

How the E-mail system works

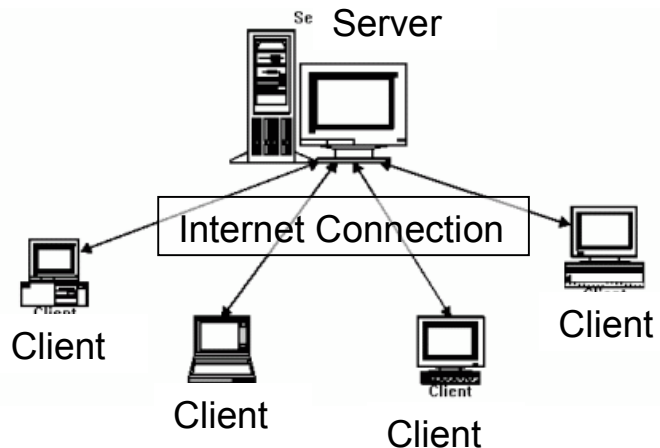
A basic understanding how the e-mail system works can really help you to diagnose problems and configure your e-mail client to work correctly. This document gives an overview suitable for anyone who has used e-mail before.

Clients and Servers

The e-mail system is a type of “client-server” system, which is just a fancy way of saying there are 2 computers that exchange information – one, the server, “serves” information to the other – the client.

So, we’ll talk about a “*mail server*” – that’s a computer somewhere on the internet that does all the work required to “serve” your e-mail to you, and a “*mail client*”, which is your computer, or more specifically, a program on your computer that knows how to talk to the mail server.

Each server has a unique address that identifies it on the internet – this will be a name like mail.lasqueti.ca or smtp.telus.net



E-mail Clients

Your *e-mail client* is a program that lets you manage your e-mail on your own computer. Popular e-mail clients include Thunderbird, Mac Mail, Eudora, and Outlook (but please don’t use Outlook ;-). The *e-mail client* program knows how to “talk” to the *server* to send and receive mail, and provides a bunch of tools to help you manage, sort, search, and write e-mail. Although it looks to you as if your e-mail client does all the work, in fact, it is a façade – the client is simply a suite of tools that makes it easier for you to communicate with the server – it is the e-mail server that does all the actual work of sending out mail, routing it to its destination, and storing messages until they are checked.

Webmail

Webmail is also a type of e-mail client, but the webmail program runs within a web browser, and works directly with information stored on the server, rather than a copy stored on your computer. This allows you to manage your e-mail from any computer with an internet connection. Webmail is great for checking e-mail when you are away from home, but use an e-mail client program on your own computer – it makes things much easier.

Post Office vs. Post Box

E-mail works remarkably similar to the way the real postal system (snail-mail) works.

When someone sends you a letter, it moves through the postal system and arrives at your post office. You can only receive mail at the Lasqueti post office.

However, when you send mail, you can drop your letter in any post box anywhere in the world and it will be delivered. In other words, *incoming* mail, mail addressed to you, is treated quite differently than *outgoing* mail (mail you are sending).

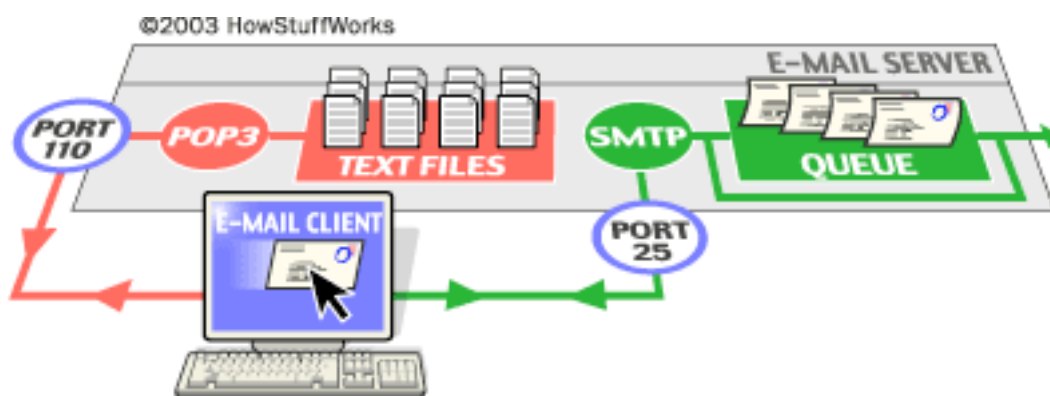
Email is the same – you can send mail using any mail server you have access too – doesn’t matter much – but you can only receive mail from your own mail server – your lasqueti.ca e-post-office! .

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In this postal system analogy, your *e-mail client program* is like the postal delivery person – they pick-up and deliver mail between the post office (server) and your home computer, but all the work of checking postage and routing mail to its destination is handled by the wider postal system (*the mail server*). Using *webmail* is like picking up your mail at the post office (directly from *the server*) rather than having it delivered.

POP vs SMTP

POP is an acronym for “*Post Office Protocol*” – a set of rules for defining how clients and servers negotiate about *incoming* mail. Your “**POP sever**” is your local e-post-office – the place where all your incoming e-mail is routed to. When you use your e-mail client to check your e-mail, it contacts your *POP server* (i.e., your Post Office) and downloads (copies) any new messages from the server. But you don’t want just anyone to be able to get your e-mail, so the POP server will require “authentication” – see below.



Often, the POP and SMTP server programs are actually running on the same physical computer. The computer “listens” on different ports for the 2 different types of client requests.

SMTP stands for “*Send Mail Transfer Protocol*” – a set of rules defining how mail should be sent out and forwarded through the internet to its destination address. In theory, you could use any “**SMTP server**” to send mail – it’s really like a post box. But few SMTP servers allow open access to just anyone – they put controls on so that spammers can’t use their servers to send spam e-mail. Some SMTP servers, like smtp.telus.net, require you to be part of a specific network to use them (this is why the telus smtp server doesn’t work from all locations – only those served by Telus!); others, like smtp.webfaction.com, require authentication (see below) so that only known users have access.

Server Authentication

To access an e-mail server, you will need to provide “*authentication*” – usually a *user id* (or *user name*) and a *password*. This identifies you to the *server* and confirms that you have *permission* to check e-mail on that *account*. Although some servers use your e-mail address itself for the authentication user id, these are two distinct concepts, and your *e-mail client* will require that you enter both your e-mail address AND your *user id* and *password* when configuring an *account*.

If you want to know more, try: HowStuffWorks:

<http://communication.howstuffworks.com/email.htm>