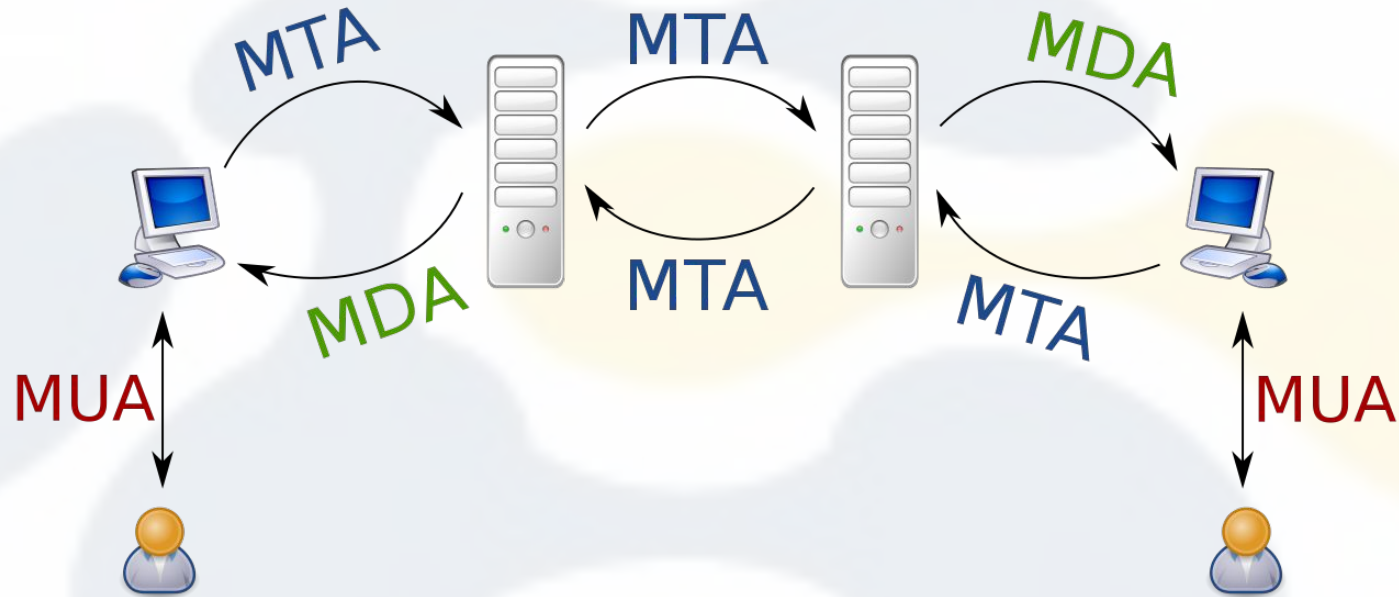


1. Menulis email
2. Mengirim email
3. Pengecekan alamat (via DNS)
4. Email dikirim via internet
5. Email sampai tujuan
6. Penerima menerima email
7. Penerima membaca isi email

Mail system components



Komponen Email (2)

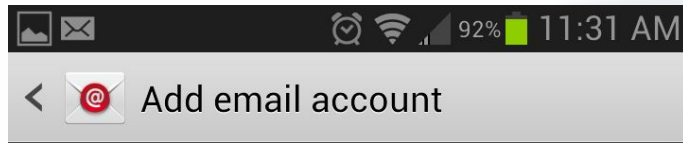


- **MUA**
Mail client yang digunakan user untuk mengirim email ke user lain
- **MTA**
Mail server yang menggunakan SMTP untuk mengirimkan pesan dari satu mail server ke mail server yang lain
- **MDA**
Mengambil pesan yang diterima oleh mail server dan mengirimkannya ke user account

Komponenten Email (3)

- MUA
 - Web-based: Squirrelmail, Roundcube
 - Desktop-based: Thunderbird, Microsoft Outlook
- MDA
 - IMAP: Courier
 - POP3: Courier
- MTA
 - Postfix
 - Exim4
 - Sendmail

Komponen Email (4)



What type of account?

POP3 account

IMAP account

Microsoft Exchange ActiveSync



IMAP dipilih jika:

- Ingin mengakses email pada beberapa tempat/perangkat sekaligus
- Memiliki koneksi internet untuk mengakses email pada perangkat secara terus-menerus.
- Kapasitas penyimpanan komputer/gadget terbatas.
- Mempunyai kapasitas server yang cukup besar untuk penyimpanan data email.

