1. Introduction to Computer Networking Protocols

1.1. What is a protocol?

For communication to occur there has to be some form of **common language** and some **guidelines** that are used to manage the communication process.

With respect to computers and information technology **A Protocol** is a set of rules and procedure that governs the communications between devices on a network.

1.2. Why protocols are used in networking

Protocols are standard framework that define the rules or standards for communication between network devices. A printer cannot interpret signals sent by other devices, such as a workstation or file server, unless there is a common protocol. Protocols enable data to be sent between two devices in sequence and without errors.

1.3. Protocol Suite

Usually protocols Standards are created as protocol suite. A **Protocol Suite** is A group or suite of individual protocols that work together. Different tasks are assigned to protocols within a suite, such as data translation, data handling, addressing or error checking.

Examples of protocols suite used on networks include:

- Transmission Control Protocol/Internet Protocol (TCP/IP)

- Internetwork Packet Exchange/Sequenced Packet Exchange (IPX/SPX)

- NetBIOS (Network Basic Input Output System)

- NetBIOS Enhanced User Interface (NetBEUI)

- AppleTalk.