Open system interconnection (osi) protocol model

Technology, Internet

Open System Interconnection (OSI) Protocol Model

According to SearchNetwork and I quote" OSI Open systems Interconnection) is a standard description or a " refernce model" but for how message should be transmitted between the two points in a telecommunication network." (Kroon, 2006)It's purpose is to guide their product implementor so their products will consisently work with other products. (Kroon, 2006) This reference model will defines seven layers of function that will take place at the endcommunication. (Kroon, 2006) OSI is not always confided to a certain terms but, will keep things together in a well- defined layer, many if any of their product will be involved in telecommunication which will make an attempt to describes themselves in relation to the OSI model. Some of the main idea in the OSI process of communication between two end points in a telecommunication network can be divided int two layers, although each layer is adding its set of speaical, related function.

(Kroon, 2006) each communicating user or program is at a computer equipped with these seven layers of function. So, in a given message between users, there will be a flow of data through each layer at one end down through the layers in that computer and at the end, at that time a message will arrive. Another round of data will flow through that layer and will be received by the compter and ultimately to the end user program. Here are how the seven layer are divided, 7 application layer, 6 presentation layer, 5 session layer, 4 transport layer, 3 network layer, 2 data- link layer, and 1 physical layers. (Kroon, 2006)

Advantage and Disadvanyage

The advantage of Circuit Switching and package Switiching

Circuit Switiching is becoming prounced when the network start to grow. (Goleniewski, 2007) Either in the number of devices or in the distance between the location. (Goleniewski, 2007) The leased line are calculated on a mileage-senstive basis, which will increase the cost and the network. (Goleniewski, 2007) The advantages of Circuit Switiching is it combine the mileages, so the overall monthy cost associated with leased line in reduce. (Goleniewski, 2007) the disadvantag is that it requires some type of intelligent scheme that will help to determine which device get to use the communications pathway at the time of configured on a point-to-point or multipoint basis by using a number of approach. (Goleniewski, 2007)

Packet Switching techiques haves a number of limitations, latencies will occur because connection- oriented packet switching is a store and forward mechanism (Goleniewski, 2007) also jitter will occur meaning variable delay, packet loss, which will occur when congestion happen at the packet switching or router. Current protocol are being developed that will enable real-time application such as voice, video, audio, and interactive multimedia to preform properly on packet switching network.(Goleniewski, 2007) But with the pricing mechanism that evoled with packet switching network was a bit different from circuit switching networks. (Goleniewski, 2007) X. 25 Advantages and Disadvantages

The key advantages of X. 25 was that it provideda technique for many conversation, data sessions, to share communitation channel. (Goleniewski, 2007) the disadvantage of X. 25 is that when x. 25 was created it was based on analog network, one of the big problems was the accumulation of noise which came from the amplification points, which lead to problems that were

very high rate of errors that associated with the analog network. (Goleniewski, 2007) Frame Relay Advantages

Provides cost saving compared to leased line, rin on multiprotocol network, it also provides control over the user community, as well give predicatable performance and the reliability (although with congestion, which perforamce can be, best, and even.(Goleniewski, 2007) it also provides minimum guarenteed throughput, as well as allows for the network management and control. Frame Relay Disadvantage

Provides weak network management ability, inherebty unsuitable for delay-senvitive traffic, such as voice and video which will requires high-quality digital circuits, so it does not work everywhere. An is not entirely standardized. (Goleniewski, 2007) Asynchronous

Communication, typically deals with ASCII-encoded information, which means a third control bit, a parity bit, needs to be accounted for. (Goleniewski, 2007)These extra control bits add up to fairly significant overhead. In essence, asynchronous transmission has 30% inefficiency because for every seven bits of information, there are at least three bits of control, and it can be higher as there can be 1, 1. 5, or 2 stop bits used. (Goleniewski, 2007 Disadvantage of asynchronous transmission is that it operates at comparatively low speeds; today, in general, it operates at no higher than 115Kbps. (Goleniewski, 2007) Transmission control protocol /internet protocol

This collection of protocols is often referred to as the TCP/IP suite, although it contains much more than just TCP and IP. (Golentiewski, 2007) The IETF has

technicalresponsibilityfor the suite, which is the most popular and widely used of the internetworking protocols. (Golentiewski, 2007) The nonproprietary nature of the suite is a major advantage, permitting the connection of hardware and operating systems of many different computers. (Golentiewski, 2007) Major protocol of packet switching and Circuit Switching

References,

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