POP3 dipilih jika:

- ingin mengakses email hanya dari satu tempat/perangkat.
- memerlukan akses email secara terus-menerus, walau tanpa menggunakan koneksi internet.
- kapasitas penyimpanan server terbatas.

Workshop Email Server (Debian 10/Buster)

Oleh:

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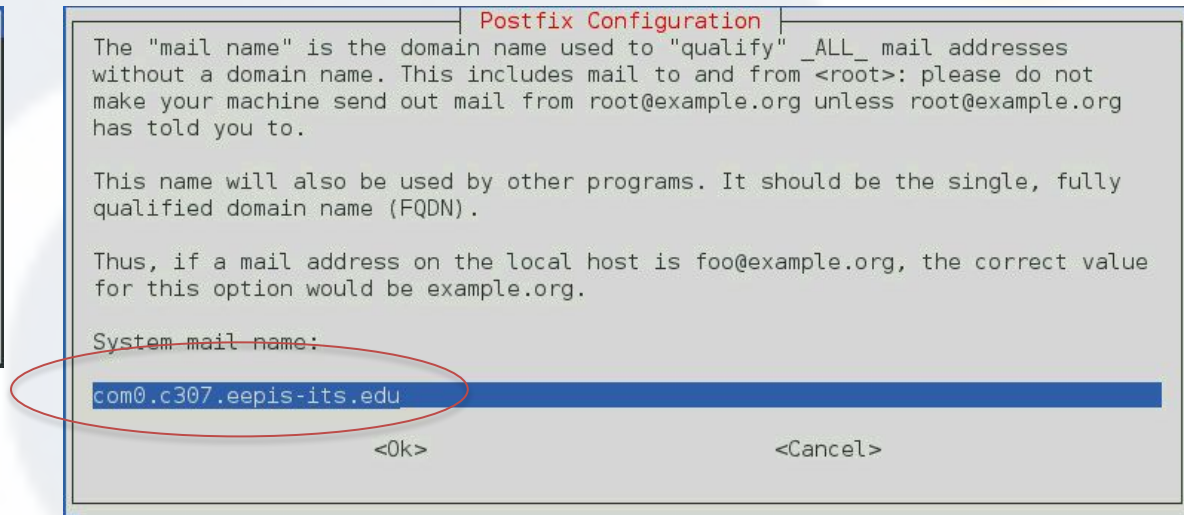
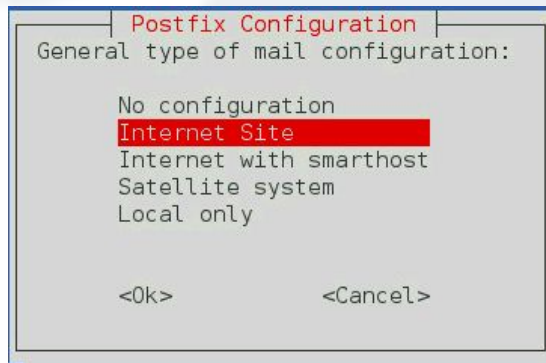
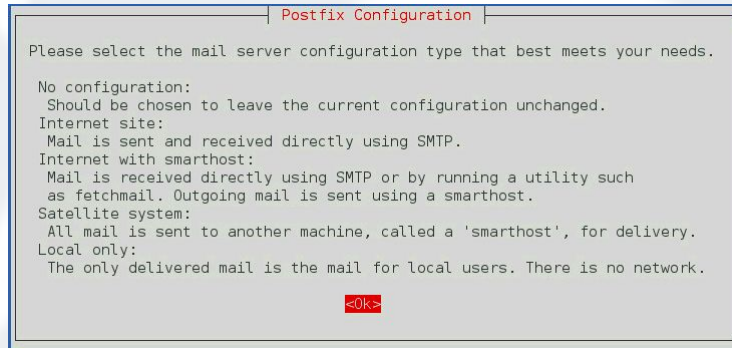
Server DNS

- Buat Server DNS untuk server email (buka PPT untuk pertemuan minggu ke-2)

```
;
; BIND data file for local loopback interface
;
$TTL      604800
@         IN      SOA      idris.my.id. root.idris.my.id. (
                        2      ; Serial
                        604800 ; Refresh
                        86400  ; Retry
                        2419200 ; Expire
                        604800 ) ; Negative Cache TTL
;
@         IN      NS       idris.my.id.
@         IN      A        10.252.108.200
@         IN      AAAA     ::1
@         IN      MX       10 mail.idris.my.id
mail      IN      A        10.252.108.200
```

