

CHAPTER 1

INFocus

EMAIL CONCEPTS

Email provides a great way of communicating with friends, colleagues, business associates and the like. But with email comes certain responsibilities such as knowing how to protect yourself and others from viruses, understanding etiquette, dealing with spam and more.

In this session you will:

- ✓ gain an understanding of how email works
- ✓ gain an understanding of email addresses
- ✓ gain an understanding of the benefits of email
- ✓ gain an understanding of general email etiquette
- ✓ gain an understanding of emails and viruses
- ✓ gain an understanding of digital signatures.

HOW EMAIL WORKS

'**Email**' is an abbreviation of **electronic mail** and refers to a message that is sent from one computer to another. The computers may be in the same building and linked via a local network,

or they may be located some distance apart and connected via the internet. Here we'll look at the main components of an email system that facilitate the sending and receiving of emails.

Email Client

To send email from your computer you will need an email application (which is also known as an **email client**). The email client allows you to compose and send emails to other people, and to receive, read and delete emails.

The email client could be standalone and installed on your computer (like Microsoft Outlook which is supplied with Microsoft Office) or it could be web-based (such as Gmail, Hotmail etc).

Email Server

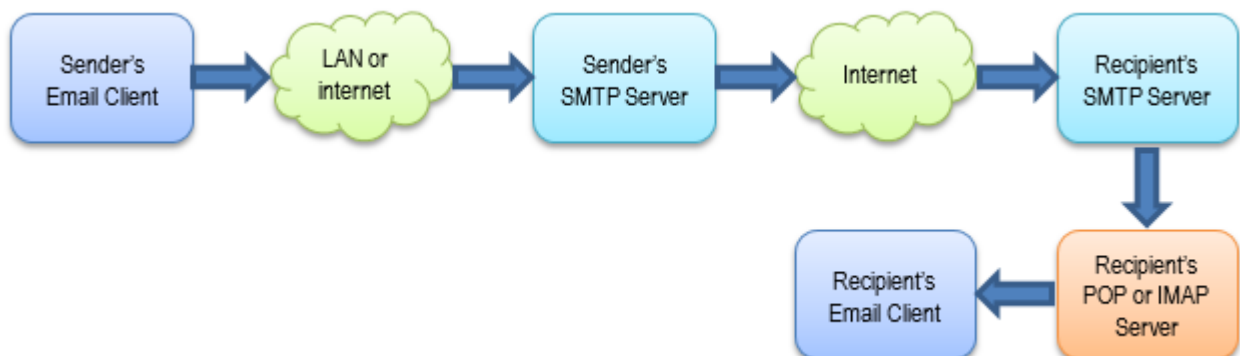
While an email client is used for writing and reading emails, it is the role of an **email server** to ensure that email is dispatched to the correct location and recipients.

The email server takes the emails that you have created and sends them through the appropriate electronic pathways to the intended recipients. It also collects email messages that people are sending to you and delivers these emails to the email client on your computer.

If you send email messages to people in your company, these messages will generally only pass through one email server – the one that looks after the internal email in your business. This will most likely be something like Microsoft Exchange Server. When you send an email to a colleague within your company, that email is sent to the server and the server then passes it to the email client on your colleague's computer – this is done in an instant.

When you send email via the internet, however, the business of email servers becomes more complicated. Generally, it is your Internet Service Provider (ISP) who handles your internet email, and, given the volume of mail they handle, they will have quite a few computers to do this. With internet email there are separate servers that handle outgoing email (email that you are sending) and incoming email (email that someone is sending to you). Outgoing email is handled by an SMTP server (SMTP stands for Simple Mail Transfer Protocol), while incoming email is handled by a POP server (POP stands for Post Office Protocol) or IMAP server (IMAP stands for Internet Message Access Protocol).

To be able to send and receive emails via the internet, computers need to be connected to both an SMTP and POP/IMAP server. Therefore, when you send an email to someone via the internet, it leaves your email client and goes to your ISP's SMTP server. From here it is sent to the destination SMTP server which collects the email and places it in the appropriate location so that it is accessible to the recipient's email client through POP or IMAP services. The recipient's POP/IMAP server then passes it to the recipient's email client. A summary of this process is shown below.



Email Account

To use an email server you will need to have an email account. An email account is normally made up of two components: a user name which identifies you to other people and the system, and a password which ensures that other people can't access your mail.

With a proper user name (sometimes known as a user ID) and a password, your computer can connect to an email server.

EMAIL ADDRESSES

Just as your street address identifies where you live, an email address identifies where other people can send emails to you. However, unlike street addresses, email addresses comprise only

a single line of characters. Once you understand what they mean, the characters can tell you a great deal about the owner of the email address.

Identifying Email Addresses

An **email address** is a unique address on the internet that allows people to send email messages to you.

An email address is written using the following format:

username@domainname.topleveldomain.country

An example of an email address might be:

jane@watsoniapublishing.com.au

The @ symbol in the middle of the address is known as an **at** symbol. If read aloud, the sample email address above would be spoken as 'jane at watsonia publishing dot com dot au'.

Note that email addresses are not case sensitive. But, in most locations the standard convention is to write email addresses in lowercase.

The User Name

The **user name** is used to identify the name of the owner of the email address. It is usually descriptive and pretty close to the actual name of the person. It could be just the first name, just the last name, both first and last names, first name plus the first letter of the person's last name, and so on. For example, Jane Smith may appear as: 'jane', 'smith', 'janesmith', 'janes', 'jsmith' and so on.

While there are no rules governing how the user name should appear, some workplaces have established a particular style that they want you to use. Your system administrator at work will probably set up your email address for you following company practice.

The Domain Name

The **domain name** helps the internet identify the location of the email server that is hosting the email account. Sometimes, the domain name reflects the name of the Internet Service Provider (e.g. janes@bigpond.com) and other times it might be the name of your workplace (e.g. jane@watsoniapublishing.com).

The Top Level Domain

The **top level domain** normally consists of three letters and identifies the type of organisation associated with the host's name. Examples of common top level domains include:

.com	private or public company
.gov	government department or organisation
.edu	educational institution
.net	networks usually reserved for Internet Service Providers
.org	non-commercial organisations

The Country Identifier

Email addresses outside the United States are usually identified with an additional two letters at the end. Some of the more common ones are **au** for Australia, **uk** for United Kingdom, **nz** for New Zealand, **de** for Germany, **fr** for France, and so on.

THE BENEFITS OF EMAIL

There is little doubt that email has provided the greatest communication revolution since the invention of the printing press. With many people email has all but replaced the use of regular mail,

and billions of messages are sent every day. Email presents enormous benefits and advantages over traditional mail. Some of these are presented below.

It's Fast

Using email, you can send a message to someone on the other side of the world literally within seconds. It is possible, therefore, to have an email 'conversation' where you are sending short messages back and forth with someone next door, in the next state or territory, or even on another continent.

It's Cheap

These days many small businesses can use free web email services to send and reply to email which helps to save money. Email means that businesses no longer have to rely on potentially expensive phone calls or the cost of mailing documents and information. It also allows you to get things done in a more efficient time frame which allows you to take on more customers and improves the business' reputation.

It's Convenient

Email has become popular largely due to how convenient it is. As opposed to hardcopy files, email can be accessed anywhere. This allows greater flexibility in the workplace, meaning even if you are out in the field, at a conference, or on the road you can still access and send information. For example, if you are travelling you can use your phone or mobile device to send emails as long as you have access to Wi-Fi or mobile data. If you don't have access to a mobile device, you could use a computer at an internet café or hotel.

Most employees now feel more comfortable using email than traditional letters or memos.

As opposed to a phone call, an email allows one to have time to carefully word sensitive subjects and create a more professional line of communication.

It Provides A Record

Emails that you send to other people are kept in the **Sent** box, allowing you to keep a record of all of your email interactions. You can search your emails to find correspondence with specific people or on a specific subject, enabling you to easily refer back to a conversation without having to bother the people involved. You can also choose to archive important emails that may be needed in future, such as emails containing important information or emails you may need to retain for legal reasons.

