What is Fast Ethernet Interface, Gigabit Ethernet Interface, and Serial Interface in Cisco Router?

The interface is the point of contact between two routers or router and a switch etc. Cisco routers have various kinds of interfaces mounted on them. Some of the important physical interfaces that can be seen on the router are as follows

- Ethernet interface
- Fast Ethernet interface
- Serial interface
- Gigabit Ethernet interface

Each interface has its own specifications. Let us discuss each of them in detail

Ethernet interface:

Ethernet is most commonly seen in Local Area Networks and Metropolitan Area Networks. Ethernet operates at a speed of 10 Mbps (Mega bits per second) and uses a media standard 10 Base T. Ethernet was standardized in 1983 as IEEE 802.3. Ethernet divides the stream of data into frames having source and destination addresses along with error checking capabilities.

Fast Ethernet interface:

Fast Ethernet, is based on Ethernet and operates at speeds as high as 100 Mbps with the media standard 100Base T. Fast Ethernet was standardized in the year 1995 as IEEE802.3u.

Gigabit Ethernet interface:

Gigabit Ethernet describes various technologies that help to transmit data at a speed of 1000 Mbps. Gigabit Ethernet came into existence in 1999 with the standards IEEE 802.3 -2008. The Gigabit Ethernet uses the media standard 1000Base T.

Serial interface:

The serial interface is used in long distance communication such as Wide Area Networks. Serial interfaces can be either configured as Data Communication End or Data Terminal End. If two serial ports have to communicate with each other, they must be synchronized with the appropriate clock frequency and allocate proper bandwidth.

Example Image: