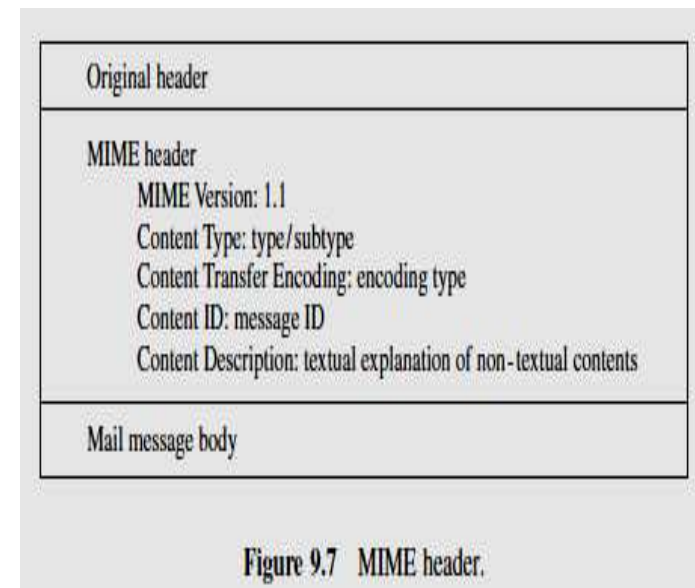


# **UNIT II**

## **E-MAIL SECURITY & FIREWALLS**

# MIME

- *MIME Header*
  - Five headers added to the original SMTP header
    1. MIME Version 1.1
    2. Content Type
      - *Text:*
      - *Multipart:* - multiple independent parts (signed, encrypted)
      - *Message:*
        - Whole mail message : Message/RFC 2822
        - Part of a mail message : Message/Partial
        - Pointer to the message : Message/External
      - *Image*
      - *Video*
      - *Audio*
      - *Application* - octet-stream and PostScript
    3. Content Transfer Encoding
      - 7 bit
      - 8 bit
      - Binary
      - Base64
      - Quoted-printable
    4. Content Id
    5. Content Description

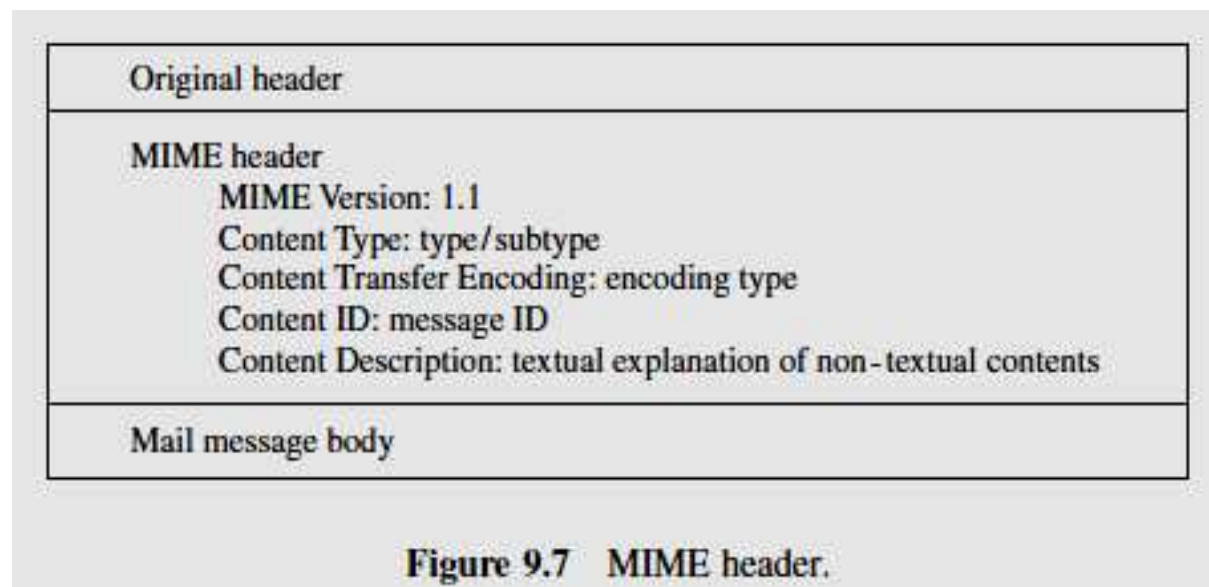


# MIME

- **MIME Security Multiparts**

Email message  
Two part

<b>Header</b> (Field /value : Multipart/Signed or Multipart/Encrypted)	<b>Body</b> (MIME format) (Protected data and control information)
---	---



# MIME

## ***MIME Security Multipart***

- *Content type:* Multipart/Signed

- The first body part is the one over which the digital signature was created, including its MIME headers
- The second body part contains the control information necessary to verify the digital signature

- *Content type:* Multipart/Encrypted

- First body part : decrypt info : application/pgp-encrypted
- Second body part :actual encrypted data : application/octet-stream

# MIME

## MIME Security with OpenPGP

- The Data must be in PGP ASCII Armor form
- *Content type: multipart/encrypted*, Protocol parameter: application/pgp-encrypted
  - First body part : decrypt info : application/pgp-encrypted
  - Second body part : actual encrypted data : application/octet-stream
- *Content type: multipart/signed*, Protocol parameter: application/pgp-signature
  - First body part : signed data + MIME header : text/plain
  - Second body part : digital signature : of 'application/pgp-signature'