It Provides Access

Email provides you with a way to communicate with almost anyone in the world. The vast majority of businesses and even individuals will have an email address. This makes contacting potential clients much easier and allows you to send marketing materials and such out to both existing and potential customers.

EMAIL ETIQUETTE

It is important to remember that unlike a phone conversation, an email conversation is there forever and can be referred back to at any time. Therefore, you should adopt courteous and polite

habits when writing email messages. Quite a few guidelines have now been developed to help you some of these are listed below.

The Beginning And The End

Ensure that you begin your emails with a courteous greeting and end them with a courteous closing. It is usually seen as polite to address the email to the recipient and sign off with your name.

Short Is Sweet

Ensure emails are concise and to the point so that you do not waste the recipient's time.

Spelling And Grammar

When you have composed your message spend some time using the spell checker to check the spelling. Then re-read the message and ensure that there are no typos or spelling and grammar mistakes. Emails that have errors look unprofessional and may not be taken seriously.

Make The Subject Line Meaningful

Always put meaningful text in the subject line of a message, such as 'Sales Figures for June', and so on. This ensures that there is a greater chance that the email will be read in a timely manner as the person receiving the message will know what the content is about. It also makes it easier for the person to find the email again.

Watch What You Say

When we talk to someone face to face there are many nonverbal cues that help us to interpret what is being said, such as body language and tone of voice. In an email you can only read what has been written, so when composing an email be careful if using sarcasm or humour as it can easily be misinterpreted.

Avoid Flaming

Flaming is the act of telling somebody off using an email – and it should NEVER be done. If you have an issue with someone, contact them over the phone or face to face, but never through an email. The big danger with email is that it can be read over and over again. If you use email to dress down someone they can read it several times and become angry or upset. They may flame you with an equally or even more vitriolic email.

Don't SHOUT

Avoid using capital letters (except in the proper literary way for sentence starts, names, and the like) as in an email it can come across as shouting.

Check The Attachments You Send For Viruses

Always scan documents for viruses before sending them as attachments.

Protect The Privacy of Others

When you want to send an email to a group of people you enter their email addresses either in the **To** or the **Cc** fields. There can be two problems with this: firstly, all recipients know exactly who else received the message, and secondly, the email address of each recipient may be visible to all of the other recipients. If you are sending a message to many people and it is not necessary for the recipients to know who else received the message, put their addresses in the **Bcc** field and put your own address in the **To** field – Outlook needs to have at least one address in the **To** field.

EMAILS AND VIRUSES

A virus is a computer program transmitted (usually) via the internet that infects computers with the intent of causing damage to your files and/or software. Some can delete all information

on a hard drive, others can tie up traffic on a computer network, while others can replicate and send themselves to other computers using your contacts.

Types of Viruses

There are many types of viruses, the most common being: **boot sector viruses** that infect the start-up program of your computer, **program viruses** that infect software programs on your computer, and **macro viruses** that infect macro programs written in Microsoft Word or Microsoft Excel. Within these types there are two broad categories: **Trojans**, which appear hidden and perform their nasty deeds without you noticing; and **Worms** which remain invisible, consume the resources on your computer, and appear only as your computer begins to slow down.

How Do You Get A Virus?

At the present time there are several ways that a virus can get itself onto your computer:

1. From a software program that you download from a website. The software program (usually from a dubious source) will contain the virus that will infect your computer when the software is run.
2. From an email containing an attachment (this may be a program or a document with a macro virus) which has been designed to automatically start as soon as you double-click on the attachment to open it.
3. From an email containing corrupted web links that enable a virus to download onto your computer when you click on the link.

Note, however, that some email viruses will launch without even being opened – they will launch when you view the infected message in the preview pane of your email software!

How Do You Prevent Viruses From Infecting Your Computer?

The best way to protect your computer is by not having it connected to the internet or any form of network. However, this is obviously impractical in this day and age. Instead, you should follow some basic rules to minimise your risk of being infected.

