Difference Between Networking and Telecommunications

Networking vs Telecommunications

Telecommunication can be defined as the transfer of data/information through a distance in the form of electromagnetic signals to one other receptive end, while networking refers to the process of interconnecting devices to one main system mainly known as the server. As much as networking and telecommunications may seem similar, the two are very different, and below are some of the differences.

Medium of Transition

Networking is mainly carried on through a physical medium like cables, wires and atmosphere at a very small range. This may require system applications and protocol for good performance, while in telecommunication data is transferred through electromagnetic receptive devices like radios, phones or television in the form of text, sound, image and video.

In telecommunications the transmission is divided into two:

I. The analogue signal is mostly used in radios and telephones.

II. The digital signal is mostly used in computers.

Modulators commonly known as modems are used in the transmission of signal in telecommunication. The main function of the modulator is mainly to convert the signals from one form to another for easy transmission.

Causes of Failure in Transition

The causes of failure in transition of signal in networking may be caused by:

I. Unplugged cables will automatically lead to lack of a medium of transition and definitely there shall be a cut off from the main server.

II. When the protocol between the two mediums is not the same, the two mediums will not be able to communicate and therefore networking is doomed to fail. A protocol is defined as a set

of instructions or a standard design that can enable two devices to share information with minimal chances of error.

In telecommunications, the causes of failure in transmission of data/information can be due to miscommunication or settings in software applications and also the positioning of the main wave recipient.

Advantages of Networking

As opposed to telecommunication, networking has more merits, as stated below:

Information hosted in one device connected to the main server can be shared within the network by simply locating the information in the suitable file that can be accessed by the entire network.

Resources can be shared and used in the same moments from within the network.

Software can be shared within the network, thus reducing the stress of manually installing if from the source.

The devices in the same network can easily communicate with each other, offering a suitable medium to work and share.

Operating System

To have a proper working system in networking, especially in computers, two components of communication are required.

Software

This refers to the non-tangible parts of the system like the data, applications and many others, but for this matter the two required softwares are:

(a) Operating System. This is mainly used to manage the other devices from the main server.

(b) Applications. These are needed to enable the devices run information and serve the required purpose in storage and data transformation.

Hardware

This can be defined as the physical part of the devices used, like for computers we talk of the mouse, monitor, keyboard and so on. The required hardware in networking includes:

a) Computers

b) Router

c) Nic

d) Switch

e) Wire cables

f) Hub

While for telecommunications, the required components include:

Satellite system

Coaxial cable

Fiber optic cable

Receiving systems or devices

Twisted pair wire

You now notice that telecommunication is a broad and wider topic and it can be assumed that networking can be a small section of telecommunication.

Summary

Telecommunication and networking require a different medium of data transmission.

The causes of defect are completely different although slightly related.

Networking has its advantages in working with it as far as resources and data sharing is concerned.

The two require different applications and hardware for them to work.