**Optical networks –** Optical networking is defined as the types of connection between more then two networking devices with the help of fiber optical cables for the sake of computer networking and for other uses such as surfing internet, watching TV, telecommunication and file sharing technology etc is called as the optical networking. Optical networking is based on the optical networks for the purpose of the high rate connectivity in offices or at the home. There are different types of networking technologies are used for transmitting the data from one place to another but optical networking provide the fastest data transmission over the networks.

**How it Works?**

Working of the optical networking depends upon the different components used in the optical networks such as the fiber optical cables. In optical networking with the help of fiber optics user scan deliver the date between two points at higher speed with similar to that of the light. Core is the main source of transmission in the optical networking. These cores are packed in a special type of layer which maintains the light signals in it. This wrapping also prevents the light to move outward from the cores of fiber optics. This step really prevents the data losing during transmission. According to this optical networks works on large distances and facilitate the users at long areas.

**Types of Optical Networking:**

There are several types of optical networking but all are depends upon the optical networks. Some of the important types of optical networks are as follows

**Passive Optical Networking:**

A type of optical networking in which only single strand of fiber optics can take part and build a connection between the multiple computer networking clients from different areas is called as the passive optical networking. But some times customers complained that it can lower the rate of internet connection.

**Synchronous Optical Networking**:

Another type of optical networking that deals with the data transmission is the synchronous optical networking. In this case optical networks can monitor that all the data related to the information can pass smoothly from one place to another. It is more effective then the physical networking. It also observes the type of data; the type of data should be of one form and can be relayed properly.

**Star networking:**

Networking carried out with the help of star networks is called as the star networking. Star networks deals with connection between the main computer systems to the other multiple computers over the network. They are also able to enhance the performance of the connection san the network.

**Benefits of Optical Networking:**

As optical networking is based upon the faster cables of fiber optics, so it has many advantages in the field of data transmission from one point to another between multiple computers over network. Some common advantages are given below

1. They are faster as compared to other mode of transmission of data between distances. Co axial cables are also used for the data transmission purposes but they are quite slow.
2. Optical networks are more reliable and convenient for the users to enjoy the facility of the transmission from different places at large distances because all the data is wrapped in the core of fiber optics.
3. the connectivity of the optical networking  is more efficient as compared to other connections between the networks

**Drawbacks of Optical Networking:**

Some disadvantages of the optical networking are also there over its benefits. The major disadvantages are that it is very expensive process to construct the fiber optics for optical networks and it is very difficult to join the fiber optical cables as compared to the copper cables etc.

[http://wifinotes.com/computer-networks/optical-networking.html]