- Install, use and constantly update a good anti-virus software application on your computer, such as Nortons, Symantec and so on. Set up the anti-virus software so that it runs in memory – this ensures that it is vigilantly and constantly checking incoming files for possible dangers and threats.
- Install a firewall – this is special software that protects your computer from unwarranted entry from the internet. Your company may already have a firewall set up.
- *Never* click on links in emails from people you don't know, just delete these messages immediately. If you want to check whether the web address in a link is valid, manually type it into the address bar in a browser.
- Because hackers can readily raid email contact lists, carefully read emails from friends. If an email appears suspicious, don't click on any links or download any files. Delete it and ring your friend. If it was valid, they can re-send you the email.
- *Always* use the anti-virus software to scan email attachments and never open an attachment until it has been scanned and cleared.
- *Never* download software from dubious sources, such as screensavers, icons, freeware and so on.

Note: With the sophistication of hackers and virus writers increasing daily, ensure that you check all of your incoming email very carefully!

DIGITAL SIGNATURES

While email and the internet provide a cheap, convenient and very fast way of transmitting information, they are relatively easily accessed. One way to ensure that emails you send and

receive are secure is to use **digital signatures**. Digital signatures help to validate your identity and they can be used to sign important documents electronically.

About Digital Signatures And Digital IDs

Because some hackers send out email messages that appear to come from other people, it has become important for people to verify that their incoming messages have actually come from known colleagues, clients or friends.

By using a **digital signature** you can prove to the recipient that the content of the message was signed by you and not an imposter, and that the contents have not been altered in transit. Unlike a handwritten signature, a digital signature is hard to fake because it contains encrypted information that is unique to the signer and which is easily verified. When the recipient opens the message, the digital signature is validated and an icon will appear in the **Signed by** status line in the message header indicating the status of the signature. There is an icon that shows the signature is valid and another that reveals the signature is invalid.

Before you can send an email message containing a digital signature, you must first obtain a **digital ID**. Outlook enables you to do this from the **Trust Centre** (select **File > Options > Trust Centre** and then click on **[Trust Centre Settings]** and **E-mail Security**). From the **Trust Centre**, you can either import an existing digital ID from elsewhere (your employer may obtain one for you if you work in a large organisation) or you can obtain one from a third-party provider.

Digital IDs operate using a pair of keys: a **public key** and a **private key** – a key here is a bit like a pin number for a bank account. These keys are used for encrypting and decrypting data. If you use your digital signature to encrypt a message, you will need to export to the recipient a **certificate** that contains your public key (so that the recipient can add it to their address book and then Outlook can use this key to unravel or decrypt the information in the message) plus other information that the recipient's computer will need to validate your digital signature.

Adding a digital signature slows down the process of sending a message somewhat because your computer has to check with the computer that issued your digital ID to verify your signature. But because Outlook checks your digital ID, your recipient can be sure that your message came from you – which of course is the whole point of digital signatures.

Sample

CHAPTER 2

InFocus

TYPES OF DIGITAL COMMUNICATION

Digital communication uses digital devices and technology to send and receive information. Most of us use digital communication every day – when we receive a phone call, text a friend, update our status on social media, or send an email to our boss. This chapter outlines how we can best communicate digitally and what options are available to us.

In this session you will:

- ✓ gain an understanding of different methods of digital communication
- ✓ gain an understanding of choosing an email application
- ✓ gain an understanding of communicating via phone
- ✓ gain an understanding of additional methods of digital communication
- ✓ gain an understanding of communicating via social media
- ✓ gain an understanding of communicating via websites.

COMMUNICATING VIA EMAIL

'Email' is an abbreviation of *electronic mail* and refers to a message that is sent from one device to another (though it is important to note that you can send messages via other digital

communication methods and they are not considered emails).

Email

Email is intended to replace non-digital mail (such as letters that you would physically send to others via the postal service). These days email is primarily used for more formal communications, such as sending and receiving work related information between colleagues.