Instalasi MTA (postfix)

- # apt-get install postfix



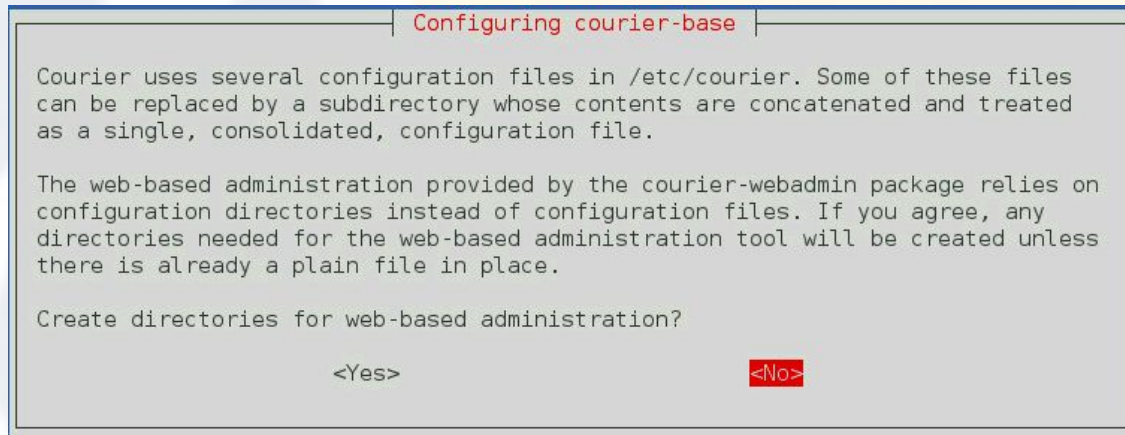
Konfigurasi MTA (postfix)

postconf -e "myhostname=com0.c307.eepis-its.edu"

```
root@debian:/var/cache/bind# postconf -e "home_mailbox=Maildir/"
root@debian:/var/cache/bind# postconf -e "mailbox_command="
root@debian:/var/cache/bind# /etc/init.d/postfix restart
[ ok ] Restarting postfix (via systemctl): postfix.service.
root@debian:/var/cache/bind#
```


Instalasi MDA (courier)

- # apt-get install courier-imap



Konfigurasi MDA (courier)

- # apt-get install courier-imap

```
root@debian:~# cd /etc/skel/
root@debian:/etc/skel# maildirmake Maildir
root@debian:/etc/skel# ls
Maildir
root@debian:/etc/skel# adduser coba
Adding user `coba' ...
Adding new group `coba' (1003) ...
Adding new user `coba' (1003) with group `coba' ...
Creating home directory `/home/coba' ...
Copying files from `/etc/skel' ...
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
Changing the user information for coba
Enter the new value, or press ENTER for the default
    Full Name []:
    Room Number []:
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n]
root@debian:/etc/skel#
```

Ujicoba MDA (courier)

```
root@debian:/etc/skel# telnet localhost 143
Trying ::1...
Connected to localhost.
Escape character is '^]'.
* OK [CAPABILITY IMAP4rev1 UIDPLUS CHILDREN NAMESPACE THREAD=ORDEREDSUBJECT THREAD=REFERENCES SORT QUOTA IDLE ACL ACL2=UNION] Courier-IMAP ready. Copyright 1998-2011 Double Precision, Inc. See COPYING for distribution information.
a login coba coba
* OK [ALERT] Filesystem notification initialization error -- contact your mail administrator (check for configuration errors with the FAM/Gamin library)
a OK LOGIN Ok.
a logout
* BYE Courier-IMAP server shutting down
a OK LOGOUT completed
Connection closed by foreign host.
root@debian:/etc/skel#
```

Instalasi MUA (Roundcube)

