Email

**Electronic mail**, commonly called **email** or **e-mail**, is a method of exchanging [digital](http://en.wikipedia.org/wiki/Digital) messages from an author to one or more recipients. Modern email operates across the [Internet](http://en.wikipedia.org/wiki/Internet) or other [computer networks](http://en.wikipedia.org/wiki/Computer_network). Some early email systems required that the author and the recipient both be [online](http://en.wikipedia.org/wiki/Online_and_offline) at the same time, in common with [instant messaging](http://en.wikipedia.org/wiki/Instant_messaging). Today's email systems are based on a[store-and-forward](http://en.wikipedia.org/wiki/Store-and-forward) model. Email [servers](http://en.wikipedia.org/wiki/Computer_server) accept, forward, deliver and store messages. Neither the users nor their computers are required to be online simultaneously; they need connect only briefly, typically to an [email server](http://en.wikipedia.org/wiki/E-mail_server), for as long as it takes to send or receive messages.

An email message consists of three components, the message *envelope*, the message *header*, and the message *body*. The message header contains control information, including, minimally, an originator's [email address](http://en.wikipedia.org/wiki/Email_address) and one or more recipient addresses. Usually descriptive information is also added, such as a subject header field and a message submission date/time stamp.

Originally a text-only (7-bit ASCII and others) communications medium, email was extended to carry multi-media content attachments, a process standardized in [RFC](http://en.wikipedia.org/wiki/Request_for_Comments) 2045 through 2049. Collectively, these RFCs have come to be called [Multipurpose Internet Mail Extensions](http://en.wikipedia.org/wiki/Multipurpose_Internet_Mail_Extensions) (MIME).

Electronic mail predates the inception of the [Internet](http://en.wikipedia.org/wiki/Internet), and was in fact a crucial tool in creating it,[[2]](http://en.wikipedia.org/wiki/Email" \l "cite_note-1) but the history of modern, global Internet email services reaches back to the early [ARPANET](http://en.wikipedia.org/wiki/ARPANET). Standards for encoding email messages were proposed as early as 1973 ([RFC 561](http://tools.ietf.org/html/rfc561)). Conversion from ARPANET to the Internet in the early 1980s produced the core of the current services. An email sent in the early 1970s looks quite similar to a basic text message sent on the Internet today.

Network-based email was initially exchanged on the ARPANET in extensions to the [File Transfer Protocol](http://en.wikipedia.org/wiki/File_Transfer_Protocol) (FTP), but is now carried by the [Simple Mail Transfer Protocol](http://en.wikipedia.org/wiki/Simple_Mail_Transfer_Protocol) (SMTP), first published as [Internet standard](http://en.wikipedia.org/wiki/Internet_standard) 10 ([RFC 821](http://tools.ietf.org/html/rfc821)) in 1982. In the process of transporting email messages between systems, SMTP communicates delivery parameters using a message *envelope* separate from the message (header and body) itself.

# *e-mail*

Short for ***e***lectronic***mail***,the transmission of messages over [communications](http://www.webopedia.com/TERM/C/communications.html)[networks](http://www.webopedia.com/TERM/N/network.html). The messages can be notes entered from the [keyboard](http://www.webopedia.com/TERM/K/keyboard.html) or electronic [files](http://www.webopedia.com/TERM/F/file.html) [stored](http://www.webopedia.com/TERM/S/store.html) on [disk](http://www.webopedia.com/TERM/D/disk.html). Most [mainframes](http://www.webopedia.com/TERM/M/mainframe.html), [minicomputers](http://www.webopedia.com/TERM/M/minicomputer.html), and[computer](http://www.webopedia.com/TERM/C/computer.html) networks have an e-mail [system](http://www.webopedia.com/TERM/S/system.html). Some electronic-mail systems are confined to a single [computer system](http://www.webopedia.com/TERM/C/computer_system.html) or network, but others have[gateways](http://www.webopedia.com/TERM/G/gateway.html) to other computer systems, enabling [users](http://www.webopedia.com/TERM/U/user.html) to send electronic mail anywhere in the world. Companies that are fully computerized make extensive use of e-mail because it is fast, flexible, and reliable.

Most e-mail systems include a rudimentary [text editor](http://www.webopedia.com/TERM/E/editor.html) for composing messages, but many allow you to edit your messages using any editor you want. You then send the message to the recipient by specifying the recipient's address. You can also send the same message to several users at once. This is called [broadcasting](http://www.webopedia.com/TERM/B/broadcast.html).

Sent messages are stored in electronic [mailboxes](http://www.webopedia.com/TERM/M/mailbox.html) until the recipient fetches them. To see if you have any mail, you may have to check your electronic mailbox periodically, although many systems alert you when mail is received. After reading your mail, you can store it in a [text file](http://www.webopedia.com/TERM/T/text_file.html), forward it to other users, or[delete](http://www.webopedia.com/TERM/D/delete.html) it. Copies of memos can be printed out on a [printer](http://www.webopedia.com/TERM/P/printer.html) if you want a paper[copy](http://www.webopedia.com/TERM/C/copy.html).

All [online services](http://www.webopedia.com/TERM/O/online_service.html) and [Internet Service Providers (ISPs)](http://www.webopedia.com/TERM/I/ISP.html) offer e-mail, and most also [support](http://www.webopedia.com/TERM/S/support.html) gateways so that you can exchange mail with users of other systems. Usually, it takes only a few seconds or minutes for mail to arrive at its destination. This is a particularly effective way to communicate with a group because you can broadcast a message or [document](http://www.webopedia.com/TERM/D/document.html) to everyone in the group at once.

Although different e-mail systems use different [formats](http://www.webopedia.com/TERM/F/format.html), there are some emerging [standards](http://www.webopedia.com/TERM/S/standard.html) that are making it possible for users on all systems to exchange messages. In the [PC](http://www.webopedia.com/TERM/P/PC.html) world, an important e-mail standard is [MAPI](http://www.webopedia.com/TERM/M/MAPI.html). The [CCITT](http://www.webopedia.com/TERM/C/CCITT.html) standards organization has developed the X.400 standard, which attempts to provide a universal way of addressing messages. To date, though, the de facto addressing standard is the one used by the [Internet](http://www.webopedia.com/TERM/I/Internet.html)system because almost all e-mail systems have an Internet gateway.

Another common spelling for e-mail is email.

### How the Email service works

The process of sending an e-mail message can be explained in 5 basic steps. Let's say that you have an e-mail address client@my-best-domain.com and you need to send a mail message to us at support@my-ntc-domain.com. This is the route which your mail travels until it is delivered:

1. First you need to open your email client program and compose the message. The message composition can include typing the text message in the text field, attaching files and photos and filling the "To…" field with the e-mail address which you want to send the mail to. Also, with some e-mail client programs, or when you have more than one email address set up, you will need to specify the e-mail address from which you will send the mail in the "From" field.
2. When the message is composed you need to send it by pressing the "Send" button of your mail client software. The email software will automatically format the mail message in an e-mail format and send it to your pre-configured [SMTP server](http://www.ntchosting.com/email/smtp-server.html), typically set at port 25.
3. The next major step proceeds in your mailbox's SMTP server. The SMTP server is the [server](http://www.ntchosting.com/server.html) application which is responsible for sending messages over the SMTP protocol. It is a service commonly provided by your [ISP](http://www.ntchosting.com/internet/isp.html). You can also use the SMTP server of your mail service provider instead. Once the message is sent from the mail client, the SMTP server receives it over the network and reads the email address set in the "To" field. Then it asks for the MX record corresponding to the recipient’s e-mail address. For example, if we send a message to support@my-ntc-domain.com, the SMTP server asks the [DNS Zone](http://www.ntchosting.com/dns/zone.html) server for a [MX record](http://www.ntchosting.com/dns/dns-records.html#MX_Record) for the domain my-ntc-domain.com.
4. Once the [DNS server](http://www.ntchosting.com/dns/dns-server.html) responds with the MX DNS record of the recipient’s e-mail address, the SMTP server connects to it and delivers the message to the opposite mail server.
5. Once the e-mail message is delivered to the mailbox on the recipient’s mail server, the recipient can start his/her mail client software application and receive the message by downloading it from the server using the POP3 protocol. Also, the mail can be read on the server by using an IMAP protocol connection.