To send and receive emails you will need an email application (also known as an email client). The email client could be standalone and installed on your computer (like Microsoft Outlook, which is supplied with Microsoft Office) or it could be web-based (such as Gmail). The email client allows you to compose and send emails to other people, and to receive, read and delete emails. Both Outlook and Gmail, and many other email apps, also provide mobile apps so you can send and receive emails using your mobile device.

Advantages And Disadvantages of Email

There are many advantages to using email. For instance, it is an inexpensive form of communication, particularly now that there are several free web email services available for small to mid-size business.

As opposed to a phone call, an email allows you to take the time to carefully word sensitive subjects and create a more professional line of communication. Emails that you send to other people are kept in the **Sent** box, allowing you to keep a record of all of your email interactions. You can search your emails to find correspondence with specific people or on a specific subject, enabling you to easily refer back to a conversation without having to bother the people involved. You can also choose to archive important emails that may be needed in future, such as emails containing important information or emails you may need to retain for legal reasons.

Email provides you with a way to communicate with almost anyone in the world. The vast majority of businesses and even individuals will have an email address. This makes contacting potential clients much easier and allows you to send marketing materials and such out to both existing and potential customers.

There are also a few disadvantages to using email. Though the ability to send an email with the click of a button is an advantage, it can also be a disadvantage in that it is easy to accidentally send an email. Once an email is sent, it is often very difficult (if not impossible) to retrieve the email before it reaches the recipient. Email also raises some security concerns, as it is often a popular method of sending viruses. A virus is a computer program transmitted (usually) via the internet that infects computers with the intent of causing damage to your files and/or software. Some can delete all information on a hard drive, others can tie up traffic on a computer network, while others can replicate and send themselves to other computers using your contacts.

Due to the popularity of emails these days, many professionals receive huge quantities of emails on a range of different subjects, and this can lead to information overload. It also means that your email may be easily overlooked or you in turn might overlook an important email you have received.

CHOOSING AN EMAIL APPLICATION

When it comes to choosing an email application, you may be faced with a wide variety of options. The application you choose depends on the reasons you are using an email application and

its compatibility with other applications you may use.

Webmail

Webmail is an email system that can be accessed via an internet browser where all emails, calendars, contacts and the like are hosted on the email service provider's online servers.

Microsoft's Outlook (<https://outlook.com>) and Google's Gmail (<https://mail.google.com>) are two of the most popular webmail applications currently available. Both services are free to use online, but also have paid business options. Microsoft's paid option is called Office 365 and comes with a suite of desktop productivity applications such as Microsoft Word, Microsoft Excel and a desktop version of Outlook. Google's equivalent of Office 365 is called G Suite and comes with a suite of online productivity applications such as Docs and Sheets.

Yahoo Mail and Zoho Mail are two other popular, free email applications that provide several handy features. Yahoo Mail provides users with a significant amount of inbox storage and is popular for personal use. Zoho Mail has specifically been designed for teams and small business and so contains many tools you can use in order to collaborate with others.

Most webmail applications provide a generous amount of storage, with the option to pay for more if needed, as well as security measures such as two-step authentication and the option to access your email from desktop or mobile applications. The way that they are most likely to differ are in their user interfaces and features – for instance, emails are organised and managed differently across Outlook and Gmail. Because Outlook is created by Microsoft, it has been designed in a way that reflects the way you would normally work with Windows programs. For example, Outlook uses folders and subfolders to organise emails, whereas Gmail uses labels.

Email Applications

Email accounts, including those from webmail applications, can be accessed from many different types of applications. The desktop version of Microsoft Outlook is available as part of your Microsoft Office suite or Office 365 subscription and can be installed on your computer. Using this desktop application you can access your Outlook, business or even Gmail accounts. It is more powerful than the web version of Outlook, and allows you to access your previously sent and received emails without an internet connection.

If you are using an Apple device such as a Mac or iPhone, you can use Apple Mail which is the default mail account for Apple products. Apple Mail has many of the same basic features as Outlook, however there are several differences. For instance, with Apple Mail, contacts and calendar apps are not integrated into the email service.

