# **Differences Between Repeater and Amplifier**

The repeater is used for regenerating the original signal with the help of the received signal pattern and retransmitting the regenerated signal. On the other hand, the amplifier amplifies the signal by increasing its amplitude.

As amplifier cannot differentiate between intended signal and noise, it enhances the signal power with the embedded noise. In contrast, the repeater removes the signal noise while regenerating the signal bit by bit.

The repeater has high gain power and low output power. Conversely, amplifiers have low gain power and high output power.

Repeaters are used in the stationary environment where the radio frequency signal is stable, such as buildings. On the contrary, amplifiers are used in the mobile environment where the radio signal is weak and consistently changing, for example, remote areas.

The implication of the amplifiers results in a minimized signal to noise ratio and increased noise. As against, repeaters maximize the signal to noise ratio which decreases the error associated with the signal.

## Example:

Printer(Repeater) and Photocopier (Amplifier)

# **Difference Between Hub and Bridge**

1. Hubs have more than two ports while bridges will normally have two ports.

2. Hubs are less intelligent as they care less about the destination of the packets while bridges learn and send packets to appropriate end points.

3. Hubs are commonly used to connect workstations that do not constantly share resources while bridges are typically used to connect two different networks.

4. Bridges lessens network traffic congestion while hubs may slow down the network.

# **Differences between Bridge and Switch**

Bridges generally connect fewer networks as compared to the switch.

Switch has a buffer for each link connected to it which is missing in a buffer.

Switch perform error checking which is not done in a buffer.

Bridges are classified as a simple bridge, multiport bridge and transparent bridge. On the other hands, a switch can be classified as Store-and-forward switch and cut-through switch.

# **Active Hub**

Active hubs are called smarter then passive hubs. Another term which you also known about is “concentrators," you can call them active hubs that strengthen a signal and make it concentrated as passes the hub E.g. enters and exit. They can process information coming from other sources but they need electricity too.

# **Passive Hub**

Physical networks build by these hubs called node to node contact between physical networks. Assume an example of a punch-down block that is made of simple plastic, un-powered box used to plug network cables into. These are called repeater who can give support to connect multi devices but cannot use electricity for this purpose.

These all are about Active Hub and Passive Hub. If you want to share more content to extend this topic then do share the information in the comment below we will extend the information.