

What is a Network?

Basically, there are two different types, WAN which is a 'Wide Area Network' and LAN which is a 'Local Area Network'. For a LIS, the emphasis is on the LAN since a LAN by definition is local. This means your network is contained within your facility and comprised of the Server which has the software loaded on it and also the database where patient records are also kept. The LAN also consists of the instruments, printers and the switches and concentrators which connect and route the flow of information.

For comparison, a WAN will connect various points that are distant and not located at one central location. Sometimes a WAN is used to connect LANs for information sharing.

Communication on a network is done via TCP/IP. That is a very detailed and complex subject in itself so we will not go into it here, suffice to know the term and know that is how communication is carried out between the various points on the network.

Devices on a network will have an 'IP address' so it can be located when information needs to be sent to it. You might compare this to where you live. Considering you have four pieces of information about your address, then State.City.Street.HouseNumber would comprise the address. Your workstation will have an IP address that uniquely defines it on the network. The address most commonly used for now is using the IPv4 notation. That address consists of four sections called 'octets'. An example address would be 192.168.1.5, if asked for your workstation IP this is what you would find on your workstation and give to the person asking. Of course, it would be what is on your workstation, not the address given above. This address should be on a label affixed to your workstation although it can be looked up on your workstation if you have sufficient user permissions. Many times, your IT department has restricted access since that would give you system level access to your machine.

Key things to know here is that every device on your network will have a unique address and the format is four groups of numbers separated with periods. Note that some serial devices, most notably printers, are not network devices in the pure sense but are connected to the network using an adapter containing a NIC which itself will have a unique IP address.