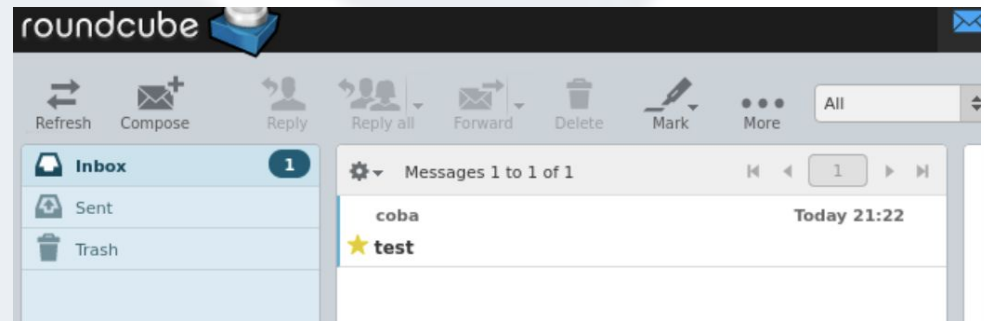
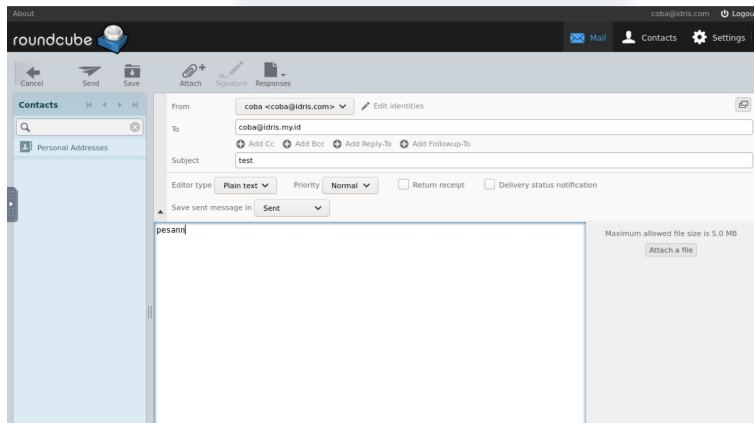
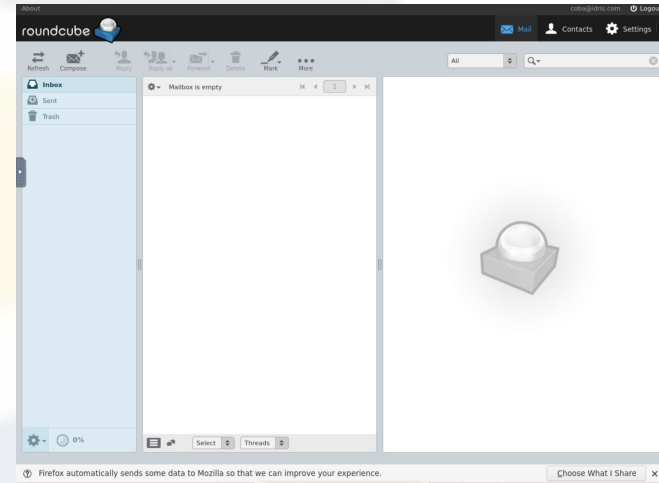
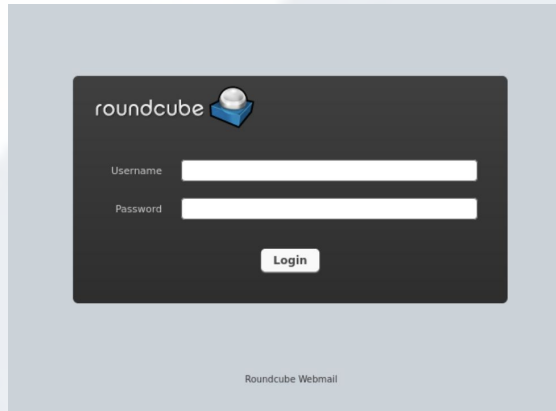
Sebelum melakukan instalasi roundcube pastikan MySQL/Mariadb sudah berjalan/terinstal.

- # apt-get install mariadb-server
- # systemctl restart mariadb
- # apt-get install roundcube
- # vim /etc/roundcube/apache2.conf
hapus tanda # pada Alias /roundcube
- # vim /etc/roundcube/config.inc.php
 - default_host = 'domain.com'
 - smtp_user = " & smtp_pass = "
- # systemctl restart apache2

Pastikan mail server telah menggunakan DNS yang telah dibuat

Ujicoba

- `http://domain/roundcube`



TERIMA KASIH