* Identify the problem statement the authors have mentioned.

The authors have mentioned the problem of computer user’s demanding a true inter-vendor connectivity from computer industry, free of all the usual hacks and special boxes that installations have become so ac- customed to when incorporating new hardware into their existing systems.

The days of installations being dedicated to one specific vendor’s products are gone. The computing market place is no longer dominated by a select few who can dictate standards based solely on the width of their customer base. The time has come for the players involved to bury their hatchets and adopt a common standard for network communications.

* Mention the characteristics of Standard

The characteristics of Standard are that which are robust enough to meet the network needs of the user community, and one which is flexible enough to adapt to the constantly changing technology.

* When TCP/IP and OSI Models were developed.

The Transmission Control Protocol / Internet Protocol (TCPIIP), which was developed in the late 1960s as a research project conducted by the United States Department of Defense. And the Reference Model (OSIRM, or simply OSI), developed by the International Standards Organization (ISO) in the mid- 1970s

* Describe the packet switched model

In the “packet switched model, physical connections between the network’s hosts are structured on an “N nearest neighbors” basis. Each node on the net only has direct connections to some number, N, of its geographical neighbors and as such can only communicate directly with these N hosts. Communications to any hosts other than these neighbors must take place indirectly, with the data being routed through some number of intermediate hosts. With this as the case, it should be noted each connected installation actually plays two roles in the operation of the network. First, as is true with any computer network, it is a provider of some type of resource which is sharable across the net. In addition to this basic role, however, it also is required to provide a certain amount of routing or “gateway” service for its neighboring hosts. I

5. List the function of ICMP.

1. ICMP commonly used to communicate with data transmission.
2. The first function of ICMP is to determine if data is getting to its destination and at the right time, the purpose behind it to ensure reliable communication environment to the next higher layer.
3. The second function performed by the Internet Protocol is that of datagram routing. when one host receives a datagram which is addressed to another host, it must attempt to route it one step closer to that destination. It is the responsibility of the protocols at this level to perform this routing in an intelligent.

* List the function of UDP
* Udp is designed to provide the user with direct access to the services (and the shortcomings) of the lower, IP layer. Data transmitted via UDP functions are considered to be datagrams and, as such, are guaranteed neither delivery nor correctness.
* UDP can broadcast - sent packets can be addressed to be receivable by all devices on the subnet.
* UDP can Multicast – a multicast mode of operation is supported whereby a single datagram packet can be automatically routed without duplication to a group of subscribers.

List two functions of TCP

* Its first most important function is to perform whatever steps are necessary to take the functionality of the lower, IP layer, as unreliable as they might be, and create a reliable transport mechanism that guarantees the correct delivery of all data.
* Second function-TCP also provides what is known as “connection-based or “virtual circuit” communications to the other hosts on the network

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8. List the goal of ISO in developing OSI Model

* The first and foremost goal of ISO in developing OSI Model was to develop a standard which reduce the connectivity expansions by enhancing inter-vendor capabilities.
* the OSI model was to provide a set of design standards for equipment manufacturers so they could communicate with each other.
* Secondly to improve human protection, Increased capability to deliver consistent and improved services and products in daily life.