TCP/IP Model

(Transmission controol protocol / internet protocol)

( Bilingual – Song ngữ )

( Transport layer )

1.Concept:

1. End-to-End communication:

Ensures that data is delivered from the sending application process to the correct receiving application process, using port number as identifiers

2. Reliablity:

With TCP, the Transport Layer guarantees that data arrives intact, in sequence, without loss or duplication

3.Flow contol and congestion control:

Manages the rate of data transmissions so that the receiver is not overwhelmed and network congestion is minimized

4.Segmentation and Reassembly:

Divides large chunks of applications data into smaller segment for transmissions, and reassembly them at the destination

Typical Protocol:

TCP (Transmissions control protocol): connection-oriented, reliable, ordered delivery , slightly slower due to overhead. Used in email, file transfer

UDP (User Datagram protocol): connectionless, connection-oriented, reliable, ordered delivery; slightly slower due to overhead. Used in web browsing, email, and file transfers.unreliable, but lightweight and fast.Used in online gamming, live video streaming