There are also many third party desktop applications, such as Thunderbird, which was created by the Mozilla Foundation, the same company that created the Mozilla Firefox web browser.

Both Outlook and Gmail have official mobile apps, which you can install on your phone or tablet to access your emails on the go. There are also many third party mobile apps that can be used to access your email, with a variety of features and prices.

Choosing The Right Email Application

Most email applications contain similar features, and so choosing an email application often depends on what other programs you are using. For example, if you use Windows and the Microsoft Office suite, Outlook may be the best choice because it integrates well with other Microsoft programs. If you use Google Docs and associated Google apps, Gmail may be the best option as it is automatically integrated with other Google apps.

Usually your business will determine which application you use for work, as you will be provided with a work email address upon commencing employment. If you are responsible for choosing an email application for your business, it is important to first consider your requirements. Things to consider include the cost of the application, how much storage you will need and what sort of functionality it provides.

COMMUNICATING VIA PHONE

The telephone was invented in the 1870s and was ground-breaking in allowing people to conduct verbal conversations with others located a great distance away. It has greatly changed

and evolved since then, with the creation of the mobile telephone in the early 1970s and the smartphone in the 2000s. These days phones can be used for much more than just voice calls.

Landline Vs Mobile

There are two main types of phones: landline phones and mobile phones (also known as cell phones). A landline phone transmits through a fixed physical location, whereas a mobile phone transmits through radio waves. Though landline phones are still used as the main phone number by many businesses, mobile phones are often used by employees for calling colleagues and clients. They allow greater flexibility as you don't have to be in the office to use the phone. A landline phone is suitable when users will be in the place that the phone is located for long periods of time (such as an office).

Phone Functionality

Voice Calls

You can place or receive voice calls using your mobile phone or landline. Since most people have a mobile phone on them at all times, it is generally the best method of communication if you need to get in touch with someone urgently.

There are many advantages to using the phone to communicate. For example, a phone conversation allows you to ask and answer questions of colleagues and/or clients in real time rather than having to wait for a response. It is also easier to have a more nuanced conversation, as you can hear the other person's tone of voice and quickly clarify any misunderstandings immediately.

It is important to recognise that though there are many advantages, there are also many disadvantages to phone calls. For example, a phone call can take more time than other forms of communication, as some clients or colleagues may talk more or bring up information that is not relevant to the conversation. There is also usually no record of phone conversations, so if you or the other party forget what was said you will have to get in contact again to clarify. It can also be difficult to find a time when both parties are available to talk.

Text Messaging

A text message is traditionally a short message comprised of text sent and received from a mobile phone service. Most phones today also allow you to send emojis, emoticons, stickers, gifs, videos and images via text.

Text messaging is ideal for communicating brief messages, such as confirming an appointment. In a professional context the language that you use in a text message to a colleague may be quite different to the language you would use with a friend. It is usually not advised to use emojis, emoticons and the like in professional correspondence.

The advantages of text messages are that they are read at a higher rate than other forms of correspondence. It is easier and quicker to respond to a text message than other forms of communication. Sending and receiving text messages also don't require an internet connection, so you can contact someone regardless of where they are. Most people have their phones on them at all times, so a text message has a greater chance of reaching the person in a timely manner than an email would.

On the downside, because you read your text message on a mobile device, it can be difficult to read if there is too much text and so it is not useful for conveying large amounts of information. Because most people have their phones on them all the time and they are used for both personal and professional uses, it can seem invasive to receive text messages especially depending on the time of day (such as outside of business hours).

Video Conferencing

A video conference allows a live, visual and audio connection between two or more people in different locations. Most mobile phones have video conferencing capability (such as Facetime for iPhone). The advantage of this is that you can see the person you are speaking to and so can pick up on facial expressions and body language. It can also be useful if you want to show the person you are speaking to what you are seeing, such as if you want to show a colleague a venue for an event you are planning or a site for a client. The disadvantage of using video calls is that it can be difficult to get the right angle on your phone. The other person can also see what's going on in the background and vice versa, which can be distracting.