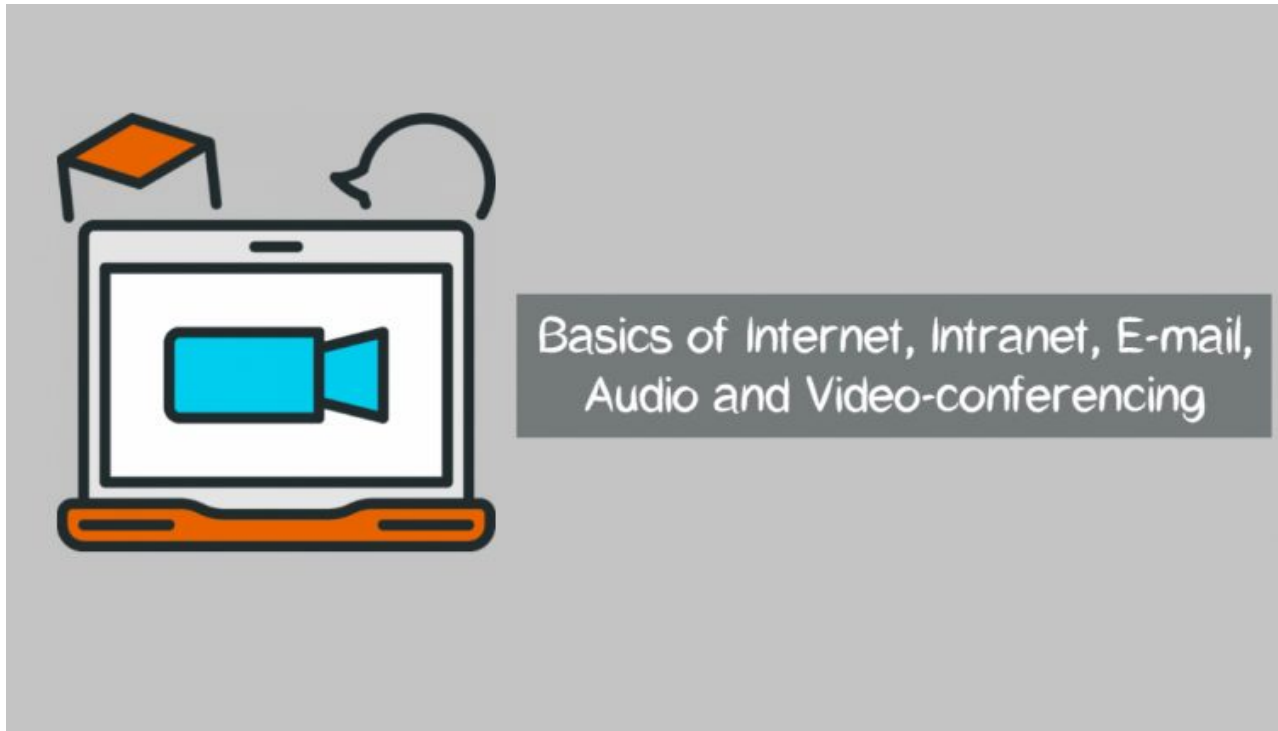


# Basics of Internet, Intranet, E-mail, Audio and Video-conferencing

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## Basics of Internet, Intranet, E-mail, Audio and Video-conferencing.

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### Basic of Internet

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- The Internet is a worldwide telecommunications system that provides connectivity for millions of other, smaller networks; therefore, the Internet is often referred to as a network of networks.
- It allows computer users to communicate with each other across distance and computer platforms (Including other ICT Based Devices such as Mobile & Other electronic devices)
- The Internet began in 1969 as the U.S. Department of Defense's Advanced Research Project Agency (ARPA) for war communication
- The World Wide Web—usually called the Web for short—is a collection of different websites you can access through the Internet.
- Internet Service Provider- An ISP offers a variety of services for a variety of prices: web page access, email, web page hosting and so on. Most ISPs offer various internet connection speeds for a monthly fee
- A browser is a program that allows you to interact and view the internet and contents of the Web. The Web Browser, Internet Explorer, or IE is developed by Microsoft and comes pre-installed when you buy a Windows computer.

- A browser is a free software package or mobile app that lets you view web pages, graphics, and most online content. The most popular web browsers include Chrome, Firefox, Internet Explorer, and Safari, but there are many others.
- A webpage is what you see in your browser when you are on the internet. Think of the webpage as a page in a magazine. You may see text, photos, images, diagrams, links, advertisements and more on any page you view.
- Uniform Resource Locators—URLs— are the web browser addresses of internet pages and files.
- URLs consist of three parts to address a page or file:
  - The protocol is the portion ending in //: Most web pages use the protocol http or https, but there are other protocols.
  - The host or top-level domain, which frequently ends in .com, .net, .edu or .org but can also end in one of many others that have been officially recognized.
  - The filename or page name itself.
- A domain name is the unique, alphabetically-based part of a URL. This domain name can be officially registered with a domain registrar by a person, business, or non-profit organization
- The top level domain name that designates what kind of site it is; for example, .com (for commercial domains), .org (organizations), .edu (for educational institutions).
- Top-level domain names include:

.com Commercial

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.edu Educational

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.gov US Government

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.int Organization

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.mil US Military

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.net Networking Providers

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.org Non-profit Organization

Domain name country codes include, but are not limited to:

.au Australia

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.de Germany

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.fr France

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.in India

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.uk United Kingdom

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.us United States

- Domain name system- An Internet address has four fields with numbers that are separated by periods or dots. This type of address is known as an IP address. Rather than have the user remember long strings of numbers, the Domain Name System (DNS) was developed to translate the numerical addresses into words.
- SSL- The acronym SSL stands for Secure Sockets Layer. SSL is a secure encryption Web protocol used to make data safe when transmitted over the Internet.
- Web Hosting- A web host is a business/company that offers space, storage, and connectivity in order to enable a website to be viewed by Internet users.
- Web Server- The Term Web server refers to a specialized computer system or dedicated server specifically designed to host or deliver Web sites.
- Hypertext Markup Language is the programming language of webpages. HTML commands your web browser to display text and graphics in a specific fashion. Beginning internet users don't need to know HTML coding to enjoy the webpages the programming language delivers to browsers.
- XML is eXtensible Markup Language, a cousin to HTML. XML focuses on cataloging and databasing the text content of a web page.
- XHTML is a combination of HTML and XML.
- HTTP- The client/server protocol used to exchange hypertext documents is called HTTP (HyperText Transport Protocol). The main thing you need to know is that HTTP is a language spoken between your web browser (client software) and a web server (server software) so that they can communicate with each other and exchange files

## Basic of Intranet

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- An intranet is a private network that is contained within an enterprise. It may consist of many interlinked local area networks and also use leased lines in the wide area network.
- The main purpose of an intranet is to share company information and computing resources among employees.
- Today's working environment often means colleagues are no longer present in the same room at the same time, but separated by large distances. This can make teamwork and face-to-face interaction difficult – unless an intranet with the latest communication and collaboration tools is available
- Typically, larger enterprises allow users within their intranet to access the public Internet through firewall servers that have the ability to screen messages in both directions so that company security is maintained.
- Extranet refers to network within an organization, using internet to connect to the outsiders in controlled manner. It helps to connect businesses with their customers and suppliers and therefore allows working in a collaborative manner.

## Basic of Email

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- Electronic mail is a method of exchanging messages between people using electronic devices. Invented by Ray Tomlinson, email first entered limited use in the 1960s and by the mid-1970s had taken the form now recognized as email.
- Email, short for Electronic Mail, consists of messages which are sent and received using the Internet. There are many different email services available that allow you to create an email account and send and receive email and attachments, many of which are free.
- Today, the top three webmail providers are Yahoo!, Microsoft's Outlook.com (previously Hotmail), and Google's Gmail.
- Many people also have an email address hosted by their company, school, or organization. These email addresses are usually for professional purposes.
- The first five lines of an E-mail message is called E-mail header. The header part comprises of following fields:
  - From
  - Date
  - To
  - Subject
  - CC
  - BCC

Email Protocols: IMAP, POP3, SMTP and HTTP

E-mail Protocols are set of rules that help the client to properly transmit the information to or from the mail server.

- **POP3 (Post Office Protocol 3)**- This is a simple, standardized protocol that allows users to access their mailboxes on the Internet and download messages to their computers. The simple design of POP3 allows casual email users who have a temporary Internet connection (dial-up access) to access emails. They can read their emails, draft new emails or reply to emails while they are offline, and can send these emails when they are back online.
- **IMAP (Internet Message Access Protocol)**– This is a standard protocol used for email transfer by users. Like POP3, it also supports both online and offline modes of email access. The email message is downloaded to the user's machine only when a specific request is made to read it. Users can download mails to their computers while keeping a copy on the server. The mails on the server are the primary copy and anything changed on the local machine is updated by what is on the server.

- **SMTP (Simple Mail Transfer Protocol)**– As the name suggests, SMTP is a simple, text-based protocol that works best when devices are interconnected to each other. However, SMTP protocol can only be used to send emails. Unlike POP3 and IMAP protocols, SMTP does not provide the functionality to the users to retrieve emails from the server. This limits the use of SMTP to some extent. One of the main issues with SMTP is the lack of sender email authentication. SMTP lacks security features too and thus users get spam emails.

[Source- <https://www.techwalla.com/articles/what-is-email-protocol> ]

## What's the Difference Between CC and BCC When Sending an Email?

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[Important because 3 Questions were asked on this in last two exams]

- **Bcc** Stands for “**Blind Carbon Copy.**” When you send an e-mail to only one person, you type the recipient’s address in the “To:” field. When you send a message to more than one person, you have the option to enter addresses in the “Cc:” and “Bcc:” fields. “Cc” stands for “Carbon Copy,” while “Bcc” stands for “Blind Carbon Copy.”
- A **Carbon Copy**, or “Cc’d” message is an e-mail that is copied to one or more recipients. Both the main recipient (whose address is in the “To:” field) and the Cc’d recipients can see all the addresses the message was sent to. When a message is blind carbon copied, neither the main recipient nor the Bcc’d recipients can see the addresses in the “Bcc:” field.
- **Blind carbon copying** is a useful way to let others see an e-mail you sent without the main recipient knowing. It is faster than sending the original message and then forwarding the sent message to the other recipients. It is also good etiquette to use Bcc when copying a message to many people. This prevents the e-mail addresses from being captured by someone in the list who might use them for spamming purposes. However, if it is important that each recipient knows who your message was sent to, use carbon copy (Cc) instead.

## Basic of Audio and Video-conferencing

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- When a number of participants of a meeting use telephonic instruments to communicate with each other then it is known as audio conferencing
- When two or more people use digital platforms communicate and collaborate with each other to achieve a common goal effectively then it is known as a video conferencing mode of communication or a tool of face-to-face conferencing.
- There are many online tools, incorporating a range of options from free one-to-one audio conferencing all the way to more sophisticated and expensive tools such as Polycom which allow multiple sites with entire classes participating using video and audio.

- Most Popular Video Conferencing Software
  - Skype
  - Zoom
  - Cisco WebEx.
  - GoToMeeting
  - Zoho Cliq.
  - Workplace by Facebook.
- Web conferencing involves sharing content live over the web between two or more locations. Visual material is usually accompanied by an audio track